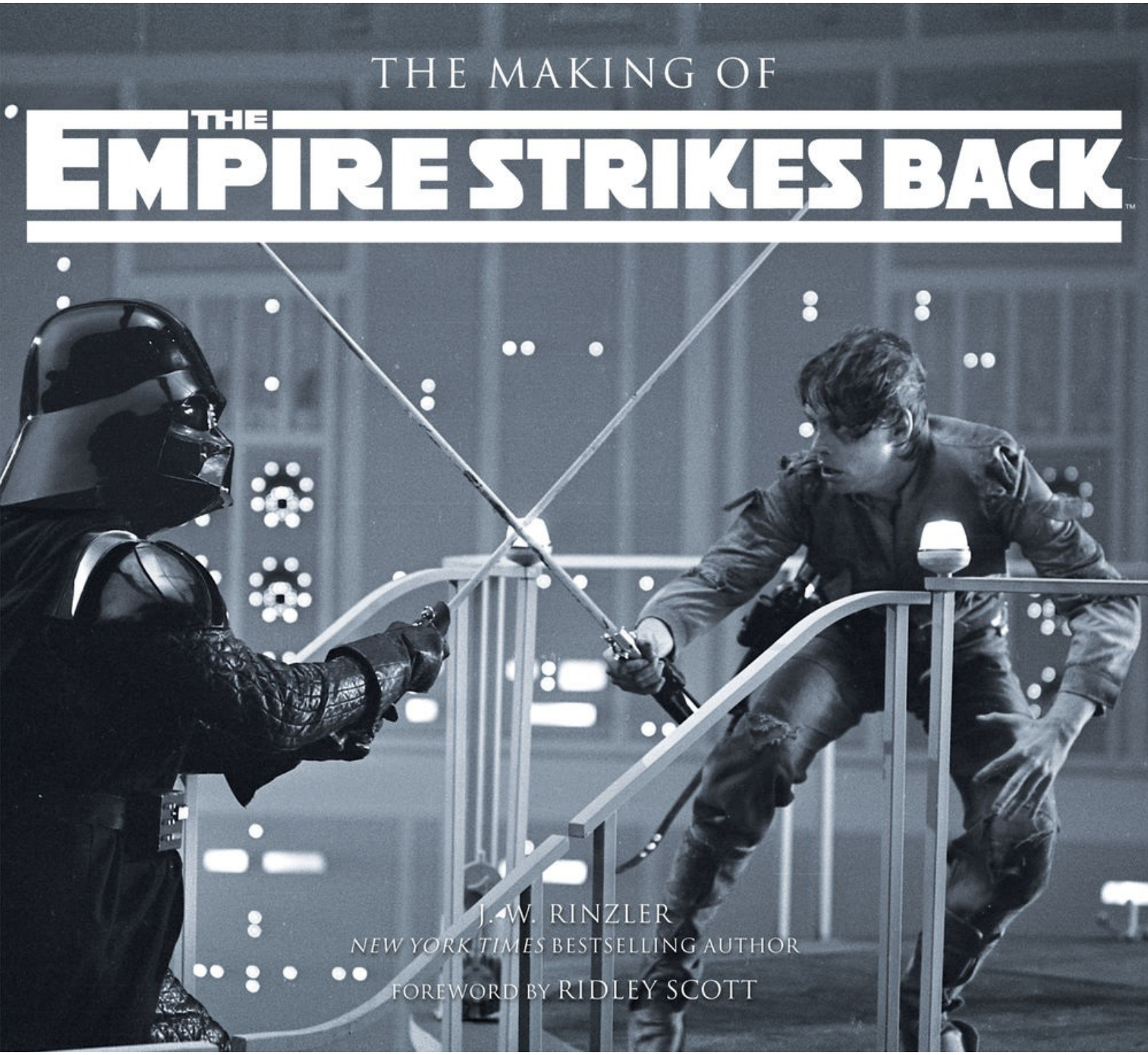
THE MAKING OF
THE EMPIRE STRIKES BACK™
J. W. RINZLER
NEW YORK TIMES BESTSELLING AUTHOR
FOREWORD BY RIDLEY SCOTT



THE MAKING OF



THE DEFINITIVE STORY

J. W. RINZLER

Ballantine Books • New York

This page: Mark Hamill, Carrie Fisher, and Harrison Ford on location in Finse, Norway

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TO GENEVIÉVE AND IN MEMORY OF JIM HENSON

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Video: Hamill and Ford are asked what they think are the differences between the respective directing styles of Lucas and Kershner.

Video: Second unit assistant director Bill Westley tries to explain to Norwegian extras, despite the language barrier, how to act during a shot, with limited success, on location in Finse, Norway, late March/early April 1979.

Video: Printed dailies from May 3, 1979, of a scene in Vader's meditation chamber.

Audio: Lucas talks about the pressures of producing and escalating costs on Empire, which would have ramifications for many at Lucasfilm and on the next sequel.

Video: A behind-the-scenes look at Kershner (with viewfinder) on the Hoth hangar set as it's being constructed in the Star Wars Stage, with producer Gary Kurtz. Note the panorama of the set in progress.

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Video: A printed daily from a scene in which Chewbacca vents his frustrations at Han Solo, with Mayhew saying dialogue that will later be replaced by Wookiee roars: "Where the hell have you been?" et cetera.

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Video: A printed daily from mid-August 1979 of Luke on the Dagobah set with Yoda, voiced by Frank Oz (and puppeteered by Oz and his team).

Audio: Hamill on the clever expendability of *Star Wars* characters, in conversation with Arnold, at Elstree Studios; Hamill, at one point, imitates the voice of Frank Oz as Yoda.

Video: Behind-the-scenes panoramas of the X-wing mired in the lagoon of the Dagobah set. Divers puppeteer an R2 unit, rehearsing a shot.

Audio: Kershner expresses his frustration toward the end of the shoot on having to hurry with the scenes on Dagobah, recorded on the set.

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Video: John Williams works with supervising music editor Ken Wannberg and then with orchestrator Herb Spencer, concentrating here on the mynock scene.

Video: Sound designer Ben Burtt works with sound editor Bonnie Koehler on the scene in which the *Millennium Falcon* fails "one last time" to make the jump to hyperspace. Burtt operates the KEM editing station, indicating what kinds of sounds are needed where. Filmed at Lucasfilm's San Anselmo postproduction facilities, not far from ILM.

Chapter Ten

Video: John Williams works with the London Symphony Orchestra, and Fox music supervisor Lionel Newman in the control booth, as they record the soundtrack in England, circa January 1980.

FOREWORD BY RIDLEY SCOTT

I was shooting *The Duellists* at Paramount, in Los Angeles, when I first heard about *Star Wars* from some of the art department who had worked on it in London. I saw some copies of George's sketches, which I thought looked really intriguing and original—a mix of retro and future. One day, my producer, David Puttnam, mentioned that *Star Wars* was playing at the Egyptian Theatre in its first week.

When people ask me if seeing *Star Wars* had a big effect on me my answer is—most definitely! I hadn't entered the sci-fi world as yet. But *Star Wars* was so original in its characterizations, visuals, sounds, and spectacle that it radically adjusted my view on what I should do next. I had been planning *Tristan and Isolde* (based on the classic legend), but I dropped that notion immediately and started to look into the sci-fi world. The connection came that summer through *The Duellists* when it got attention at Cannes and was spotted by a producer who was involved with a script called *Alien* … the rest followed.

There was even some overlap between *Alien* and *The Empire Strikes Back* because Brian Johnson was visual effects supervisor on both films. Brian was certainly a tremendous help in that he'd come from the sci-fi world. We didn't have the technology and know-how that George and his team at ILM had, but *Star Wars* certainly raised my target expectation even with our jerry-built methods of technology.

Of course, many people were anticipating the sequel to *Star Wars*, and the industry is always interested in inside news. While I was doing postproduction on *Alien*, I heard that there were budgeting problems on *Empire*—but that is par for the course on any project that is taking such a different approach to storytelling. It's a constant battle of explaining what you want to do to people who represent budget and organization. I experienced the same conditions on *Alien* and more so on *Blade Runner*. Understandably, they are expected to trust and believe, but the creator is the one on the spot having to explain constantly. It becomes very trying! I got it—I understood what George had to be going through even if he was financing the film himself. He still had to deal with a studio and banks. I only found out about his financial arrangements later, but clearly the risks he took were worth it.

By early 1980, word of mouth within the industry about *Empire* accelerated—it went around like a brush fire. It starts in an editing room when and where something truly original is surfacing. And by the time *Empire* hit the theaters, it already had a heartbeat and presence: Need to see!

Star Wars was a milestone in the universe of filmmaking. The subsequent films, visually, did not have the touch of George but were still magnificent.





Concept sketches by *Star Wars* costume designer John Mollo of an Imperial star pilot and of an outfit for second and third Sith Lords

(as designated in early drafts), circa January 1976.

6 DARTH VADER

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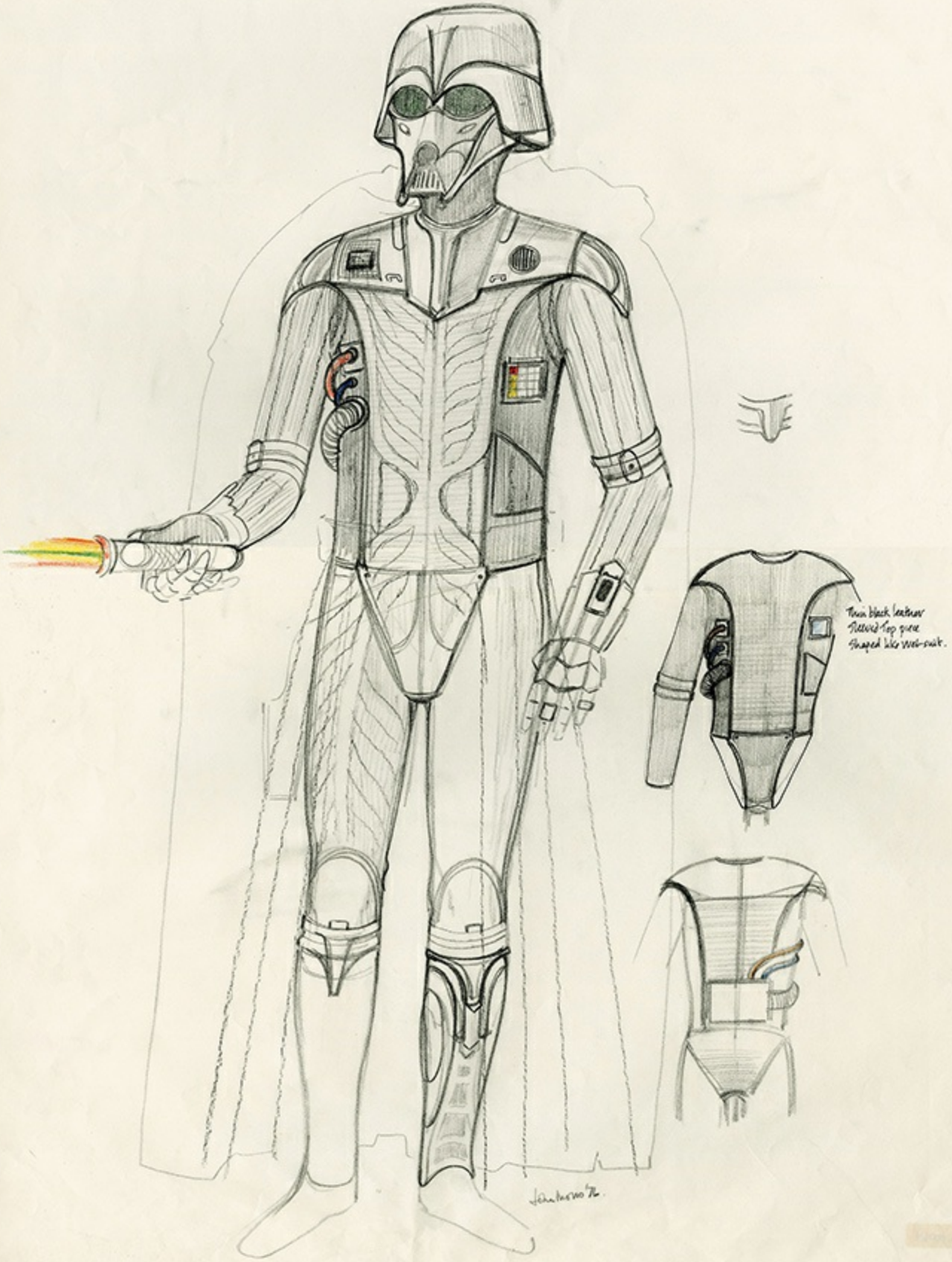
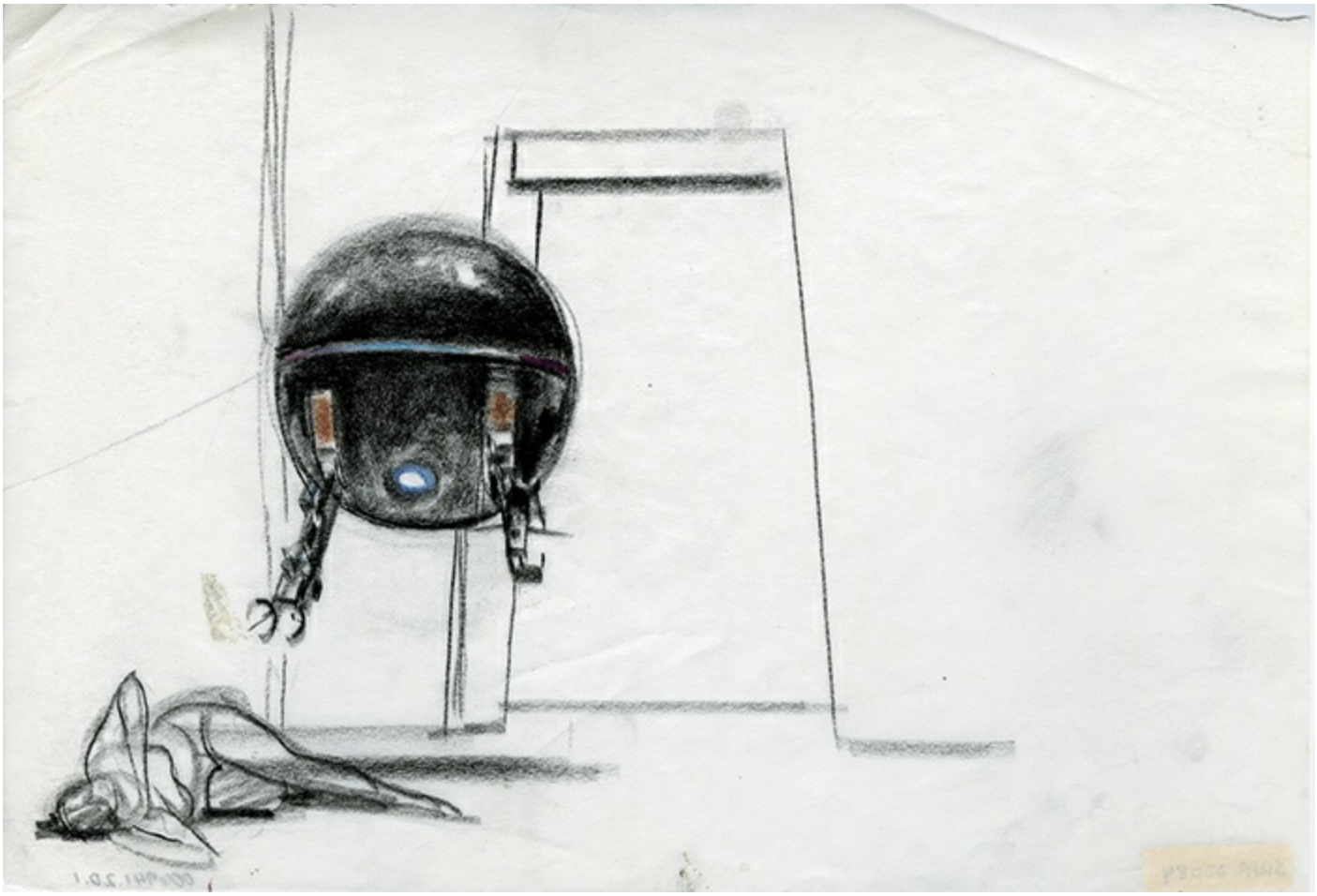


Costume sketch (with multicolored lightsaber) by Mollo for Darth Vader, January 15, 1976.



Undated early sketch of Princess Leia and the Death Star torture droid by *Star Wars* production illustrator Ralph McQuarrie.

INTRODUCTION

As *The Empire Strikes Back* was the sequel to *Star Wars*, so this book is a follow-up to *The Making of Star Wars*. Each title has coincided with its respective film's 30th anniversary, and both are built on interviews from their respective time periods. In the latter case, a book was also published to coincide with the film's release in 1980: Alan Arnold's *Once Upon a Galaxy: A Journal of the Making of Star Wars: The Empire Strikes Back*.

So why another book?

As unit publicist, Arnold was brought on only months before production began, so the earlier book said very little concerning preproduction and not a whole lot on postproduction. Moreover, some of the best material, which he'd compiled during hours and hours of interviews with nearly all the key players, didn't make it into the publication. In later years, Arnold's tapes were almost lost. The plastic case containing the originals was accidentally tossed into the trash—where Don Bies found it. Bies was an early Lucasfilm archivist and, recognizing the tapes for what they were, rescued the recordings. (Bies later joined the model-making department and supervised the Droid Unit during production of the Prequel Trilogy.)

Decades afterward, when I mentioned to Don that I was writing a new book on *Empire*, he casually asked whether those tapes might be useful. Once they'd been transcribed, the recordings slowly revealed themselves to be a treasure trove, containing the unedited thoughts of George Lucas, Irvin Kershner, Mark Hamill, Harrison Ford, Carrie Fisher, Gary Kurtz, Frank Oz, Robert Watts, Norman Reynolds, Richard Edlund, Dennis Muren, and many others. Their words contained quite a bit of anxiety as to the fate of a film that had yet to be released in 1979. It made sense to reevaluate the contents of those interviews and find a place for the rediscovered material (making this chronicle, like the previous one, as much an oral history as possible).

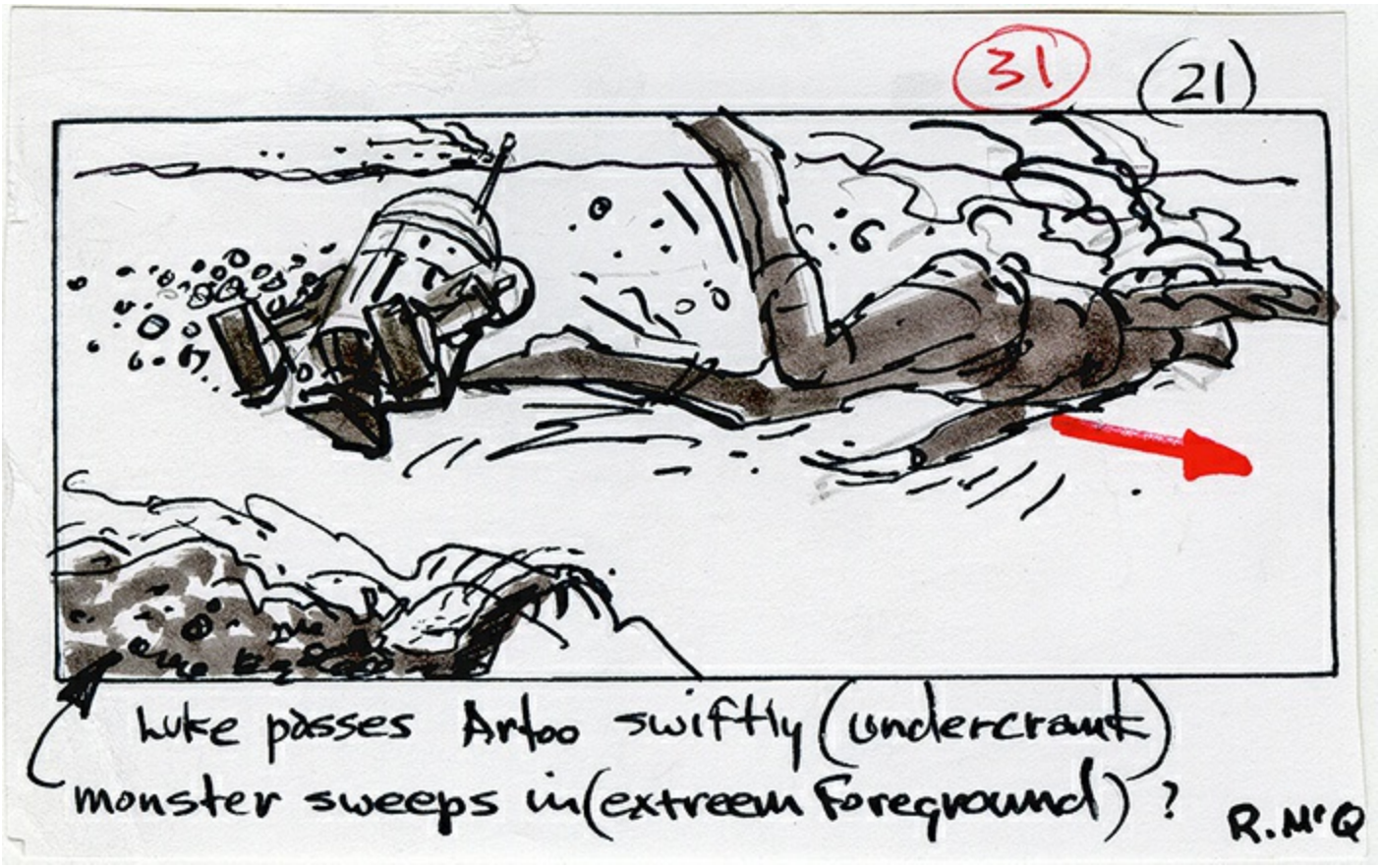
A new book would also benefit from the massive quantity of never-before-seen art and behind-the-scenes photos preserved in the several Lucasfilm Archives at Skywalker Ranch and at the Letterman Digital Arts Center—in their libraries; the art, model, prop, and costume archives; the film archives; clippings files; legal archives; Image Archives; the ILM slide library; and so on (you have to know where to look). One of the more interesting finds was a cache of Lucas's handwritten pre-script notes that had been forgotten in a box in the legal archives. I also rediscovered several color studies for many now classic production paintings by design consultant and conceptual artist Ralph McQuarrie.

Of course, the overarching reason to produce another volume on *The Empire Strikes Back* is because the film has endured. For many fans and cinephiles, *Empire* is the best of the *Star Wars* movies, dark and enigmatic—the film noir of the saga. Thirty years later, its artistry is still compelling and its story, timeless. *Empire* will be one of the milestones of cinema as long as people care about that elusive art. Certainly, many ILM veterans cite it as the toughest film of their careers. It was also a production whose protagonists—Lucas, Kershner, Hamill, Ford, Fisher, Oz, Watts, Kurtz—had to surmount many more obstacles than one might imagine: avalanches, snowstorms, death, desperate disputes, a devastating fire, and financial crises—all of which added up to internal-organ-killing stress. Much of that story has never been told.

For Lucas, not only was he making a follow-up to the second most successful film of all time in terms of tickets sold (behind *Gone with the Wind*), he was also launching his embryonic company and the construction of Skywalker Ranch—by spending his own money to finance *Empire*. It was a calculated

gamble for his independence from Hollywood. His career and all his dreams about the future of cinema were therefore riding on what was at times a wildly out-of-control berserker film—which went way, way over budget and way, way over schedule. At the core of this teeth-grinding behemoth was a wire-filled puppet measuring about 28 inches high. This green-skinned rascal, named Yoda, would have to carry a good part of the film and constitute its dense spiritual center—but no one knew how.

Like all great adventures, the whole gossamer skeleton at key junctures came close to being crushed. To find out how *Empire* survived and became a classic, read on....



A storyboard by design consultant and conceptual artist Ralph McQuarrie, circa late 1978 (while working with storyboard artist Ivor Beddoes at Elstree Studios, England).



Author J. W. Rinzler shows McQuarrie some advanced pages from this book of newly rediscovered paintings by the artist—on the occasion of his eightieth birthday.

INTERVIEW CHRONOLOGY

Note: All interviews are by unit publicist Alan Arnold (supplemental interviews are listed in the bibliography).

November 1978: special visual effects supervisor Brian Johnson; design consultant, conceptual artist, and matte painter Ralph McQuarrie

January 1979: Mr. Wilson (Marcon Fabrications Ltd.)

January 25: actor Kenny Baker (R2-D2); Tony Dyson (owner, Whitehorse Toy Company); robot fabrication supervisor Andrew Kelly

Early March: director Irvin Kershner; executive producer and co-writer George Lucas; actor Mark Hamill (Luke Skywalker)

March 1: Oslo Press Conference—actress Carrie Fisher (Princess Leia); Hamill; producer Gary Kurtz

March 21: assistant to the producer Bunny Alsup; associate producer Robert Watts

Late March: Baker; Fisher; actor Harrison Ford (Han Solo); Kershner; actor David Prowse (Darth Vader)

Circa spring: Johnson; actor Peter Mayhew (Chewbacca); actor Billy Dee Williams (Lando Calrissian)

Circa April 10: actor Jeremy Bulloch (Boba Fett)

Early May: Hamill

May 13: editor Paul Hirsch; Kershner

Circa May 22: production designer Norman Reynolds; director of photography Peter Suschitzky

Early June: second-unit director Harley Cokliss; Hamill

June 21 (on this day, Kershner was miked, so the tape recorder picked up many conversations between Kershner and his colleagues): Kershner; Bulloch; stunt coordinator Peter Diamond; Fisher; Ford; camera operator Kelvin Pike; Prowse; Reynolds; Suschitzky; first assistant director David Tomblin; Williams

June 29: Ford; Hamill; Kershner; Kurtz; Reynolds

July 5: Cokliss; Kurtz

July 6: Hamill; Kershner

July 10: Kershner; Williams

Circa July 16: Lucas

July 17: Reynolds

July 18: Hamill

July 19: Kurtz; Lucas

Late July: Ford; Lucas; costume designer John Mollo; stunt double Colin Skeaping

August 1: Kershner; Kurtz

August 3, 6, 14: Kershner

August 8: Hamill, Kurtz; animal trainer Mike Culling

August 20: Diamond

Late August: Hamill; Hirsch; Lucas; actor/puppeteer Frank Oz (Yoda)

Summer: actor Anthony Daniels (C-3PO)

September 3: Kershner

Late September: props manager Frank Bruton; Kurtz; art director Alan Tomkins; Watts; construction manager Bill Welch

September 29: Kurtz

October 31: visual effects art director Joe Johnston; Reynolds

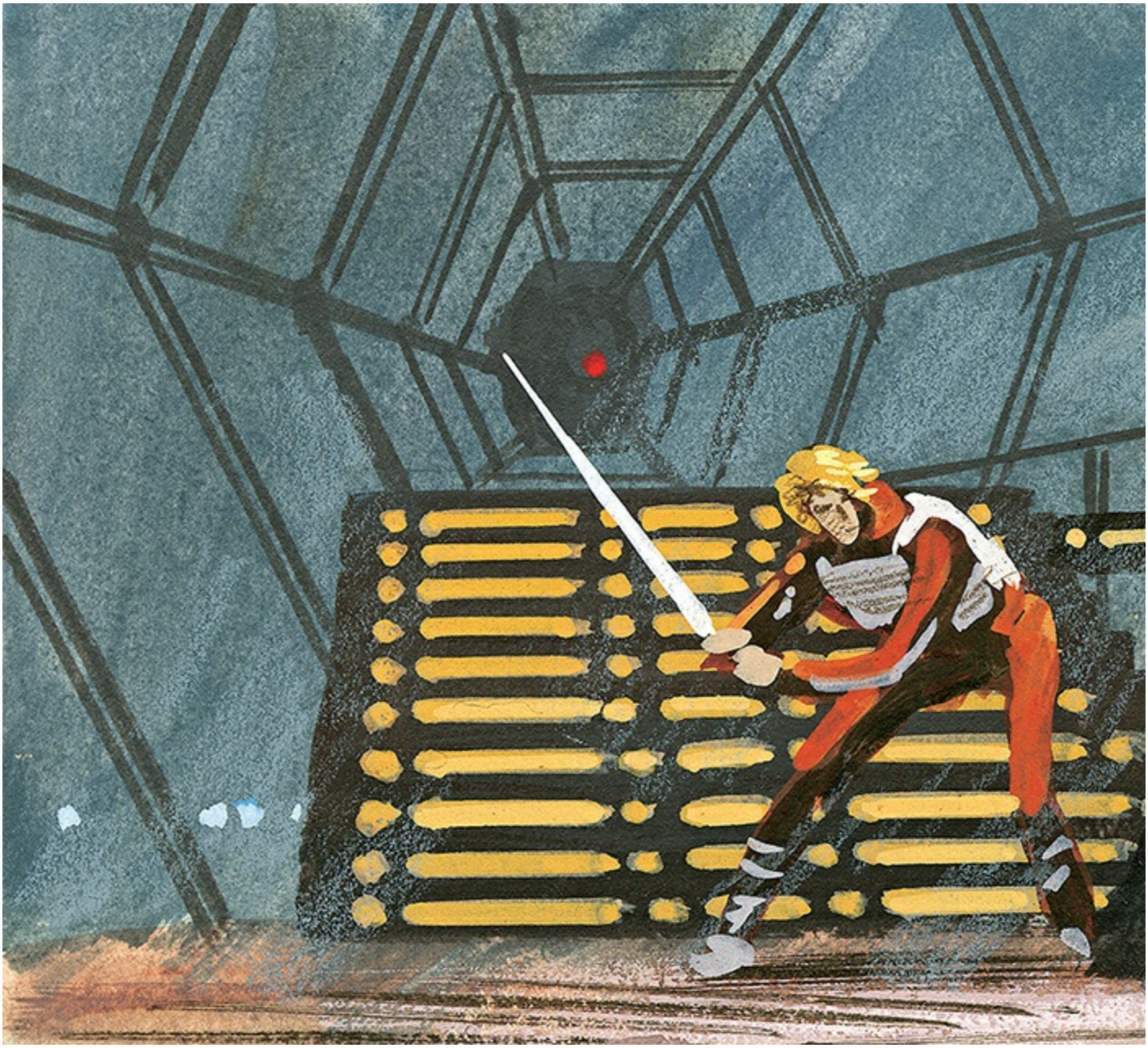
November 14: stop-motion animator Jon Berg; special visual effects supervisor Richard Edlund; visual effects director of photography Dennis Muren; chief model maker Lorne Peterson; stop-motion animator Phil Tippett

November 15: Johnson; animation and rotoscope supervisor Peter Kuran; Peterson

November 17, 1979: composer John Williams



Executive producer George Lucas being interviewed by unit publicist Alan Arnold at Elstree Studios, 1979.



Color study for Luke battling Darth Vader in the Carbon Freezing Chamber, by Ralph McQuarrie, circa spring 1979.


THE MAKING OF
STAR WARS
THE EMPIRE STRIKES BACK

THE SUMMER OF *STAR WARS*

MAY TO DECEMBER 1977

CHAPTER ONE

Star Wars was a hit. It had opened in 32 theaters on May 25, 1977, and then expanded, slowly, into several hundred more. By the end of July, it was playing in packed houses scattered throughout the United States.

"To set the scene for this journal and to establish its point of view, I must go back to the summer of 1977," writes Alan Arnold in *Once Upon a Galaxy*. "I was with a film unit in Greece when reports began to reach us of an extraordinary movie that had taken America by storm. Some of the technicians on location had worked on the film the previous year and were surprised, even puzzled, by these reports. They could not explain the fever developing around what was being called, for want of a better term, a space fantasy, nor the fact that in American cities people were lining the streets for blocks to see it—and going back again."

"I was making a film in northern Afghanistan," says Robert Watts, production supervisor on *Star Wars*. "I used to buy *Time* magazine and *Newsweek* as it was the only way to keep in touch. I bought my copy of *Time* one week and opened it straight onto a bunch of color pictures from *Star Wars*. I thought, *Bloody hell!* I had no idea it had taken off to such a huge extent."

"I was walking down Hollywood Boulevard after the film came out," says production illustrator Ralph McQuarrie. "It was still playing at Grauman's Chinese Theatre. The sun was setting and there was a little piece of paper blowing along the sidewalk. I picked it up and saw that it was a bubblegum wrapper with Darth Vader on it. I thought, *Gee, now I'm one of those people who make those things. It's part of life now.*"

An astronaut at a party told special effects photography supervisor Richard Edlund, "that he believed it all and was glued to his seat."

"It was a darn good story dashingly told, and beyond that I can't explain it," says Alec Guinness, who had played Ben Kenobi. "Failure has a thousand explanations. Success doesn't need one."

"*Star Wars* tumbled out in the summer of 1977 and just went cuckoo," says Mark Hamill, who had portrayed Luke Skywalker. "It was like the hula-hoop or Beatles rages. After the film came out, I broke up with my girlfriend for a while. I was like a kid in a candy store. *Gee! All these groupies.* I don't feel I dealt with that very successfully."

"When the film came out, I seemed to do publicity for *ages*, which meant a lot of travel," says Carrie Fisher (Princess Leia). "It was great. But I only get a sense of *Star Wars'* importance when a child recognizes me and becomes speechless. Kids don't think I'm from this planet. Very little children even believe Princess Leia is a real human being who lives in outer space."

"What *Star Wars* has accomplished is really not possible," says Harrison Ford, who had played Han Solo. "But it has done it anyway. Nobody rational would have believed that there is still a place for fairy tales. There is no place in our culture for this kind of stuff. But the need was there; the human need to have the human condition expressed in mythic terms."

"Millions of people go to the cinema," says composer John Williams. "It's stimulating to hear people whistling your tunes."

The writer and director of *Star Wars*, George Lucas, had returned that June from Hawaii, where he'd retreated to escape the work that had dominated his life since 1973. He, too, had been surprised by the film's initial success and was relieved by its perseverance. It seemed more than likely that *Star Wars* was going to make its money back and then some. While on the island, he hadn't neglected his passion for film and had enticed his friend and fellow director Steven Spielberg to work on another project of his—*Raiders of the Lost Ark*—which would feature an adventurer-archaeologist named Indiana Jones.

"I took Francis Ford Coppola to see *Star Wars* in a regular theater in San Francisco," says Lucas. "That was probably the first time I saw it with a real audience. It was enjoyable, but the thing of it is, by the time you get that far down on a movie, you're so numb and so tired and so emotionally involved that it's very hard to jump up and down and get excited. You feel good, but it's a very quiet kind of thing."

"When it became a phenomenal success, it was amazing," says Bunny Alsup, assistant to the producer of *Star Wars*. "I don't think anybody in the world expected it and it was astonishing. Back in the preview days, I remember we were trying to fill a theater with all age groups, so I was personally calling college campuses and asking, 'Would *anyone* like to go see this movie?' "

BADLANDS

After giving a few interviews, George Lucas stopped doing publicity for the film. It was bringing too many people with scripts to his door asking for money or, occasionally, making threats. The success of *Star Wars* was already different from the success of his previous film, *American Graffiti* (1973), inspiring massive emotional reactions domestically and around the world as it opened in foreign markets. It had enormous licensing possibilities and warranted a sequel.

A follow-up, however, was going to take an enormous amount of work from someone who was in the middle of recharging his batteries. Lucasfilm wasn't a big studio, or even a small studio. It had a makeshift office called Park House, just north of San Francisco in San Anselmo, and—on a parcel owned by the company—a single trailer sitting in a parking lot across the street from Universal Studios in Los Angeles.

The triumph of *Star Wars* was a mixed blessing. Making that movie had been a four-year horrific seat-of-the-pants experience—one Lucas never wanted to live through again. But he had always envisioned a grander, very different film from what he'd ended up with, so a sequel would allow him to finish the saga—and to tempt the fates once more.

"It took so much effort just to get up to speed in order to make the first film and create this great world that I didn't have the time to have any fun, to run around in it," says Lucas. "Now that I know the world and I can see it, it brings up all kinds of ideas and funny moments and adventures. In the first one, you are in a foreign environment—you just don't know what's going on—and it was the same for the author as it was for the audience. So I always felt if I went back to those environments using the same characters, I could make a helluva better movie."

Several rumors were already extant in the media concerning follow-ups. One source said that two *Star Wars* sequels had been shot while the first film was being made. The second movie, reportedly, would decide who gets the girl and feature a new battle against Darth Vader and his followers. The third movie would have Ben Kenobi return and try to restore the Jedi Knights so they could combat evil throughout the galaxies.

Twentieth Century–Fox, the studio that had financed and distributed the film, responded officially

that no work had been done on the sequels. Sources also stated that George Lucas wanted only to "supervise" future projects. That part was true. Lucas stated publicly several times that he was retiring from the director's chair. "You end up not being happy anymore and working yourself to death," he says. "*Star Wars* became a priority; it was one of those things that had to be done: 'But what if something happens to one of the actors? We can't afford to keep the sets around any longer because it costs a lot of money.' It put me in a bad place personally."



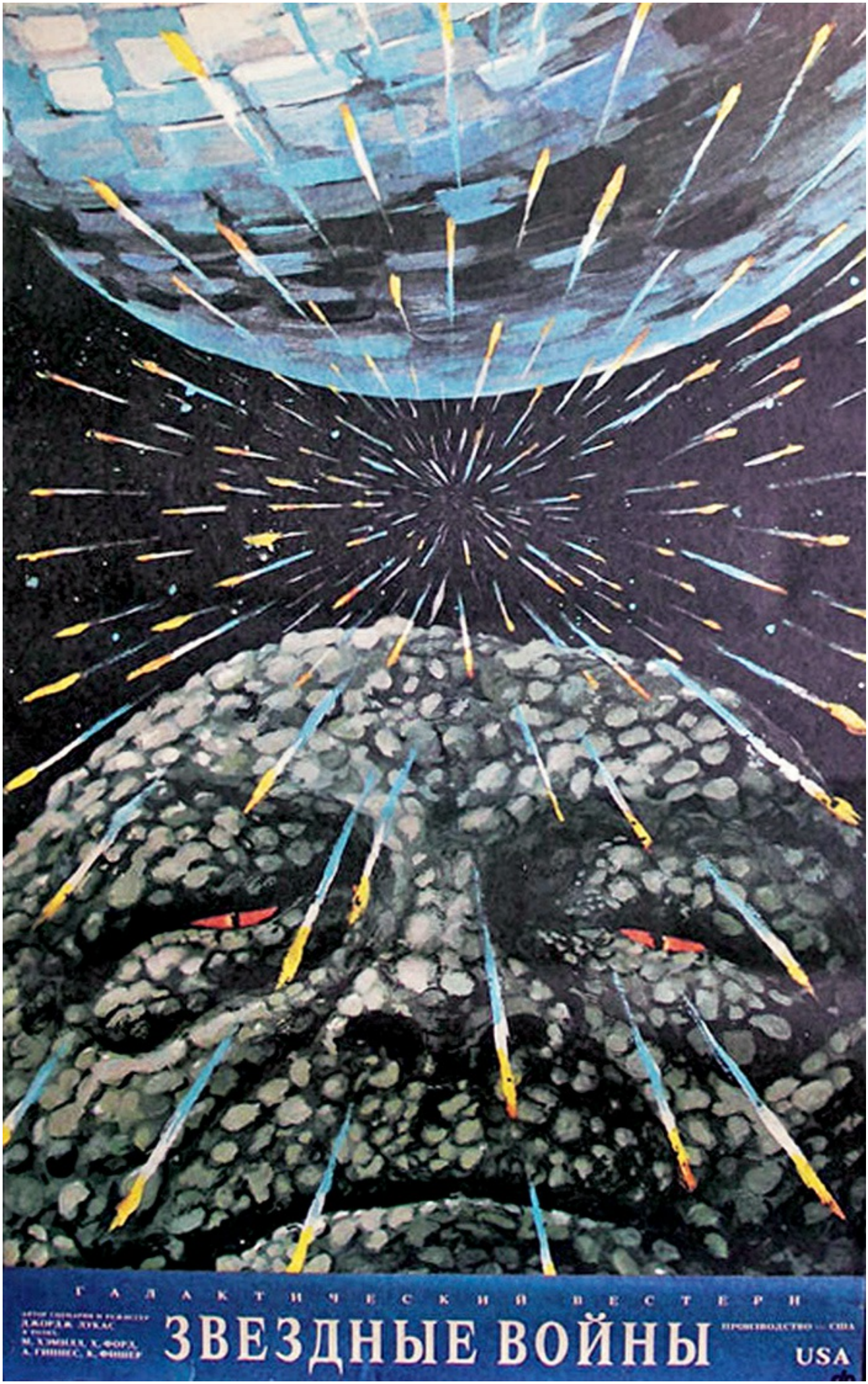
The first-ever Lucas-approved special effect by Industrial Light & Magic was signed and presented to the director—"Our First Shot"—in 1976; among the signatories are Dennis Muren, Richard Edlund, Ken Ralston, Joe Johnston, Peter Kuran, Paul Huston, and Robbie Blalack.



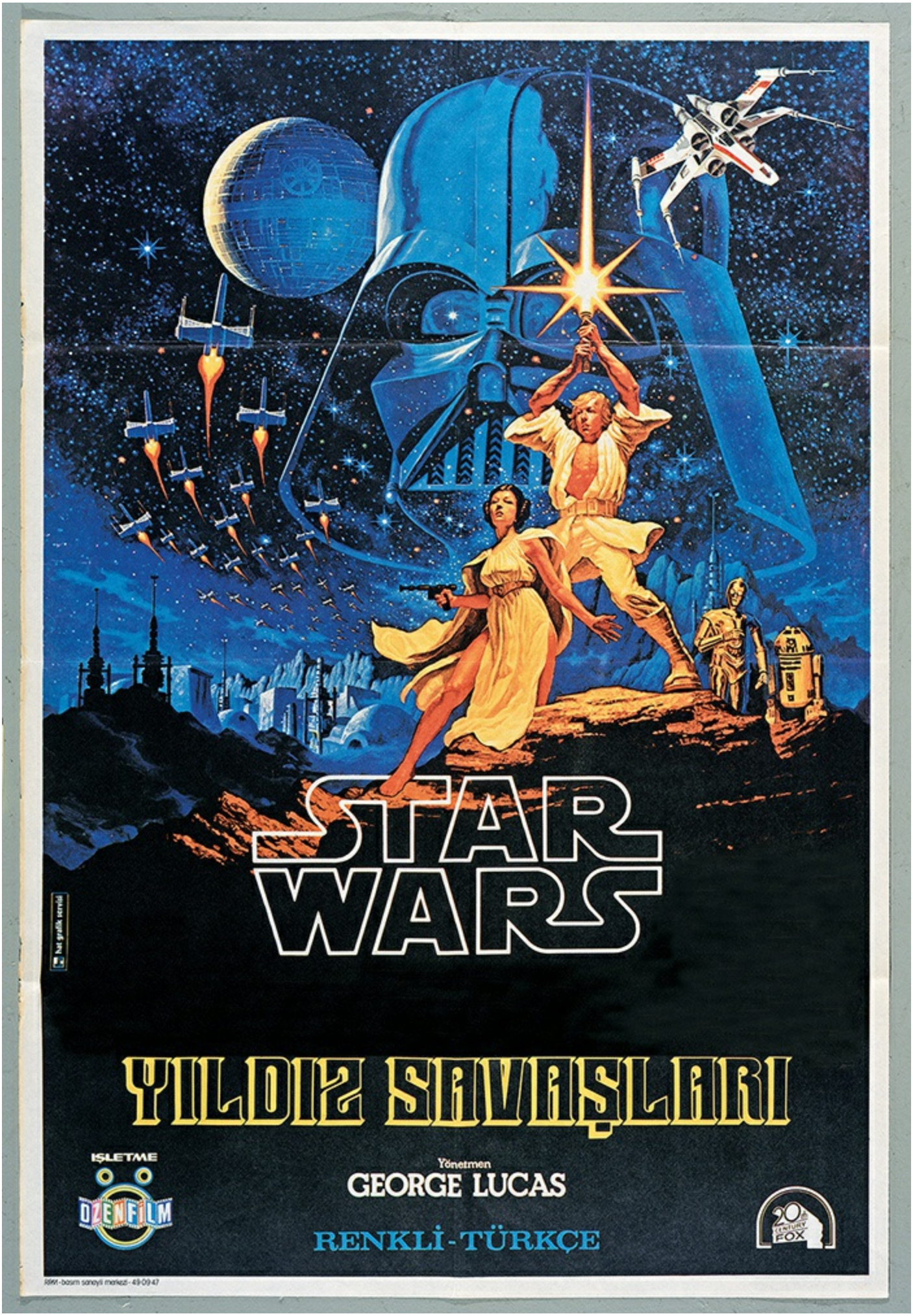
Star Wars poster for Germany.


STAR WARS
海運•百樂•京都•麗聲
盛大獻映
老少咸宜
雄奇偉大•不可思議
千變萬化•耳目一新
特藝七彩
超藝透視體
影壇奇才
佐治洛卡斯
震世之作！
麥咸美
嘉麗菲莎
夏里遜福
領銜主演
亞歷堅尼斯
彼得古城
客串主演
星球大戰
電影有史以來最賣座影片！美加收入超過二億三千萬美元，壓倒任何影片
霍士公司
震驚全球
包羅萬有
驚險奇趣
娛樂片王

Star Wars poster for Hong Kong.


ГАЛАКТИЧЕСКИЙ ВЕСТЕРН
ДЖОРДЖ ЛУКАС
М. ХЭММЕЛ, Х. ФОРД,
А. ГИННЕСС, К. ФИШЕР
ЗВЕЗДНЫЕ ВОЙНЫ
ПРОИЗВОДСТВО — США
USA

Star Wars poster for Russia (circa 1978).


STAR WARS
YILDIZ SAVAŞLARI
Yönetmen
GEORGE LUCAS
RENKLİ - TÜRKÇE
İŞLETME
DZENFİLM
20th CENTURY FOX
hat grafik servisi
RMM - basım sanayii merkezi - 49 09 47

Star Wars poster for Turkey.

DISAPPEARING MAGIC

During the summer of 1977, Lucas used the law office of Tom Pollock, Andy Rigrod, and Jake Bloom to begin negotiations with Fox, which had the right of first negotiation and first refusal. Back in 1976, the trio had succeeded in procuring the sequel rights and a 50–50 licensing split for *Star Wars*. At the time, the studio thought it had given up worthless items, because executives had no faith in the film. Nevertheless, those negotiations had taken more than a year. While Lucas anticipated a much shorter wait this time, he used the bartering period to start organizing his nearly nonexistent company.

Many potential problems loomed, not least of which was that his visual effects company, Industrial Light & Magic, had ceased to be upon the release of *Star Wars*. Not a single employee of ILM was on the payroll as of June 1977. Those men and women had of course sought work elsewhere. Many former key members had simply reorganized in the facility's original warehouse in Van Nuys, forming Apogee, whose founding members were: John Dykstra, Grant McCune, Bob Shepherd, Richard Alexander, Alvah Miller, Lorne Peterson, and Richard Edlund.

"Right after *Star Wars* came out, there was a period where George didn't know what to do," model maker Steve Gawley says. "He owned the equipment. But in the meantime, he didn't need it, as far as I understand. And so the same group of folks got back together and rented the equipment, and we made a television miniseries for Universal called *Galactica*."

"They rented the equipment back to John Dykstra," says model maker Lorne Peterson of the effects supervisor on *Star Wars*. "And so we were doing *Galactica*. Dykstra and Apogee ran their group as a cooperative. They all shared in responsibility and shared in profits equally. At least, I think it was equally. I also had my own really small company. We were struggling and then we were also working on *Galactica*."

"We got hornswoggled into doing this project with Glen Larson for Universal, the *Galactica*," says Edlund.

"Glen Larson came in to ILM, the old ILM in Van Nuys, after George had moved out," says art director Joe Johnston. "But all the people were still there and he hired the entire group, including me, to design, build, and photograph all these visual effects."

"I left ILM and then it turned into Apogee and they were doing *Galactica*," says Ken Ralston, assistant cameraman. "I got on two smaller films that never saw the light of day. But I learned a lot during that time, six months on one that was a *disaster*! But you have to learn those things."

While not everyone at the former ILM stayed at Van Nuys—special effects photographer Dennis Muren had departed in March 1977 to work on Steven Spielberg's *Close Encounters of the Third Kind*, which was released in November—the reality was that Lucas was going to have to start a visual effects company for a second time if he wanted to make a second *Star Wars*. And the *Galactica* project was going to be a thorn in his side for some time to come.

BUILDING THE EMPIRE BENIGN

Before Lucas could even begin to reconsecrate his visual effects team, he would have to form up his corporate headquarters.

"I was in private practice in San Francisco," says attorney Douglas Ferguson, "and my secretary told

me that a fellow named George Lucas wanted to talk to me for business advice. I said, 'I don't know any George Lucas.' And she said, 'You must not be reading the newspapers because he's got a movie out called *Star Wars* that's a big, big hit.' And that led to a meeting where George came to my office. We got along famously, so we began sketching out the corporate empire that George had envisioned for his company, now that he had the wherewithal to do something."

Ferguson, who became Lucasfilms's vice president of administration, had been the lawyer for John Korty, another Bay Area filmmaker and Lucas's friend. "Doug did a lot of my personal legal work," says Lucas. "Tom Pollock was my production lawyer. He'd done the legal work and set up a lot of my movies, *Star Wars* and *Graffiti*, and the incorporations of my first companies."

Ferguson would handle, primarily, the corporate interactions between Lucasfilm and its eventual subsidiaries. One of those, Black Falcon, would eventually take over merchandising and licensing; others would handle movie productions, such as the sequel to *American Graffiti*, another film already in the pipeline, and *Radioland Murders*, an ongoing project.

"The business side of the film industry I don't much like or want to get involved in," Lucas says. "I set down parameters that I want my company to maintain and they reflect my philosophies, my beliefs from when I grew up, which I feel are fairly practical but still basically right. But the corporate environment in Hollywood isn't any different from the corporate environment in the energy business. It's all about making money and it's all about making deals and it's all about screwing this person or that person. It doesn't have anything to do with making movies."

In addition to his big-picture plans, Lucas was looking for someone who could help run his day-to-day business. "I'd had about 12 years' experience in the film industry in a lot of various capacities," says Jane Bay. "But I wasn't sure that I wanted to continue to work in the film industry because I didn't like what was happening. Basically, the suits were taking over. It was after the decline of the studio system, and the businesspeople were starting to run the industry and I just didn't like the way that it was going. So on the Fourth of July, I called Tom Pollock, a very close personal friend, and said I'm going to be moving to San Francisco. And he said, 'Oh, Jane, I just talked to George Lucas yesterday and he needs somebody to be the office manager for Lucasfilm.' "



Executive assistant Jane Bay and George Lucas in the latter's office at Park House.



The exterior of Park House, with its restored second story (when Lucas had purchased the 19th century property, its original second story had been shaved off). This locale in San Anselmo, Marin County, served as Lucasfilm HQ throughout the making of the *Star Wars* sequel.

"Nobody wants to invest in the esoteric craft of visual effects," Lucas says. "You know, just for the sake of doing it. I started a lot of other companies, but that was by accident. I needed to have a sound facility up here. You have to have a place to pre-mix your movies. You don't want to go to Los Angeles to do it, so you start a little sound company. We had to create it all. We were basically carving an industry out of the wilderness here."

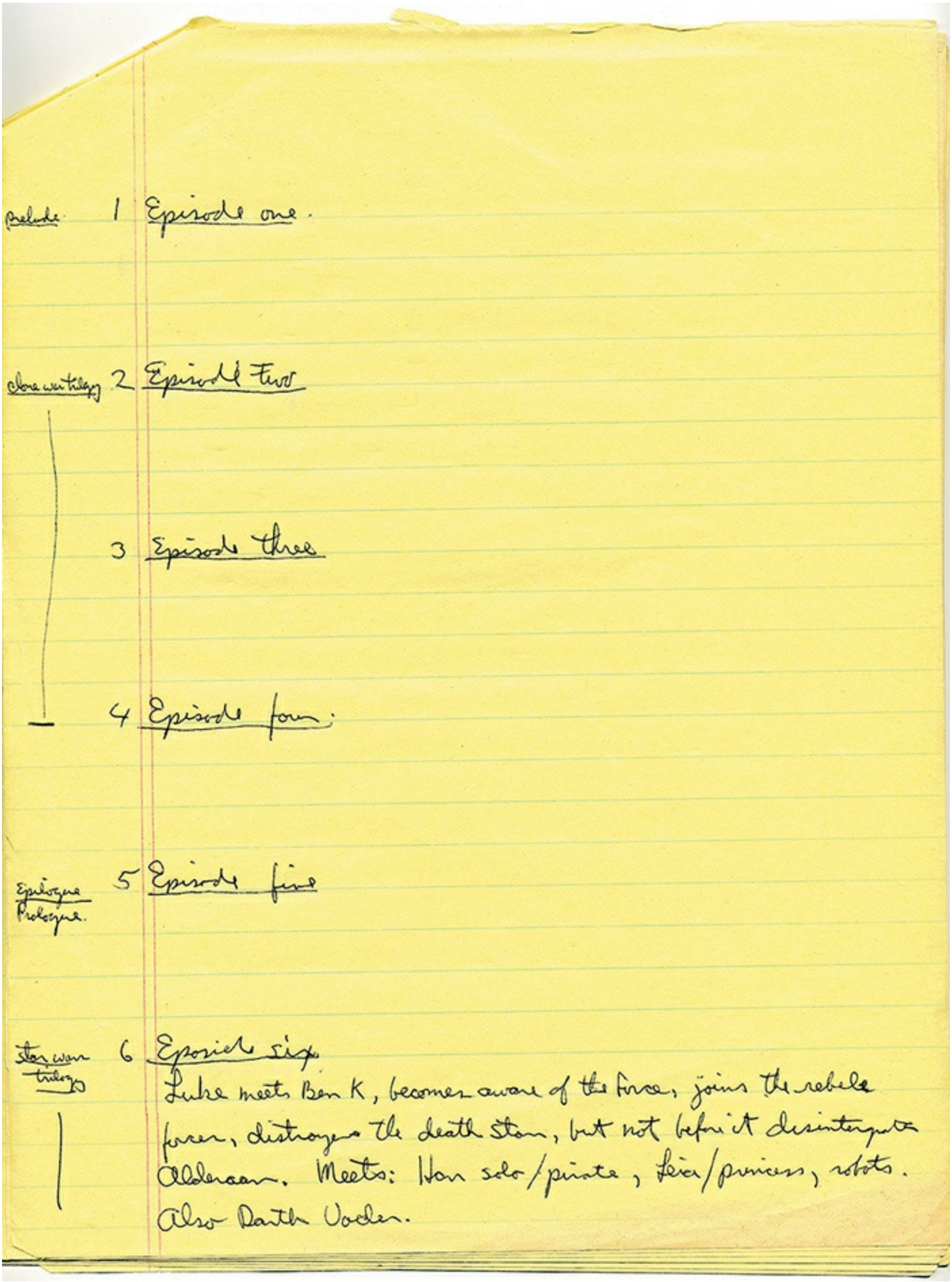
Four days later, Bay went over to Universal Studios. There George had a "little satellite office" not far from Spielberg's where they talked about the state of the film business. "George was telling me that he didn't know if I'd be happy moving to Marin County because he wasn't part of Hollywood and I had this long history in Hollywood in the studios and with independent filmmakers. He said, 'I'm just afraid that you're gonna be bored.' But I just kept saying, 'I left the film industry two months ago to get away from all of it.' So he said, 'Okay, well, you come up to Marin County and see how you like it.' I didn't realize that he had hired me on the spot."

In the Lucasfilm Los Angeles office were only two people in 1977: vice president of marketing and merchandising Charles Lippincott and his assistant, Carol Wakarska Titelman. They oversaw the licensing deals for *Star Wars*, which had already developed into one of the many ironic twists accompanying the success of the film—because, in the summer, fall, and holiday season of 1977, apart from a few Marvel comic books, fans had little to no merchandise to actually buy.

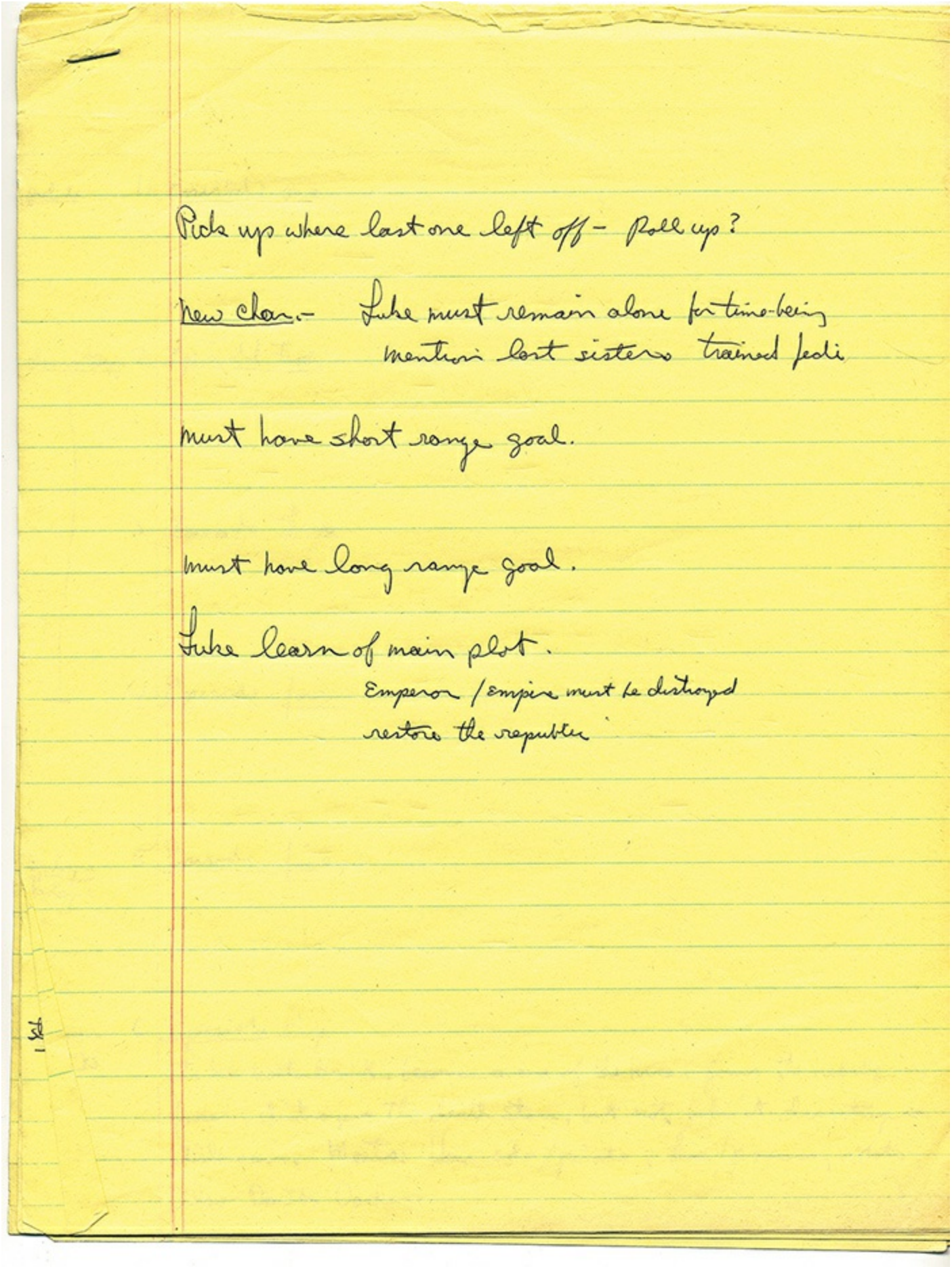
"We were very small then and the whole thing caught us by surprise," says Lucas. "At the time, there were no toys—it was literally T-shirts and posters. That was all there was."

"We had a deal with Columbia Records," says Lippincott. "But Twentieth Century–Fox, at the last minute, had this guy who had been very big at one time doing kids' records. And he came in and said, 'I want the *Star Wars* soundtrack for Twentieth Century Records.' So they came out with it and, of course, they wouldn't tell me how many records they were pressing. They only did 10,000. Needless to say, stores were empty."

On August 16, 1977, Jane Bay went to work in San Anselmo, after one day in the LA office. "I get to Marin County and I walk into Park House," she says. "And Lucy Wilson greets me. She takes me into a room and says, 'Well, this is your office and I got you an IBM Selectric II typewriter.' And there was a huge Italian poster of Robert Redford facing my desk because that office had been Michael Ritchie's office when he had done *The Bad News Bears* [1976; Ritchie's Redford film was *The Candidate*, 1972]. All of Park House at that time was inhabited by local Bay Area filmmakers. There were a lot of people, like Matthew Robbins and Hal Barwood, who had films that were in production at the time [*Corvette Summer*, 1978]. Carroll Ballard lived on the property in the guesthouse, where I ultimately ended up living for a couple of years. In the basement at Park House, Bob Dalva was editing *The Black Stallion* [1979] for Francis Coppola and Carroll. And, of course, the basement is where Ben Burtt created the original sound effects library for *Star Wars*. It was this old Victorian house that was filled with filmmakers. So I walk in and Lucy's telling me this is my office, this is my typewriter, here's the kitchen, and do I want coffee?"



A very early outline for the *Star Wars* saga in which the original film is actually Episode Six. Episode I is a "prelude" and the Clone Wars trilogy takes place in Episodes II through IV; Episode V would have been an "Epilogue/Prologue."


Pick up where last one left off - Roll up?

New char.- Luke must remain alone for time-being
mention lost sisters trained Jedi

must have short range goal.

must have long range goal.

Luke learn of main plot.
Emperor / empire must be destroyed
restore the republic

Another page of Lucas's notes mention a "lost sister" and a "long range goal": the "Emperor/Empire must be destroyed."

Starwars

Fun-Adventure
Mystical / Religious - Intellectualism

Must remain fast Paced.

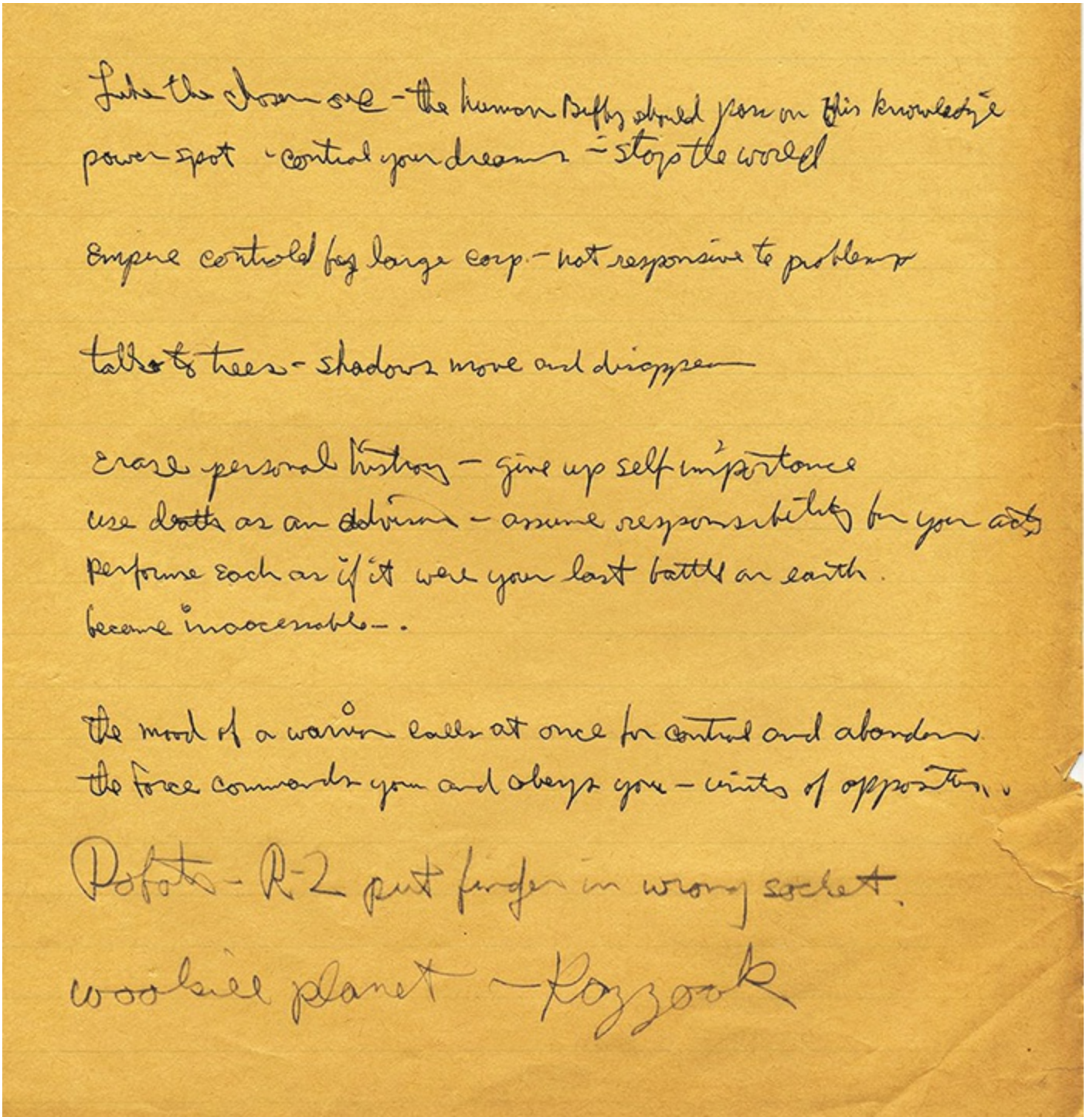
Intercut several parel/stories

Learn the way of the force.
Luke: will you teach me? [redacted]
teacher: It would've been better to begin this when you were much younger. It'll be harder for you now and it'll take much longer. You'll begin by learning — extreme —

He was a [redacted] Human-computer. (Vader?)
Swordmasters [redacted]

Need grand design — goal.

Far greater force than vader - more evil.



Details of Lucas's notes.

RECAPTURING THE MUSE

As Lucas began preproduction on the sequel, one collaborator was of paramount importance: production illustrator Ralph McQuarrie. But he, too, had begun working for Universal. He had met with Glen Larson, the producer of *Galactica*, back on June 16 and 17. Thanks to his work on *Star Wars*, McQuarrie's exceptional talents had been very much in demand by a variety of filmmakers, from Douglas Trumbull at Future General, who was working on Steven Spielberg's *Close Encounters;* to the producers of *Star Trek: The Motion Picture* (1979); to publishers eager to make *Star Wars* books featuring McQuarrie artwork on the cover.

On July 20, McQuarrie noted in his calendar, "George says we'll go to England again. *S.W. II.*" But his July and August days were dominated by the Universal project, with McQuarrie doing illustrations for

Larson's 500-page script, which was titled, *Galactica: Saga of a Star World* and dated August 30, 1977. Not long afterward, Universal sent the script to Lucas for perusal, already aware that its project was similar to his. After reading it, Lucas asked them not to call it *Star World;* not to use the names Starbuck and Skyler; not to call robots "droids"; and so on.

"It was a problem for George," McQuarrie says, "because they had an emperor, stormtroopers, rocket fighters; they had a lot of things that figured in *Star Wars*, and it was beginning to look like a *Star Wars* rip-off."

"I thought the series, especially the two-hour pilot, was very derivative of *Star Wars*," Joe Johnston would say.

The show's title was changed to *Battlestar Galactica*, but many other changes were not made. While Lucas prepared to hire McQuarrie and other former ILMers off that project, he also knew he would have to replace some of his special effects personnel, notably John Dykstra, with whom he had a difficult working relationship on *Star Wars*.

"I think we would have gotten rid of him except for the fact that there were about five key people that worked directly with John and were very close friends of his," Lucas says. "We felt we only had half the time we needed to finish the movie. If we had lost five or six of our key people at that point, it would have been really disastrous. But there were some very upsetting times, a lot of yelling and screaming going on."

"We knew that George Lucas and John Dykstra had had a number of differences," says Lorne Peterson, "and, probably, that's a mild way of saying it."

With Dykstra out of the picture, along with those close friends, Lucas still had to rebuild ILM. In anonymous internal preproduction notes, explaining to the union why Lucasfilm was looking abroad for candidates, one has a bird's-eye view of the very few professionals who had the experience necessary to supervise the kind of special effects that would be necessary on S.W.: *Chapter II:* Douglas Trumbull was committed to his own operation, Future General; John Dykstra was not asked to continue in his position because his personality did not mesh with that of Lucas; "Ray Harryhausen is committed to producing his own films [...] and does not command an up-to-date knowledge of the recent electronic computerized technology; Linn Dunn operates his own visual photographic effects house in the Los Angeles area and was not interested in relocating; L. B. Abbott and Frank Van Der Veer both work and live in the LA area and were under contract to Columbia Pictures."

"A long time ago, Gary Kurtz and George Lucas turned up at Bray Studios where I was doing the *Space: 1999* series [1975]," Brian Johnson says. "They seemed to like what I was doing with the miniatures. A few days later, they asked me if I'd be interested in a picture they were planning called *Star Wars*. About two months after *Star Wars* came out, in August 1977, I got a call to see if I'd like to work on the planned sequel, which at the time was being called *Star Wars: Chapter II*. The call came at the time I was working on *The Medusa Touch* [1978]. They suggested that I come to California the following March. I proceeded to negotiate with the producers of *The Revenge of the Pink Panther* [1978], because I'd already signed with United Artists, calling for a stop date in March."

Johnson had made a name for himself with the 1961 film *The Day the Earth Caught Fire*, working with Les Bowie. He'd also worked on the TV series *Thunderbirds* (1965), a Lucas favorite. Given Johnson's extensive background in television, Lucas hoped he'd be able to do the special effects more cost-effectively. Johnson had film experience, too, including *2001: A Space Odyssey* (1968), for which he'd worked with Trumbull on the slit-scan visuals and the Star Child seen in the finale. Johnson was willing

to relocate this time around and was hired.

"George was setting up and had an idea for a facility in California to do the model effects, because he had the basic motion-control equipment needed for model work now, which we didn't have in England," Johnson says. "But at the same time the floor effects were going to be done in England, the main-unit work, so I would be the person to coordinate the two."

A TREATMENT AND A SAGA

With the temporary nomenclature of *Chapter II*, the sequel was in fact part of a three-part saga. *Star Wars* was only a sliver of the main story, and, given its success—in August 1977, it was still the number one film and had expanded to a wide release—Lucas now had the ambition to tell the complete story.

On the first page of an early outline are notes, "Mention lost sister trained Jedi … Luke learn of main plot: Emperor/Empire must be destroyed; restore the Republic." Lucas made many additional notes on yellow legal pads. None of these pages is dated and he would sometimes reshuffle his papers relative to his needs, which makes analyzing their development difficult. One *Chapter II* note may actually have been written for the first film, as it mentions the Kiber Crystal, an idea abandoned before shooting in 1976, but it contains the first reference to what would become a new character: "Luke unconscious—awakes to find Bunden Debannen (Buffy). Buffy very old—three or four thousand years. Kiber crystal in sword? Buffy shows Luke? Buffy the guardian. 'Feel not think.' You can become a physical manifestation of the Force—weapon in the continual struggle of the two sides of the Force to control the netherworld of which we are a part. Luke the chosen one—the human Buffy."

Some of these ideas—such as "feel not think"—made it into the first film, but Lucas was already toying with the idea of a very old teacher for the sequel. Another note reads, "Learn the way of the Force. Luke: 'Will you teach me?' Teacher: 'It would've been better to begin this when you were much younger. It'll be harder for you now and it'll take much longer.' "

Another page reads, "A repulsive, threatening figure can magically change into a most helpful friend. Talks to trees—shadows move and disappear. He [teacher] was Mynoc. Human-computer. (Vader?) Swordmasters."

The need for a second teacher was self-evident, given the death of Ben Kenobi in *Star Wars* and that Luke had to continue learning how to become a Jedi. Early notes also reveal more about Ben's fate: "Ben is not 'dead.' 'I have worked with several of JenJerod's clones.' Ben in netherworld cannot stay there forever; helpful in blocking areas of the Force to Vader and Emperor."

During his afterlife, Ben could even aid Luke. "Somewhere the good father (Ben) watches over the child's fate, ready to assert his power when critically needed. Father changes into Darth Vader, who is a passing manifestation, and will return triumphant. Luke travels to the end of the world and makes sacrifice to undo the spell put on his father. He succeeds and happiness is restored."

Another of Lucas's early story notes reads, "Luke crash in beginning (scar on face)." In other words, a story point was being considered to explain why Mark Hamill might look different in the second film. In January 1977, Hamill had nearly lost his life in an automobile accident on his way to shoot pickups for *Star Wars*. His car skidded on a California freeway and turned over several times. His face was badly injured, and it took the actor months to recover.

"It was about 6 o'clock in the evening," Hamill says. "I had a brand-new BMW and I was playing a tape on the sound system. It had terrific sound. Also, in a car like that you can lose sight of how fast you're going—I'd always driven clunky cars. Then, suddenly, I realized I was on the wrong freeway and

it might take me an hour and 45 minutes to find my way back. It was a split-second decision. I saw my exit ramp three lanes over and I thought I could make it, so I turned the wheel sharply. Well, I was going about 70 and the car flipped."

"They operated from about 9 in the morning until about 4 in the afternoon," Gary Kurtz says. "I saw him at 4:30 and Mark said, 'Oh. I'm sorry I got delayed. As soon as I get out of here this afternoon, we can go.' He evidently had no idea what he looked like."

"I'd fractured my nose and cheekbone," Hamill says. "My plastic surgeon took cartilage from my ear and built up my nose. I wallowed in self-pity. I felt, at best, that all life had to offer was Peter Lorre's old parts. One day, actress Diana Hyland—with whom I'd worked on TV [in the pilot for *Eight Is Enough*, 1977]—came to see me. Instead of pouring out words of comfort, she lashed out. 'Look at you,' she jeered. 'You're letting yourself down as well as everyone around you.' She shook me back into reality.

"A few days later, she died. Would you believe I was so self-involved I didn't know she was ill, let alone that her illness was terminal? Whatever big times lie ahead for me, that moment with Diana Hyland is one I'll always treasure. She gave me back my life, my work, my self-respect."

"My feeling was some time has passed between films," Lucas says. "Luke has been in the Rebellion fighting, so the change was justifiable."

During a meeting between actor and director months later, Lucas's script ideas made their way into their conversation, as Hamill notes: "One night over dinner, I asked George what he would have done if I'd been killed in the car accident [...] Would somebody else have finished my part? He said, 'No.' There'd be a script change that would have found a long-lost brother or sister, something genetic, so that the Force would be with them."



Early sketch of Wuzzum or Yuzzum—candidates for the Wookiee planet—by design consultant and conceptual artist Ralph McQuarrie, circa October 19, 1977.


R.McQ.

Concept sketch of Wuzzum by McQuarrie, circa October 19, 1977.


K. McQ.

Concept sketch of Wuzzum by McQuarrie.



Concept sketch of Wuzzum by McQuarrie.



Concept sketch of Wuzzum by McQuarrie.



Concept sketch of Wuzzum by McQuarrie.

DOMESTICATED FOX

In the later summer of 1977, pretty much everyone involved in the making of *Star Wars* was still

gawking at its unprecedented trajectory, not least the film studio that had financed it. In a 1980 article in the *Los Angeles Herald Examiner*, reporter Martin A. Grove would reveal that, six months before the movie's release, Twentieth Century–Fox had actually tried to off-load *Star Wars* to a group of German tax-shelter specialists. When that didn't work, the studio attempted, on May 2, 1977, just 23 days before opening day, to sell the film as part of a package to Bel-Aire Associates. "Besides *Star Wars* for $12 million, the package included *The Other Side of Midnight* for $9.2 million and *Fire Sale* for $3 million." As Grove points out, the principal reason studios sell movies to tax-shelter groups is to protect their downside risk. While *The Other Side of Midnight* was being touted at the time, the studio doubted that it would recoup its investment in an overbudget science-fiction movie that had no big stars—Fox was basically trying to get rid of *Star Wars*. (The deal fell through and, ironically, three years later, the investors sued the studio, claiming it had reneged on its promise.)

In September of 1977, however, Fox was content to watch its stock value double, and make as good a deal as possible with Lucasfilm for the sequel. Unlike the extremely protracted, multiyear negotiations for *Star Wars*, Lucas was able to dictate his terms quickly. What gave Lucas important leverage, in addition to the success of the first film, was that he was going to finance *Chapter II* with his own money.

"The idea of a filmmaker owning his own film and thereby controlling how it was exploited was a dream of filmmakers since the industry started," says Tom Pollock. "And so the only question was just how it would get financed. A lot of thought went into that. We owed Fox the first negotiation and the first refusal, so we figured out what we wanted the contract to be, arranged for the financing [through Bank of America], and then presented it to Fox and said, 'We're ready to go.' They were very anxious to have a sequel and basically it was not a long negotiation. They said yes very quickly."

"Fox saw that they had a hit, so they wanted to be very careful, because already we had started to complain," Lippincott says. "George had complained in June about how, if they wanted to see another *Star Wars* movie, they had better start paying them, not talking. So they knew they better get their act together."

"It made good sense," says Alan Ladd Jr., or Laddie, the only studio executive who had backed the first film and whose annual salary therefore went from $182,885 to $563,000. "Because first of all, George had the capital to do it—and Fox did put up an advance against it, so he didn't have to finance the whole thing out of his own pocket. And with the merchandising and all the ancillary markets coming into play, it was a very wise business decision on George's part."

"My understanding is that when George's agent [Jeff Berg] came back for *Star Wars II*, he said, 'Okay, one: The profit split is being revised,' " says Warren Hellman, one of the eleven members on Fox's board of directors. " 'Two: You're going to give the remaining licensing rights to us. And three: You're still not getting any sequel rights.' This I do remember: There was a great board meeting where management said, 'We have to give George the rights to his characters.' But we had a bunch of lawyers who said, 'You can't simply give away property rights!' We voted and I think it was a six-to-five vote, because somebody had made the point that you can't own his children."

"Fox thought that we were using licensing money to finance the movie, but we weren't because there was no licensing money," Lucas says. "The board of directors misunderstood a lot of it and Laddie had to straighten them out and say, 'You can either do this or not do this.' It was really a matter of 'very little is better than nothing.'

"The thing Fox did not expect was that I would pay for it and that was what shifted everything," Lucas says. "I came in and said, 'All you're going to do is distribute,' and it changed the whole nature of

the deal—nobody had expected that. I think they were upset that I could do that, but I could because that was in the deal. It hadn't been spelled out in the deal, but if you read the contract, then it was clear that I had the power to do it."

Indeed, despite the licensing prospects on the horizon, merchandising was earning very little money at the time and Lucas had yet to receive much if any of the profits from *Star Wars*. Lucas could be confident that the coffers would be filled eventually, but financing the sequel was essentially a big risk—a risk that would increase day by day as production wore on.

To minimize some of the downside potential, in the same way Lucas had formed The Star Wars Corporation for the first film, he created another subsidiary for the sequel: The Chapter II Company. "It was established because you wanted to isolate the financial and operating risks of a new production, and to limit the potential liabilities that may arise out of a new production," says Richard Tong, Lucasfilm's treasurer.

The resultant 100-page contract between Fox and Chapter II was signed on September 21, 1977. In this agreement, the "negative cost" of the untitled sequel was fixed at $8 million. It also states that the "Producer [Chapter II] shall have 'final cut' of The Film." The sharing of gross receipts would be: producer 52.5% and distributor 47.5% for the first $20 million; producer 70.5% and distributor 29.5% up to $60 million; beyond $100 million gross, the producer was guaranteed 77.5% and Fox 22.5%. All of which terms were much more favorable to Lucas than the profit sharing scenario had been for the first film.

The contract also stated that as of July 1, 1978, the management of licensing, marketing, and merchandise would revert to Black Falcon Ltd., a Lucasfilm subsidiary, in an "orderly transfer." (Black Falcon would be incorporated on February 27, 1978.) As of that date, the split would be 80% for Lucasfilm, 20% for Fox; from April 1, 1981, that split would become 90–10.

In addition to giving Lucas final cut, the new contract made it very clear that the "distributor"—that is, the studio—would have no creative control over the filmmaking process. Lucas's two films before *Star Wars* had been deformed by aggressive studios; *Star Wars* was simply finished too close to its release date for anyone to tinker with it. Now, except for having to obtain sign-off from Alan Ladd Jr., which was understood as a formality, Lucas and his collaborators had more freedom than ever before.

"Today the studios are not filmmakers," Pollock says. "They may have been in the 1930s and '40s when the Thalbergs and the Mayers were there, but studios haven't been filmmakers for years. Basically studios finance movies, they market movies, they're very canny and they can be very helpful about what movies they make. But they don't actually make the movies and George certainly recognized that very early on."

Lastly, the agreement set a principal photography start date for January 1979, with a release scheduled for May 1, 1980.

News of the deal inevitably leaked out to *Variety*, which reported, fairly accurately, that Fox's distribution fee would be 27 percent of gross receipts. In *Daily Variety*, Fox chairman and chief executive Dennis Stanfill was quoted as saying that the studio would receive only a modest sum. The *Chicago Tribune* reported that Lucasfilm would get $2.74 out of every $4 ticket sold, and Twentieth Century–Fox just 68 cents, noting that with *Star Wars*, "Lucasfilm took in a measly 17 cents from that $4 ticket, while Twentieth Century grabbed $2.05 as a return on its investment and another $1.20 for distributing the film."

Power was now in the hands of the artists, but, as preproduction revved into production, destiny had

many reversals in store.

RETURN OF THE PRODIGAL SONS

"The first thing I did was to arrange for studio space in England," says Kurtz, "because there was tremendous pressure on to reserve time and space in London."

Once again, Lucasfilm would occupy every possible inch of Elstree (EMI) Studios. During the fall of 1977, Kurtz also visited the production of *Superman* (1978) while it was on location in Canada, then again while cast and crew were doing studio work at Pinewood Studios in England, in order to line up previous *Star Wars* department heads and at least one newcomer.

"We tried to put together a crew quite a bit in advance," he says. "From the first film, we knew the people that we wanted back and we were able to get almost all of them. That was the primary step." Key members of the transatlantic team were production designer John Barry, art director Norman Reynolds, makeup artist Stuart Freeborn—and David Tomblin as first assistant director, replacing Tony Waye.

"At that time, John had been approached to be production designer," says Robert Watts, who would return as associate producer. "But he wasn't sure whether he would be able to do the job, because he had his own script which he was hoping to get financed. So it was agreed that he and I would do the recces [location scouts] together and then he would make his decision by the end of March next year."

Back in Los Angeles, on September 14 and 21, McQuarrie met with Lucas at his Universal office, which resulted in a contract for the artist dated October 1. In addition to leaving the *Galactica* team, McQuarrie also turned down an offer to work with Ralph Bakshi on his *Lord of the Rings* animated movie (1978). "It would have been a pleasure to do castles and forests but, after the sixth forest background from a different angle, it's tedious. I'd rather plunge ahead to do concept work like I'm doing here."

Four days later, working at his home on South Curson Street in Los Angeles, McQuarrie began sketches for the Wookiee planet, snow armor, and a castle. Lucas's notes indicate that he had been thinking about the home of Darth Vader and his developing character: "Once you've embarked on the dark path it will dominate your destiny. Don't choose the quick and easy successes. Vader had abandoned himself to forces which were carrying him away—forces of dark and destructive violence."



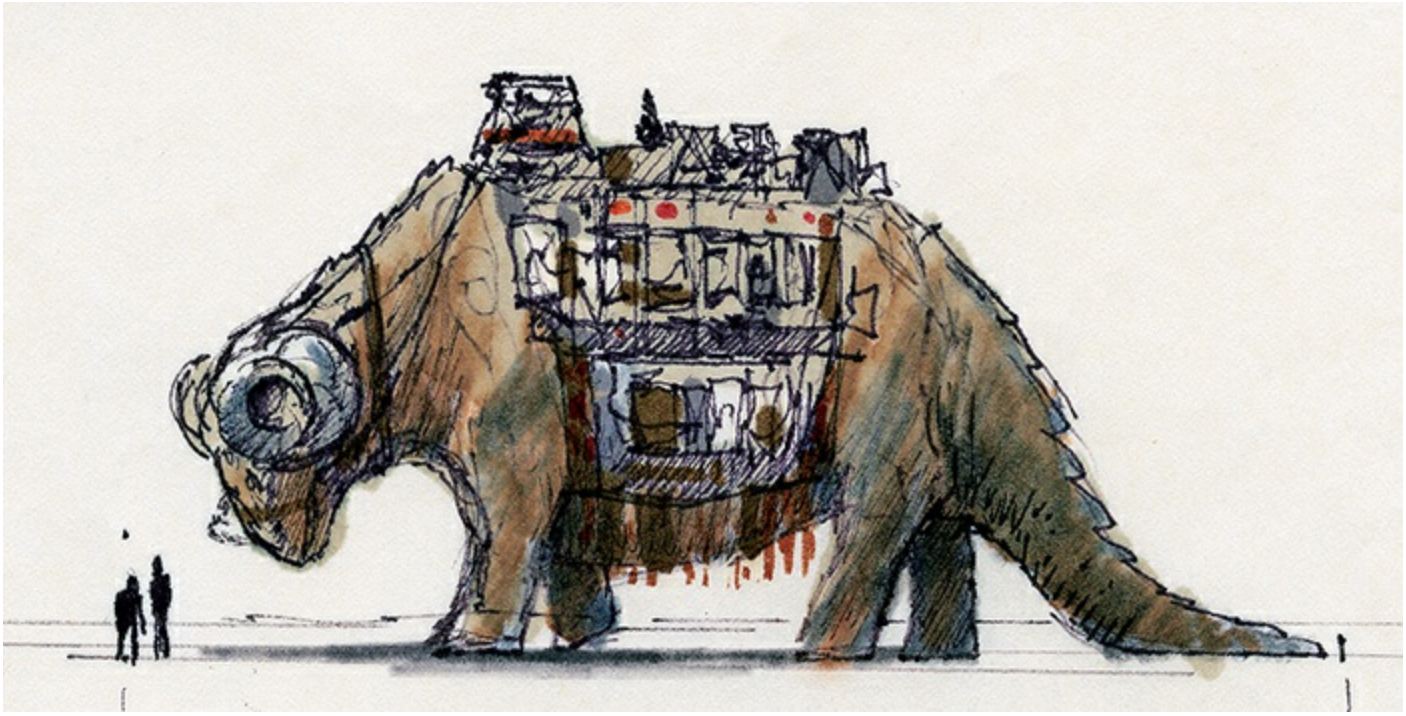
Concept artist and design consultant Ralph McQuarrie talks about his creative process. (Interview by Alan Arnold, 1978)

(0:54)

"We worked quite a lot on the Wookiee planet, which was to be the home of Chewbacca," says McQuarrie. "That was very interesting to me. We created this giant forest, Wookiee homes, accessories, the transportation, and the look of the surface of a planet where the Imperials have their base."



"Chewbacca as young Wookiee" by McQuarrie (concept no. 5), November 27, 1977 (McQuarrie numbered sequentially most of his drawings).



"Beast of burden" concept by McQuarrie (no. 17), November 1977.



On their home planet, Wookiees with bantha-like creatures called whorrwaarrs (according to Lucas), by McQuarrie (no. 16), November 1977.

Another page of Lucas's notes contains a list of planets for the sequel: "Wookiee planet Kasshook, Kazzook (Ganaararlacc)—huge trees; Gas planet (Hoth)—cities on piers, art deco, giant manta-like creatures in mist; Ice Planet, snow storms; Water planet (Acquis); a Dock/Desert (caves) planet; Garden planet (Besspin-Kaaleida); City Planet (ton-muund)—Death Star like, only bigger and can't move; Grass Planet (ibbana); Bog Planet (Dagobah), fog-mist, swamp-jungle."

"George said just off the top of his head, 'I'd like to see a metal castle in the snow,' " McQuarrie says. "George was looking for a place to put Vader's office." In one entry, Lucas seems to have reconstructed how he arrived at the name Darth Vader—a combination of the words *dark*, *death*, *invader*. Among McQuarrie's first sketches was also a creature called the Wuzzum or Yuzzum, a character for the

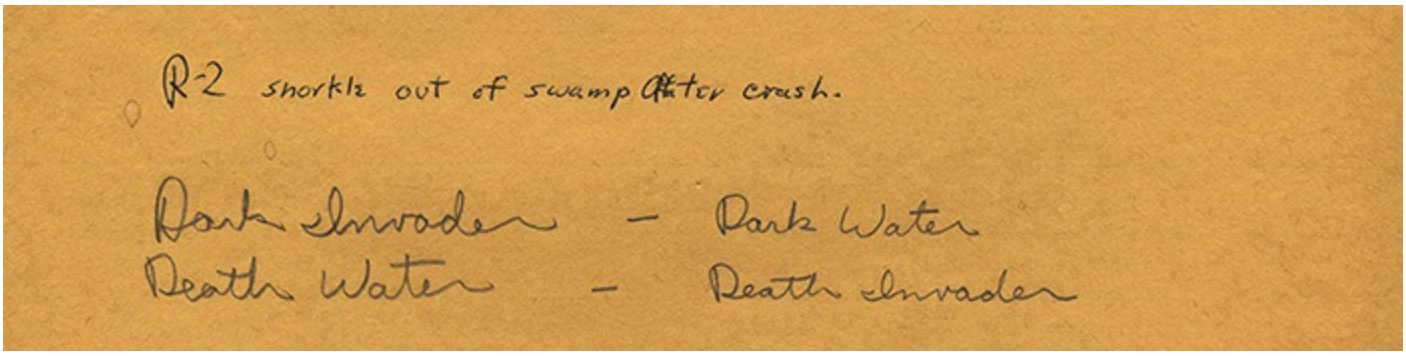
Wookiee planet.

In November 1977, Lucas also hired back Joe Johnston, who would begin conceptual work in his home in LA. Johnston and McQuarrie were of course very important to Lucas because he wanted visual continuity from film to film.

"George knew at the outset that there was going to be a snow battle and he knew we were going to have armored speeders," says Johnston. "But he hadn't really decided on what kind of vehicles the Empire would have or how they were going to film it. At first they considered using existing military tanks, redressing them to look alien. I did a bunch of sketches using these tanks as a basis."

"On this movie, we started designing before we had a finished script," McQuarrie says. "We were working on instructions from George. It was all pretty mysterious at times. We didn't know exactly what was going to be used or how."

Meanwhile, Lucas played with the plot: "Streamline beginning—Leia to Vader to Luke. Streamline attack plot … Han thinks about Leia. Leia about Han … Threepio blown apart, transported in pieces to area where he can be reassembled. Han Solo, go on mission and never come back. End with Luke thinking about him … Luke develops Force, becomes powerful knight … Luke–R-2 worried about where going; Han and Leia find asteroid field … Luke falls into trap—Vader gets upper hand; Luke barely escapes. On new base … Act I: Love story; into large threat (Emperor)."



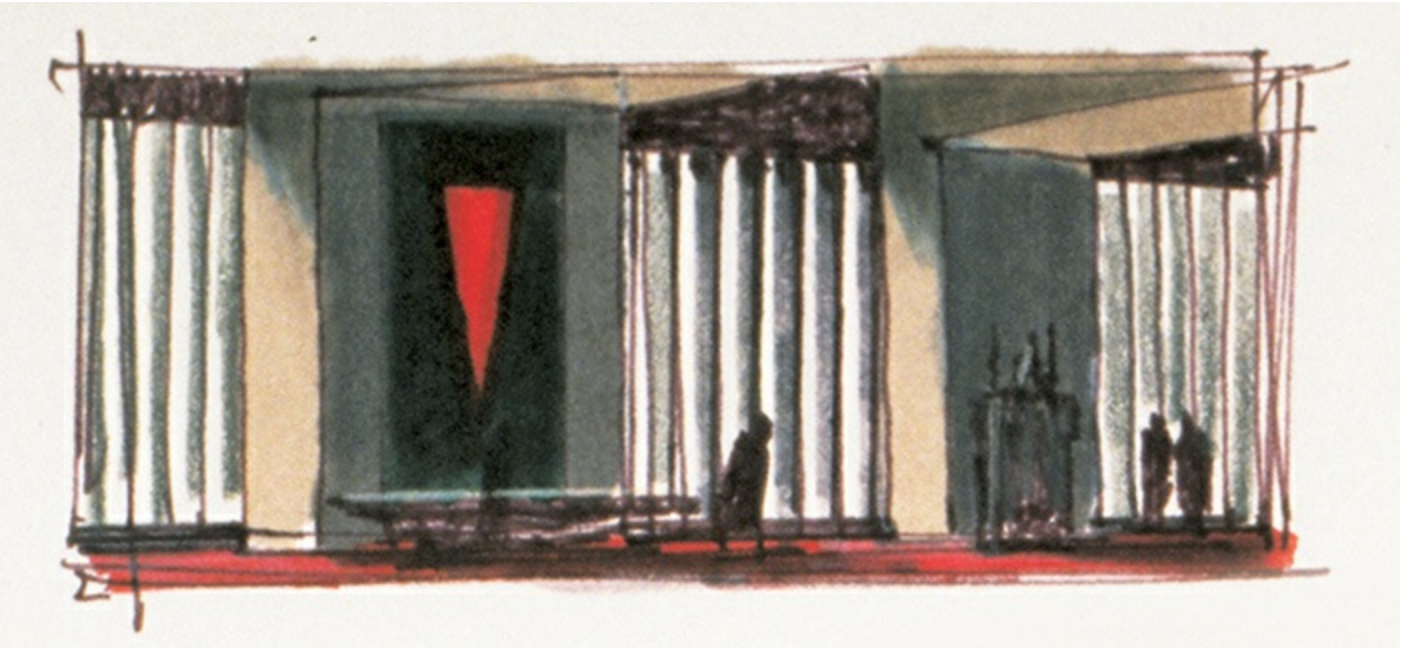
Lucas's notes that led up to the name of his villain: "Dark" and "Death" became "Darth," and "Invader" was shortened to "Vader"—Darth Vader.



Darth Vader outside his castle, by McQuarrie (no. 32), December 1977.

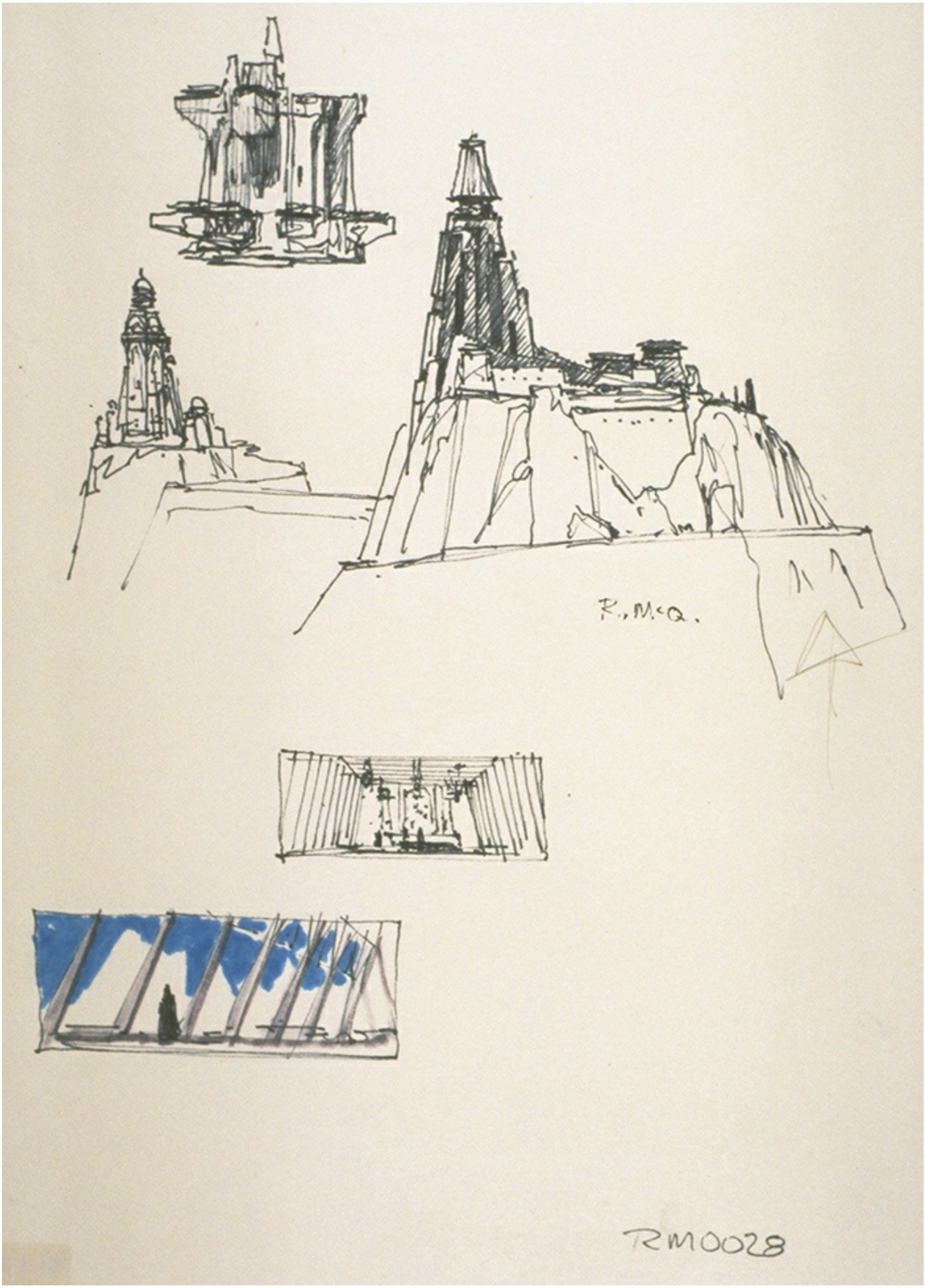


Castle exterior.

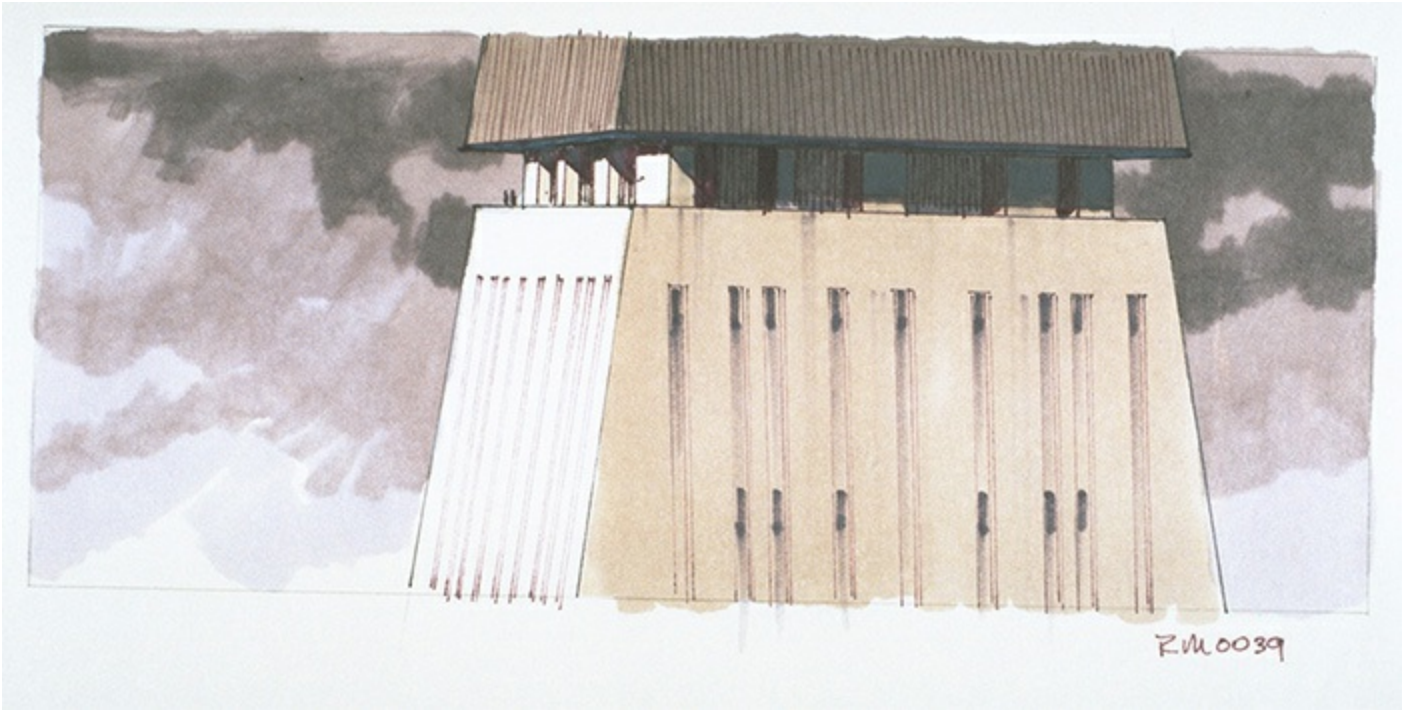


Vader inside his castle by McQuarrie (no. 33), December 1977.

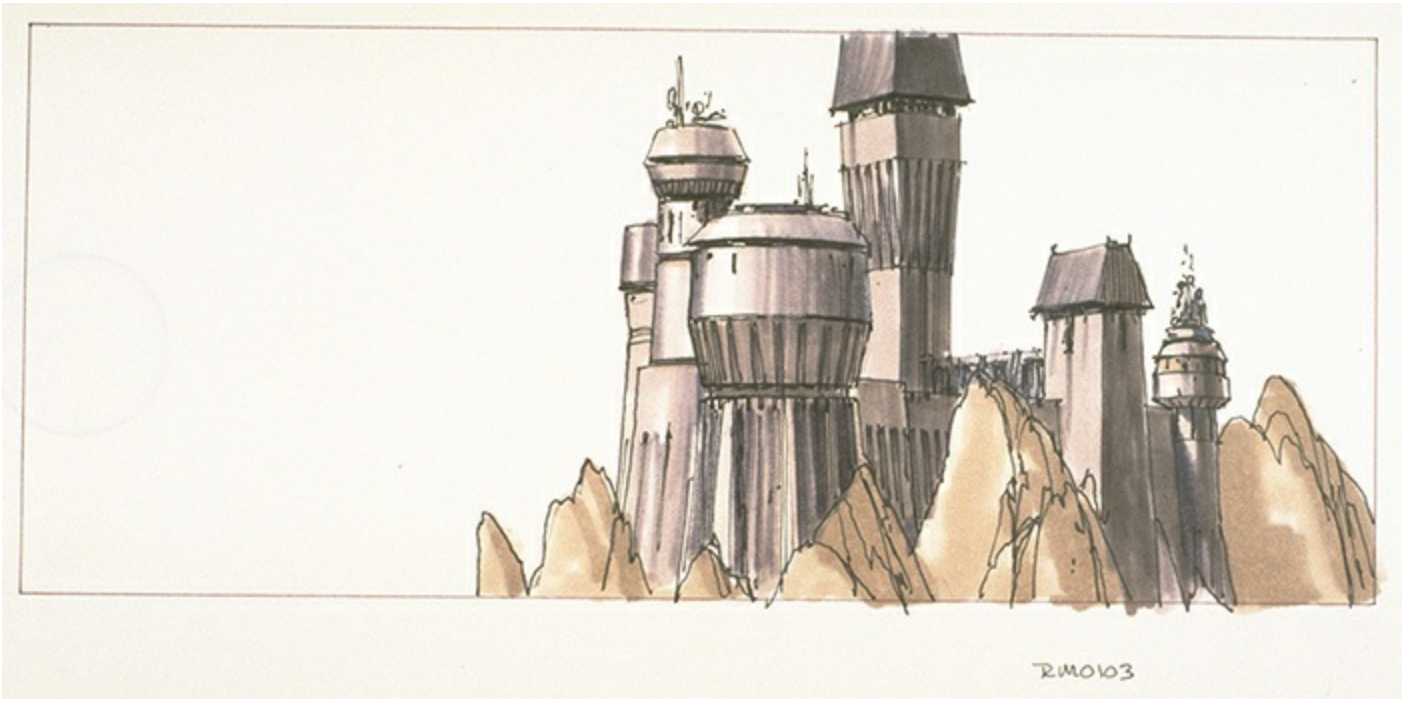
"My big problem now is that I've got to try to get, in terms of my writing—I've got some real problems," says Lucas in a transcript from September 1977. "I've got to hire a writer for the *American Graffiti* sequel, and I've got to hire a writer for the *Star Wars* sequel. I've got to get those things done because otherwise the films won't be done on time and people get real angry and frustrated about their contracts. We've already got start dates and we've got to get the movie going. *Graffiti* is more of a problem than *Star Wars* cause it's going right away …"



More concept sketches of Darth Vader's castle by design consultant Ralph McQuarrie.



Concept sketch of Darth Vader's castle by McQuarrie.



Concept sketch of Darth Vader's castle by McQuarrie.



Concept sketch of Darth Vader's castle by McQuarrie.

Many of Lucas's notes also deal with the psychology of children, as he was very concerned about how they would perceive his new story. "Present [story] in a simple, homely way … This prevents even the smallest child from feeling compelled to act in specific ways and he is never made to feel inferior … Reassures, gives hope for the future, and holds out the promise of a happy ending … Discover identity and calling … Intimate that a rewarding, good life is within one's reach despite adversity—but only if one does not shy away from the hazardous struggles without which one can never achieve true identity.

"Children are innocent *and* love justice. While most of us are wicked and naturally prefer mercy … Need symbolic images which reassure them that there is a happy ending, solution to the Oedipal problems … What the evildoer wishes to inflict on the hero should be the bad person's fate."

"I feel strongly about the role myths and fairy tales play in setting up young people for the way they're supposed to conduct themselves in society," says Lucas. "It's the kind of thing Bruno Bettelheim [child psychologist and author] talks about, the importance of childhood. I realized before I did *Star Wars* that there was no contemporary fairy tale and that the number of parents who sit down and tell their children fairy tales is dwindling. As families begin to break up, kids are left more to the television and they don't hear bedtime stories. As a result, people are learning their mythology from TV, which makes them very confused because it has no point of view, no sense of morality. Fairy tales, religion, all were designed to teach the right way to live and give a moral anchor.

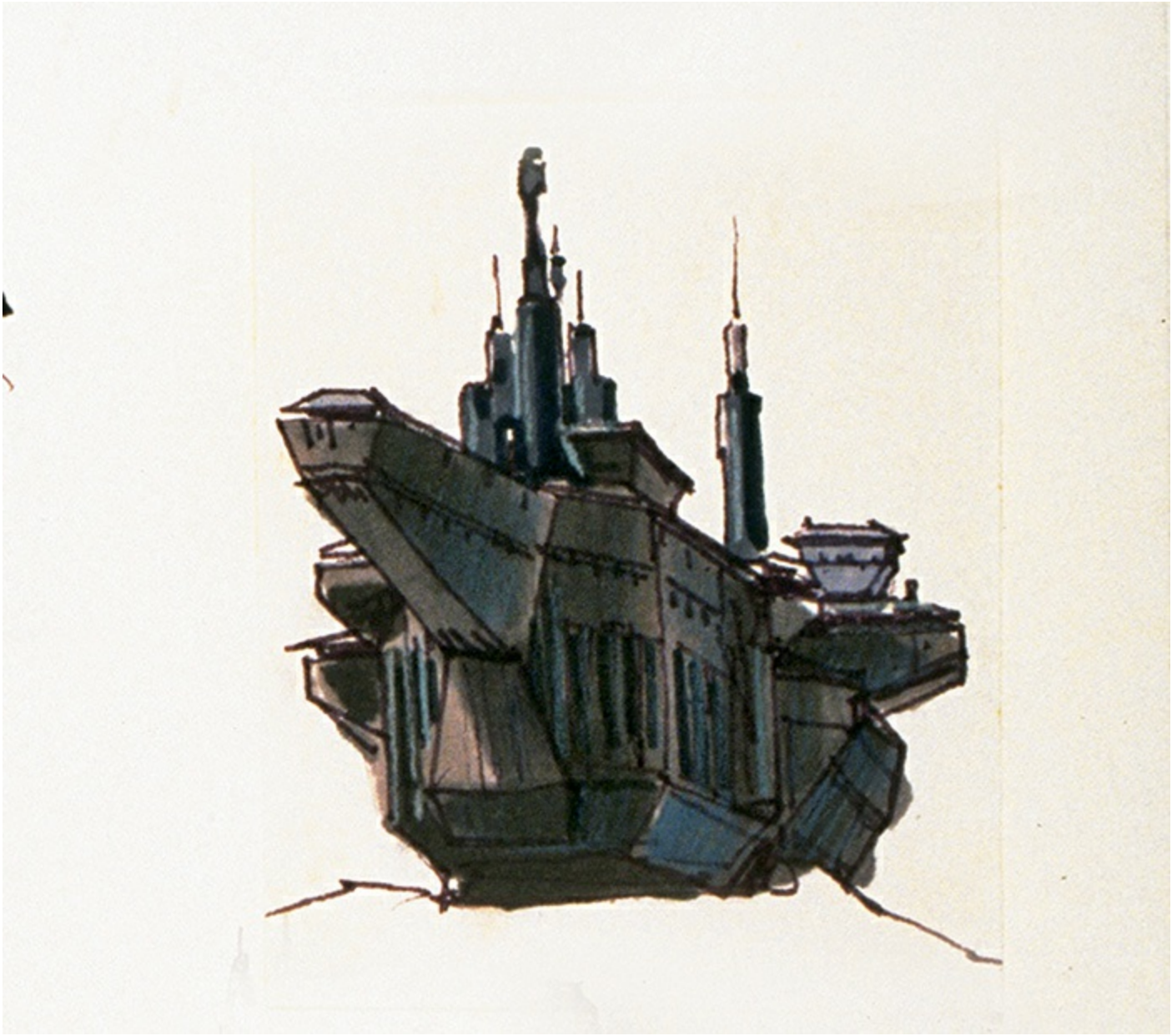
"If I wasn't a filmmaker, I think I might be a toymaker," he adds. "I love making kids happy. Somebody's got to do it. Your childhood is so long and I think kids need all the breaks they can get to make it bearable, because it goes on forever. Giving them something, especially a fantasy life, is an important thing. If we don't take care of our kids, if we just ignore them and let them suffer through, we're not going to be much of a civilization."



Following instructions from Lucas, McQuarrie placed Vader's castle amid boiling lava (no. 35), December 1977.



Vader castle concepts by McQuarrie (no. 36), December 1977.



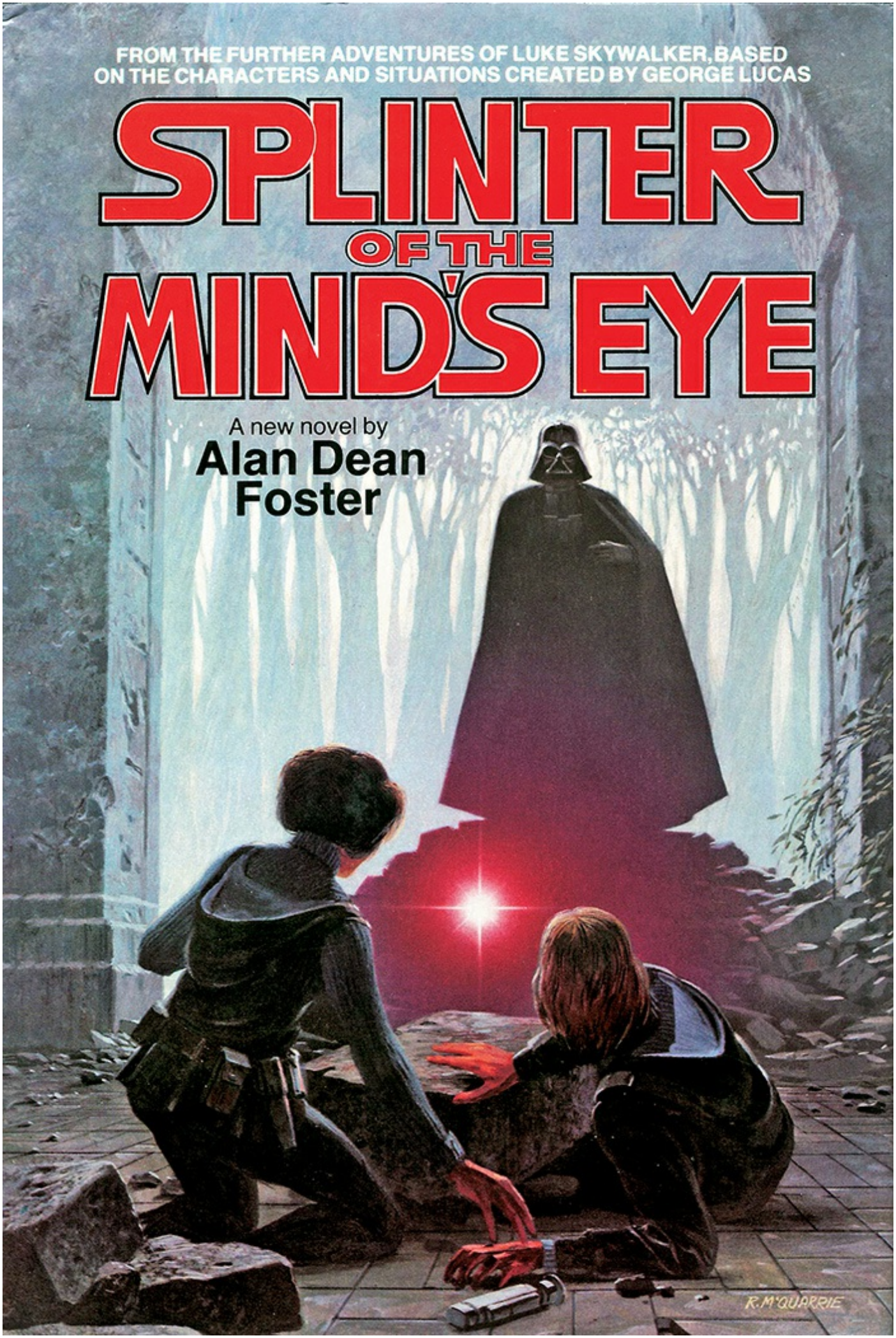
Vader castle concepts by McQuarrie (no. 67), December 1977.

FROM THE FURTHER ADVENTURES OF LUKE SKYWALKER, BASED ON THE CHARACTERS AND SITUATIONS CREATED BY GEORGE LUCAS

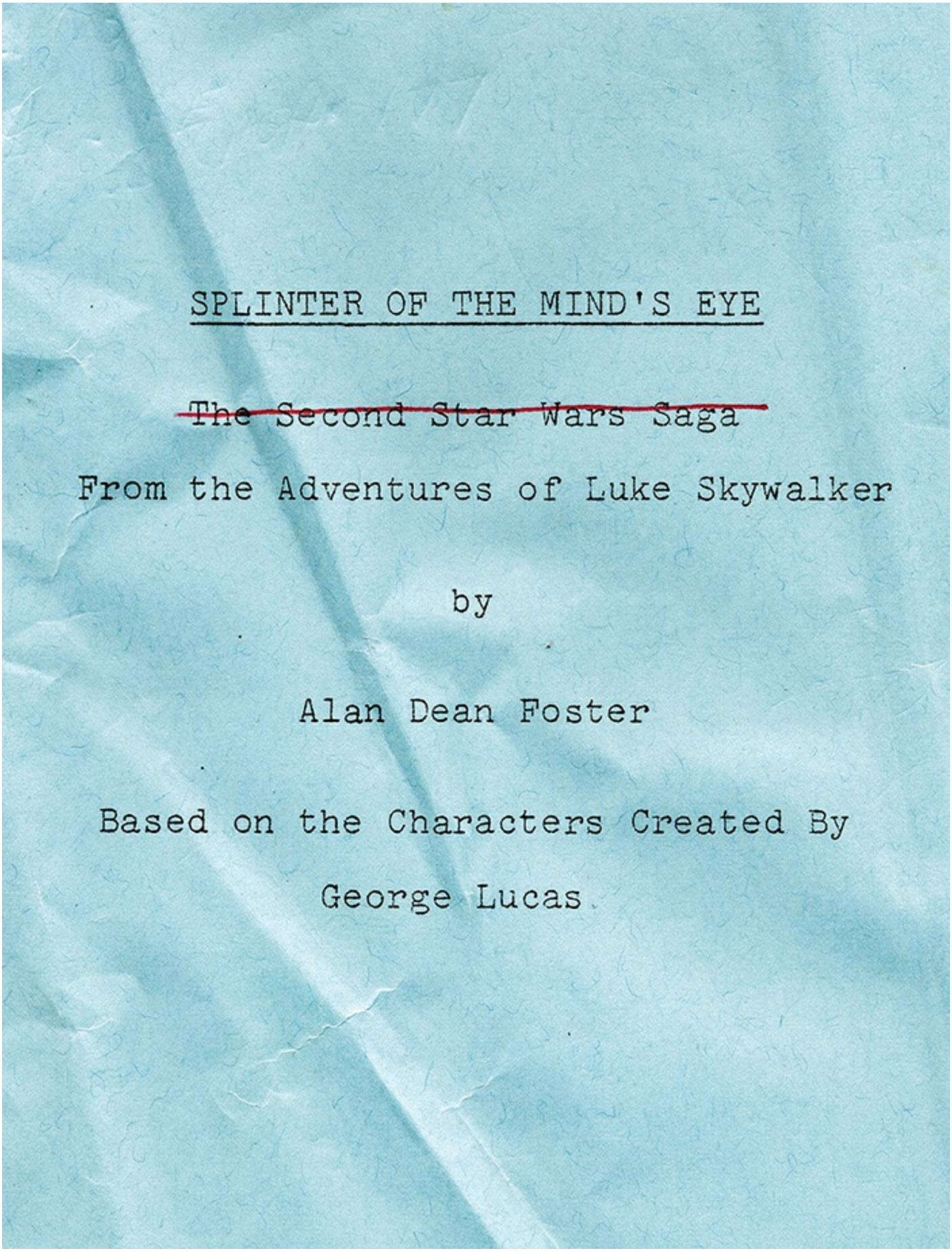
SPLINTER OF THE MIND'S EYE

A new novel by

Alan Dean Foster



Darth Vader took center stage in McQuarrie's cover Illustration for the book, which he worked on for several days: October 31 and November 4, 7, and 14, 1977 (the book would be published in March 1978).



Title page for the July 1977 manuscript of Alan Dean Foster's *Splinter of the Mind's Eye*; Lucas had met with Foster on October 13 and 20, 1976, to discuss the novel's story (which included Yuzzum or *Yuzzem*).

MYSTERY ADS

"One of the first things that George had me do was make up a binder that had all the major theaters in the United States," says Jane Bay. "I think there were about 25 of them and the studio would give us, every Monday morning, the weekend box-office figures. So we would track the grosses for the weekends and it was really a fascinating thing because the movie just kept going up and up and up!"

Strangely, for a film doing so well, *Variety*'s announcement of the sequel appeared in only a small item on October 12, which noted that its start date was January 1979. Then again, Lucasfilm was only a mom-and-pop company and the industry knew very well that sequels rarely if ever did business anything like that of the original.

"I was the chief cook and bottle washer because we didn't have a food service program," says Bay. "We all brought our lunches or we'd go out to lunch, and every Friday we would have a potluck lunch and cook food together in this big Victorian kitchen on an old gas stove."

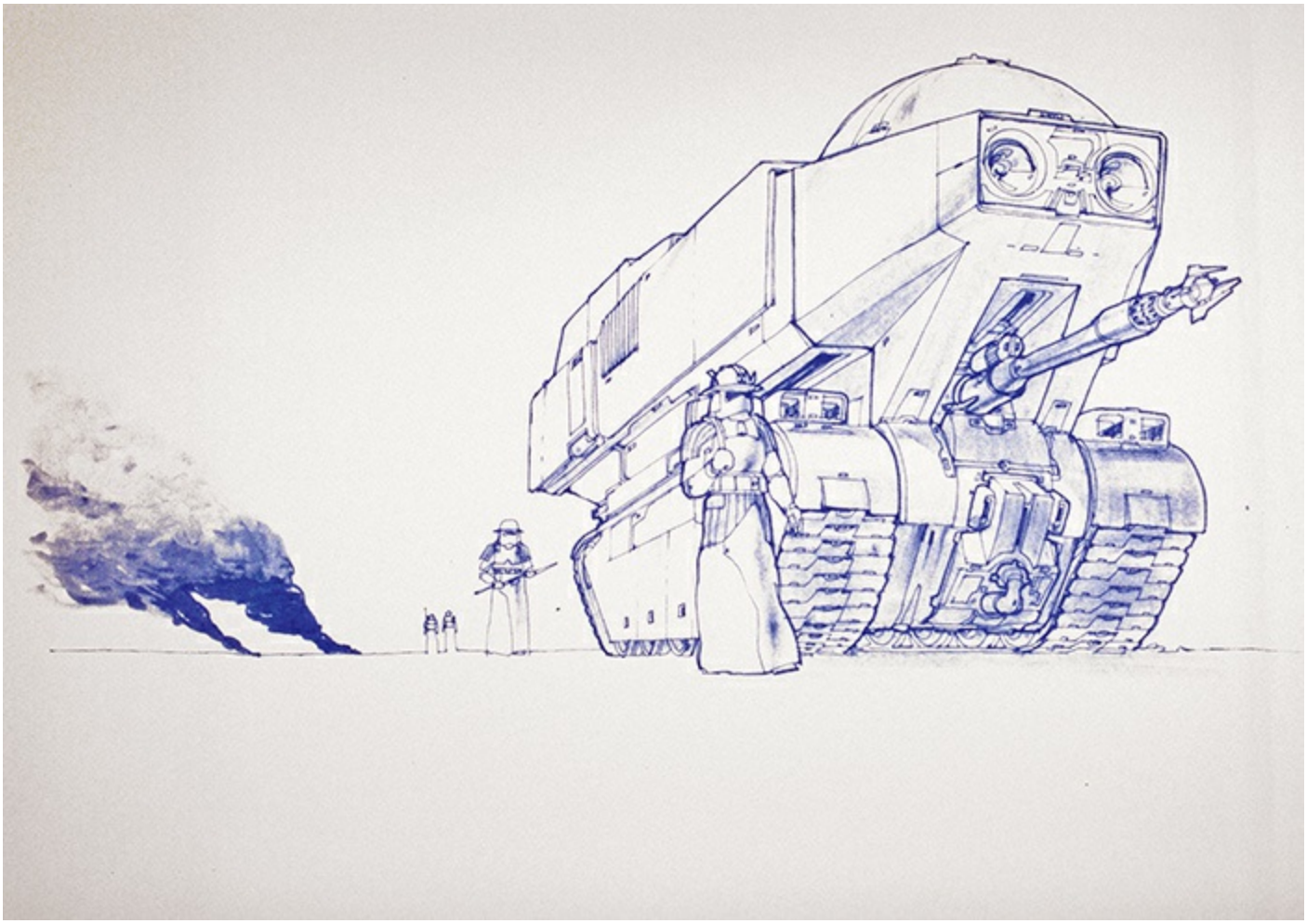
"It was fun. It was like a family," says bookkeeper Lucy Wilson. "We used to always cook lunches together on Fridays and we would all eat together. It felt really nice. Jane and I hired Chrissie England. Jane, Chrissie, and I were called the Park Way Princesses; we were kind of, you know, in the castle up on the hill doing our thing."

"I realized very quickly that I was going to have to have help," says Bay. "So I advertised anonymously in the newspaper for someone to work for a small, independent film company in Marin County. I didn't put an address; I just put a phone number for people to call. So I got a telephone call from a woman who said, 'Well, I don't really have any experience, but I would like to apply for the job. I'm a domestic engineer.' And I said, 'Well, okay. I get that.' When she walked into the office, I asked her, 'Do you know where you are?' And she said, 'Yes I do.' And I said, 'Well, how do you know?' And she said she knew that Lucasfilm was in Marin County, so she had gotten the Marin County phone book and looked under Lucasfilm and found it was the same phone number that was in the ad. I said, 'That's it! If you are that clever, then you've got the job.' "

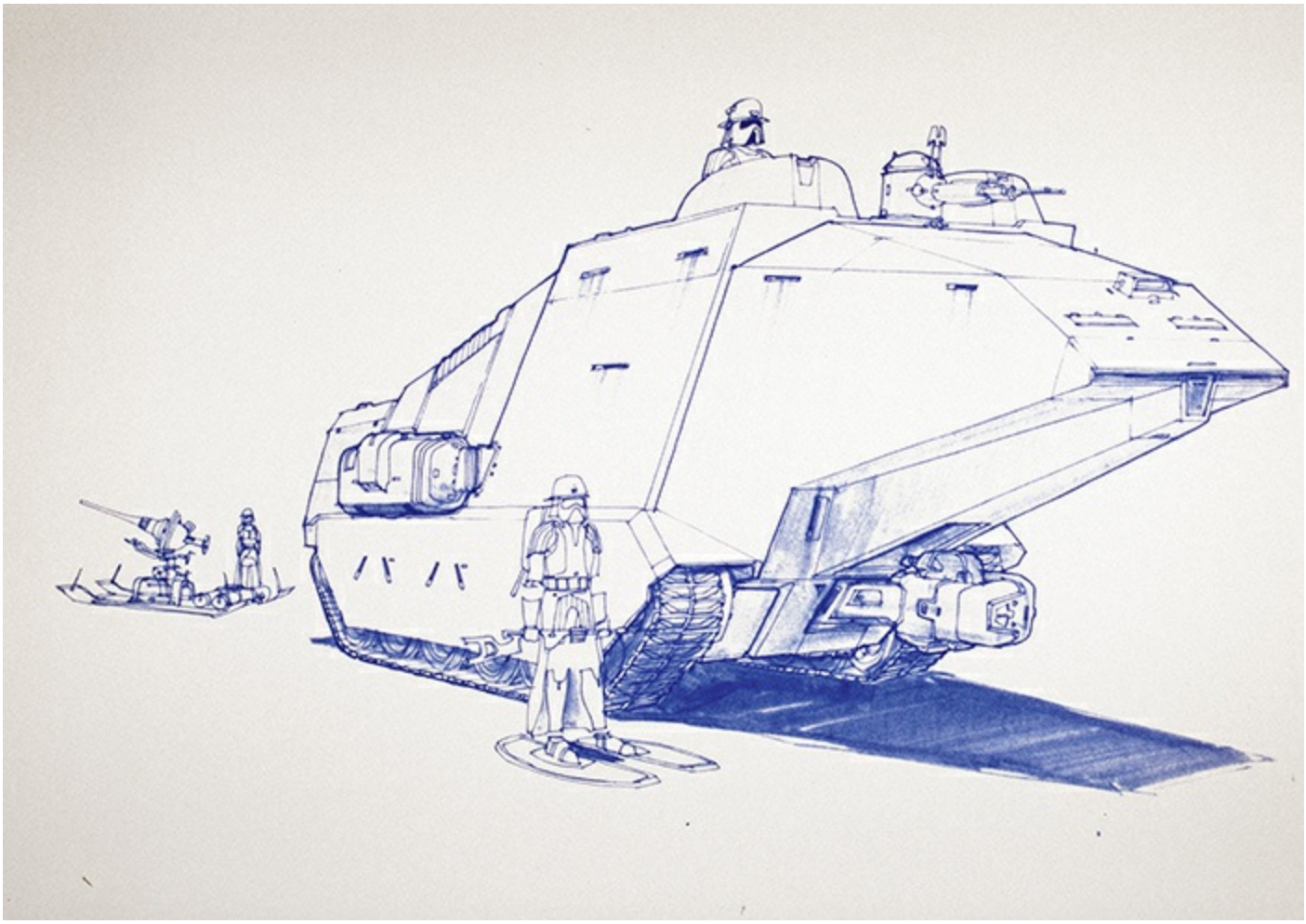
"I started as the receptionist and I think, within six months, I became what they called secretary to George Lucas, which was really Jane's right arm," says Chrissie England (who would later become the president of ILM). "I did all of the cease-and-desist letters and just all the fan letters."



Rebel soldier concept by visual effects art director Joe Johnston, late 1977.



Early tank concept by Johnston (no. 27; Johnston also numbered his drawings), late 1977.



Early tank concept by Johnston (no. 76), late 1977.

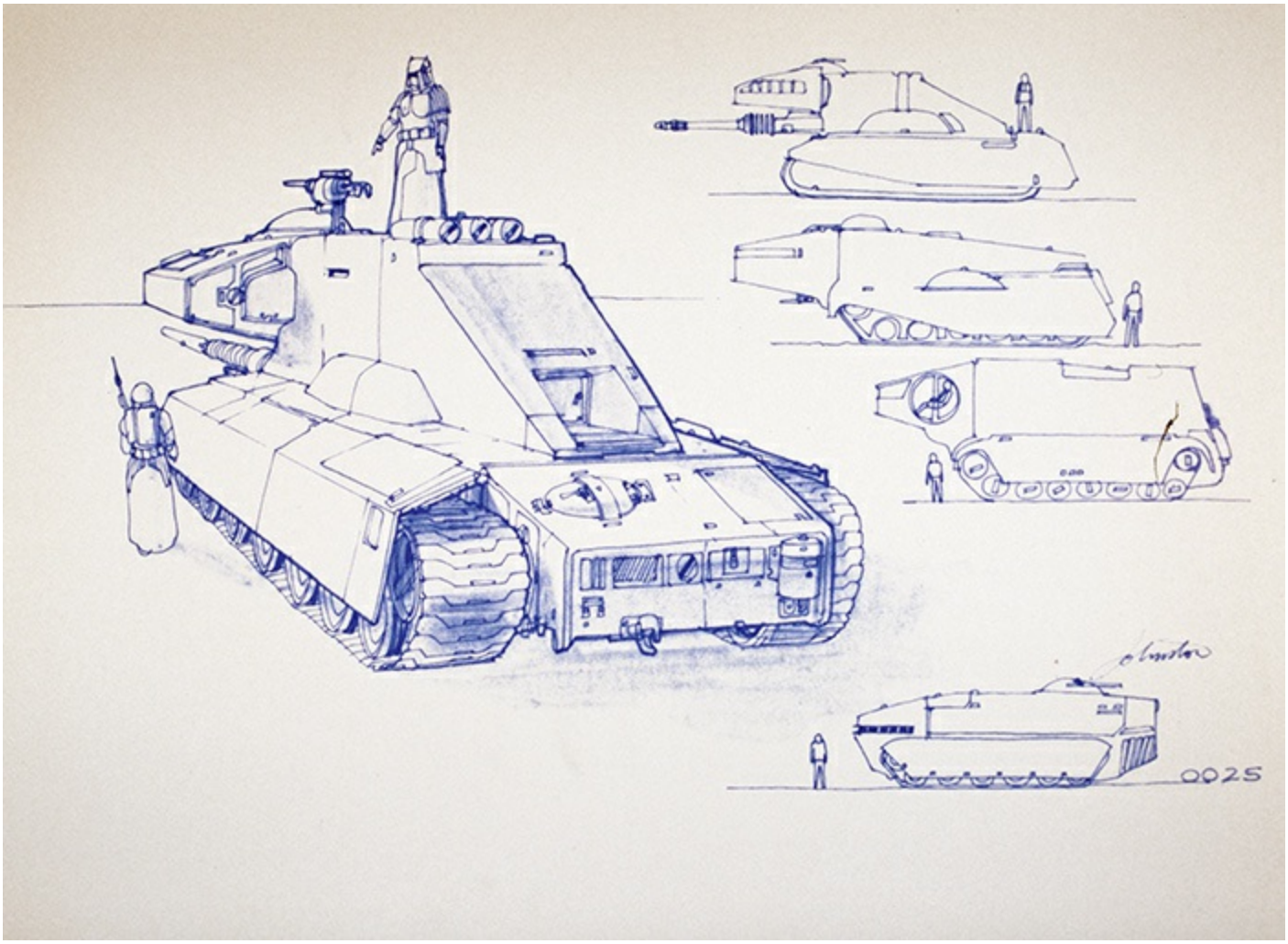
"It was comical when I look back on it," says Doug Ferguson. "I asked George, 'If we're looking for a chief executive officer, do you have any possible candidates?' And he said, 'No. I'm a filmmaker. Those are suits. I don't do suits. You must know how to do that.' And I said, 'There's two ways we could do that. We could get lucky, going through our existing networks.' But George told me he had no network that was going to come up with a CEO. I said, 'We could also go to a search firm.' But George said, 'I don't know much about search firms, but, if you think about it, the likelihood that they'll find somebody that we're looking for is just as remote as the possibility that we would ourselves, so why don't we do it ourselves?' So we did."

"I realized I needed somebody to run the company because it was becoming more than the half dozen people we'd started with," Lucas says. "I felt we needed somebody who was a businessperson because most of the new company was going to be licensing."

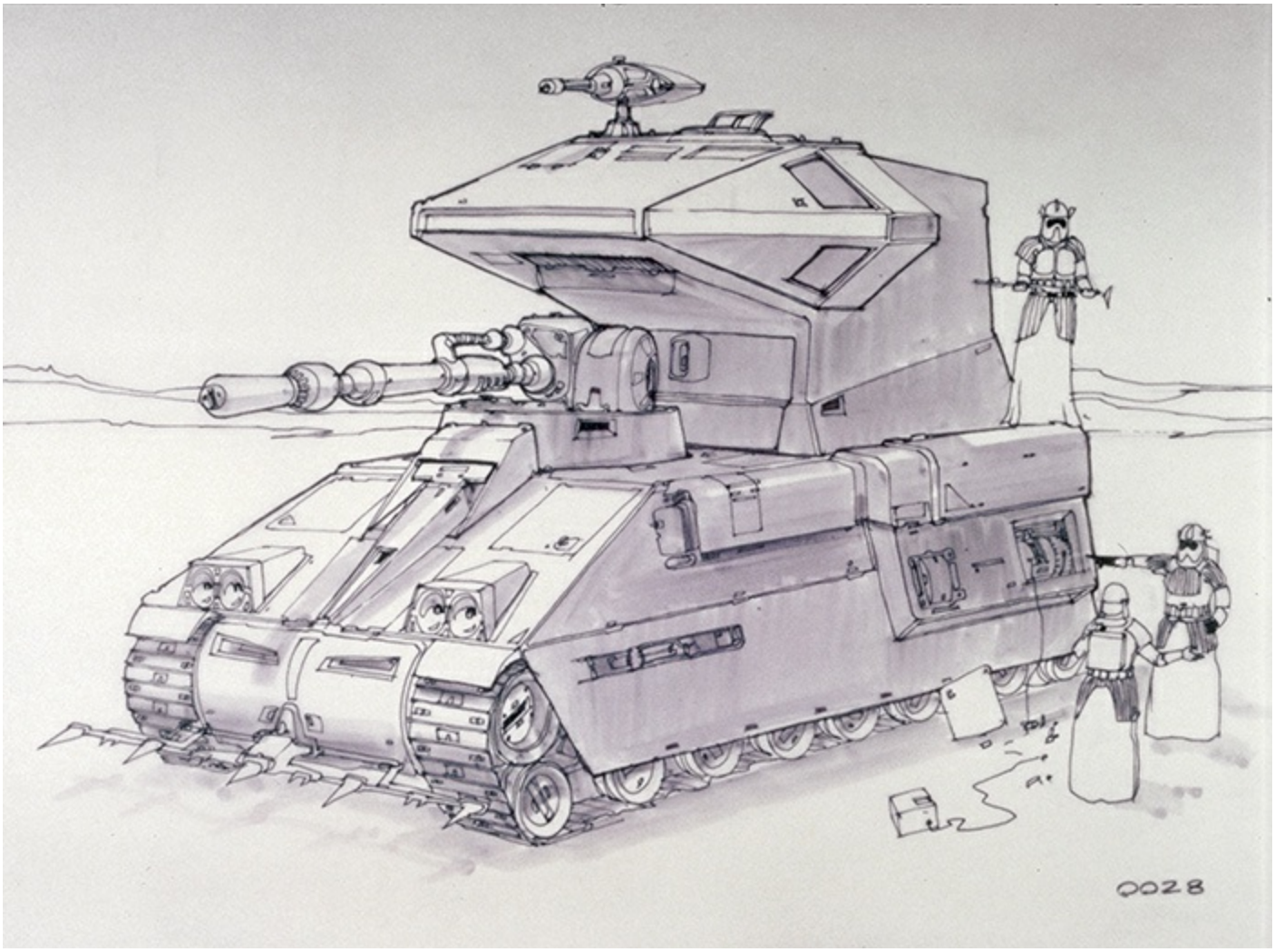
"We put an ad in *The Wall Street Journal* and said we were looking for a CEO for an up-and-coming company with both filmmaking and other related ancillary interests," says Ferguson. "We didn't mention that it was Lucasfilm. So I had a stream of wannabe CEOs coming through my office. And usually somewhere in the course of that meeting, it would come out that I was representing Lucasfilm, which was astounding to these people. They had no clue why this guy in the Cannery in San Francisco was representing Lucasfilm. But out of that process we selected Charlie."

"George wanted to find a businessman from outside the industry to start his company," says Charlie Weber. "One of his lawyers [Richard Hirsch] was asked to look into this, and his kids and my kids were going to school together, so we had kitchen duty together. He wanted to know if I wanted to meet

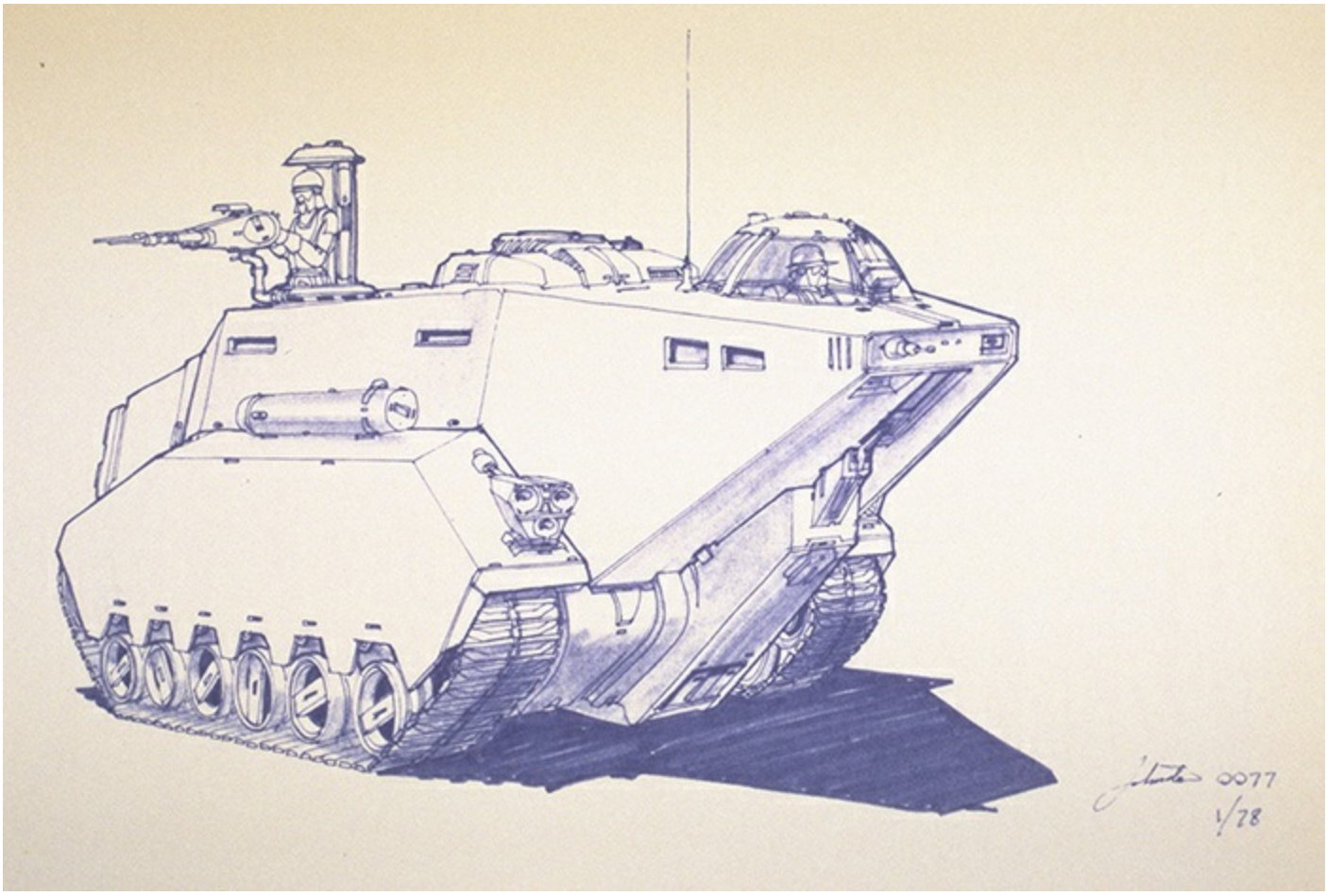
George Lucas. I said, 'Who's George Lucas?' And he said, 'You qualify for being outside the industry.' [laughs] At the time, I didn't really have an interest in getting into the entertainment business; I was in the real estate business [at Sonnenblick-Goldman]. But I met George and we hit it off; we liked each other. At first I said, 'Why don't I just consult for you to see if this is the right place for either one of us?' And that seemed to work out."



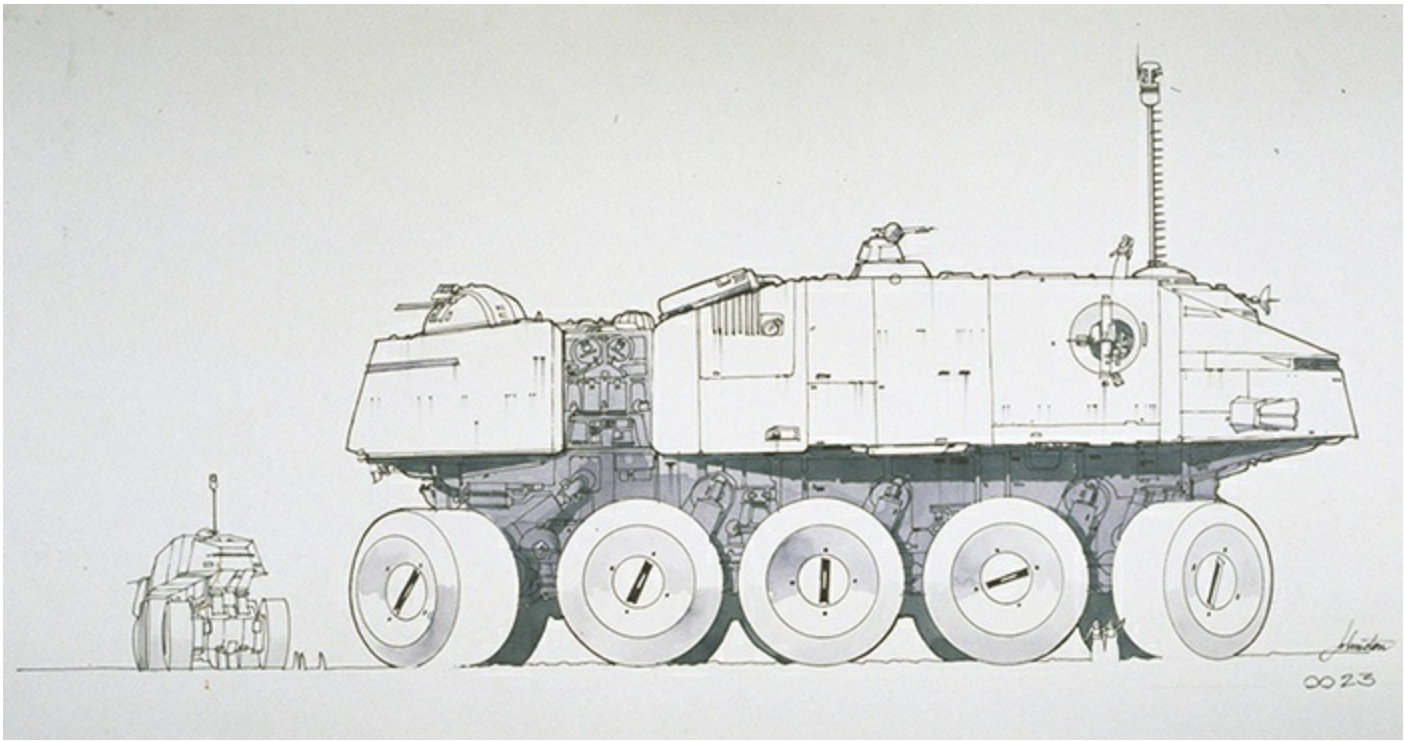
Early tank concept for the snow battle by Joe Johnston (no. 25), late 1977.



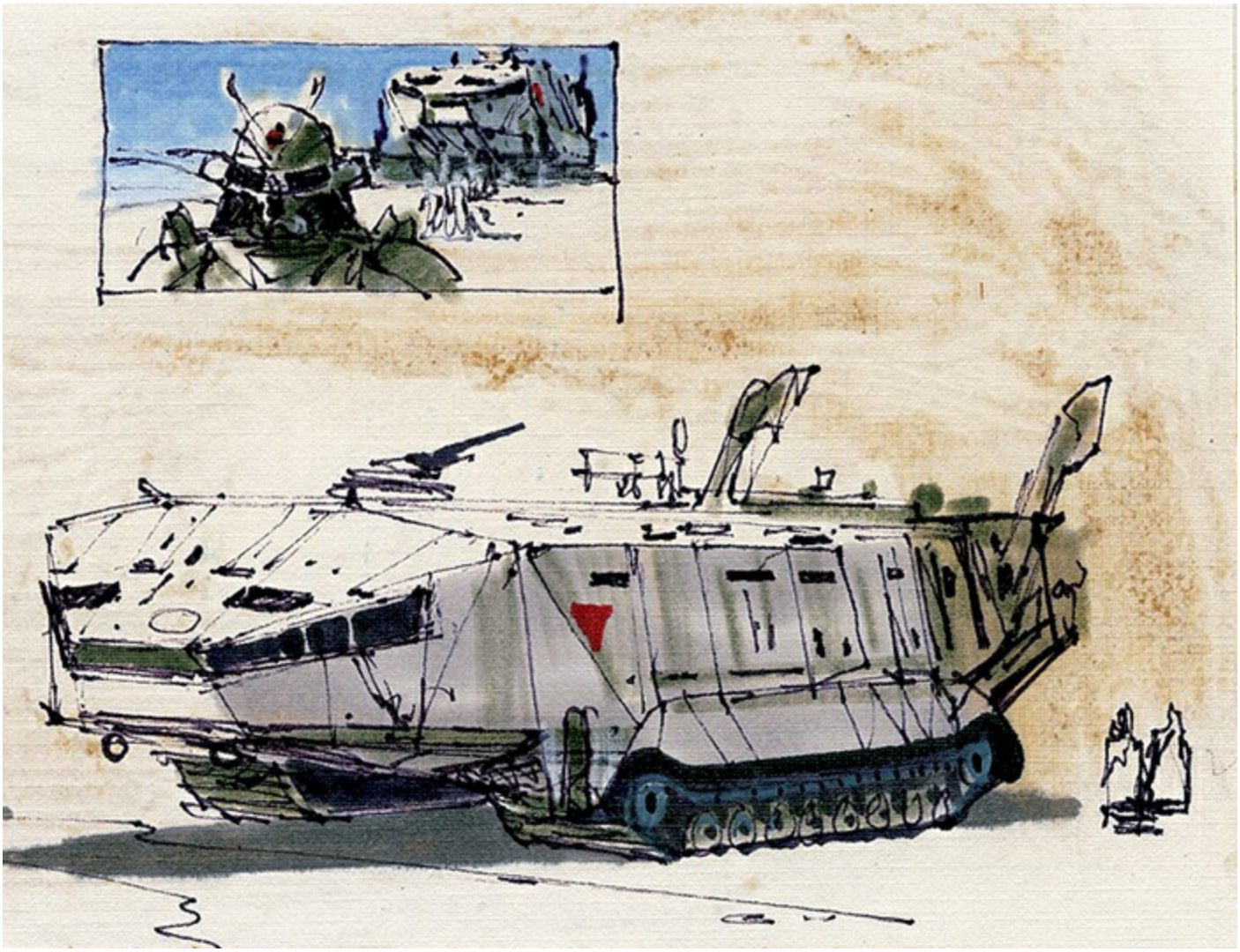
Early tank concept for the snow battle by Joe Johnston (no. 28), late 1977.



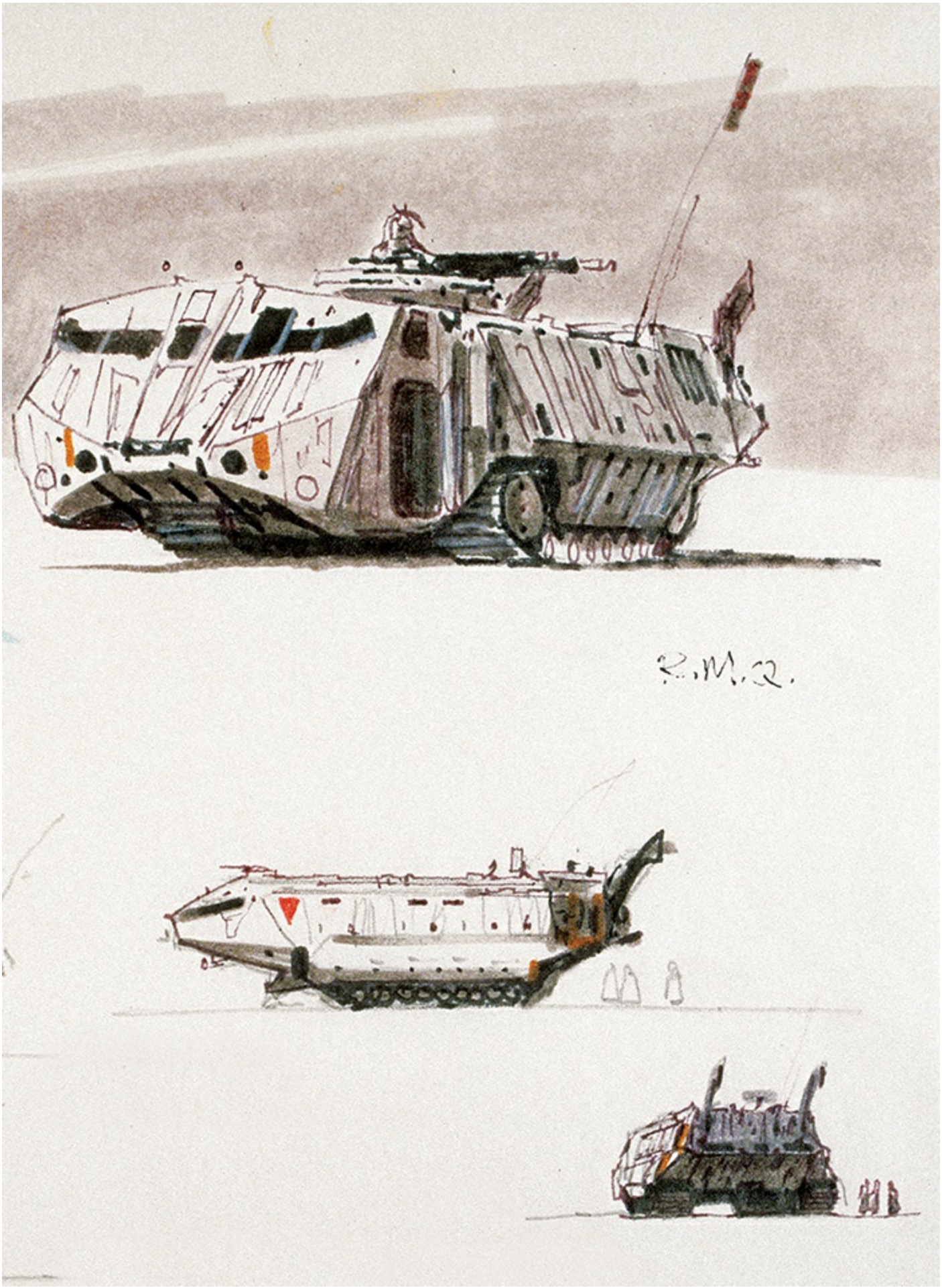
More tank concepts by special effects art director Joe Johnston.



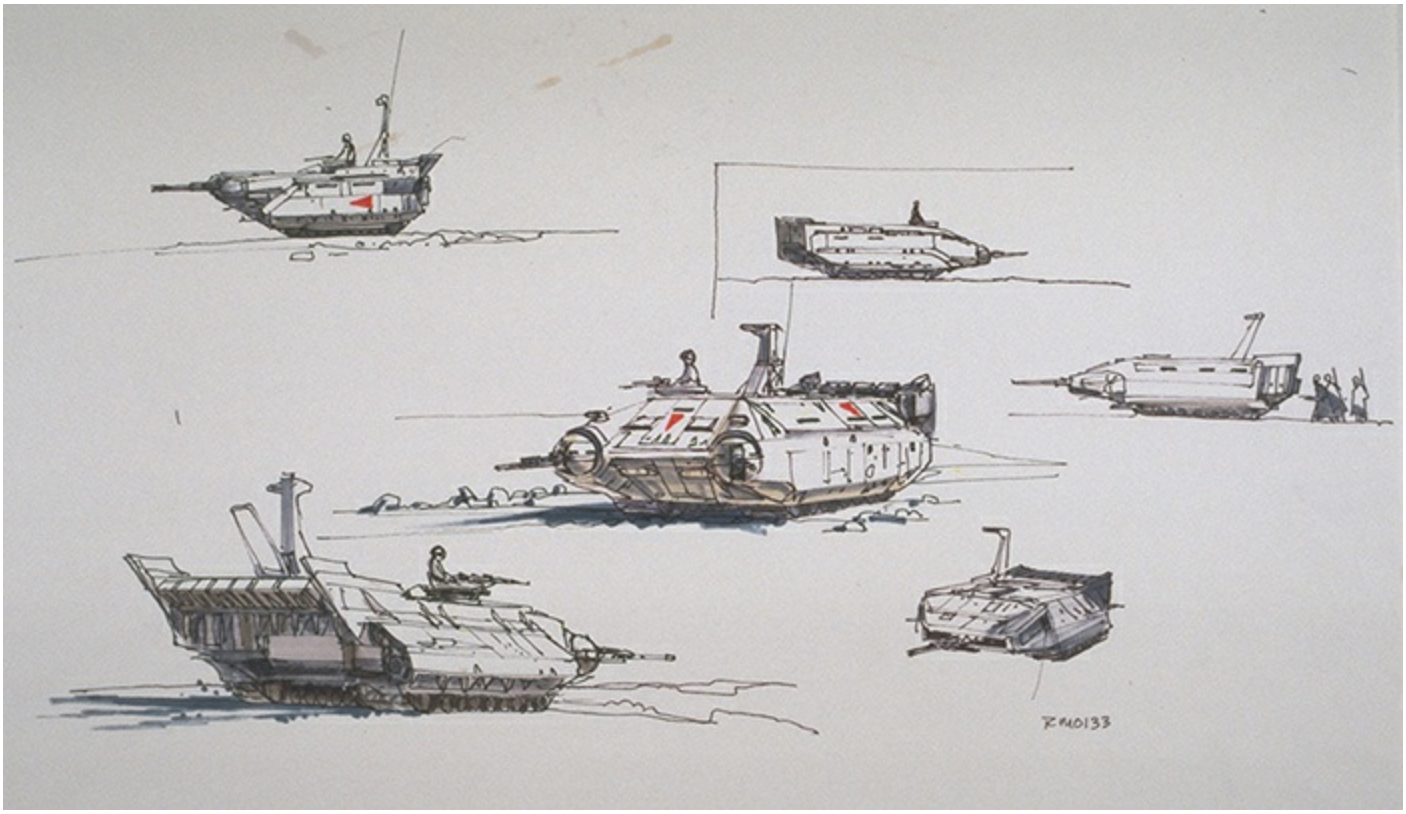
More tank concepts by Johnston.



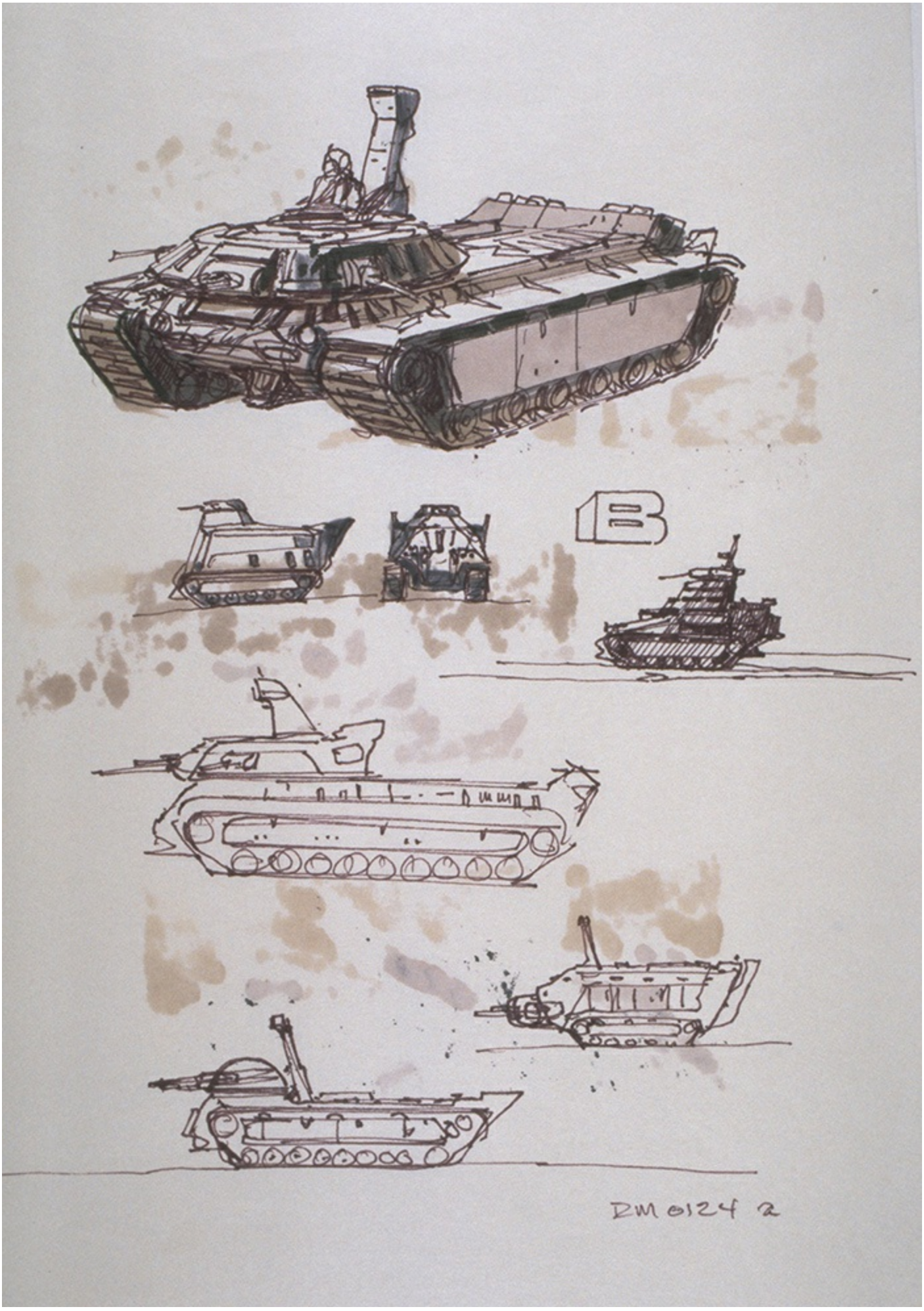
Very early tank concept by McQuarrie (not numbered, with supertrooper), October 1977.



Very early tank concept by McQuarrie (front, rear, and side view, no. 14), October 1977.



More tank concepts by McQuarrie.



More tank concepts by McQuarrie.

"George made an analogy between the real estate business and the film business," says Weber, whose official start date was September 12. "That there are three rules in the real estate business: location, location, location; and three rules in the movie business: script, script, script."

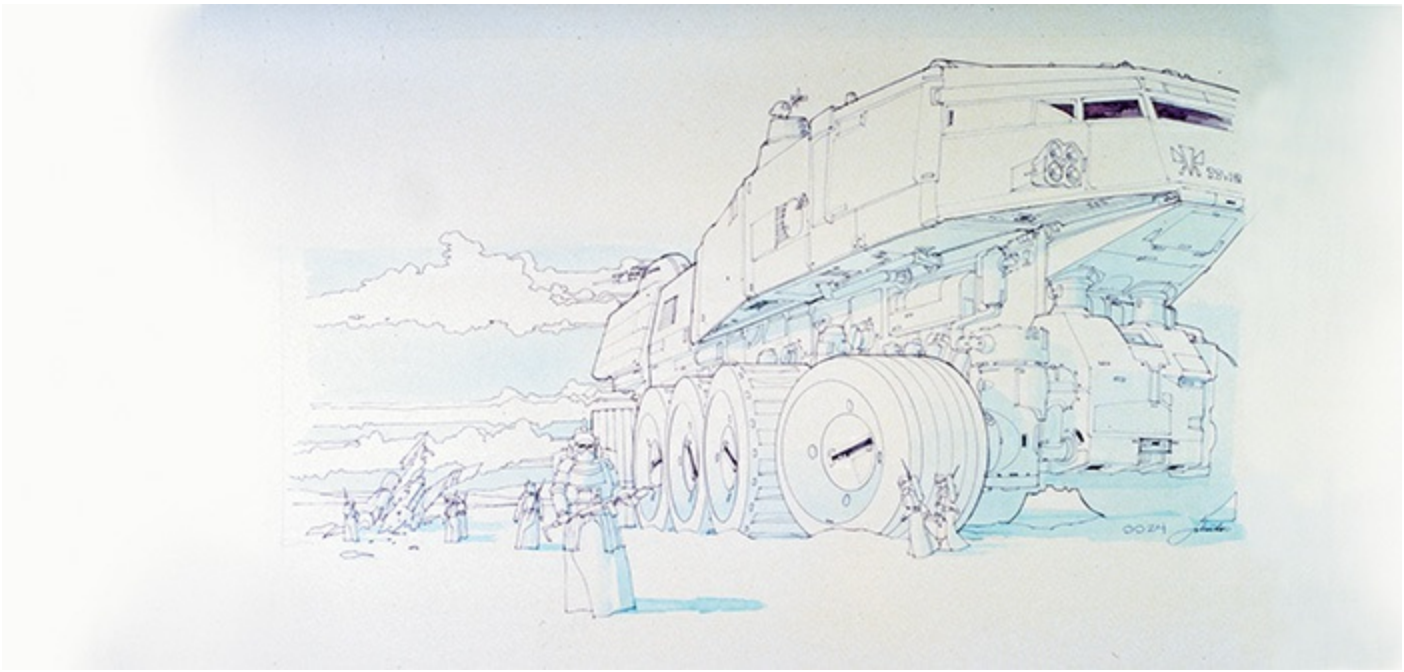
To that end, Lucas began story conferencing for *Chapter II* on November 28, 1977, with veteran science-fiction author and screenwriter Leigh Brackett, who had written films for Robert Altman and Alfred Hitchcock. She had also penned the *Halfling* series and created the character Eric John Stark, publishing more than 200 stories in all, including the novel *The Long Tomorrow*. But she was primarily known to Lucas for her legendary work with director Howard Hawks, for his screen adaptation of Raymond Chandler's *The Big Sleep* (1946, teaming up with William Faulkner), and several of Hawks's John Wayne films: *Rio Bravo* (1959), *Hatari!* (1962), *El Dorado* (1966), and *Rio Lobo* (1970). Her most recent book had appeared in 1976, *The Reavers of Skaith*, and, according to the *Cincinnati Post*, she put aside a novel in progress to work with Lucas.

"I was a big fan of the old John Wayne Westerns and Howard Hawks's movies," says Lucas. "And she knew science fiction and she said, 'Okay, fine.' "

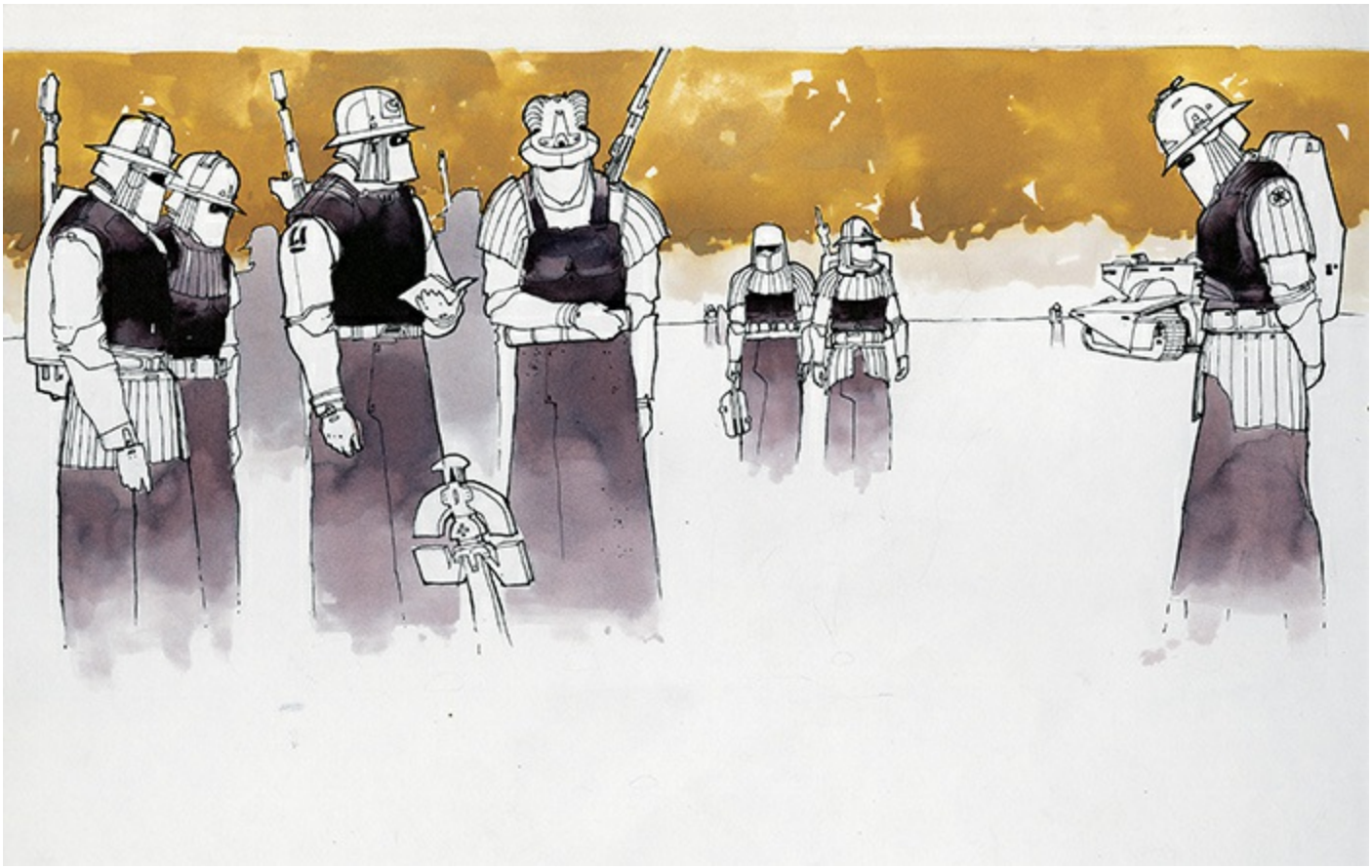
Lucas had written *Star Wars* himself, out of necessity, but he did not enjoy the job, which was laborious given that he had to bring into existence an entire world. Now that he'd established those basics and had the wherewithal to do so, he preferred to collaborate with screenwriters, feeding them ideas and brainstorming. For her work, Brackett would receive a flat fee of $50,000 (the typist would get around $500). As she and Lucas conversed at Park House, certain ideas took shape: a visit to the Wookiee planet, which had been a part of the first film's early scripts; a new alien species; and two new characters—the Emperor and an unnamed gambler (see the sidebar on this page).

"I wanted to bring in someone from Han's past," Lucas says. "Even though the *Star Wars* saga is essentially about Luke's destiny and his past, I wanted to round out Han Solo's character a little bit. The 'gambler' used to hang with Han, but is a different kind of person, more of a rogue and a con artist type than a fast-shooting, fast-talking type like Han."

As usual Lucas brought various influences to the conversations: Frank Herbert's *Dune* is apparent in Lucas's discussion of guilds tinged with religious aspects; Howard Hawks's *The Thing from Another World* (1951), in which a group of scientists at a remote Arctic outpost are attacked by a monster, had an effect on the ice planet scenes, as did the Ice Kingdom of Mongo comic strips from Alex Raymond's *Flash Gordon* series (March 12, 1939, to April 7, 1940).



Early Johnston tank concept (no. 24), late 1977.



Imperial troopers (at a funeral), costume concept by Johnston (no. 45), late 1977.



Snowtrooper costume concept by Johnston, late 1977.

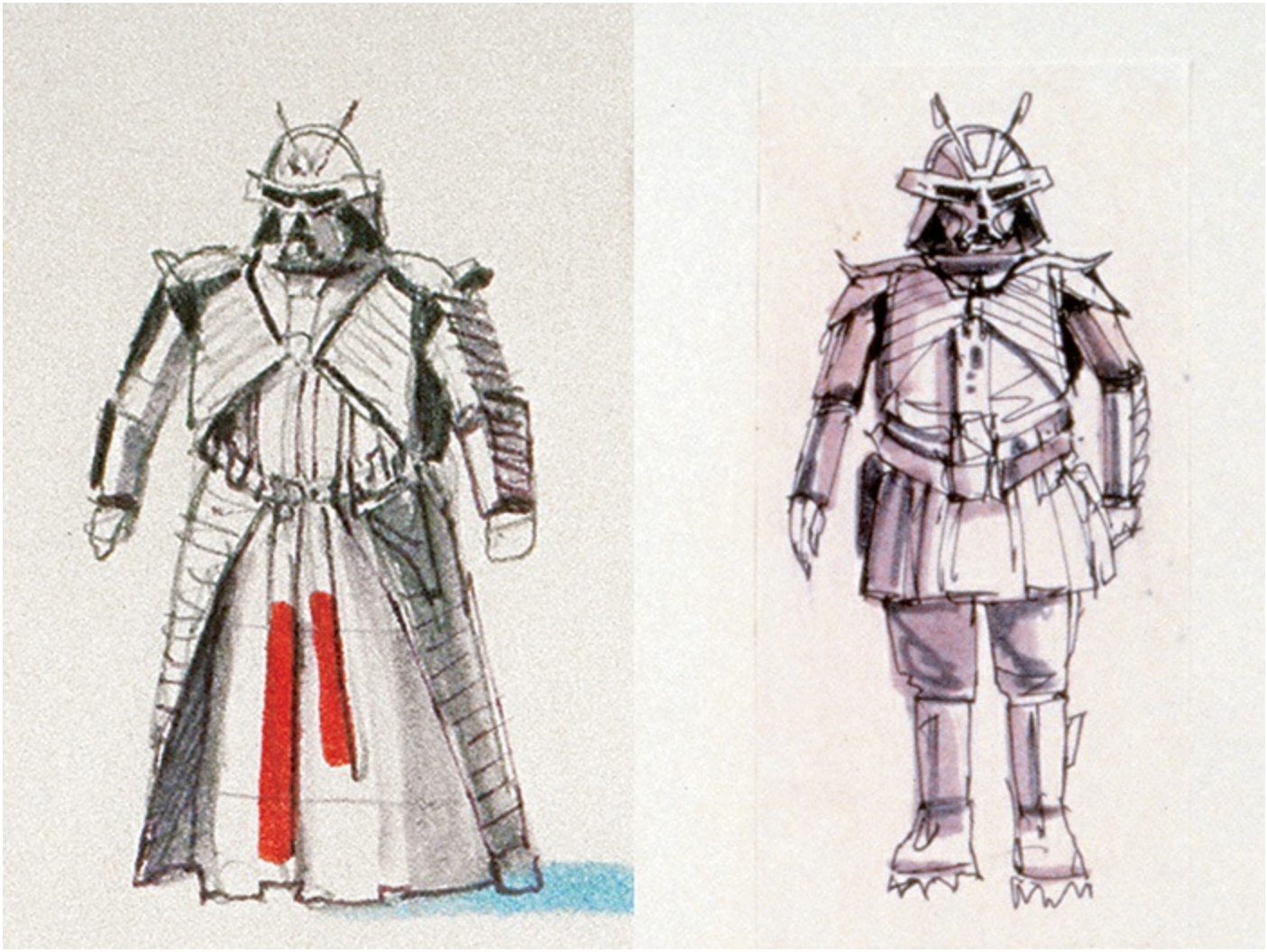

SNIPER

A snowtrooper concept by Joe Johnston.

In the later meetings following the Thanksgiving break, Lucas explained to Brackett in some detail his already numbered scenes. The story conference ended on December 2, and in the resultant treatment, Lucas gave a name to his third new character: "Minch Yoda," a diminutive frog-like creature in the tradition of weird but wise teachers. "Yoda tells a fairy tale to Luke," reads one of Lucas's notes: " 'We are not material. We are luminous beings who are tied together by the Force. The light field does not exist. Energy does flow.' "

"When you are born, you have an energy field around you," Lucas says. "You could call it an aura. An archaic description would be a halo. It is an idea that has gone all the way through history. When you die, your energy field joins all the other energy fields in the universe and, while you're still living, that larger energy field is sympathetic to your own energy field."

A key element that Lucas often revisited during the conference was the identity of Luke's father, which changed as the plot developed and the needs of the story became more obvious. Both the typed transcription and treatment bear Lucas's title for the second chapter in the *Star Wars* saga: *The Empire Strikes Back*.



Imperial trooper concepts (in Japanese style robes), by McQuarrie (nos. 14 and 8), October 1977. "It was a little like something worn in Noh dramas," McQuarrie says (the helmet was part of an early supertrooper concept).

CHAPTER II—THE EMPIRE STRIKES BACK STORY CONFERENCE, NOVEMBER 28 TO DECEMBER 2, 1977—TRANSCRIPT SUMMARY

Note: The transcript runs 51 typed pages. Although Leigh Brackett participated, the transcription records only Lucas's explanations (see below) of his script concepts. Many ideas resurfaced over a period of days, but themes and concept development are here combined.

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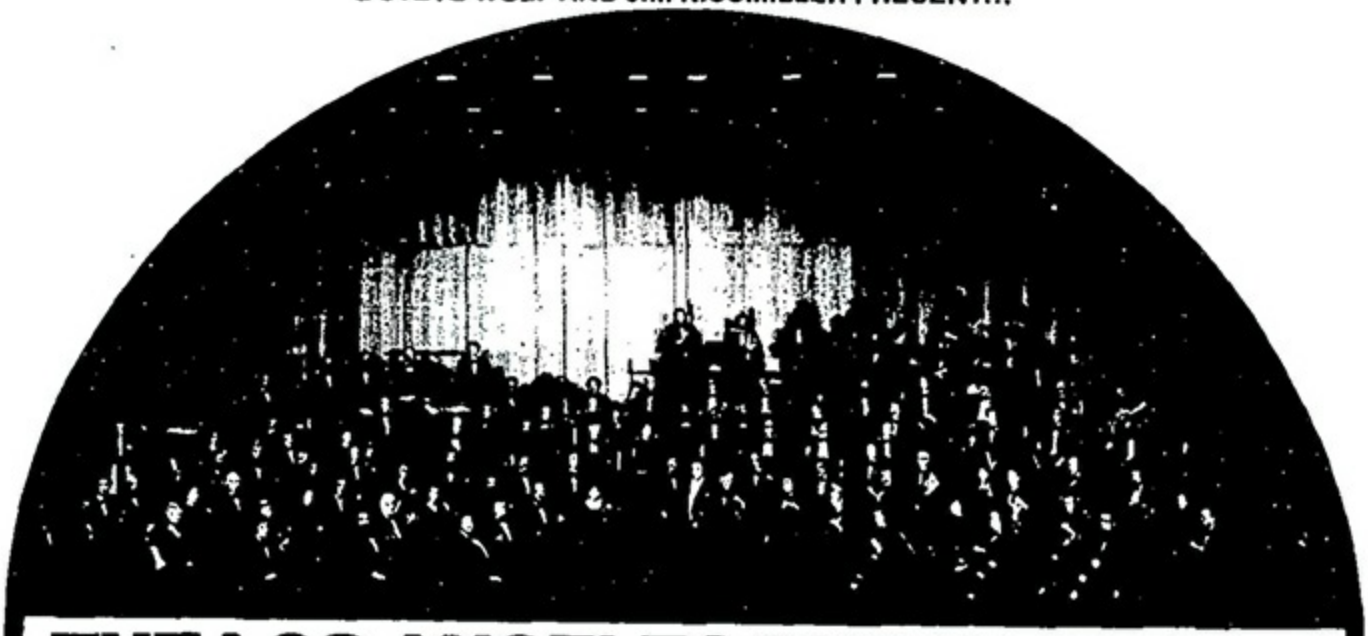

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PRODUCED BY WOLF & RISSMILLER CONCERTS

A newspaper ad for the Hollywood Bowl *Star Wars* concert, conducted by Zubin Mehta on Sunday, November 20, 1977.



News also arrived that month that the *Star Wars* novelization was reprinting at a rate of 100,000 copies per month. "Years from now, *Star Wars* fans may gather together at conventions similar to today's *Star Trek* Trekkies …" reported the *Bell Gardens* in its review of the concert. To that end, McQuarrie had been commissioned the month before by Lucasfilm to paint a special *Star Wars* Fan Club poster, which would be sent out to participating fans in 1978.

PLOT DEVELOPMENT

Lucas: "Going back to *American Graffiti*'s mode of writing, we're going to give each character their own plot, then have a main plot and three sub-plots. Each one gets resolved at the end of each act and it all builds to the finale. You're unwinding all this constantly and it keeps everything moving through the whole story. We'll set up 60 scenes, about two pages per scene. Assuming that each act is 35 minutes, we're aiming for a 110 to 120 minute movie, so a 100 to 105-page script. Short and tight.

"The basic premise is that Luke is drawn into his training due to a problem that develops during the first act. The final act is his revenge on Darth Vader's forces. That's the surface story. But we know that the whole thing from the beginning is a huge trap.

"The film was originally set up as a spooky movie, as a horror kind of film; now the emphasis is on the love story. Luke in the desert sequence was really a horror film sequence, like the *Exorcist* [1973], dealing with the devil. This can be developed into a good conflict—basically Jesus's temptation in the desert scene. It would be interesting, a good idea, if in this one Vader tries to tempt Luke.

"I was thinking of starting at the old base in the first film or skipping over that and starting at a new base. We could start on the Ice Planet, which would be striking. We've never been there before, an underground installation in a giant snow bank. Very hostile, with wind blowing around and the cold. They're saying, 'We've got to get rid of the Emperor,' which we never said in the other film. We must get a sense of what they're fighting for; since the Death Star was destroyed, we can assume that another thousand systems have joined the Rebellion. It's getting much bigger now because of that; that act impressed a lot of other planets and made them much braver. Maybe they're trying to set up a new Senate underground, a government in exile.

"The easiest thing to do would be to have the new base under attack, start the film the same way we did last time. From the first frame, create real tension. Another way would be to bring in some kind of beast; have a shot where they're pulling in the last ship and pan over to this beast; everybody inside is relaxed, but we all know there is some kind of monster lurking. That would make things tense right away. They're trapped in an arctic place and the Thing is roaming around and might attack at any time. Maybe the creature could be fish-like—something that swims in the snow.

"I've always wanted to do a fantasy thing with knights riding around on giant lizards. Might be worth it this time to start out that way with a giant lizard/bird image, a two-legged beast. We could have someone riding one of those across the snow in a storm while searching the area.

"A guy is riding across the dune on a giant snow lizard and one of the beasts might hit him, so he tumbles off or is somehow dragged off. Pan to another guy who calls on his walkie-talkie but can't reach him. The other guy goes back to the base to report that they've checked and there is no other life on this planet. I'd love to start with a helicopter shot going into a close-up of one of these guys riding, galloping along.

"Luke has to get hurt either by the snow people or by the Empire in the beginning, then maybe

Leia nurses him back, which creates the false impression that she loves him. We could make Luke the guy on the dune bird who gets it.

"Darth Vader is only interested in Luke's friends as bait. Maybe we can create a situation where they become friends, with Han and Leia and Vader all sitting down to dinner together—the evil Count having dinner with his enemies. In one scene, the gambler invites them to dinner and they come into the room and there is Vader. They're all sitting there and we could have interesting dialogue between Han and his old friend about why he had to do it—there is a great reward, nothing personal. Maybe Vader explains to them that he has no interest in them.

"The movie ends with Luke and Leia looking up at the stars wondering if they'll ever see Han again …"

HAN SOLO DEVELOPMENT

"Han is coming to grips with accepting responsibility. When he runs away, he's on some kind of mission. Only one man can do this mission. We'll have to set up some kind of reason why Luke can't do it and Han can. It has to be something that is key to setting up the Republic government in exile. Therefore, in the first act, all the attention is on him. The plot as we start out, in scene two or three, will be that we're going to send Han off on this dangerous mission and if he can get through it, there will be a Republic and it will destroy the Empire and everything will be wonderful. That is the most important thing—Han successfully achieving this mission—and we think maybe there's going to be a movie about him.

"Suppose Han has to talk with a leader, a very powerful figure, someone who controls commerce in the galaxy whom Han has some kind of relationship with. It's like Han's stepfather, someone very close to him. He's like a J. P. Morgan. He's a ruthless power in the galaxy. He is either a head merchant or holds a monopoly or something that is extremely important to the Empire. After Luke is dragged off in the first scene, Han comes up to Leia and she says, 'We've made contact with your stepfather. Will you talk to him? Everything depends on our having an alliance with the transport guild or whatever.' The stepfather would be the head of the transportation union, which means that he controls all the pilots, all the navigators, all the shipping throughout the galaxy. He really controls all nonmilitary transport in the galaxy. His people are really devoted to him. Without commerce in the galaxy, it would strangle the Empire and the Emperor knows this.

"He's very powerful. It's a very tightly knit situation, almost a religious kind of thing. People who are in the guild or union are absolutely devoted to it. People get converted or are born again. Nothing is as important as the guild. There is a fanaticism on the part of the members. They are a real political force. They have an alliance with the Empire, but this guy is about the fifth most important guy in the galaxy.

"There is also a whole section about how Han got tied up with Chewie. It has to do with Han being orphaned and landing on the Wookiee planet and being raised by the Wookiees. Han's stepfather is a Hemingway-esque character. His father was a trader and his father's father was a trader, and they honed out this trading post empire and pretty soon it became a giant thing. In his trading, he came across Han and took him under his wing for eight or nine years—until they had a falling out at the end and had a bitter fight over something. Han swore he would never talk to him again.

"We can say what a dangerous trip it will be because it's on the other side of the galaxy. It will take a long time to get there. We might also put in that this guy is in a completely hidden place, not even the Empire can find it, but Han knows where it is.

"They are having all of these problems with monsters and the Empire attacking and all that stuff, and in the middle of all this we have Han leaving.

"If we send Han off, the Wookiee will probably have to go. We could have a Wookiee planet and bring more Wookiees in even if Chewbacca is lost in this one with Han Solo. The sequel novel [*Splinter of the Mind's Eye* by Alan Dean Foster, the follow-up to his novelization of the movie] has Yuzzum, big furry balls with long legs. We may or may not use the Wookiee planet in this one."

Happy Holidays

and may the FORCE be with you throughout the New Year!



MARK HAMILL HARRISON FORD CARRIE FISHER
PETER CUSHING and ALEC GUINNESS

Written and Directed by
GEORGE LUCAS

Produced by
GARY KURTZ

Music by
JOHN WILLIAMS

PANAVISION PRINTS BY DE LUXE TECHNICOLOR

STAR WARS

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A special newspaper ad for *Star Wars*, with greetings from its stars, touted that the film was still playing during the holiday season of 1977.

As of 2008, *Star Wars* had sold over 178 million tickets, according to Box Office Mojo, second only to the 202 million of *Gone with the Wind* (which, in its first few years of distribution, from 1939 to 1941, in more than 8,100 theaters, was seen by approximately 60 million people. By comparison, *The Dark Knight*—the biggest film of 2008—had sold over 71 million tickets by September of that year, ranking it number 29 on the all-time list).

"Everything has mushroomed," Lucas said in January 1978. "Before, I had these modest dreams; now I'm sitting on top of a corporation that is taking up a lot of my time. I've had to hire people and start new hierarchies, new bureacracies, new everything to make the whole thing work."

LOST SISTER DEVELOPMENT

"I also want to develop Luke's sister. The idea is that Luke's father had two children who were twins. He took one of them to an uncle on one side of the universe and one to the other side of the universe, so that they would be safe. If one got killed, the other wouldn't even know that the other one was there. She also becomes a Jedi—she's doing the same thing simultaneously that Luke is doing. Eventually in some episode, not this one, we could cope with Luke and his sister, and how she is the female Jedi and he is the male Jedi.

"Luke gets his awareness of his lost sister through the Jedi training. We can come up with some interesting pieces of background."



Screenwriter Leigh Brackett.

LOVE STORY DEVELOPMENT

"A nice romantic story could be built up around the ice, think of *Doctor Zhivago* [1965], romantic images; snow will be threatening and romantic at the same time. It should be a more fiery relationship than it was before, because now it really means something. Han would state his position, sulks off. It should be very mature in the way it works. It's not until later that we realize that Leia doesn't love Luke. It has got to be a real triangle with real emotions; at the same time, it has to end up with good will. Luke has gone off to learn the Force and the ongoing story continues with Leia and Han. The Empire continues to chase them. We keep them in a constant danger situation.

"This is where Leia and Han meet up with the third guy, the gambler. Could have Han and Leia go to a Wookiee planet. We could have this new character, the gambler, run a general store on the Wookiee planet, a guy who trades with the Indians sort of thing.

"We have to work with Han to make him roguish. A way to visualize it is to see Han as Rhett Butler, Leia is Scarlett, and Luke is Ashley. This would change the beginning when Luke is sick and Han comes on to her; she rejects Han, though she is excited by him. We can do the old-fashioned traditional things that work so well. Trouble is, in order for that to work, you really have to believe in the people. We have set up such a fairy tale, we have to figure out if we have an environment where you can pull off something like that. A lot of people who see the film don't really believe it anyway, they sort of go along with the fun of it.

"Somewhere along the line, we'll place the Errol Flynn kiss that knocks her off her feet. In scene 31, space, we have the continuation of the love affair; a scene between Chewbacca and Threepio with Han and Leia in the background being lovey-dovey. Chewbacca and Threepio carrying on a conversation, since Threepio can more or less understand Chewbacca. Maybe they are playing a game and are commenting on the mushy thing that is going on between Han and Leia; they're like kids who don't like what the adults are doing. Chewbacca is out of sorts about the whole thing, jealous; Threepio thinks the whole emotional thing is silly. He doesn't know what Master Luke is going to think about this whole thing."

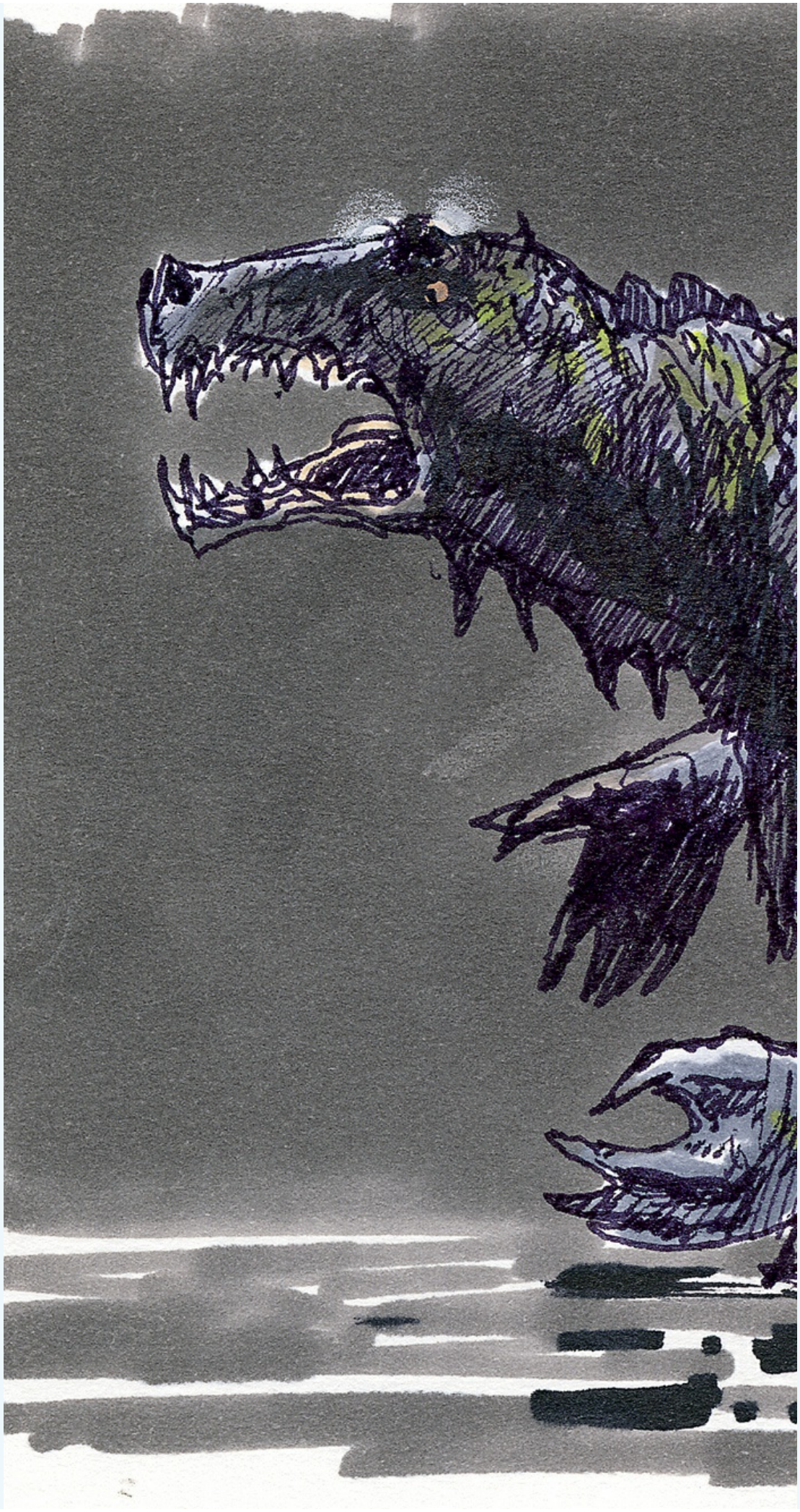
OBI-WAN ("BEN") KENOBI DEVELOPMENT

"I may bring back Ben eventually; I'll have to bring back his voice. May also bring back the ghost of Ben, not the person of Ben. Luke is learning the Force through a combination of things, rituals. Some of the Force came from Carlos Castaneda's book *Tales of Power* [1974]. The idea that you can see things in another dimension would work great, that Ben is now part of the Force and he can be there with Luke. As Luke goes through this experience, he begins to see Ben in this other dimension. He can begin to see his ancestors in this other dimension with the Force, which would mean we could then bring them back in a different kind of way.

"Ben will explain to Luke that he will gather all these powers, but he can't use them for evil or he will succumb to the dark side of the Force. If you use it for evil, it will start using you. It is a force for good, but the more you become addicted to it, the more it controls you and the side that controls you is the bad side. The side that you can control is the good side. The good side is a passive side and the bad side is an aggressive side. Two sides to the Force: One is aggressive, one is passive in relationship to things." (In one of his notes, Lucas wrote, "The mood of a warrior calls at once for control and abandon; the Force commands you and obeys you—unity of opposites.")

"If you use it well, you can see the future and the past. You can read minds and you can levitate and use that whole netherworld of psychic energy."





Two early concept studies from the same sheet for "swamp monsters" by McQuarrie (no. 15), November 1977.

TEACHER OF THE FORCE DEVELOPMENT

"I also want to use another teacher. The original idea was to have that person be an alien, strange and bizarre, an old Indian in the desert type, a desert rat—which is what Ben started out as. (I decided to keep him very noble after casting Alec Guinness.) I'm intrigued with the idea of not taking something on surface value. Instead of a withered old man, we can use a withered old space creature. The way to think of it is as this crazy little nitwit that scurries around like a rat, which in the end teaches Luke a lot of stuff about the Force.

"It's not until the end of the third act that you realize that this guy is not a crazy little thing, but an agent of the Force—a teacher, like Ben was. Maybe he is the one who trained Ben. They don't even know about this guy; or maybe they had heard of him, but he was a legend; nobody really knew who or where he was.

"He's constantly making fun of Luke. It's the crotchety old-man syndrome combined with the crazy-funny person syndrome, where he says the simplest things and the simplest truths almost like a child. He could be very childlike even though he's an old man.

"We'll try to make the lessons into proverbs or Commandments, so that at the end Luke has learned all these commandments as a way to the Force. The first one will relate to getting food. The second one will relate to bringing the ship up. In scene 28, Lesson Three, the Critter either uses Luke's laser sword or somehow reveals that he is this super warrior. There may be some kind of attack, maybe the Critter kills a monster. The Creature will get serious about the whole thing. He will still be strange and slightly crazy. The Creature says, 'It would have been easier if we had started when you were much younger, which is the way it was with Ben. It will be a lot harder for you to learn because you've waited so long.'

"We need a name for the Critter. Let's make him small, so he's about 28 inches high. Maybe he's slightly froglike. Slick skin, wide mouth, no nose, bulbous eyes that move around. He squats. We could possibly have Jim Henson of the Muppets work with us. He's interested and could probably help with this. It should be like Kermit the Frog, but an alien, with very thin puppet arms and little thin hands. Maybe a bulbous body with short legs, but very large, floppy webbed feet, almost like swim fins. It would have the personality of a Muppet, only it would be realistic enough to be believable."



Early, undated alien concept study by McQuarrie.

LUKE SKYWALKER DEVELOPMENT

"I want to perfect Luke as a fighter. When you learn the Force, you learn all the paranormal-psychic powers, plus various other mystical things. It is a constant struggle so that every time we see Luke he is always proving himself, getting better in the Japanese tradition of really becoming perfect at what you do. In this film, we are going to throw him into this devotion of becoming the perfect Jedi Knight. The second act of the film will be Luke's training, which will be intercut with Leia and Han.

"We will begin to deal with the roots of the dark side of this Force in this film, which will also have to do with Luke's training. It makes his training dangerous. The danger is that he will become Vader. We know now that Vader is out to get Luke.

"We need to do something to humiliate Luke; we have to take Luke apart in the beginning. Part of it could be tied in with the love story where he loses the girl and feels very inadequate. We need to

take him to his lowest point ever, so that he really comes back super.

"The appropriate way for Luke to go off to become a Jedi Knight would be for him to be called. He has a feeling he has to go someplace. It can't be an accident. Luke might receive some message from Obi-Wan, some kind of code that he figures out is a signal beacon. He's constantly trying to figure it out, so there is a little mystery going on.

"It could be something that Ben left him. It could be something that he hasn't even thought about and he just finds it in his pocket one day. It could be in his sword handle. Whatever it is should be connected with the sword because we saw Ben give Luke the sword. He's practicing with the sword and he actually bumps something the wrong way and something crystal, clear with lots of shattered glass in it, would pop out of the handle. It would be like a hologram. It would be an infinite amount of information in a storage memory system, a holographic storage system. He doesn't know how to decipher it, so he shows it to Artoo, who would say, 'It is a crystalline holographic memory system containing three million two hundred fifty-four bits of information. Most of it is in a configuration that is incomprehensible to me although some of it appears to be coordinates for various star systems.'

"When Luke first displays his talent as a Jedi warrior, we can really do a big number where he's in a physically trapped situation, with stormtroopers. Luke polishes off 137 stormtroopers. Vader comes in and they have a giant duel as all the doors close and lock, and Luke is trapped with Vader. The fight is psychic because, at the same time, Vader is trying to convince Luke to come over to his side of the Force."

PLANETS

"A Water Planet—Would give us a chance to do an underwater city.

"Bog Planet—We used it in the [Foster] book and was one of the original ideas [in the earliest *Star Wars* scripts]. It could be the place where Luke learns. The Bog planet is very swampy, very eerie and misty, like *Hound of the Baskervilles*.

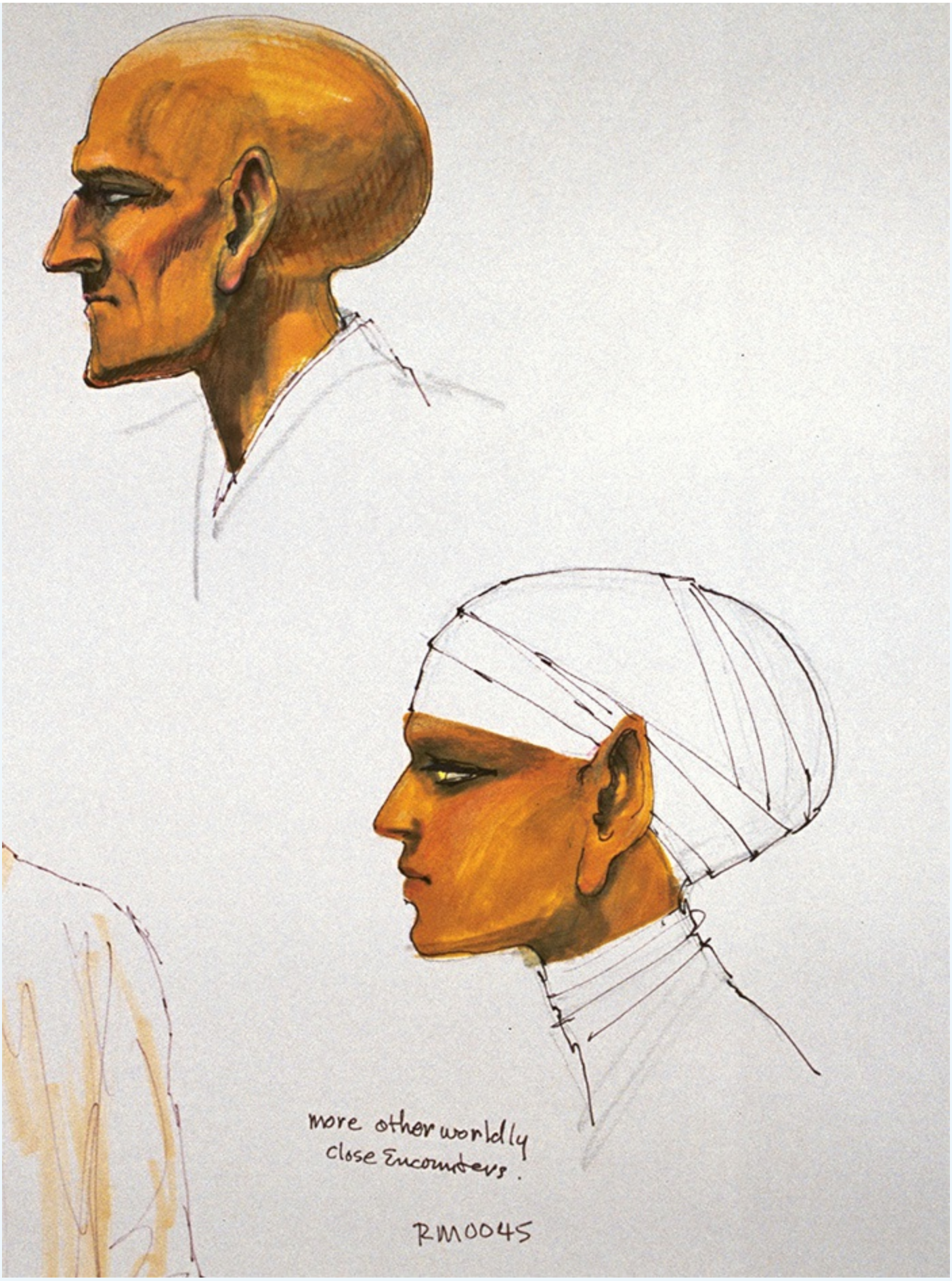
"City Planet—A giant Death Star kind of place, a completely built-over planet, nothing left but this giant city. I'm thinking of using some place like this for the center of the Empire. Sooner or later, the Empire will have to be shown, but I probably won't have to in this Trilogy or this film."

NEW ALIENS

"The aliens in the city should be semi-stoic creatures. Think of them as tall, thin, white ethereal aliens. Stoic Indians, only milk white; a very noble creature, but threatening. They carry a spear or pneumatic dart gun, a long tube, or a long pole with a beam that comes out of it. Luke outwits them or he does something to win over the leader. And then you realize the chief is very wise and very fair and very honest, so that when he gets killed it's an outrage."



Concept studies for “Noble Aliens” by McQuarrie (no. 48 and 46), December 1977.



Concept studies for "Noble Aliens" by McQuarrie (no. 45, which contains the artist's note, "More otherwordly—*Close Encounters*"), December 1977.

DARTH VADER DEVELOPMENT

"Where do we pick up the story with Vader? Obviously there are troops in the attack on the Rebel base. Is Vader in on that attack, leading the troops, or do we see him isolated, alone? Being alone might not be a good idea. We need to get a sense that he's back with civilization, that they found him. You get a sense that everything is the way it was.

"After the snow planet attack and everybody escapes, that's when he might go into isolation. Maybe this is a good time to talk about the Emperor as this terrible force. Vader is really afraid of the Emperor. That's the only thing Vader is afraid of. The best way to set up a super-villain is to take the biggest villain you've got and make him afraid of the super-villain. The Emperor is even more powerful than Vader. He's the classic devil character, a hooded, dark figure—you can't even see who he is.

"Vader started getting fascinated with the dark side of the Force and was lured into it. He didn't tell anybody, as he became an evil person. The evil Force was starting to take over the galaxy—it was in control of the Emperor. He began to get more power and the Senate was getting less powerful. No one knew that he had been seduced, but he went around killing all these Jedi in secret. He killed a bunch of them and trapped others in a situation where they were all destroyed; only a few escaped. One of them was Ben.

"Vader is completely consumed by the evil side of the Force. He is an instrument of the Force rather than having his own free will in terms of what he does. He really is driven by the Force. When we kill him off in the next one, we'll reveal what he really is. He wants to be human—he's still fighting in his own way the dark side of the Force. He doesn't want to be a bad man, but he is. He can't resist it. He's struggling somehow to get out of what he is, struggling with his humanity.

"Darth Vader's prime purpose is to get Luke. We've got a personal agenda between him and Luke. He doesn't really care about anybody else. He's trying to smash the Rebels, but that's secondary. In the middle section, he can't find Luke. He's searching for Luke. In the process of looking for Luke, he might find Leia and Han or he might use Leia and Han to find Luke.

"We have to give Vader another environment, either another Death Star–type Imperial City or some kind of cave. Might be nice to give Vader a little castle on a rock in the middle of the ocean. One way to see him would be in a tall, dark tower, very narrow in a lava flow, dark, red, and burning, almost like hell. He'd be up in the tower with his gremlin, goblin type gargoyles surrounding him. His pets. Vader walks down the hall—these long, narrow, steel corridors, very gray—and he goes into a gray room. It's all steel and there at the end of the room on a throne is a gray, macabre, cold steel box and it's the Emperor. The Emperor tells Vader to get Luke—he is the last of the Jedi and must be stopped. Vader is saying he's not a Jedi yet. Vader could talk to the Emperor with a viewscreen à la Flash Gordon."

VADER-VERSUS-LUKE DEVELOPMENT

"I'd like the end conflict to be a moral conflict, in addition to a physical one. It should have Vader using a moral law that we learned earlier, but Vader turns it around. It has to be a mystical thing. Something you can look at from two sides. In the end, Vader is trying to undo everything Luke just learned. The real drama is whether Luke will become Darth Vader or not. We have tested him and

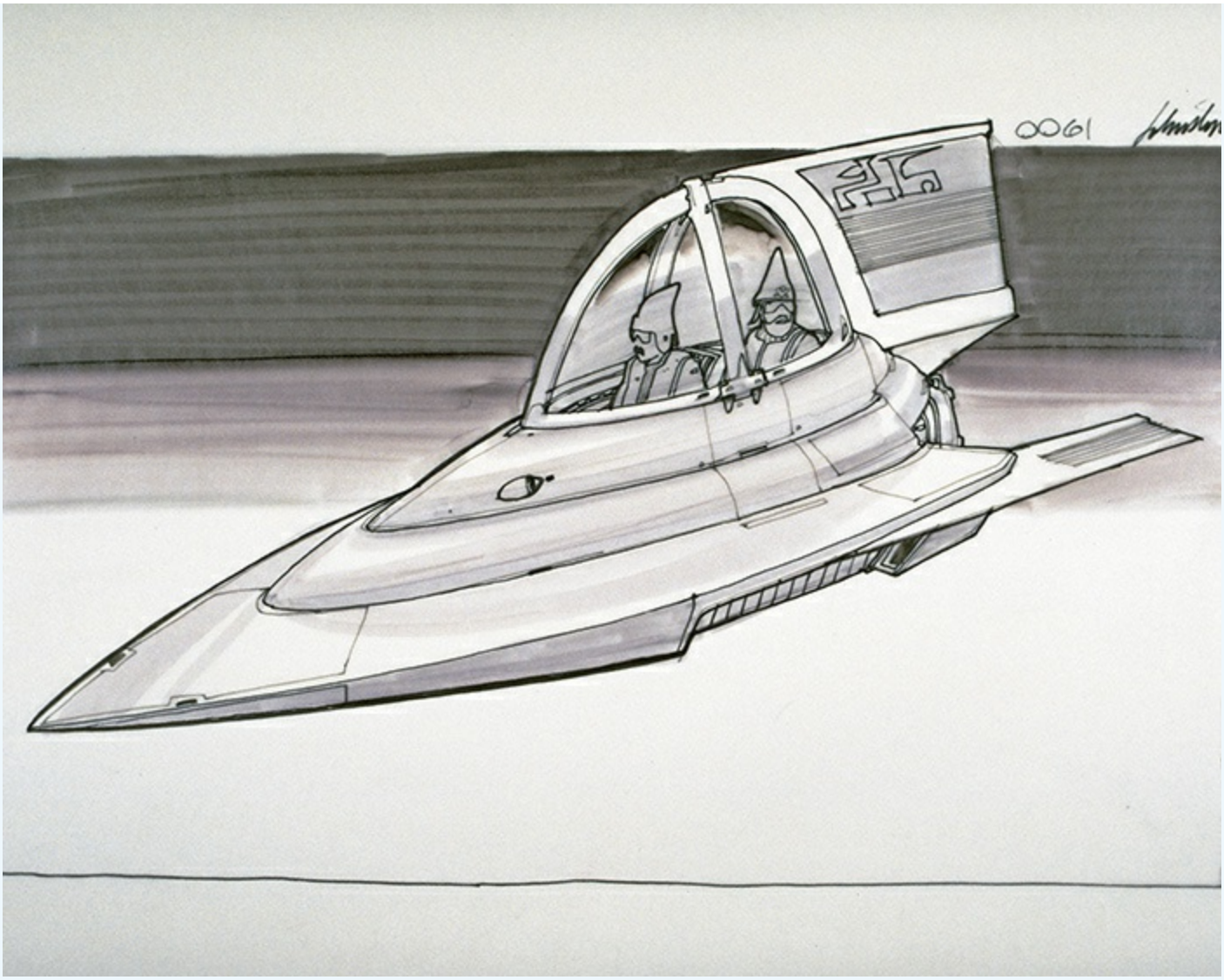
we know he is weak. He really had to struggle to stay good. He has the same potentiality that Darth Vader had.

"Earlier, Luke talks to Ben; when he brings him up as a ghost, we portend what is going to happen. Ben says, 'Vader has more power than you can imagine. When he and I met, we fought on such a level that there didn't appear to be much of a battle; it appeared to be a swordfight, but it was a battle of our wills that was really going on in the beyond.' I'd like to make it into a battle (which we did in the Alan Dean Foster book, which is what I wanted to do in the first one with Ben and Vader) with lightning or electrical bolts, and throwing things around the room; an *Exorcist* kind of battle where you can bring all kinds of supernatural powers to bear. We'll have Ben say, 'Vader couldn't use his supernatural powers against me, because I was too strong; he had to rely on brute force, which wasn't of any value, because I was too advanced for that, so everything he did to me was useless.'

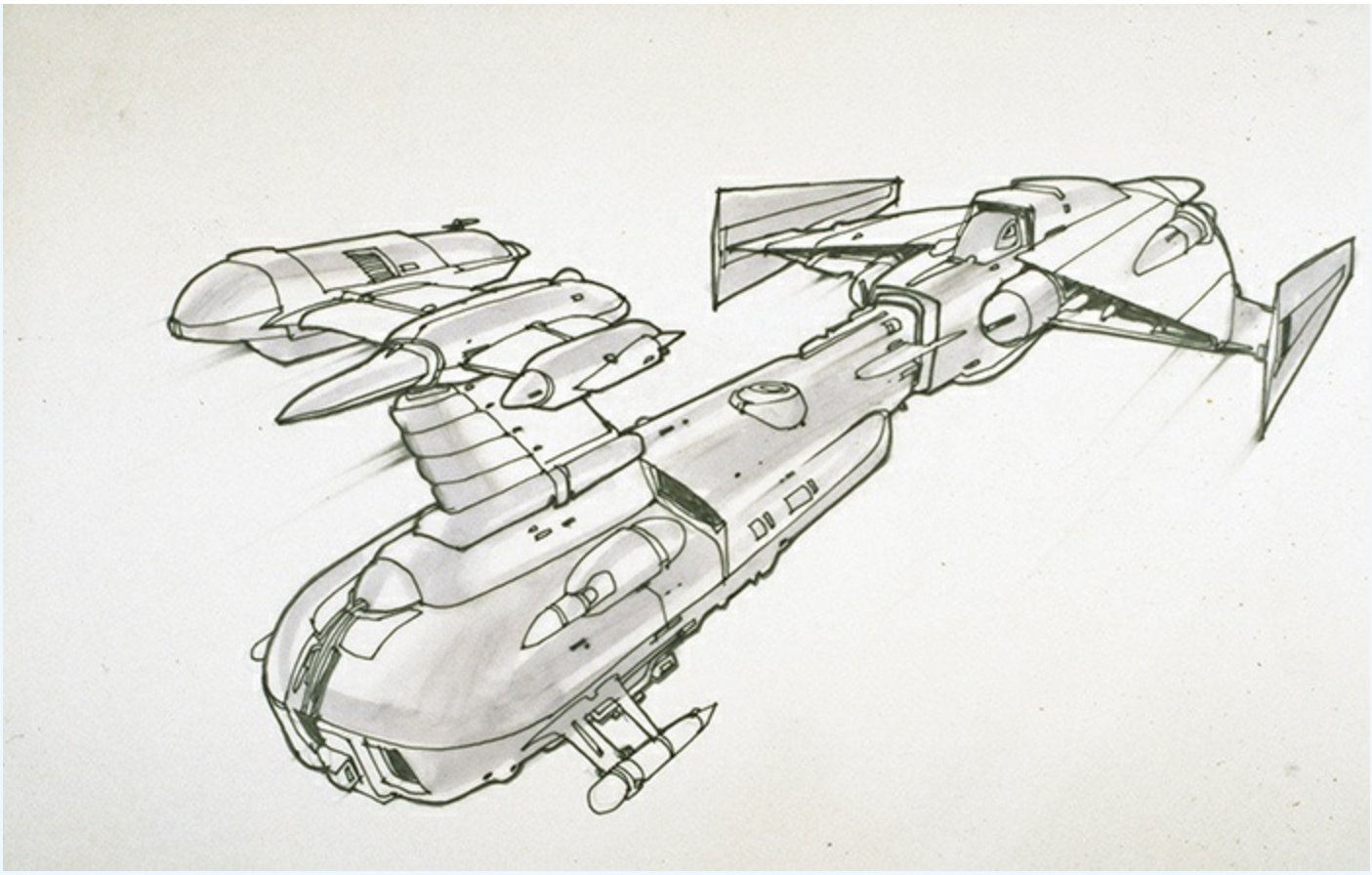
"Maybe we should set up some kind of levels of achievement. Ben can say that Luke is now a level 2 and Vader is a 4; 'I was a 6 and the Emperor is a 6, and he's on his way to becoming a 10, which will be a force so powerful in the universe that nothing can stop him. You must stop the Emperor before he achieves the level 10.' Luke has to destroy the Emperor. It does give us a time frame for the future—not only do they have to restore the Republic, but they also have to worry about the Emperor. We're really beginning to set up that situation.

"In the fight, Vader is using the dark side of the Force and he's really tricking Luke. It limits Luke's ability to throw things around or use lightning bolts. If he wants to be aggressive, he has to use the dark side. So in the beginning of this fight, Luke will be shielding himself against Vader, but he'll finally get mad enough to where he starts to pick things up and throw them at Vader, which gives him the upper hand. But even as Luke gets the upper hand, Vader knows that he's winning because he's getting Luke to use the dark side of the Force. The audience would also know—it's a physical way of manifesting the idea that the more lightning bolts he shoots at Vader, the more he's succumbing to the dark side of the Force. The more he's winning, the more he's losing. It will also make a more exciting fight. You'll be rooting for Luke, because he'll be so outmatched, and the only way he can survive is to use the dark side.

"The set piece can be in some kind of power place, with very dangerous equipment. Maybe it's at the core of the city where a shaft goes all the way down to the reactor at the bottom. It can be huge, like a cliff. Vader sends Luke down a giant shaft. Maybe we set up some kind of vacuum tube; we'll have Luke swing himself into the vacuum tube, which has a sucking sound, and we'll have a shot of him zipping away down the tube as fast as he can. He would pop out of the underside of the city, from a little drain tube; he comes flying out and gets semi caught on a grate, so Luke is dangling above the exit port of the city."



Starship concept by Johnston (no. 10), late 1977.



Starship concept by Johnston (no. 61), late 1977.



Starfighter concept by Johnston (no. 32), December 1977.



Meanwhile in England, Robert Watts (driving) and Norman Reynolds (who took the pictures) were testing hovercraft as possible snow battle vehicles.



Both hovercraft, however, moved too slowly to become serious candidates.

EMPEROR DEVELOPMENT

"The introduction of the Emperor is a major plot development. He may be the one who is saved for the end. When you get rid of the Emperor, the whole thing is over. The final episode is the restoration of the Republic. We ignored him in the first film; we vaguely mentioned him a few times. We have to begin to deal with him on a more concrete level this time.

"The question is how quickly do we dole out things about the Emperor? He's not as dramatic as Vader, but is more sinister. Vader is just one of his lap dogs. Do we show the Emperor this time or wait until the next one where we finally confront him? How about if we don't see his face? He's just a hooded figure, reminiscent of Ben. In the end, the Emperor does exactly what Ben did; he can also transform himself. As Ben becomes the personification of the good side of the Force, the Emperor is

the bad. Another way to treat the Emperor would be as a bureaucrat, Nixon-ian in his outlook, a Wizard of Oz type."

THE GAMBLER DEVELOPMENT

"He's a slick, riverboat gambler type of dude. Han Solo is a rather crude, rough and tumble kind of guy; this guy will be a very slicked down, elegant, James Bond–type. He's much more of a con man, which puts him more in the Mr. Spock style of thinking, being smart, cool, and taking tremendous chances. An emotional Spock, someone who uses his wits rather than his brawn. He could be a gambler friend of Han Solo's. They're both underworld characters.

"This guy will have some kind of relationship with the Empire. He'll be pro Empire, but he thinks he's smarter than the Empire. He doesn't really care about the Rebellion, but, in the end, he realizes that he must join the Rebellion and that the Empire is terrible.

"Maybe he could look human but not really be human. He's possibly a clone. We talked earlier about the Clone Wars. The Princess doesn't trust him because of that; Leia might refer to him in a derogatory way. If we set him up as a clone, maybe in one of the other Episodes, we can have him run across a clan of them who are all exactly like him. We won't go into the whole mythology of where they came from or whether the clones were good or bad. We'll assume that they were slightly weird in their own way and were partly responsible for the war. We'll assume that on these planets of clones, there are many countries, say about 700 countries and he's from one of the ruling clone clans.

"I see him as a Rudolph Valentino character, 1930s hair, slicked back. Wears white sport coats, white carnations, always wheeling and dealing like a gambler. Sly. Make him almost too perfect looking. We assume that in the cloning process, they manipulated genes and improved on the original."

C-3PO AND FRIENDS DEVELOPMENT

"Another idea that didn't work in earlier scripts is to have something happen to Threepio; he gets completely blown apart and we put all the pieces in a box and carry them around for a while in the movie. You'll still have the same sympathy and feeling for him, so it would be interesting to have all this sympathy for a cardboard carton. We might be able to tie it in with Vader. Have Vader take his heart and smash it or turn it into an alarm clock or something. Let's try and find an appropriate place for him to be broken into a lot of pieces. Should not be in first half of the movie.

"It'd be good if the Wookiee is Threepio's protector. We all like the Wookiee and we all like Threepio, and we know they hate each other, so it's nice that the Wookiee cares about him. Also he's the only one strong enough to carry the bag of parts around. It's also a good joke because Chewbacca is the last person Threepio would like to have putting him back together again. Suddenly Threepio says, 'What are you doing?' He starts babbling on and the Wookiee disconnects the head again to shut him up.

"We might have Threepio apologize to Artoo and the Wookiee in the end. He then turns to the Wookiee and includes him, saying, 'You're not so bad.' "

THE EMPIRE STRIKES BACK TREATMENT BY GEORGE LUCAS, NOVEMBER 28, 1977—SUMMARY

While riding a "large snow lizard (Taun Taun)," Luke tells Han that he is going to check out a "glint on the next ridge." Next in the nine-page typed treatment, Luke is bashed in the face by a snow monster. A prisoner in the ice cave, he is affected by a talisman that hangs around his neck, which was given to Luke by Obi-Wan Kenobi; talking to himself, "He feels he must go to the planet described on Ben's talisman." Han returns to the Rebel hangar in a "beautiful but eerie snow cave" and tells Leia that "he must pay an old debt or he will be hunted down."

Luke "uses the Force to escape" from the ice monster's cave and makes it back to the Rebel base by himself. He then explains to the others, before going to the medical center, that the ice monsters pose a very real threat. Not long afterward, snow creatures attack the base—and Chewbacca valiantly fights off the first wave.

The monsters succeed, however, in cutting the power, and the Rebels are in danger of dying from the cold. Then a water main breaks, "freezing troops like statues." The ice creatures attack again—and when Luke tries to use the Force, he fails and almost causes Han's death. Luke is humiliated. Han forgives him, but then the Empire attacks. "The great snow battle of Hoth is fought by armored landspeeders (helicopter-like) and giant mechanical horses (tanks). The huge lumbering walking machines carry Imperial troops." The Empire targets the Rebels' generator.



Two influences on *Empire* were the 1930s and '40s *Flash Gordon* comic strip and Howard Hawks's *The Thing from Another World* (1951).

the Empire Strikes back.
story treatment by George Lucas.
11/28/77

Open on the bleak white planet of Hoth. Luke is riding across the windswept ice slopes on a large snow lizzard (tauntaun) He reins up on the shaggy two legged creature when he spots something on the horizon; a strange ice formation, or meteorite hit. Luke talks into his walkie-talkie which is on his helmet. He lifts his snow goggles as he says "Han, ol buddy everything's OK here, but I saw a glint on the next ridge, and I want to check it out." Over the com links we hear Han say "OK but don't take too long kid, nite storms comming up." Luke says a few kind words to his lizzard, sinks his spurs in, and the beast leaps foward. He rides over the ridge when suddenly, out of nowhere, a giant snow creature jumps up in front of him, causing the lizzard to rear back and throw Luke to the icy ground. the monster grabs the tauntaun by its neck, killing the poor snow lizzard, then bashes Luke in the face. Unconscious, covered with blood, the young warrior from tatooine is dragged across the snow by the horrible snow monster.

Han Solo rides his snow lizzard into a huge, beautiful but eerie ice cave, and dismounts from his tauntaun. Its a big hangar for the rebel fleet, there is a lot of activity as troops

Following the story conference, the first page of Lucas's handwritten treatment for *The Empire Strikes Back*, November 28, 1977.



The first Lucasfilm Thanksgiving turkey for employees, friends, and family (Tom Jung's original artwork for the *Star Wars* poster hangs over the fireplace at Park House, 1977).

Vader lands and "oversees the battle." Han, Leia, Chewbacca, and C-3PO escape in the *Millennium Falcon*, pursued by Star Destroyers. Because Luke was wounded in the snow battle, he passes out in his X-wing on the way to the planet described in the talisman. R2-D2 pilots the plane to a crash landing in the swamp, which awakens Luke. Although they fail at first, Han and company make the jump to hyperspace after he and Chewie effect emergency repairs.

On a mysterious planet, Luke meets "Minch Yoda" and gives him food. The creature eventually claims to be a Jedi Master, the teacher of Ben Kenobi. Meanwhile, when Han and the *Falcon* come out of hyperspace, the Empire is waiting for them—somehow the Imperials have managed to locate the Rebel rendezvous point. Han takes them into an asteroid field and hides the *Falcon* in an asteroid cave. Back on the bog planet, Yoda lifts the X-wing out of the swamp to prove his powers. Not long afterward, "Minch uses Luke's laser sword to kill a monster that attacks them." Luke "practices with the sword and seeker balls, defending himself against a dozen laser beams …"



Luke on two-legged lizard concept by McQuarrie (no. 42), December 1977.

An epic fantasy of peace and magic.

WIZARDS



20th CENTURY-FOX PRESENTS **A RALPH BAKSHI FILM**

WIZARDS

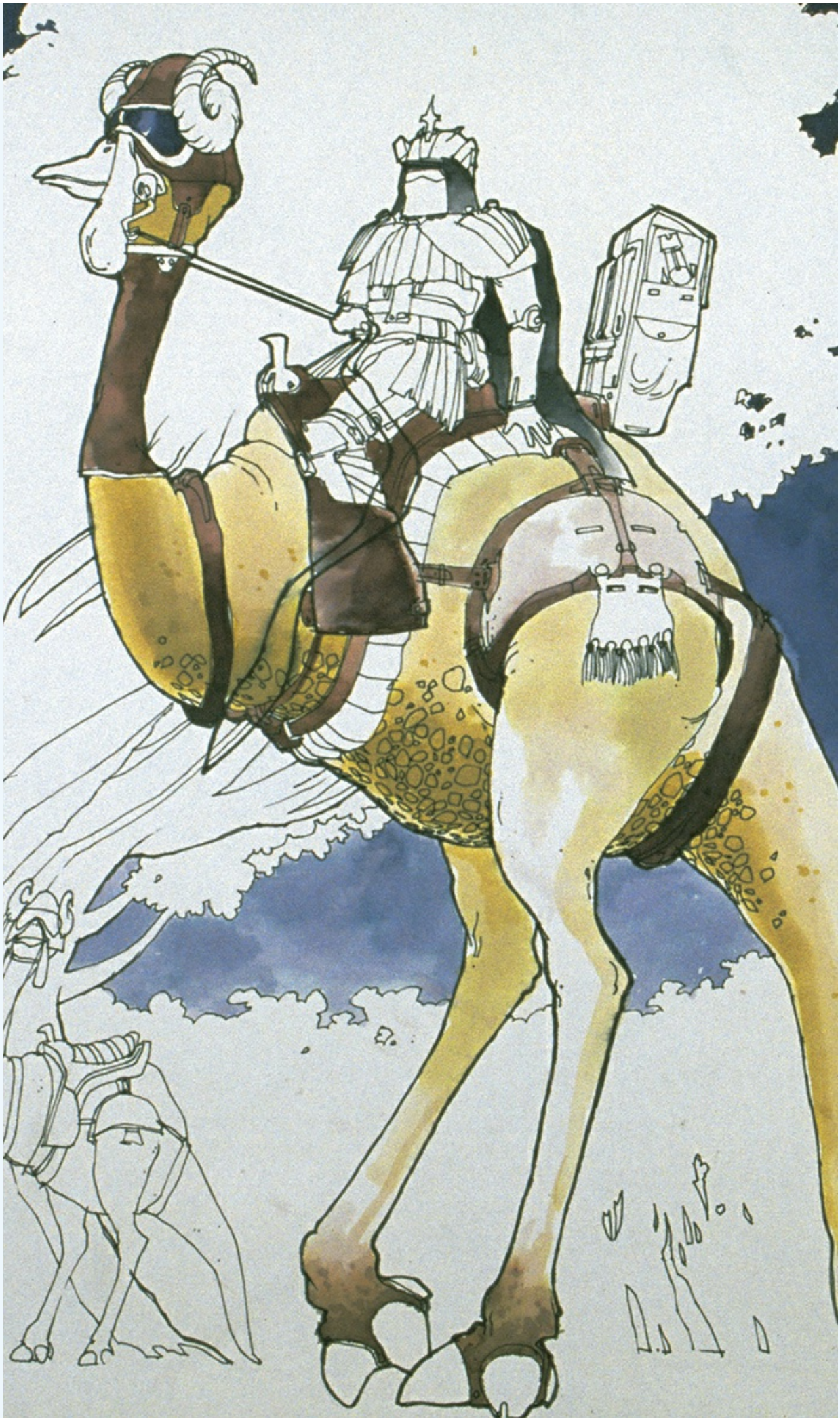
Written, Produced and Directed by **RALPH BAKSHI**

Music Composed and Conducted by **ANDREW BELLING**

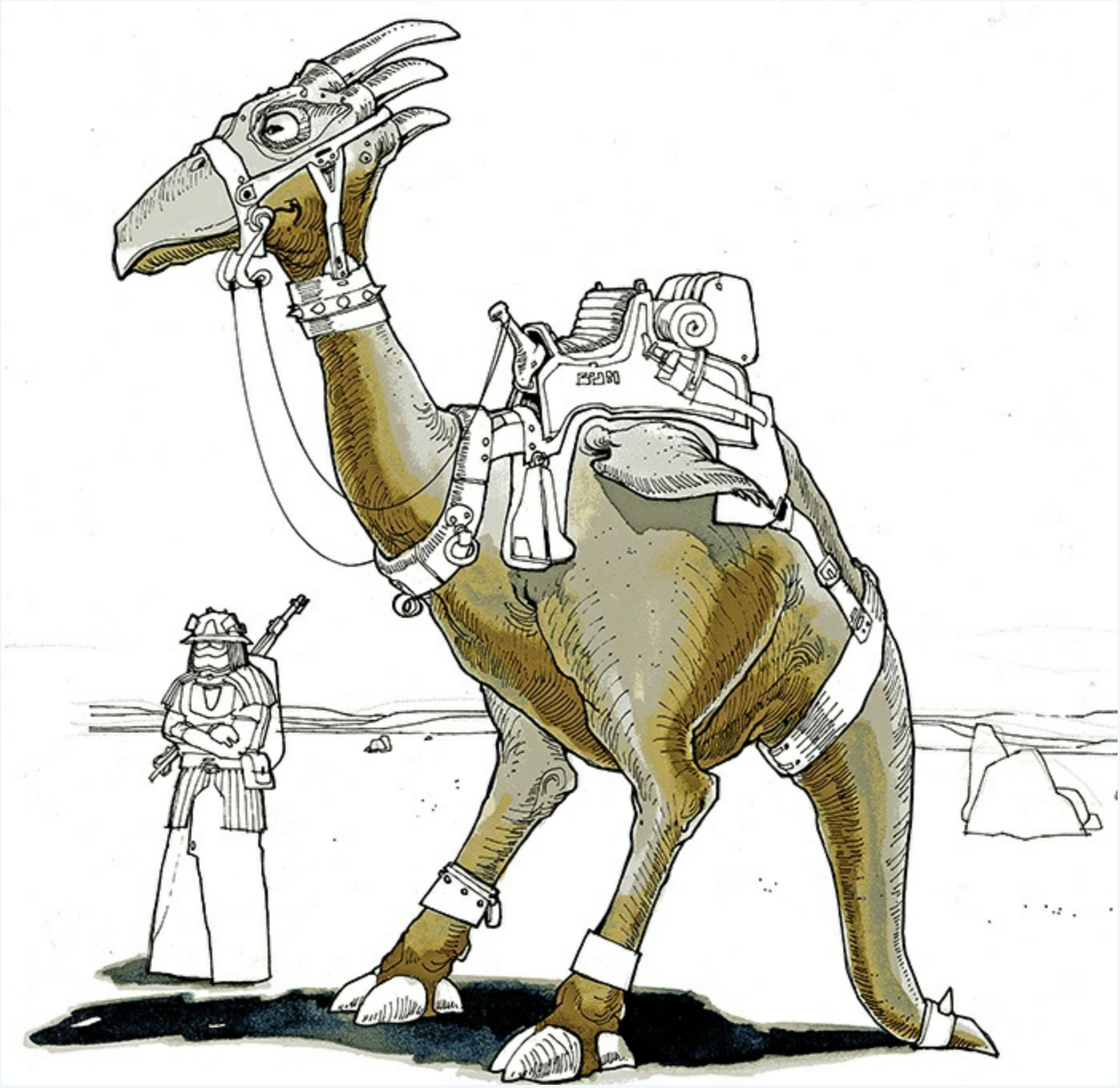
Produced by Bakshi Productions, Inc.

Color by De Luxe®

More inspiration came from *Wizards* (1977), whose poster featured a two-legged creature painted by William Stout.



Lizard concept by Johnston (no. 48), late 1977 (the riders are Imperial troopers).



Lizard concept by Johnston (no. 47), late 1977 (the riders are Imperial troopers).

The *Falcon* heads for a planet Han says will be safe while C-3PO and Chewie play a game and "comment on the strange relationship between Han and Leia. Chewbacca is out of sorts about the whole thing—jealousy. Han and Leia are seen in the next room, talking and playing around like young lovers in a city park."

On the bog planet, Ben appears as a ghost and "talks to Luke about the Force and what his training means to him." Meanwhile, Han heads for another floating city where they meet Lando. C-3PO is blown to pieces by stormtroopers without the others noticing. Cutting back to Luke, he has a dream about Darth Vader, and Ben tells him it is time to leave the planet.

Leia doesn't trust Lando, and things are fishy in the floating city. "City guards bring in a box full of Threepio parts. They say he must have bumped into a power field or something." Lando invites them to dinner, but when the door swings open to the dining room, "it reveals Darth Vader!" They are held prisoner in their living quarters; as Chewbacca tries to rebuild C-3PO, Vader enters "and tells them he's not really interested in them, but is using them to get Luke."

The city goes on the alert. Luke and his new friends are greeted by Lando. R2-D2 tries to warn Luke, "but Luke doesn't seem to care. He simply tells the little droid, 'Don't worry, my little friend. I know what's going on, but it's the only way.' "

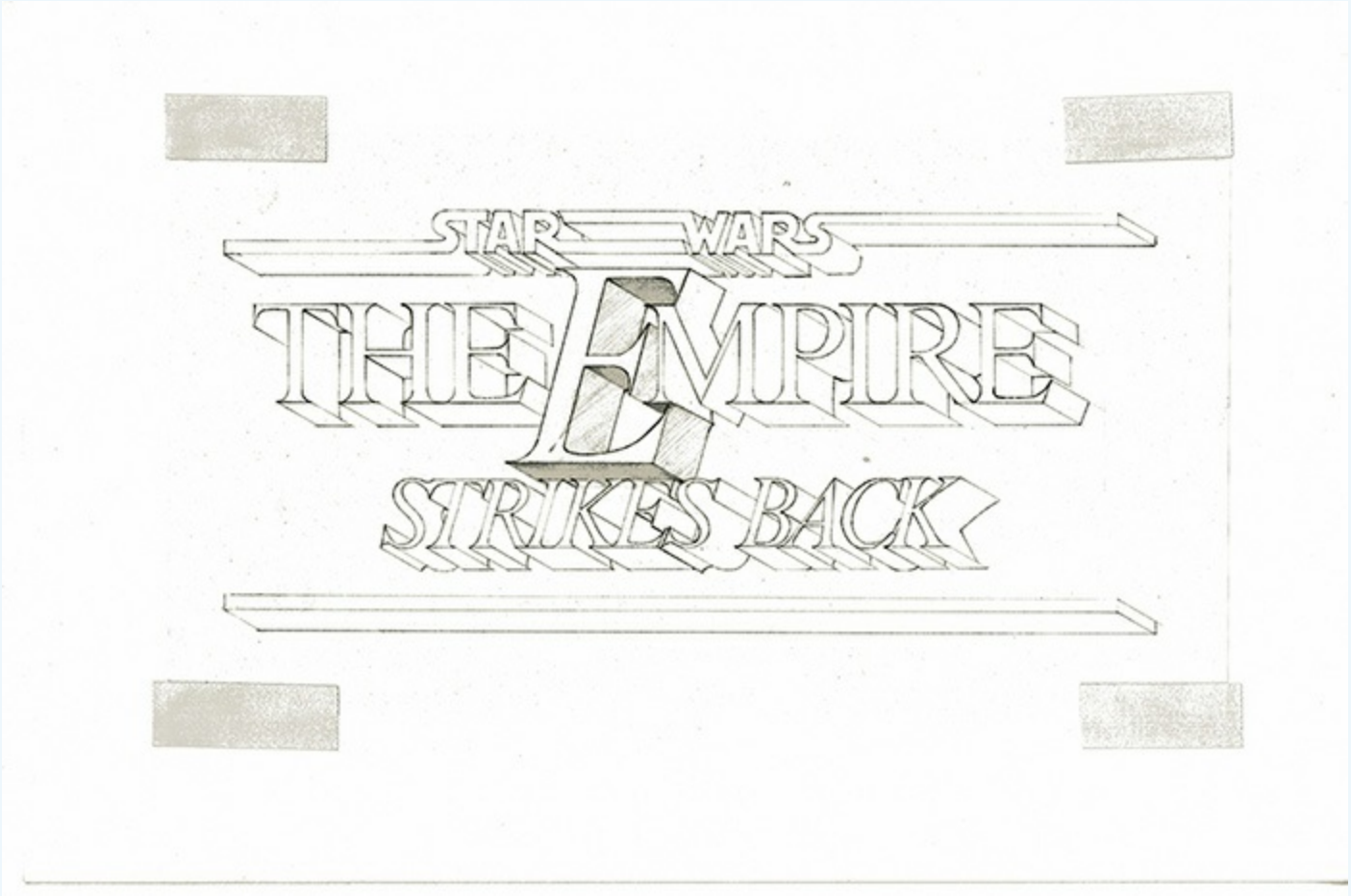
Han, Leia, and company manage to break out of their quarters and meet Luke. Just before he enters the area where Vader is waiting, they warn him. But Luke tells Leia he knows it's a trap and that she and the others should escape in the *Falcon* while there's still time. Lando says he'll help Han and the others, as he's had enough of Vader. "At that moment they are surrounded by Imperial stormtroopers." The alien chief gives them the peace sign and approaches, but is shot down. Chaos ensues, during which the troopers and aliens fight; Han, Lando, and the others flee; and Luke "unleashes the full force of his training on the troopers."

They end up in a reactor room with a giant propeller that threatens to "mince" both of them. Vader has the upper hand. Meanwhile, the *Falcon* takes off with its passengers, "but is stopped by the large blast-shield door that crashes down in front of the *Falcon*. It looks like they are lost …

"Vader pleads with Luke to join him … For some reason, Vader is reluctant to kill Luke and would rather turn him to the Dark Side of the Force. Vader finally swings his death blow, but Luke jumps off of the narrow ledge and falls down the endless shaft." Luke dangles above the exit port of the city. Han blasts his way through the shield door; they spot Luke and escape Vader's Star Destroyer. In the end, Han has to leave "to pay an old debt."



Concept sketches by McQuarrie.



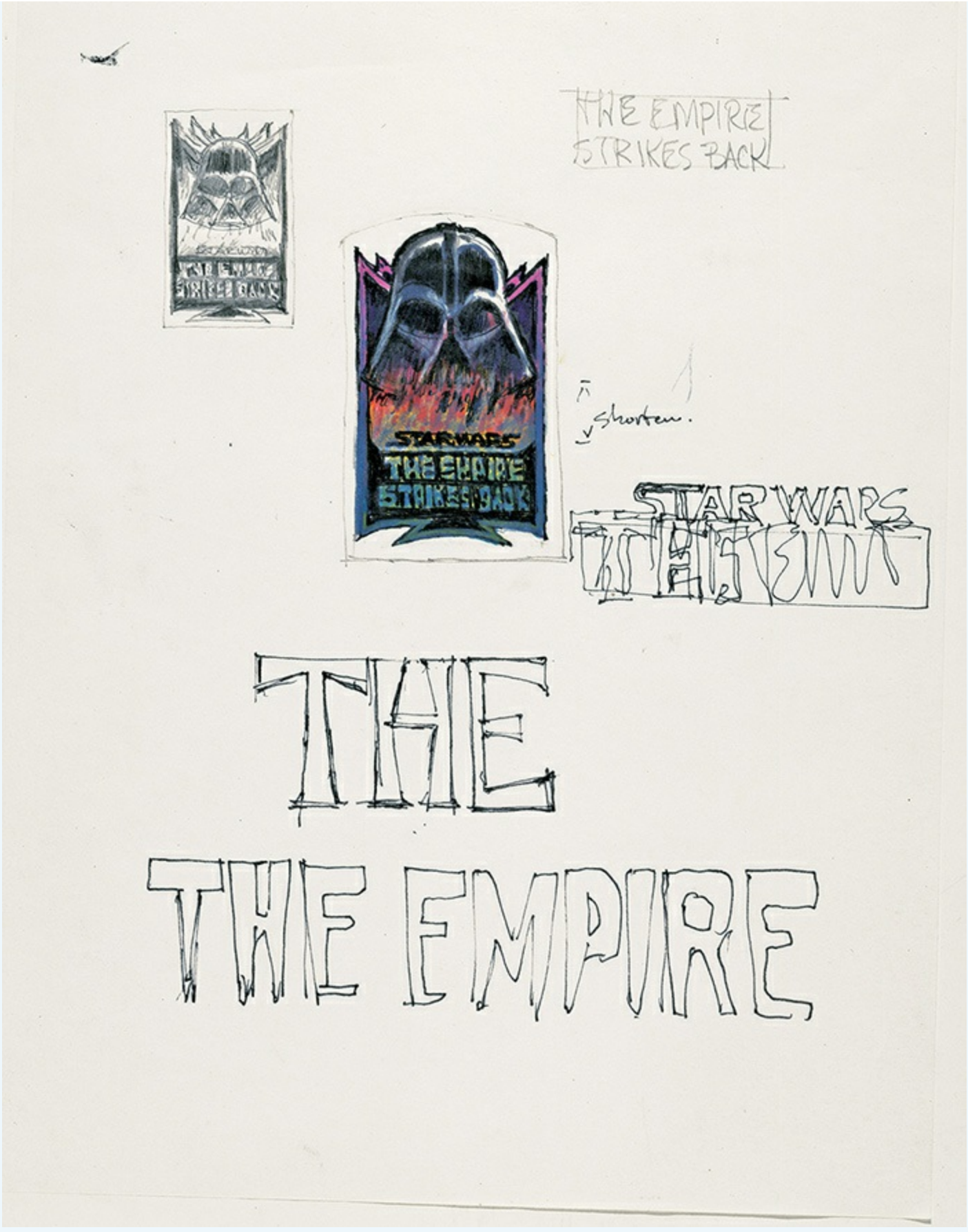
Concept sketches by McQuarrie.



Concept sketches by McQuarrie.



Concept sketches by McQuarrie.



Concept sketches by McQuarrie.



Concept sketches by McQuarrie.



Concept sketches by McQuarrie.


STAR WARS
THE
EMPIRE
STRIKES BACK

Final *Empire* logo by McQuarrie. The final logo incorporating Darth Vader was approved by Lucas for much of the crew gear.



In addition to McQuarrie, several companies were hired to design marketing logos for *The Empire Strikes Back*.

THE GATHERING FORCE

DECEMBER 1977 TO JULY 1978

CHAPTER TWO

"George hired me as CEO to start his company, which had about three people at the time," says Charlie Weber, who transitioned from consultant to president of Lucasfilm in late 1977.

"Weber was hired to be the CEO for Lucasfilm because the licensing income was burgeoning," says accountant Richard Tong. "Charlie had a great financial background, so he was hired after interviewing with several other candidates."

"Charlie seemed like a solid guy," Lucas says. "Even though he was more in the stock market and real estate, he did know how to put things together; he knew the legal problems, all the rules, and all the people you needed in order to build a working company."

"George had an excellent outside accountant in Richard Tong, but we didn't have an accounting firm," says Weber, "we didn't have any of those things, so we really had to set that all up from scratch. It was basically a tiny mom-and-pop company with huge potential resources."

Indeed, the company was still in the planning stages of its merchandising. It had made a deal with toy company Kenner, but, during the holiday season of 1977, fans had very little to buy (which opened the door for many merchandise bootleggers). The stopgap measure was to sell coupons in the form of empty boxes that purchasers could redeem for four action figures the following year.

"We started in a trailer across the street from the Universal lot," says Weber. "Soon one trailer grew to nine trailers and we ran the company out of those trailers for the first 18 months. George had his ambition to make this into a successful company and to finance our own films. He wanted a quality-control commando force, but he didn't want a huge overhead."

The budget for *Empire*, however, was starting to increase, growing from $8 to $10 million at this time. "I'm willing to take the risk," Lucas says, "because I started with nothing. Five years ago I had nothing."

Forging forward, Lucas used his earnings from *Star Wars* as collateral to borrow the millions that would be necessary to make *Empire*, keeping about $50,000 a year for living expenses. The film's financial bonanza also meant more money for all the actors. Guinness had already been well compensated, but Lucas gave him another quarter of a net point. Mark Hamill, Carrie Fisher, and Harrison Ford had worked on salary for very, very little, but Lucas also gave each of them a quarter of one net point.

According to several reports, Guinness wound up with around $2,880,000. The three other principals received about $320,000. Lucas gave bonuses to many others. Joe Johnston received one-tenth of 1 percent (which resulted in $131,037 as of 1983). Those who worked on the set earned a minimum of one-twentieth of 1 percent or about $64,000. Some employees in the Lucasfilm office earned one two-hundredth of 1 percent or $6,400.

"I became more financially independent," Carrie Fisher says. "It made me more conspicuous. It changed my name from Carrie 'Debbie Reynolds's daughter' Fisher to Carrie *'Star Wars'* Fisher. I don't think I'll have to change my middle name again."

"I worked for peanuts in the first one," says Harrison Ford, "but I knew it would be smart to be in

that picture. I'm a lucky guy. It changed my life. I'm the kind of person who thinks he's rich if he just got a check in the mail for $5,000, but my accountant doesn't think of me as rich."

"The percentage George gave us of *Star Wars* was probably 30 times our salary," Hamill says. "He didn't have to do it."

"The biggest change came after *American Graffiti*," Lucas says. "Because then suddenly I was taken seriously and I was somebody. I think *Star Wars* only strengthened that. Obviously now when I go into a studio, the studio heads are much nicer to me than they were before. But the people in San Anselmo, where I live, couldn't care less. I'm a minor celebrity just because I made that movie, but otherwise it's business as usual. In LA, they have a tendency to hype everything and people get very excited and they have parties and they do a lot of stuff that just builds up egos."

"George Lucas is supposedly a very wealthy man, but he's not out buying Gucci shoes," Hamill says. "His lifestyle is simple from what I can see. Maybe he has a whole room full of jeans and sweatshirts now. But I just don't see him or Gary going berserk with riches. They're men who like to make films."

After giving away about 25 percent of his profits, Lucas did buy an old Ferrari for himself and embarked on a few home-improvement projects. "On a personal level, it doesn't mean much of a change," he says. "I'd been very poor up until four years ago, but I was very happy before. I mean, it's great not to have debts over your head all the time and be able to go out to a movie whenever you want."

By the end of 1977, *Star Wars* had become the all-time number one champ at the domestic box office with about $127 million in rentals, which earned, after taxes, about $12 million for Lucas. (As stated, the movie would eventually rank second in number of tickets sold after *Gone with the Wind*, 1939.) But it was just beginning to open in some foreign markets, such as the United Kingdom, where Gary Kurtz attended the premiere on December 26.

"When I returned to London, excitement was mounting at the prospect of its arrival there," Alan Arnold writes. "As in America, the film was getting an amazing amount of attention from the media, but the difference was that in England no one, not even the critics, had seen it. The newsmen, not the publicists, were heralding its arrival, and in some other countries a similar situation was developing.

"When *Star Wars* did arrive at the Dominion Theatre, London, I was able to see for myself the exceptional degree of involvement with its audience that *Star Wars* evoked. It was also apparent that publicity's most potent agent, word of mouth, was spreading the film's fame more effectively than a whole army of publicists could ever hope to do. When I talked with the distributors, they told me that no film in living memory had launched itself with such meteoric thrust [...] Such an impatient public clamor was unique in modern times. Indeed, for something comparable we must go back to the last century and consider the crowds that gathered at the docksides in Boston and New York to await the arrival from England of fresh installments of [Charles Dickens's] *Pickwick Papers* [1836–1837]."

BLITZKRIEG IN THE SNOW

On December 8, 1977, Fox lawyers sent a letter to MCA, the parent company of Universal and ABC, asking them to halt production of *Battlestar Galactica*, referring specifically to work being done at the "ILM facility." MCA refused. Concurrently in the month of December, Lucas continued to conceptualize the snow battle with McQuarrie and Johnston, while Brackett wrote the first draft of the screenplay.

On December 7, McQuarrie began to illustrate "Metal (Vader's) Castle." "That was the first

production painting I made," he says. "I figured most of it was going to be covered up with snow, but there would be these round towers in various types of metal sticking out. I put a couple of figures struggling along in the snow in the foreground, for scale, with the wind blowing."

But as the artist painted, he felt what nearly everyone working on the sequel would feel at one time or another: enormous pressure. The innocence of *Star Wars* was gone, and both cast and crew knew their work on the second film would have to satisfy enormous expectations.

"The first film was very important all of a sudden, when it finally came out," McQuarrie says. "So I think I was a bit self-conscious for the second film, because I was aware my paintings were going to be reproduced after their film use. I had a whole different attitude. I thought, *Gee, I better make 'em a little tighter*. I kind of froze up for a little while. I tried harder, but I didn't necessarily get better results. But after a couple of days, I just went right back into my usual format and worked on them with the same attitude as before. I had to do away with all that business of, *It's an important thing*, you know, 'cause it doesn't help the painting at all, or the design."

Mcquarrie met with Lucas on December 9 and showed him the artwork. Lucas wanted more exploration, asking to see Vader's castle in a lava environment. They also went over the artist's first 29 sketches of tanks and snow lizards, while Johnston focused on the snow vehicles.

"I was working on the design of an animal called the tauntaun," McQuarrie says. "I started off with a dinosaur kind of look, but George wanted it to be a two-legged critter. It's this large beast that Luke rides around on. I thought it was going to be used in the middle of the desert. As it turns out, it's an animal that has to function in the snow! So I took back the beast and winterized it."

"George actually told Ralph a few times to think of a big rat," Johnston says. "He wanted a big rat-like snow creature. And as it turned out, Ralph's sketch looked like a big rat with human legs! That design alone would have made for complications."

For his part, Johnston was having problems with the tank idea because he felt it would be impossible to hide the fact that the supposedly alien vehicles were essentially ill-disguised conventional vehicles. He therefore proposed, in late 1977, a two-legged armed conveyance (seen in drawing 0034, on this page); Lucas liked the idea but wanted something larger.

"Then I ran across a Xerox that a friend of mine had," Johnston says. "It was a promotional brochure put out by US Steel in the early 1960s and contained a whole slew of full-color paintings indicating, 'What steel will be used for in the future.' The paintings were done by Syd Mead. Interestingly enough, one of the paintings showed a four-legged walking truck! That's where the initial walker idea came from. It wasn't a military vehicle, it was just a transportation thing, but I thought it would make a great fighting vehicle if you took off the truck bed and put an armored body and head on it."

Johnston was also inspired by something he'd seen on TV, the General Electric Walking Truck by R. Mosher (1968). "The walkers were inspired by *War of the Worlds* more than anything else," Lucas says. "Where the Martians walked in machines like giant spiders. I was trying to come up with a way of making this battle different."

Preproduction concept work went slowly. Lucas's base was up north, the artists were down south, and Lucas was spread thin between his new business requirements and film projects, such as *More American Graffiti*. That sequel was being produced by Howard Kazanjian, an old friend of Lucas's from USC's School of Cinema.

"At that time, we were trying to build Camelot," Kazanjian says. "George talked to me often about his goals and how big he thought the company would be. He talked to me about the sequel to *American*

Graffiti and his obligations that he felt he had to Universal, which was to do a third picture. That was *Radioland Murders* [1994]."

"During the development stages, we often waited until we could talk with George and get his ideas before we actually finalized anything," McQuarrie says. "If George is out of town, more often than not, a great many things are left hanging until he comes back."



Color concept sketch of an encounter with a snow monster, by McQuarrie, late 1977.



Snow creature concepts by Johnston (nos. 133, January 1978; and 161, February 1978). Both bear Lucas's stamp of approval: "Wonderful."



Snow creature head concepts by Johnston, February 1978 (and stamped "wonderful" by Lucas).

THE FALCON AND THE EGG

One solution to his myriad production challenges was to create a more substantial base in Hollywood. To that end, Lucas purchased property on Lankershim Boulevard in Los Angeles on January 4, 1978, paying $1,050,000. "It was just an old egg company building; that's why we called it the Egg Company," says Weber. "It was George's intention to renovate it and build it into offices."

"They bought it because it was a great location," says Tong. "It was directly across the street from Universal Studios and George always thought, *Hell, it can only go up in value*."

In early 1978, the corporate structure of Lucasfilm consisted of Charlie Weber as president; John Moohr as vice president of finance and administration; Howard Kazanjian as vice president of Medway Productions, which handled non–*Star Wars* Lucasfilm projects; and Gary Kurtz, vice president of production on *Star Wars*.

"We knew there was gonna be a lot of financial income and outgo," says Weber, "and we needed a strong financial base. So we hired a CFO."

"George suggested to Charlie, 'We need a vice president, so why don't you consider the man that was running against you?' " Kazanjian says. "And that's how John Moohr came into the picture. Charlie hired Moohr, who had been the runner-up."

The part of the company growing the most rapidly was Black Falcon Ltd., which would have about 30 employees by the end of 1978. "The name Black Falcon was a take on the 1940s comic strip *Blackhawk*," says Lucas, "because we were the mercenary young rebels against the system. Nobody had ever done it. It was like, *We're the underground licensors*."

"*Star Wars* licensing and merchandising was going to have to provide the financial base to sustain the company until *Empire* was released," says Tong.

"On the first film we shared the merchandising operation with Fox and we were essentially duplicating the same things," says Lucas. "Fox didn't have a real merchandising division, so we built one up. After the film was a big success and I knew I was going to make more films, I felt I had to have that merchandising company to get the maximum out of what we wanted. The whole idea was to have quality and things of interest. My premise at Black Falcon is, if it's a good-quality product, then we may be interested, even if we don't make as much money as we would with someone else who would make a lesser product. We had conflicts with Fox because it's contrary to the way people do business. Some junk jewelry manufacturers came by and said, 'We'll give you half a million dollars.' And we said, 'No, we don't want that.' Fox got very upset because there was a great deal of money involved. But I didn't want to have *Star Wars* junk in every five-and-dime store in the country."

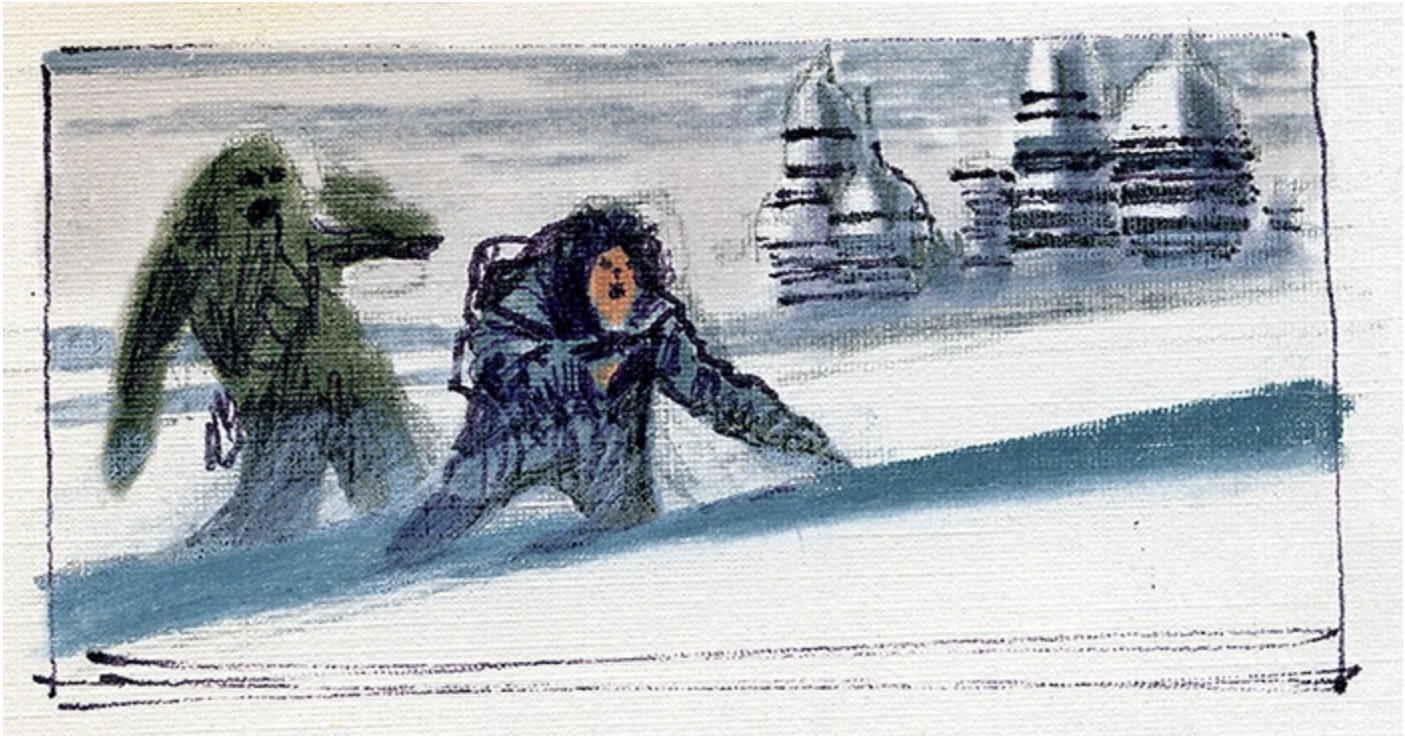
"Charlie was learning on the job; I was learning on the job," says Ferguson. "And except for the filmmaking side, George was learning on the job. Apart from Disney, to some extent, nobody had ever developed an ancillary products business of this magnitude."



Concept sketch for “Metal (Vader’s) Castle” by McQuarrie, December 7–9, 1977.



Concept sketch for “Metal (Vader’s) Castle” by McQuarrie, December 7–9, 1977.



Concept sketch for “Metal (Vader’s) Castle” by McQuarrie, December 7–9, 1977.



The final painting of “Metal (Vader’s) Castle” by McQuarrie, December 7–9, 1977. Left over from earlier concepts of Vader’s home, the spires in the final painting are part of a hidden Rebel base, which was a converted “ice castle,” according to the artist.



McQuarrie ice castle concept sketch.



McQuarrie ice castle concept sketch.

A SECOND COMING

On January 25, 1978, *The Hollywood Reporter* leaked the title of the film, but word did not spread (another sign of the scant interest afforded sequels). Secrecy was a major factor for *Empire* compared with its predecessor, however, and the story itself was going to be closely guarded. "Television executives are not at all above hearing about a project, getting hold of a script, changing it a little to get around the

copyright, and having a TV movie come out while the film is running to capitalize on the money spent promoting the movie," Lucas says. "That makes it harder to get people out of their houses to see movies, even if they're better."

While potential pitfalls remained, a very real problem arose that month. "During the making of *Star Wars*, George and Gary asked me if I would reappear in a sequel," says Alec Guinness. "I told them, 'Yes, absolutely.' I was quite emphatic about it—but I've developed wretched eye trouble. It's threatening to blind my left eye. Specialists told me that under no circumstances must I go into bright light. So I've sort of withdrawn, feeling I had no option."

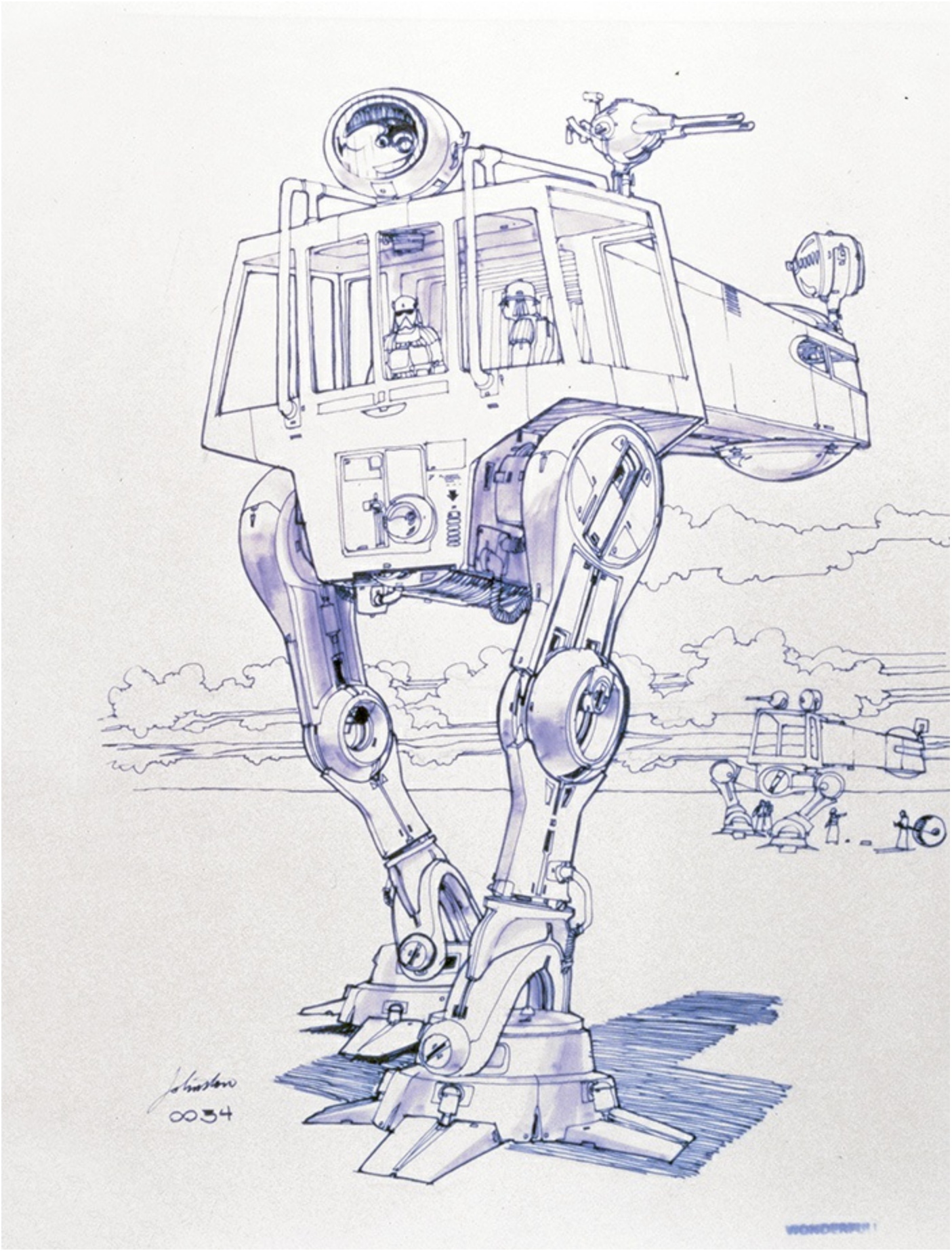
Losing Guinness as Obi-Wan made his successor, Minch Yoda, that much more important to the film. "One of the challenges was I had to replace Obi-Wan Kenobi," says Lucas. "I wanted something like Guinness; I wanted to transfer his performance into Yoda, so I worked on Yoda with Joe Johnston at first. I wanted someone very old and very unassuming."

That February, Johnston made his first concept sketches of a tiny Jedi Master, whose look progressed under Lucas's tutelage from a kind of miniature Santa Claus to a green-skinned, large-eared, three-toed alien with an elfin mien. "I remember George saying that Yoda was 400 years old," says Johnston. "But the way George liked to work was to toss out an idea. He'd say, 'Do anything you want. I'm not gonna tell you what this thing should be.' So the early designs went off in a hundred different directions. He had long legs. Some of them looked like Big Bird. Some of them had this little furry body.

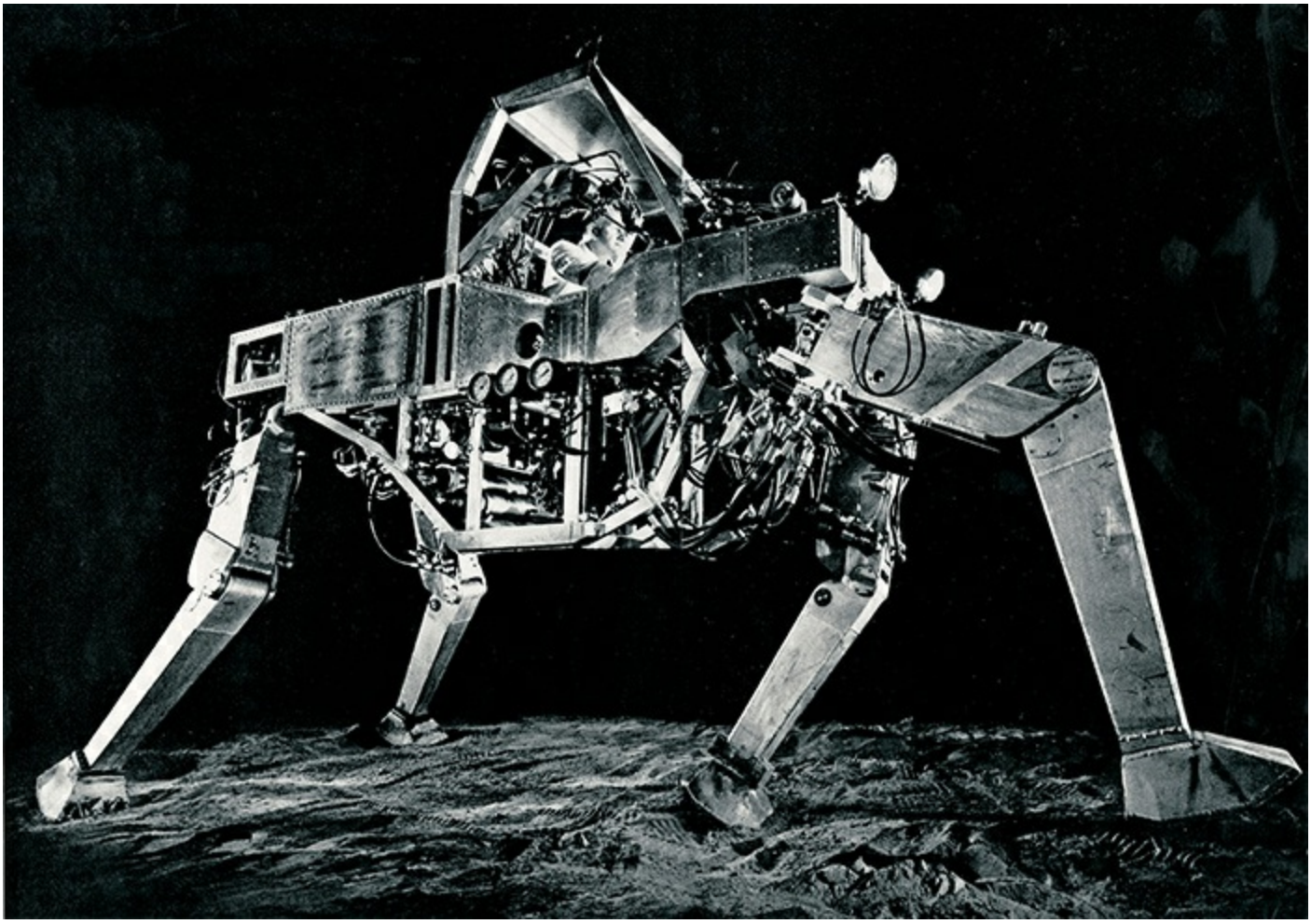
"So George would go off for two or three weeks and he'd come back and we'd have stacks of drawings. And out of a hundred drawings, he might pick two and say, 'This is an interesting direction, you know, do a hundred more.' It was a pretty leisurely way to work, because I could just sit there and sketch all day. I was under no pressure at all, as long as when he came back, we had made progress."

"The head is slightly too large for his body," Lucas says, "which makes him look like an 800-year-old baby and, perhaps, more attractive."

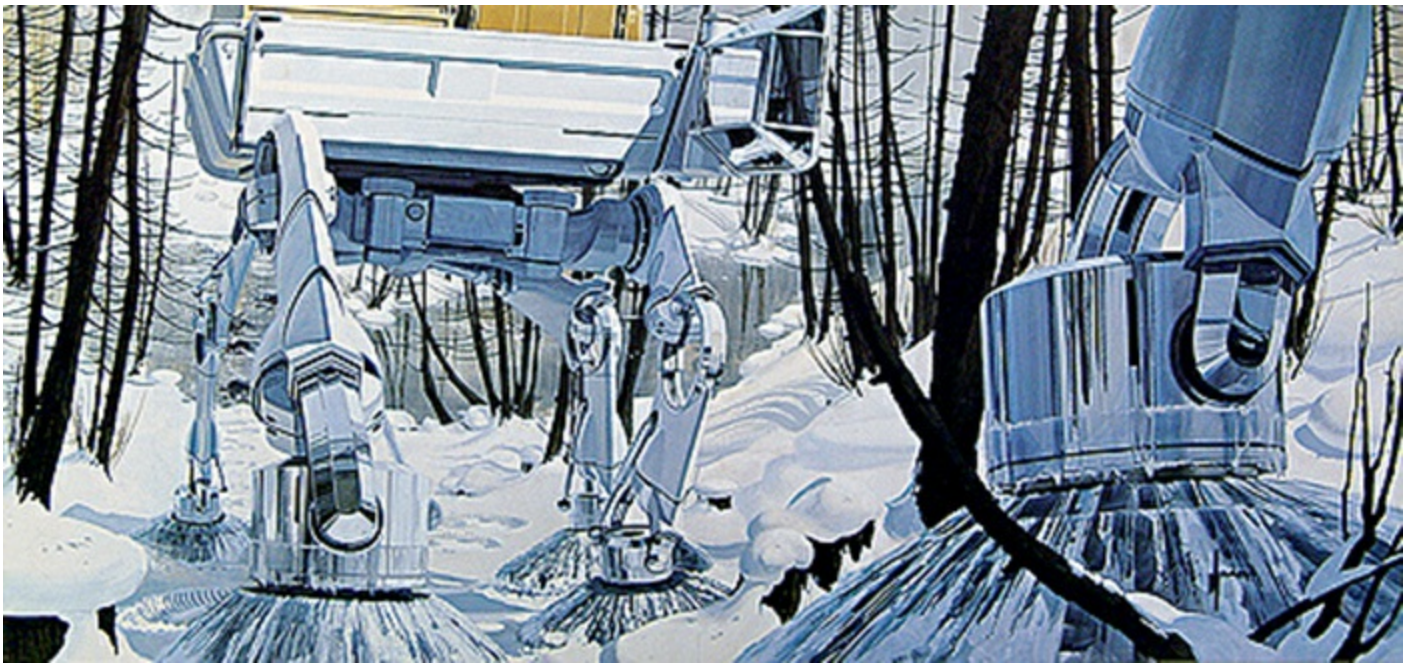
"I don't really remember how we ended up with that particular design," Johnston says of a semi-final concept, "except we sort of combined a leprechaun and a troll and a gnome."



First breakthrough walker concept, with two legs, by Johnston (no. 34), late 1977.



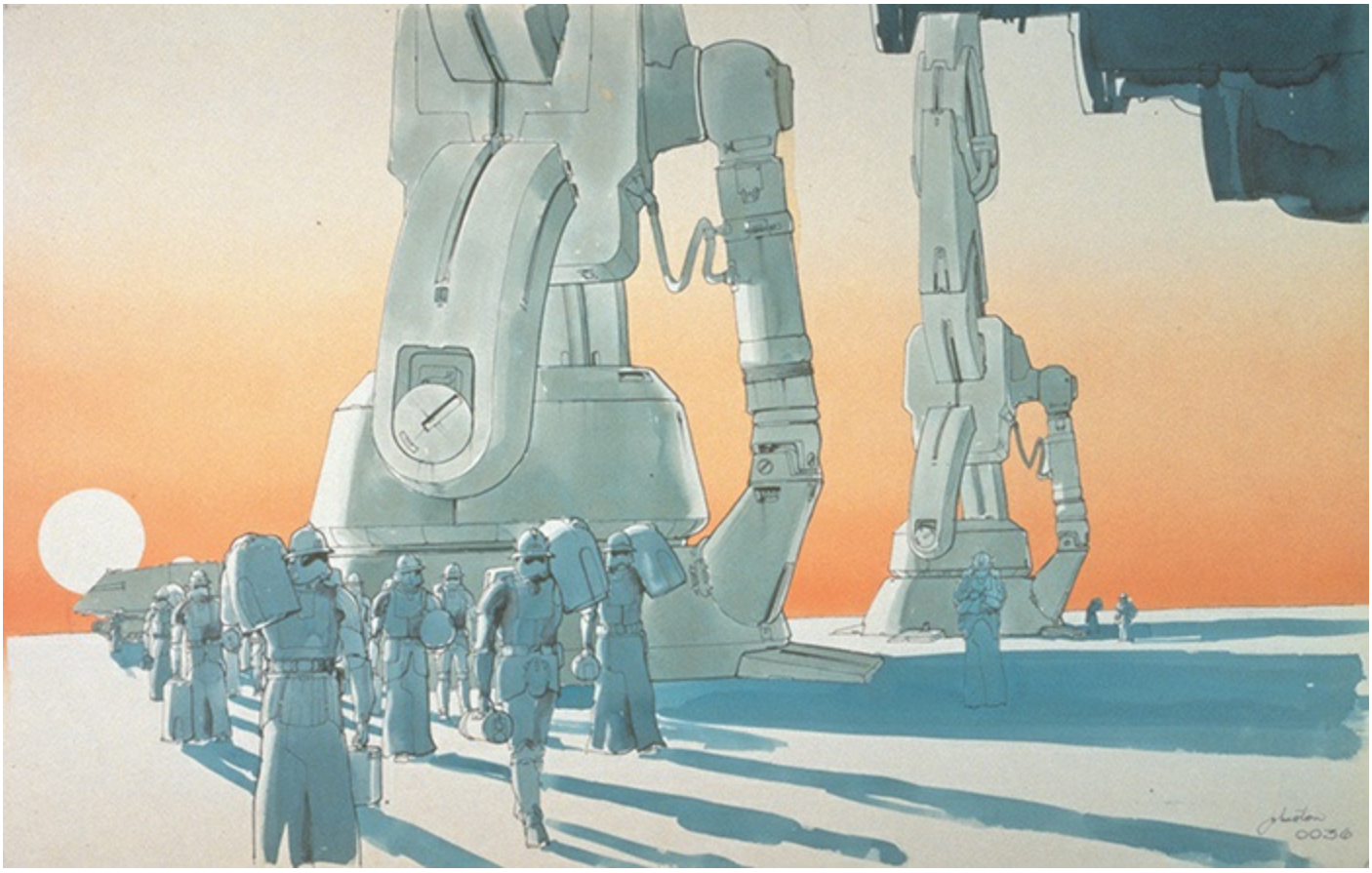
The General Electric Walking Truck by R. Mosher (1968).



An illustration by Syd Mead for a U.S. Steel brochure (circa 1961). The General Electric Walking Truck and the illustration by Mead were both were inspirations for the transformation of the two-legged walker into a four-leg machine. But the original concept behind the walkers were those alien terrors in H.G. Wells's *The War of the Worlds* (published in 1898).


CLASSICS
Illustrated
Featuring Stories by the World's Greatest Authors
No. 124
25c
THE WAR OF THE WORLDS
By H. G. WELLS

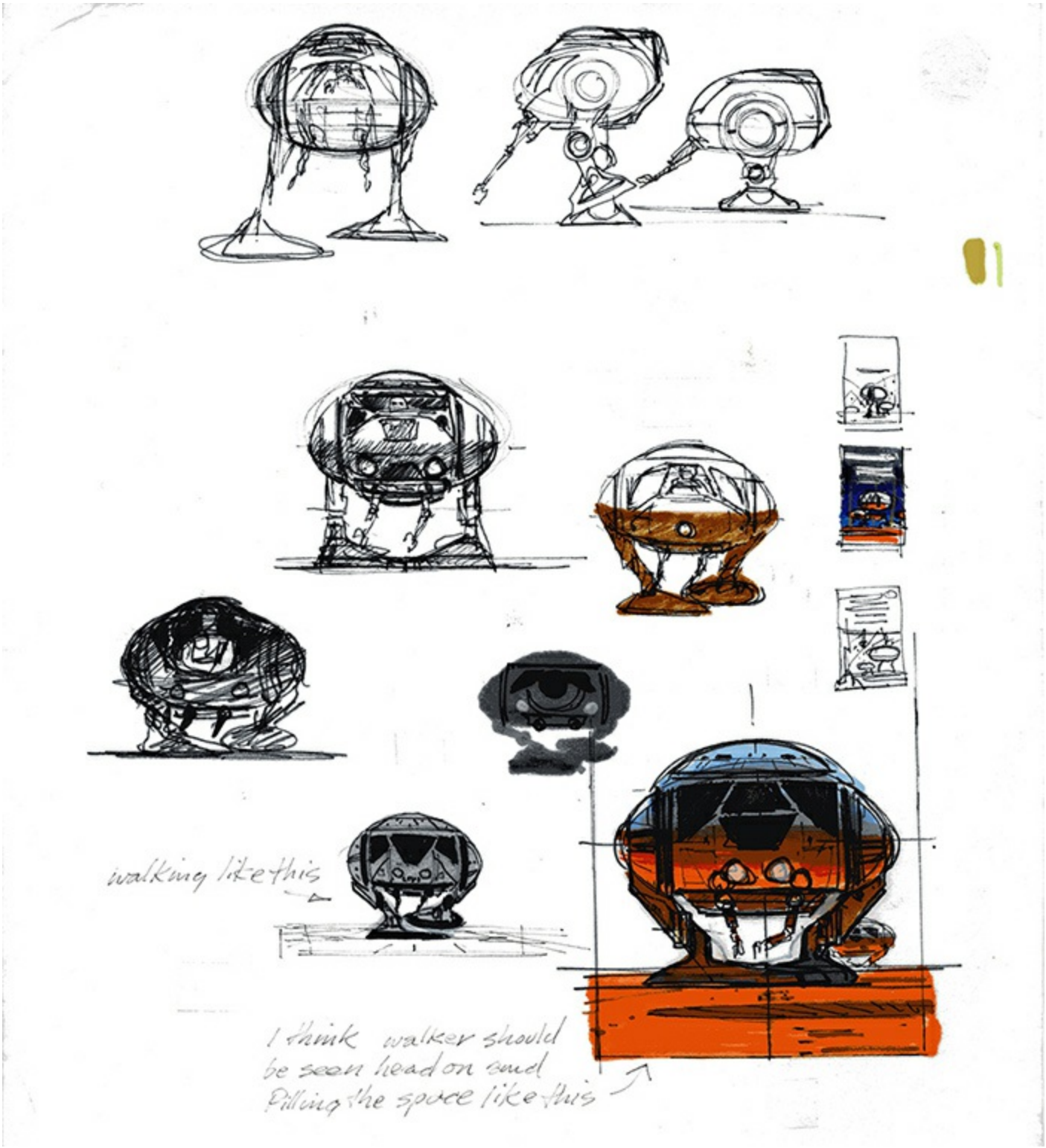
A *Classics Illustrated* comic book cover showcased the martian machines in artwork by Lou Cameron, 1955.



Imperial troopers and walker feet concept by Johnston (no. 36), late 1977, after Lucas had requested a larger walker.



A January 1978 color sketch concept by Johnston of an ice corridor in the rebel hangar, with arriving X-wings.



A page of McQuarrie concept thumbnails of an Imperial walker.

A KINDLY SORCERER

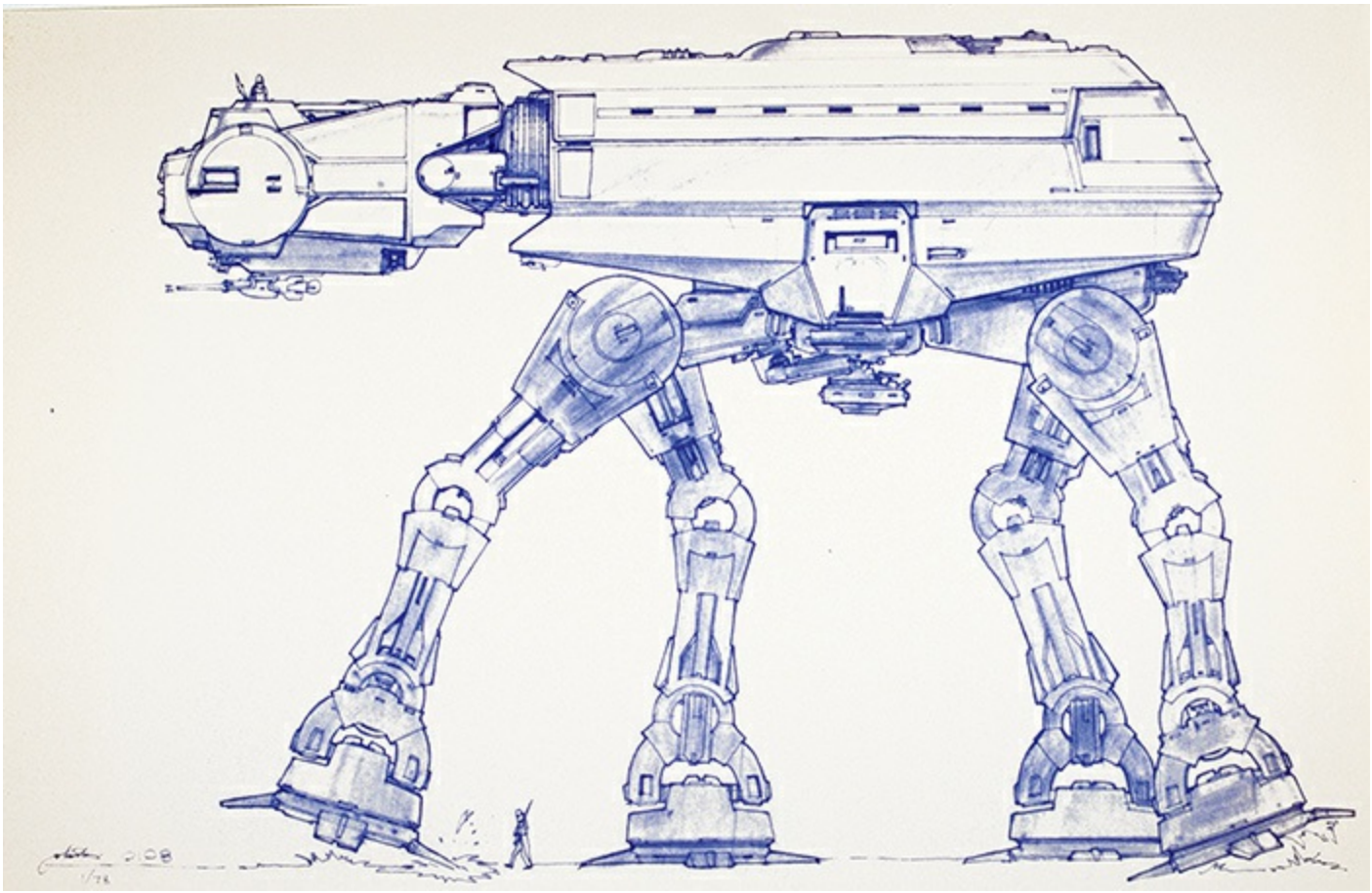
With an embryonic but growing corporate structure, Lucas had to define Kurtz's parameters, which he did in a memo to the producer on February 17, 1978. Kurtz was given some leeway, but his ability to make deals was carefully proscribed: "No percentage points in the picture can be allotted to anyone, including partial points, without a written approval by myself … You must try to keep in close contact with Charlie Weber regarding the budget and all the financial aspects of the film." Anything more than 10 percent over budget would have to be approved by Lucas or Weber.

There was a concern that Kurtz would not be able to handle the enormous job of producing the

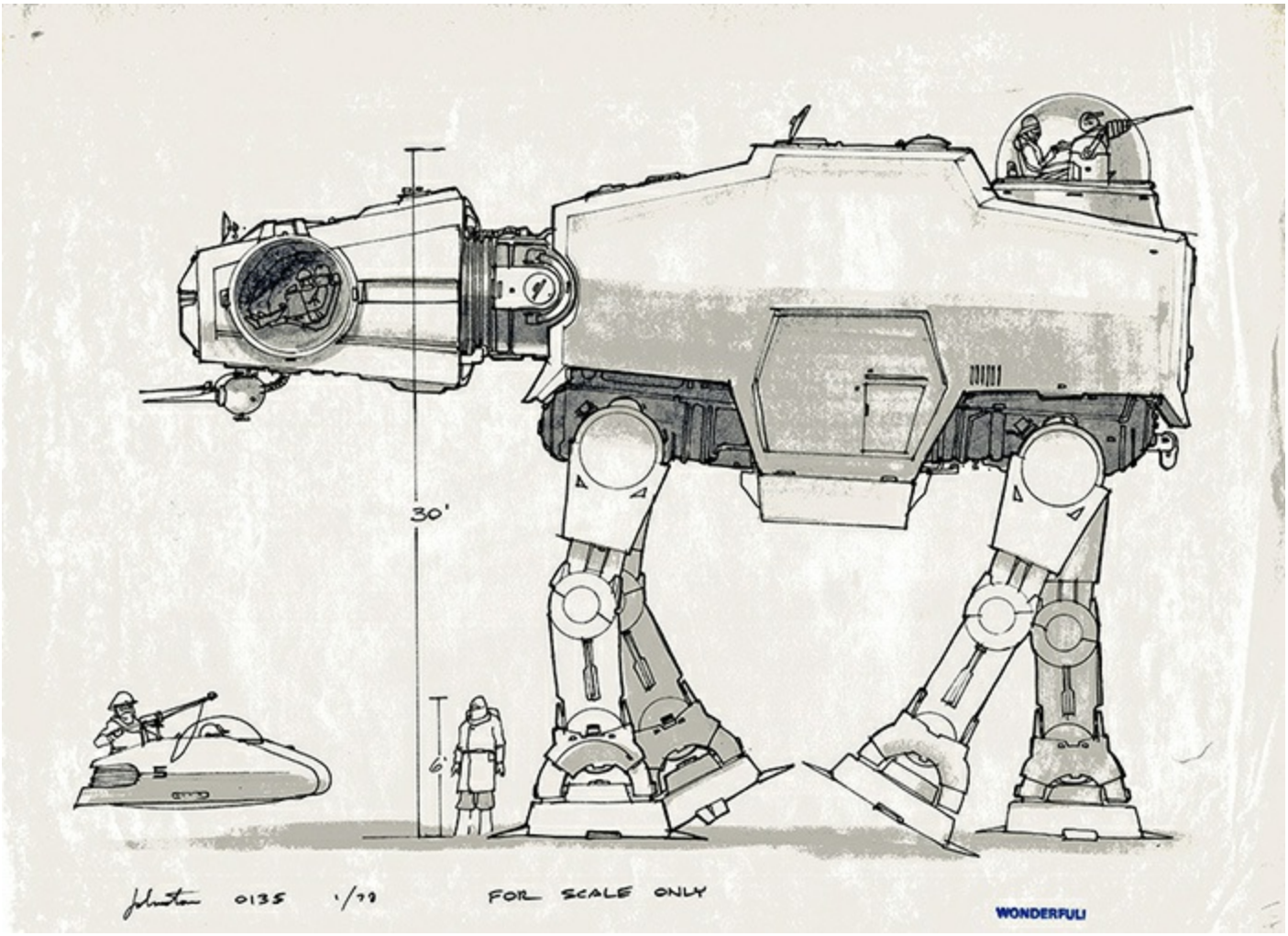
second film; on *Star Wars*, Lucas had shouldered more of the producer's burden than he'd wanted, while directing, and had been disappointed with some developments that Kurtz had not helped resolve. For *Empire*, Lucas had therefore considered having Kazanjian as executive producer and Watts as producer. But Kurtz had pleaded his case: He'd worked with Lucas as far back as *Graffiti*, he'd been loyal, and he knew the property.

Against his own misgivings, Lucas had acquiesced. Kurtz therefore continued to be *Empire*'s recruitment officer and, from late 1977 to early 1978, sought out directorial candidates. "I've retired from directing," Lucas says. "If I directed *Empire*, then I'd have to direct the next one and the next for the rest of my life. I've never really liked directing. I became a director because I didn't like directors telling me how to edit, and I became a writer because I had to write something in order to be able to direct something. So I did everything out of necessity, but what I really like is editing."

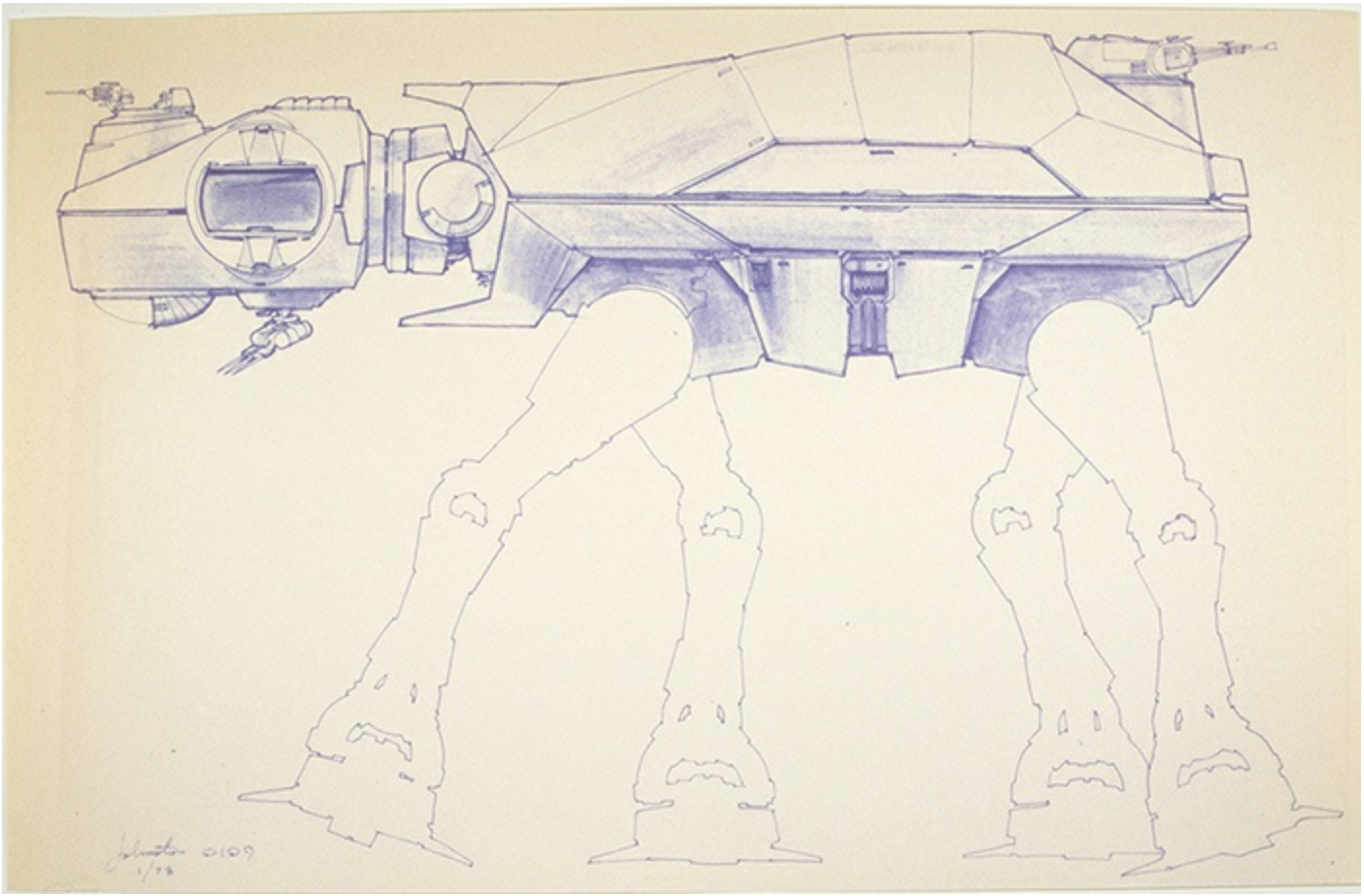
"We found out during our various interviews with directors that it was more difficult than we had thought to find someone that seemed to be right in terms of their attitude toward the material," Kurtz says. "I talked to Alan Parker, the English director, after he had done *Bugsy Malone* [1976], not only about this picture but also about another picture for us. He was interested, but felt that he wanted to do his own project next. We talked to John Badham, who did *Saturday Night Fever* [1977]."



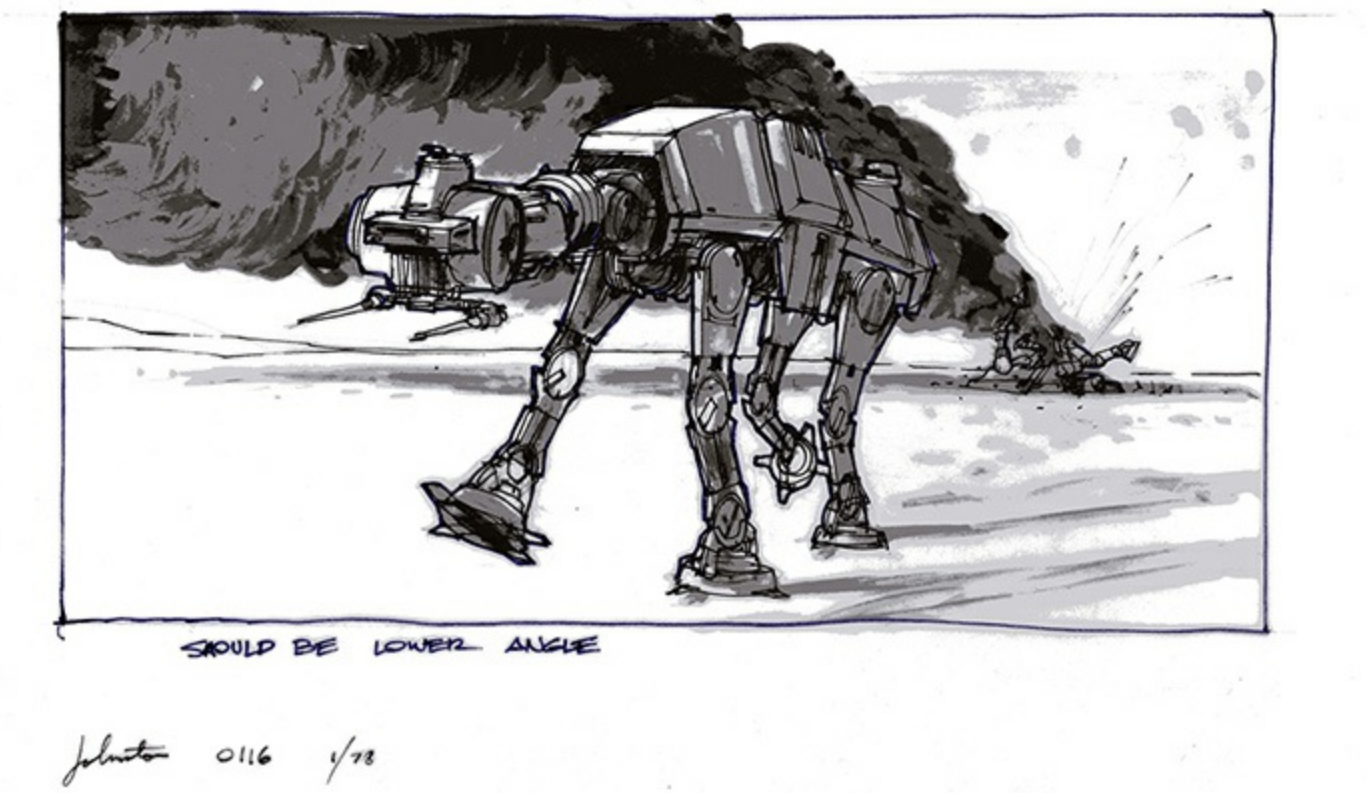
Revised walker concept by Johnston (no. 108), January 1978.



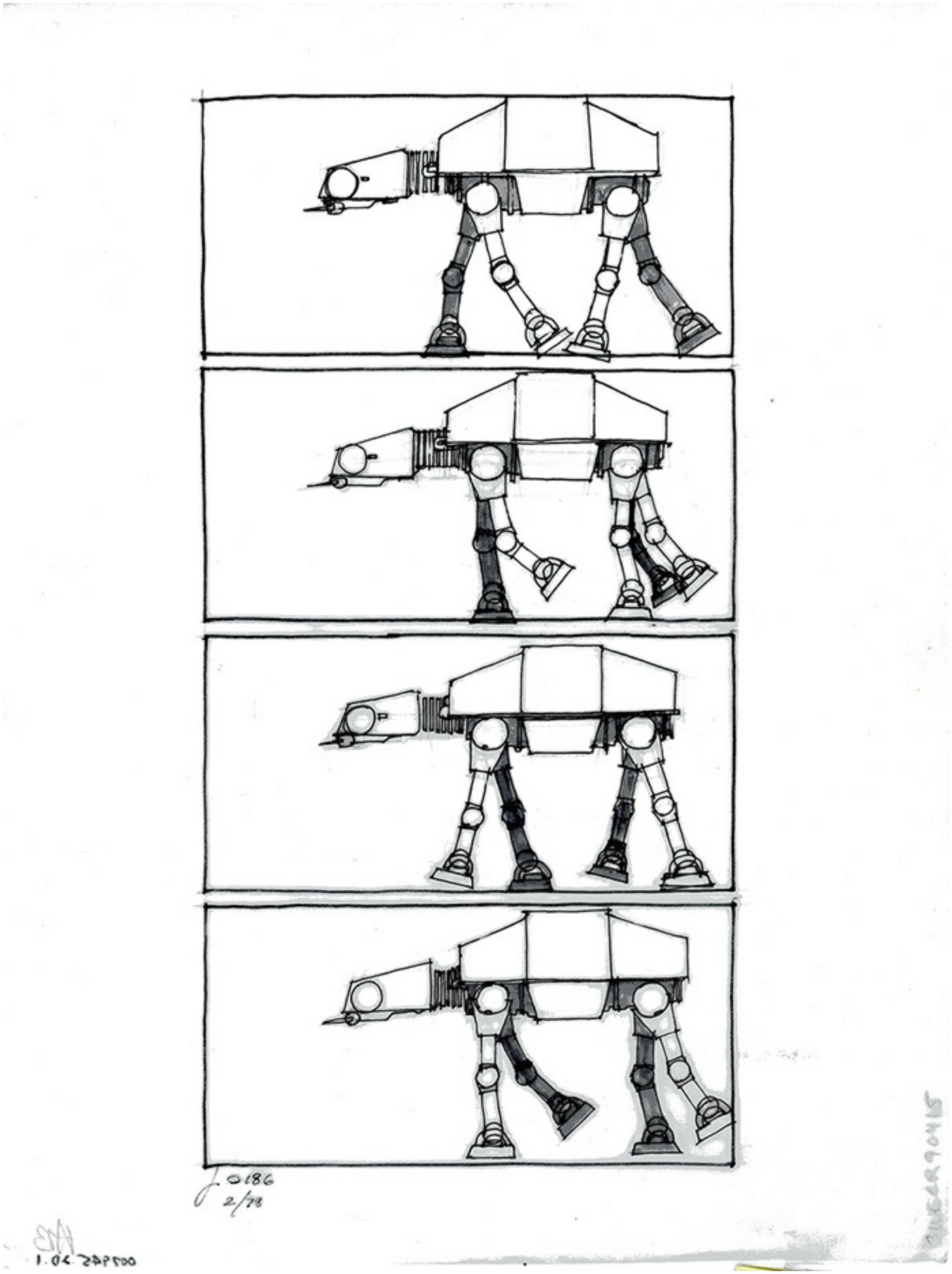
Revised walker concept by Johnston (no. 135, with rear gunner), January 1978 (note the walker's varying size).



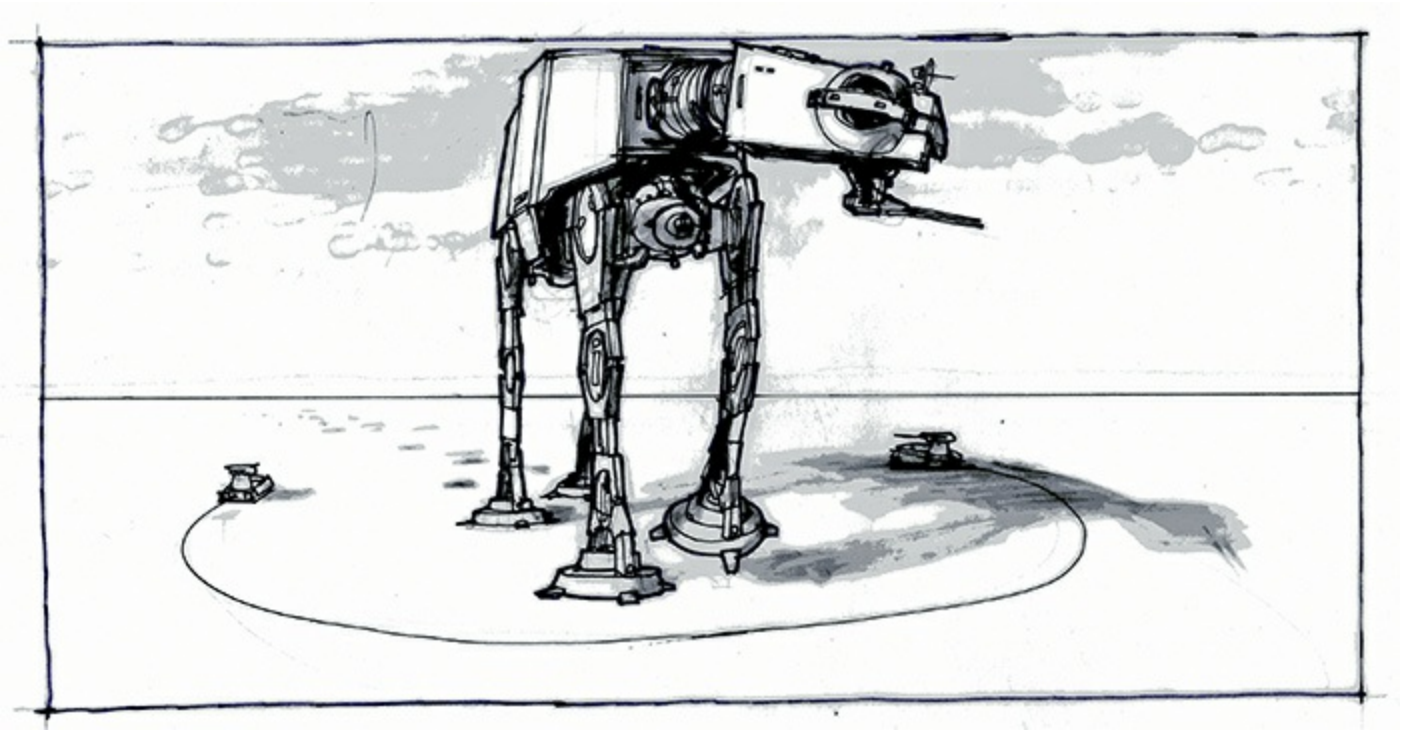
Revised walker concept by Johnston (no. 109), January 1978.



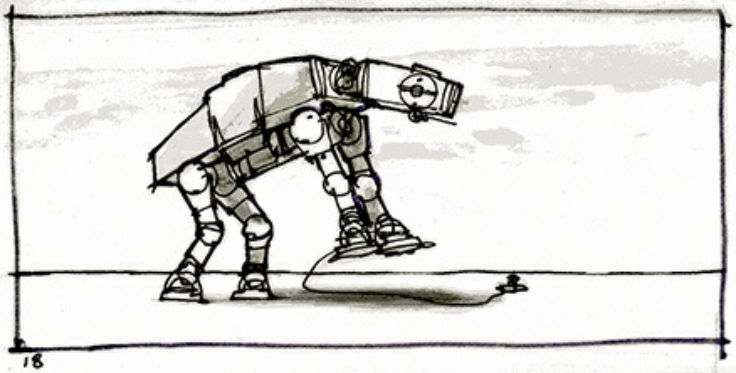
Johnston storyboards of the snow battle (no. 116), January 1978.



Johnston storyboards (no. 186), February 1978.



Snow battle storyboards by Johnston (no. 117), January 1978.



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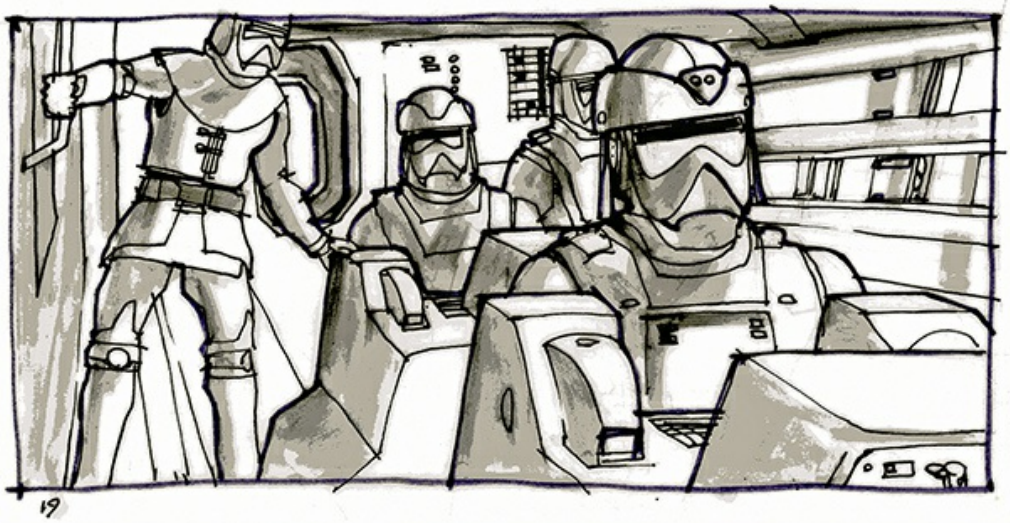

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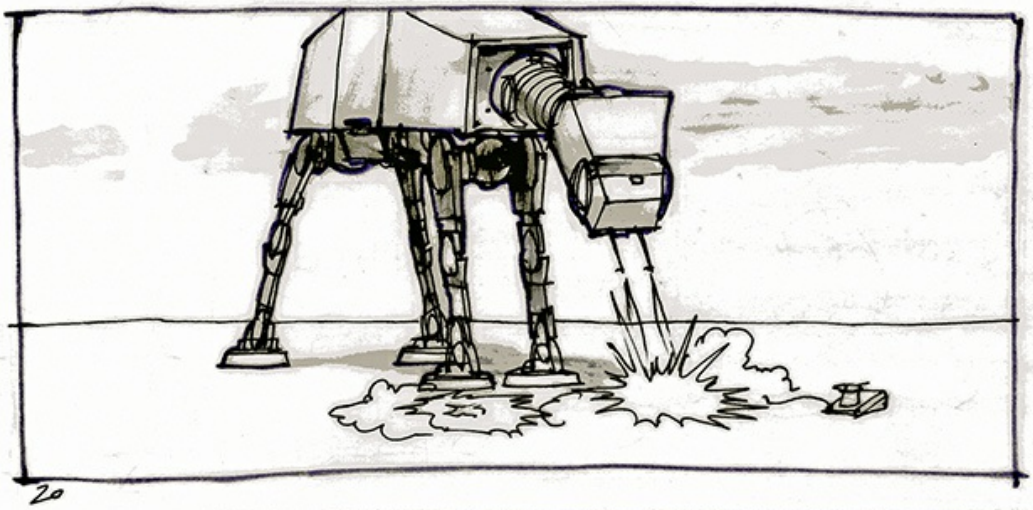

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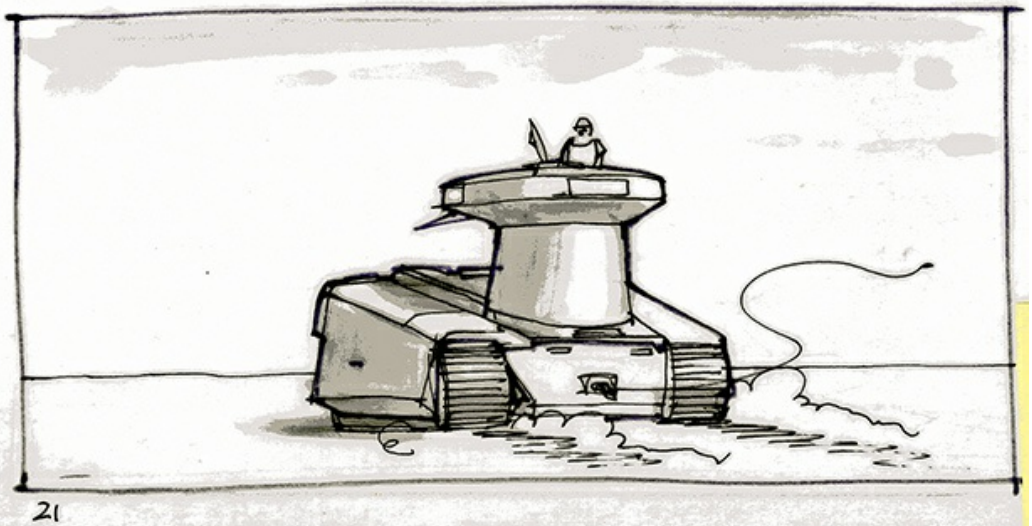

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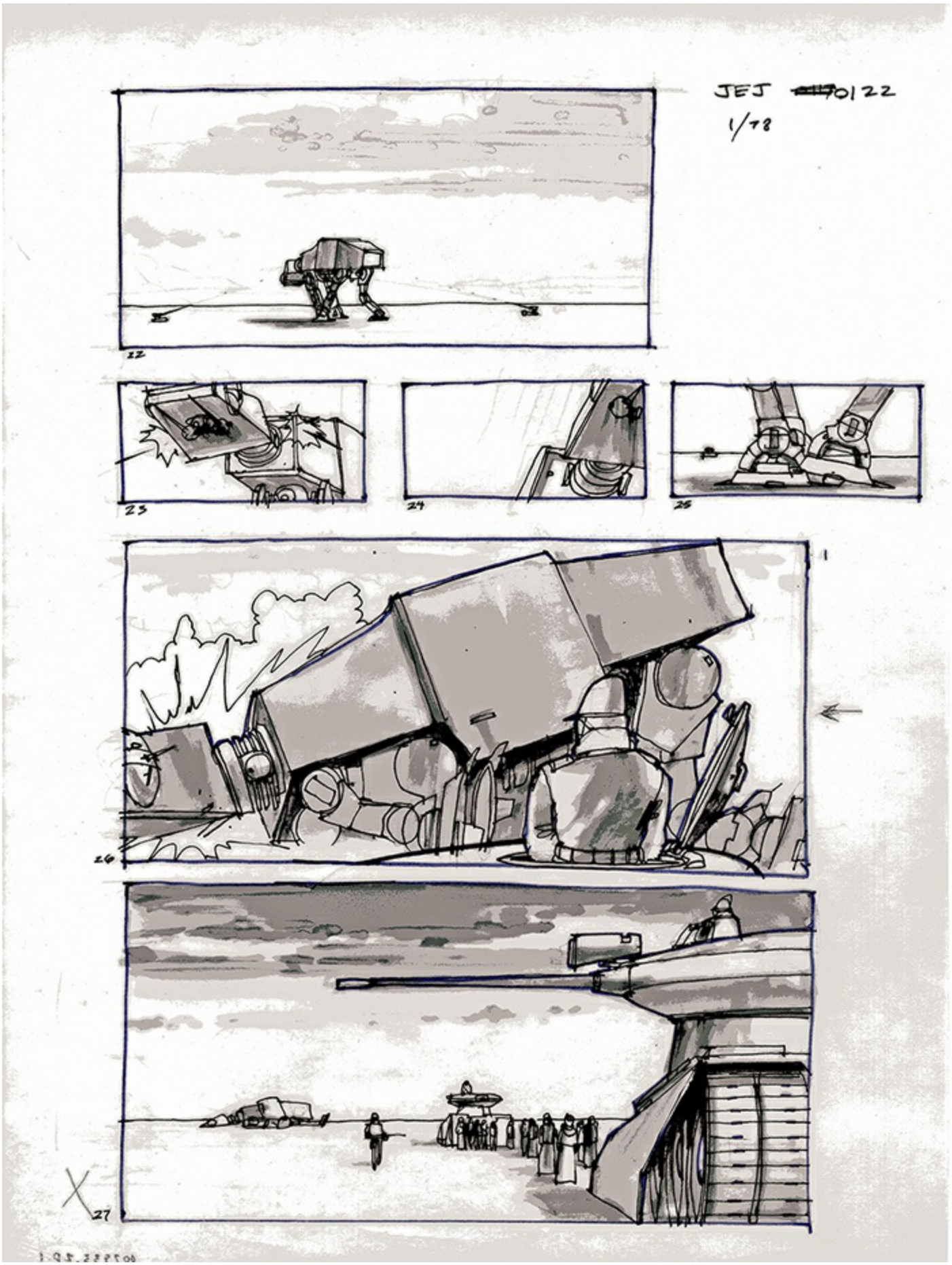
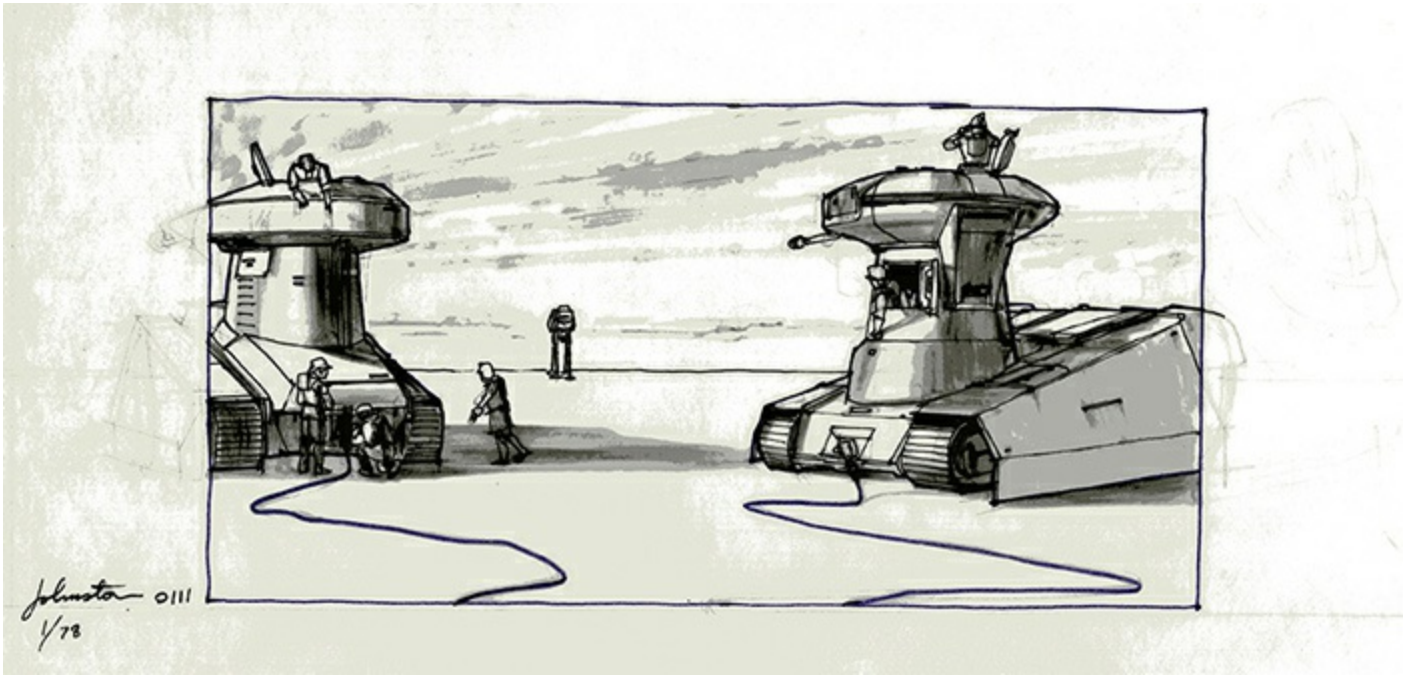
Snow battle storyboards by Johnston (no. 121), January 1978.

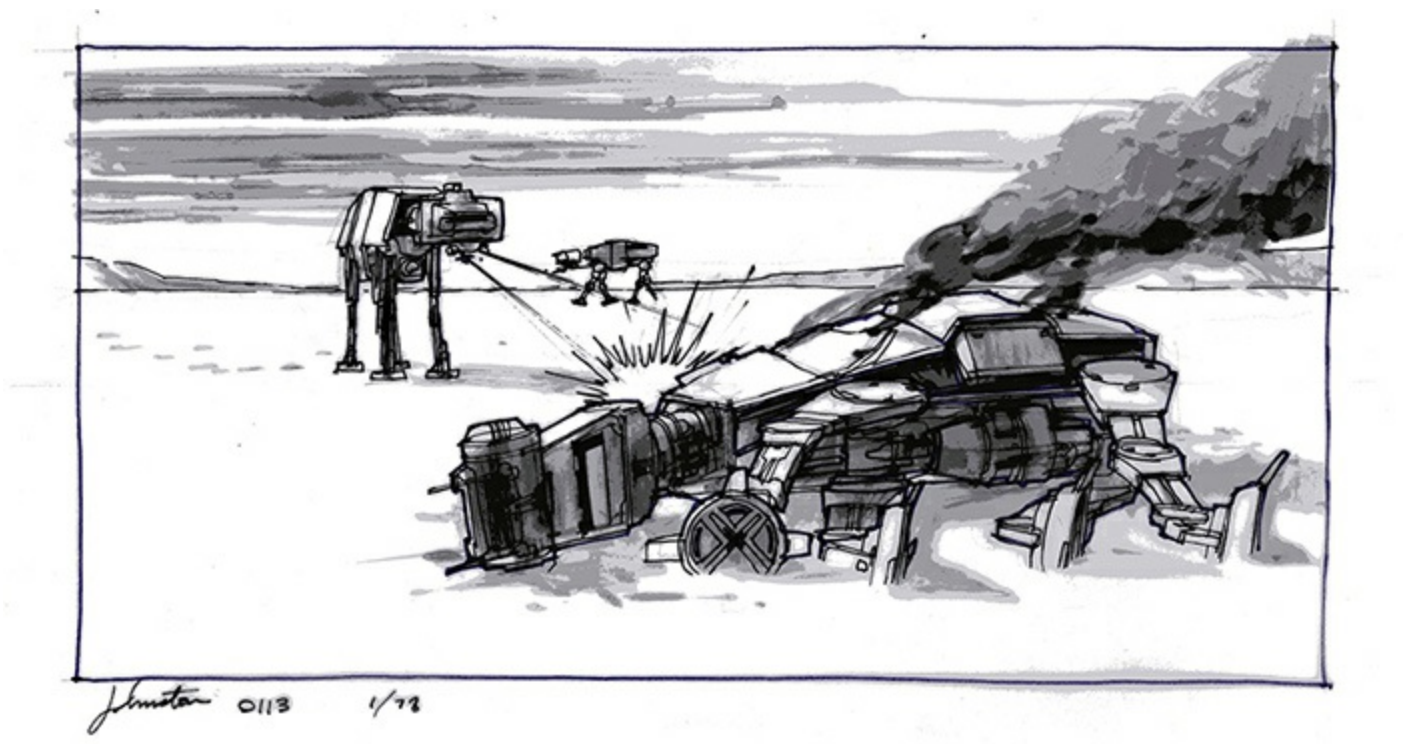


Snow battle storyboards by Johnston (no. 122), January 1978 (the tanks, with tow cables, are now being used by the Rebels to trip up

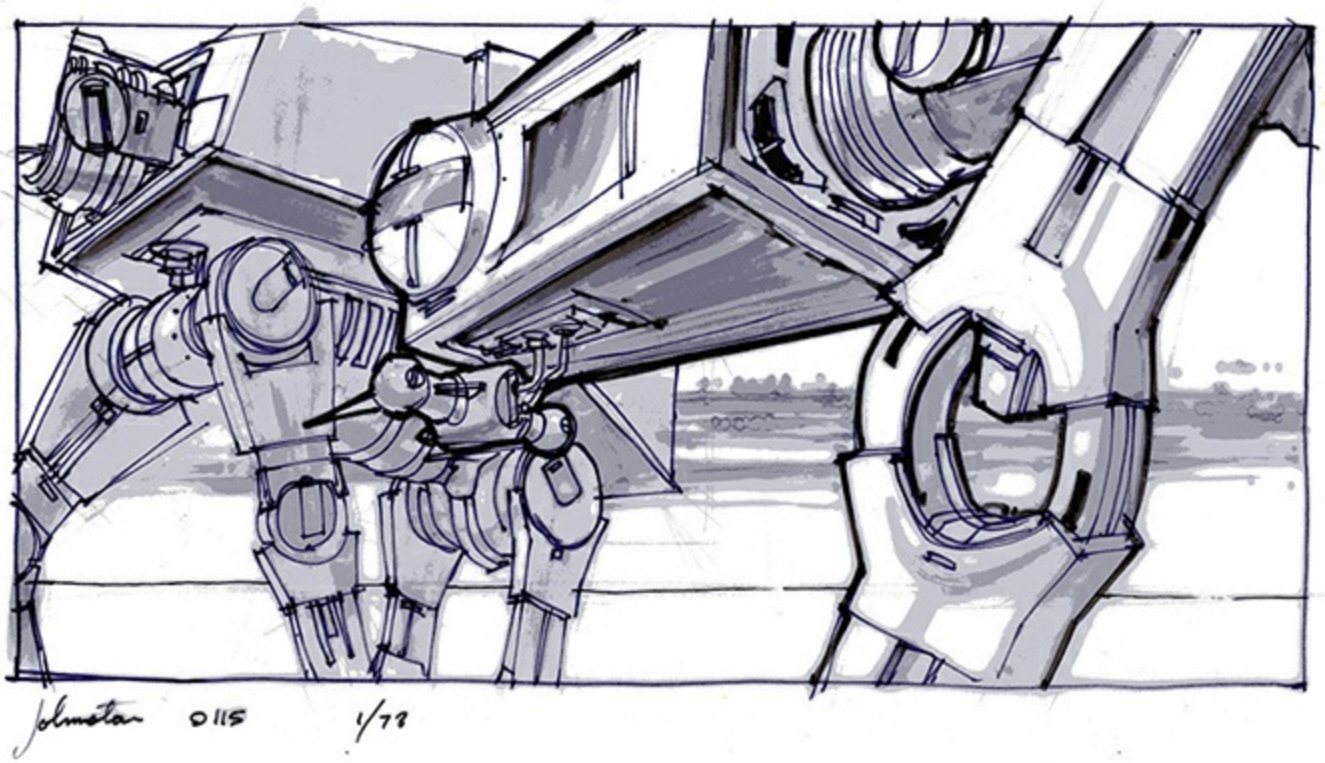
the Imperial walkers).



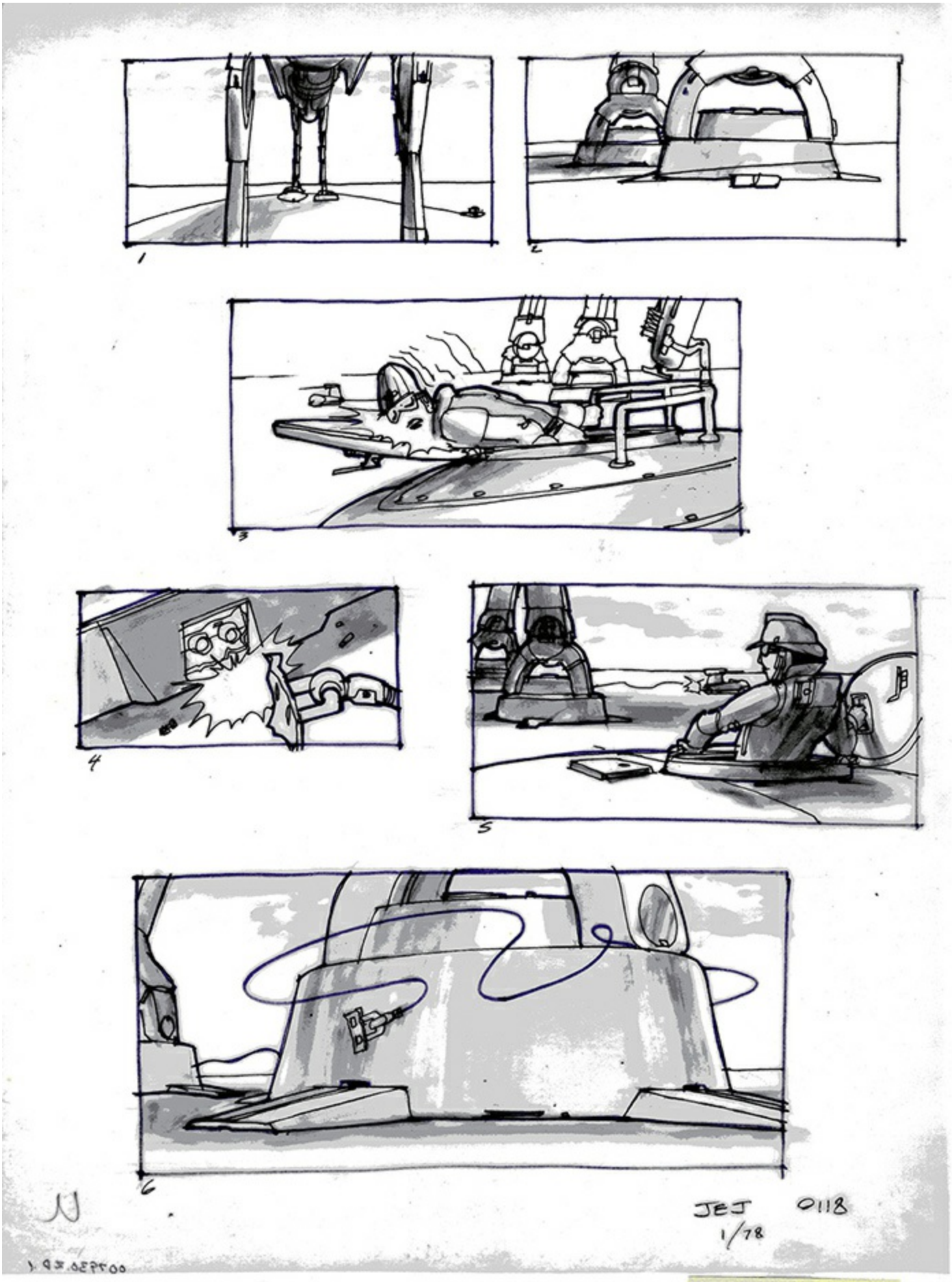
Johnston storyboards of the snow battle (no. 111), January 1978.



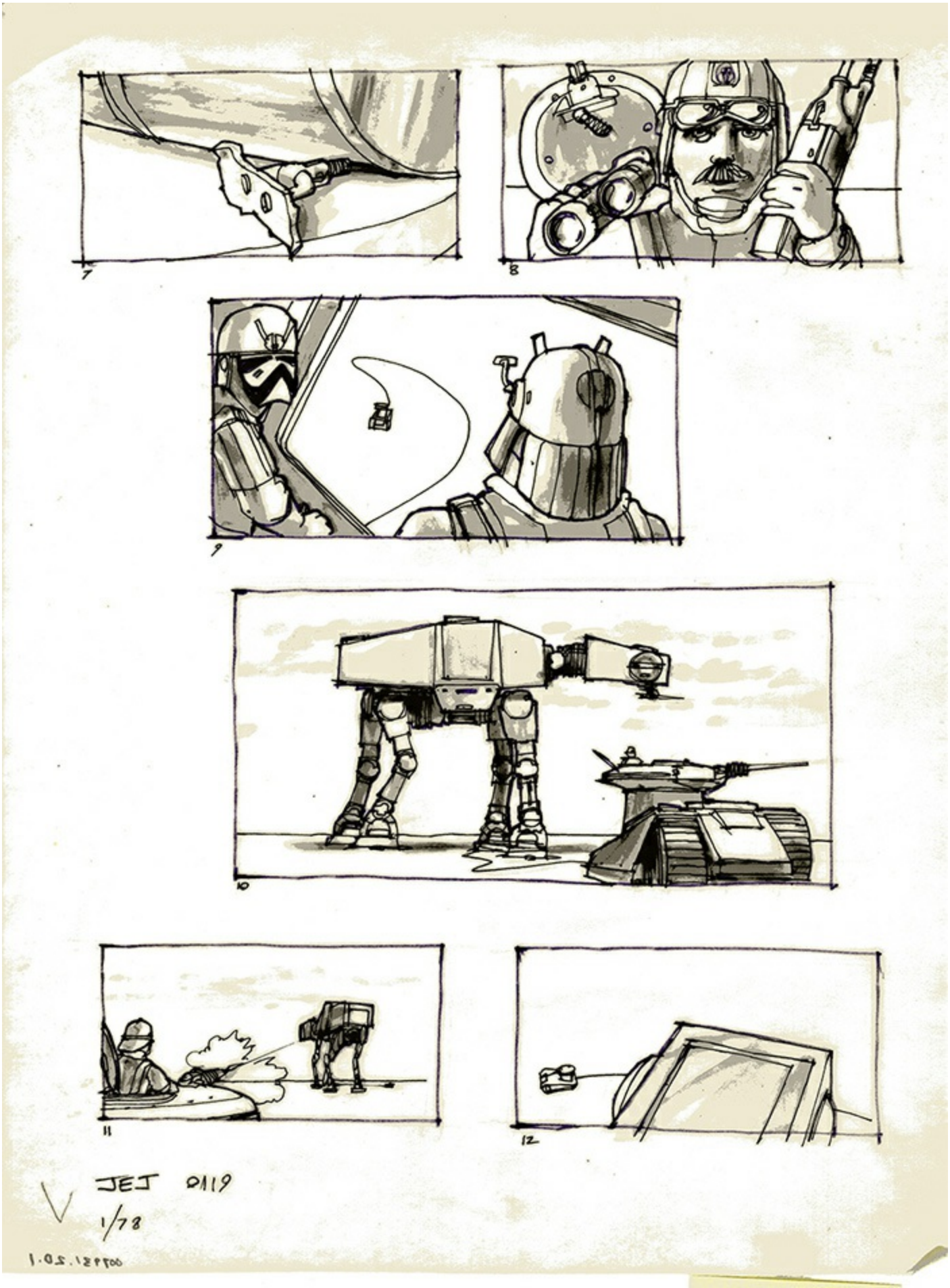
Johnston storyboards of the snow battle (no. 113), January 1978.



Johnston storyboard of the snow battle (no. 115), January 1978.



Johnston storyboards of the snow battle (no. 118), January 1978.



Johnston storyboards of the snow battle (no. 119), January 1978.

"We did talk to a few directors," Lucas says. "But they weren't name directors and they weren't

people that I knew. We were just checking out who was out there, who was available, who could do something like this."

"The problem you encounter when doing a follow-up to a very successful picture is that there are directors who shy away from the project for fear of being overshadowed by the reputation of the first film," Kurtz says. "The perceived wisdom is that if a sequel works, the original director gets the credit; if it doesn't work, you get the blame. So it isn't a very popular thing. We also hoped to find someone who not only had the right attitude toward fantasy, but who would also develop the characters without losing sight of the inherent humor or slowing down the action of what essentially is an adventure story. Some of the younger directors working in Hollywood today are very good and very clever, but they also tend to be a little cynical about their material. The worst thing that could have happened would have been to engage a director who didn't believe in the material."



Lucas on the evolution of his role from writer-director to writer-producer on the second Star Wars film. (Interview by Arnold, 1979) (2:14)

So Lucas tacked toward a director with more experience, someone with enough maturity to understand the different levels on which the first film had operated. That someone was Irvin Kershner, or "Kersh."

"I've known George from USC for many years," Kershner says of his alma mater, which Lucas had also attended. "I went back for some seminars; I also taught a course there in the 1960s. I'd come in to judge the student films and discuss them with the classes. That's where I made contact with George. I had always noticed his work there; his film projects were really extraordinary. He did a little film for Carl Foreman [*6.18.67*] that was incredibly beautiful. He seemed to have a different way of seeing film. Then I saw *THX 1138* [1971] and I loved what he attempted to do; it was something fresh. Later *American Graffiti* just knocked me out. Here was somebody really working with his own psyche, with his own life, not going out for phony material."

"I knew Kershner, Gary knew Kershner," says Lucas. "He'd just finished this TV movie, *Raid on Entebbe* [1977]—it was really good and it was done in a very short time frame. He was a friend of Haskell Wexler's [a cinematographer and friend of Lucas's]. He went to USC, which is a whole backstory—and I just admired his work."

Kershner was in fact one of the judges at the 1968 National Student Film Festival in which Lucas's student film *THX 1138.4EB* won top prize, in a sense launching his career; Kurtz had also known the director for some time. "I did work with him when I was a student at USC," Kurtz says. "He directed a film on venereal disease for the US Public Health Service, a 30-minute dramatic film about the effects of the VD epidemic on high school kids. It was cast with real actors; it was a fairly professional film, in 35mm, and I shot some second-unit footage."

"I was surviving the completion of *Eyes of Laura Mars* [1978] when I got a call from Gary Kurtz saying that he would like to have a drink with me," says Kershner. "That was quite surprising because Gary doesn't drink. But I figured, *There's something up*. We sat in a bar; he had a Perrier and I had a stiff beer … He said, 'Would you like to do a science-fiction picture,' being very cagey. And I said, 'Yes, I might, because it fits into the area of fantasy that I want to work in.' I told Gary that, in fact, I was

writing a musical fairy tale for children. He said, 'A musical fairy tale? We've got to talk about that sometime.' I said, 'Now. Let's talk about it now.' He said, 'No, no. Sometime.' That's a producer ploy, you see. He said, 'But you *are* interested in a science-fiction picture?' I assured him of my interest, but explained that I was also working on other pictures. He said, 'Okay, you'll hear from me.'

"I got a call from Gary Kurtz," Kershner continues. "We met in the Hamburger Hamlet on Sunset Strip and sat and talked. He said, 'Would you be interested in doing the next *Star Wars?*' I said, 'Jeez, would I? Um, is it going to take a lot of time?' He said, 'Yeah, it'll take a lot of time.' I said, 'I'll tell you tomorrow.' "

"Kersh isn't cynical," says Kurtz. "That attitude shows through on the screen and was a principal reason why we thought Kersh was right. Also, in almost all of his pictures, Kersh has concentrated on his characters. His work shows humor and a fine sense of timing that is devoted to developing human relationships. He had also done some good action pictures: *The Return of a Man Called Horse* [1976] and *The Flim-Flam Man* [1967]."

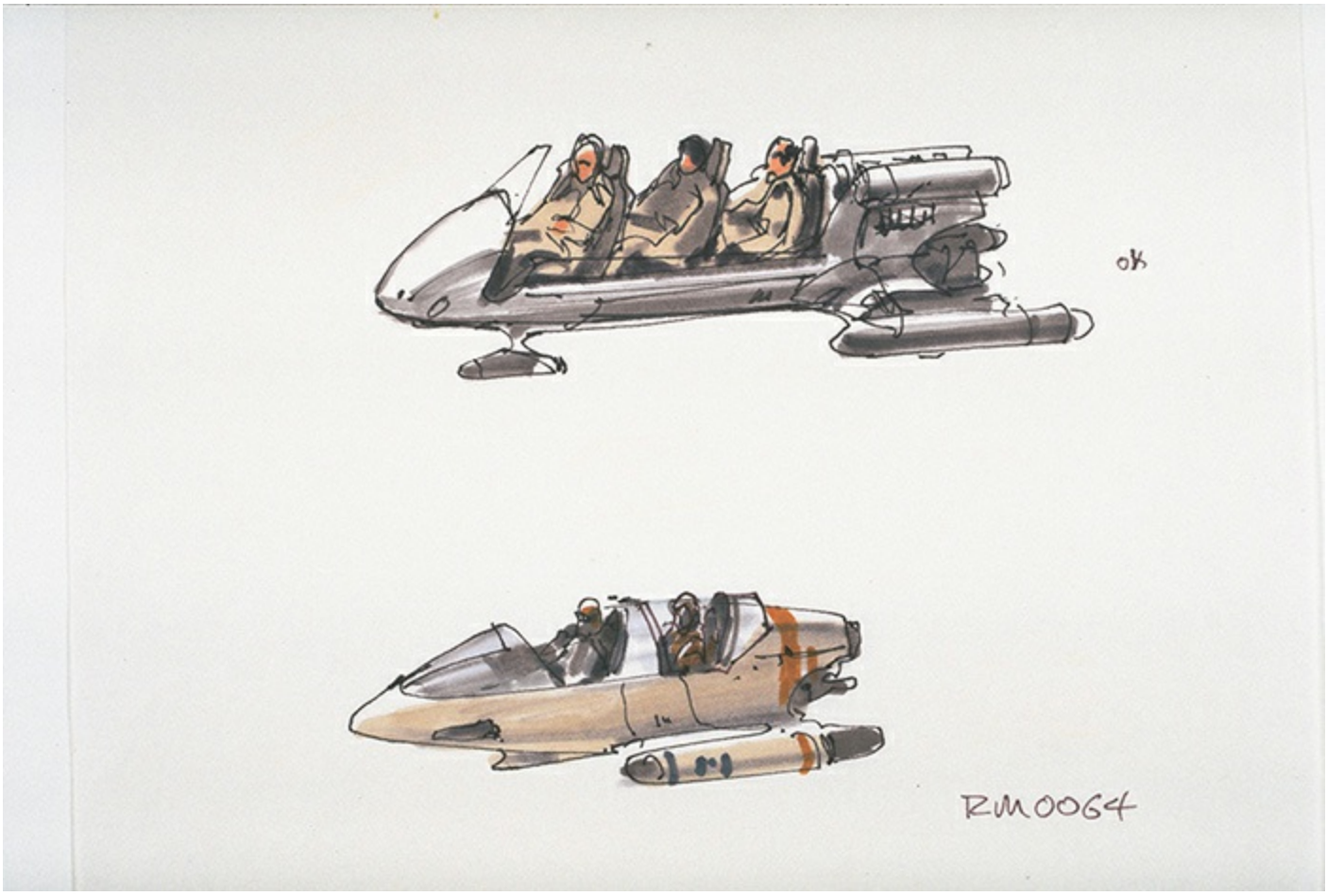
"I called Gary back the next day and said that yes, I would be interested," Kershner recalls. Shortly thereafter, Lucas telephoned Kershner. "George Lucas had just arrived from San Francisco and wanted to know if we could have lunch at Universal. That was unusual, since George doesn't normally have lunch at Universal. In the commissary, everybody's neck was craning to see what was up. He asked me if I would like to do the next *Star Wars*. He said it was the middle act of a trilogy and a very difficult film to make. He said it was very important to him, because, if this one worked, he could foresee a whole series that would go on for years. All I could think was, *You want me to make a sequel to the most successful film ever made, George?* That's a hard act to follow!"

"Kersh asked me why I didn't direct *Empire* myself," Lucas says. " 'You'll see …,' I said. These films are infinitely harder than other kinds of movies. You end up feeling like a harassed corporate executive. I had no life other than making the movie. I had to take time out to be a normal person."

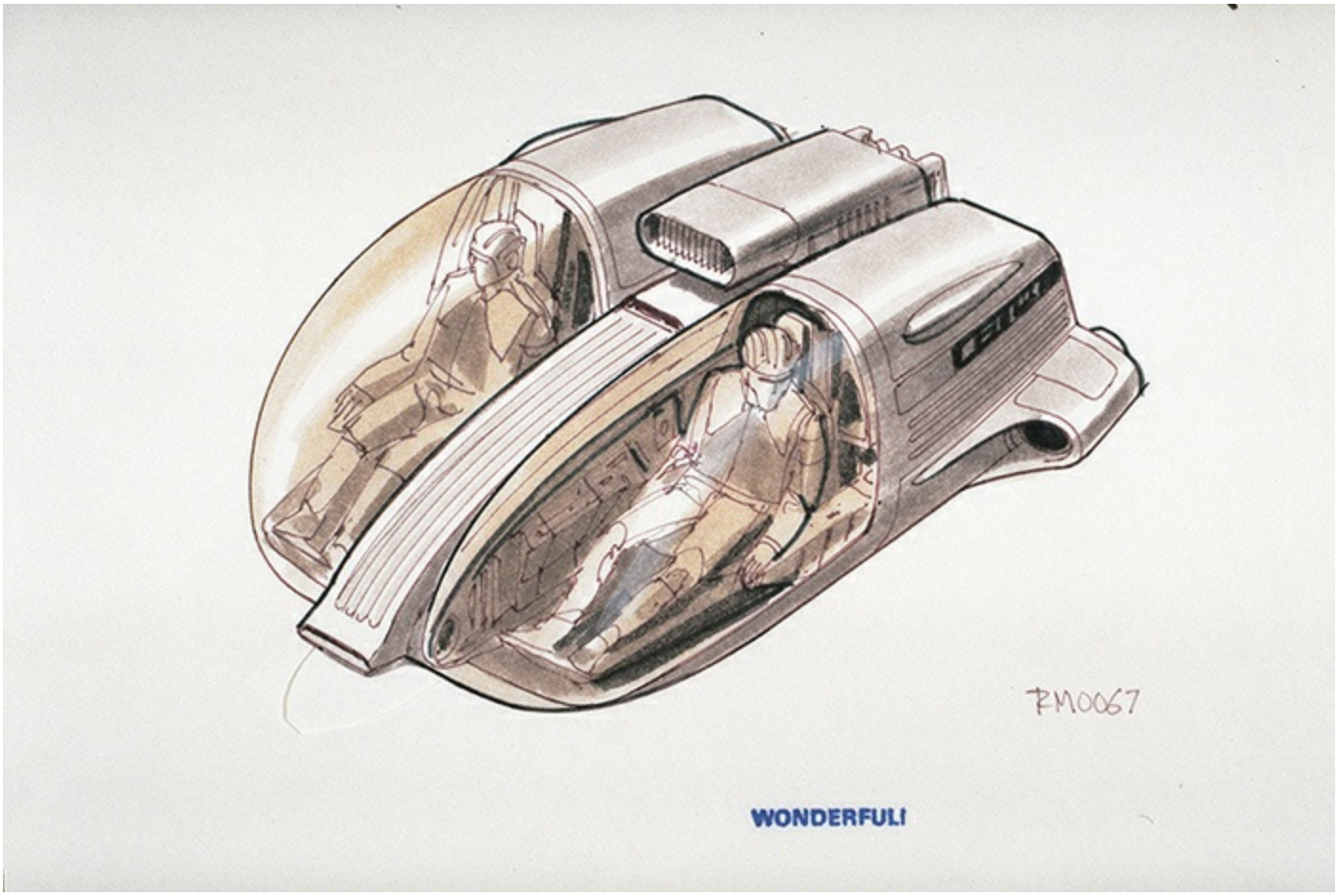
"We talked about old times," Kershner adds. "George said that it was so difficult to do the first one that I would be crazy to do the second one. He said, 'Boy, I couldn't get up in the mornings after a while; six months of shooting is very, very hard. Everything goes wrong.' So he said, 'I want somebody who under tremendous pressure will not cave in. Somebody who has a vast experience in films and likes to deal with people and characters.' I felt very flattered. He knew how to get to me. The rat. I told George that the only way I'd do the film is if I felt I could top the first one. He laughed and said that's why he wanted me to do it. He said, 'It's not a sequel. This is a continuing saga.' "

"We talked with Kershner," Lucas says. "I had respect for Kershner and I think he had respect for me. I thought we could work well together; at the time, I thought Gary could work with him, too."

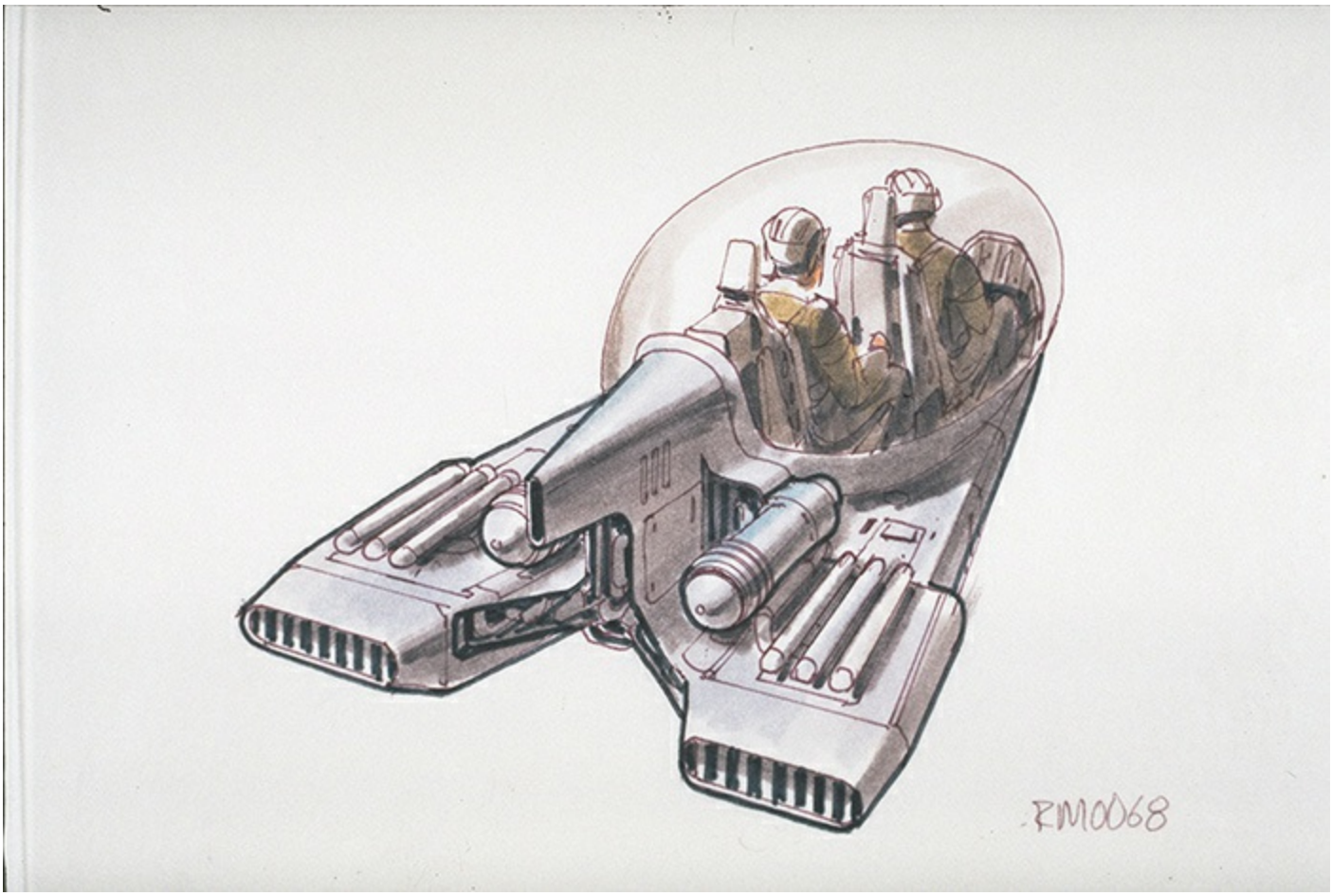
"I said, 'Yeah, I want to do it—let's make a deal!' " Kershner says. "We were both very pleased and we shook hands. The more I thought about it, the more I got excited, because I love the technical aspects of film, I love the visual possibilities, I love the fact that it's really for children, or as George says very aptly, 'for the child in all of us adults.' "



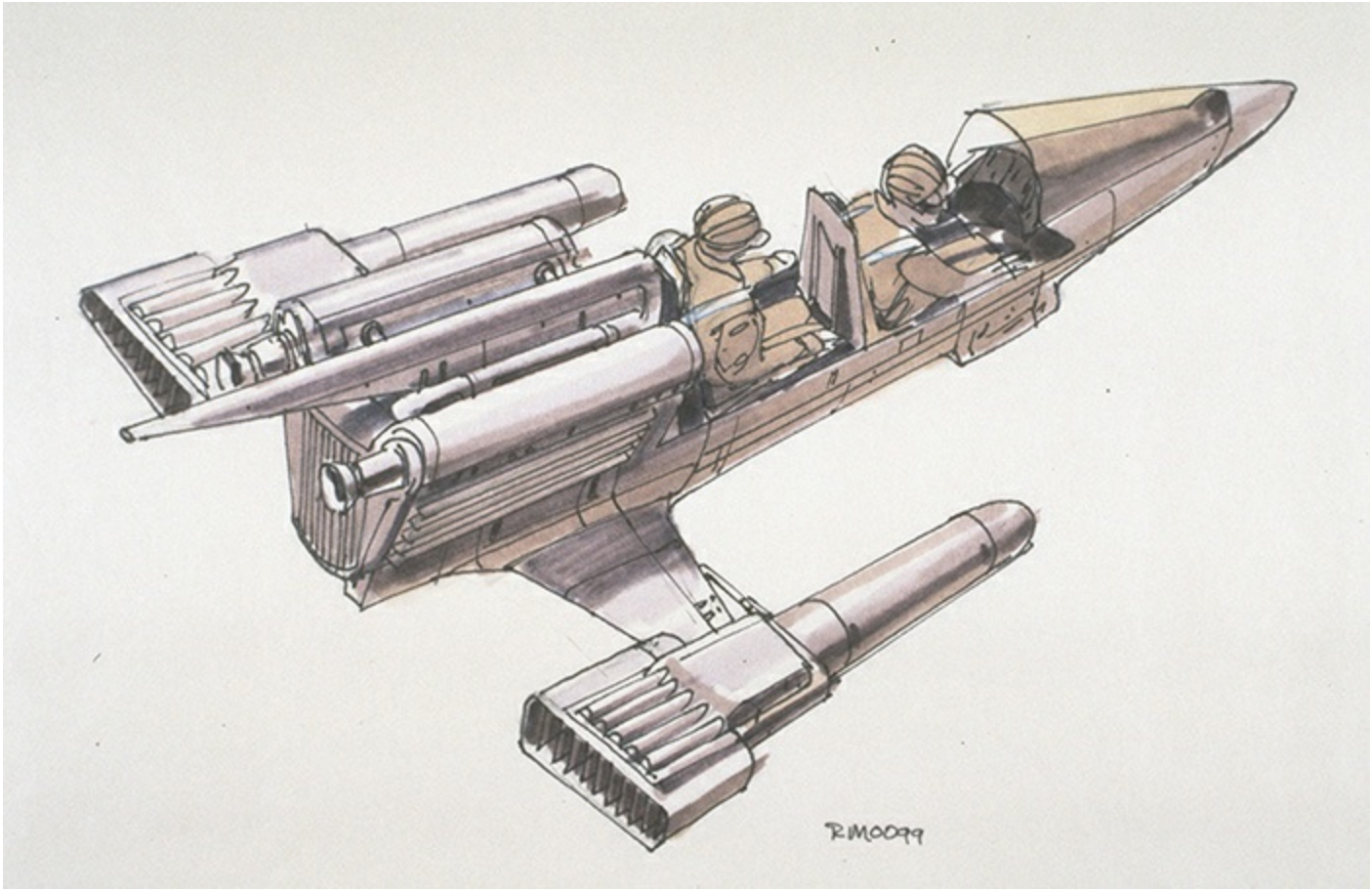
"Pod car" and "shuttle" concepts by McQuarrie (no. 64), December 1977.



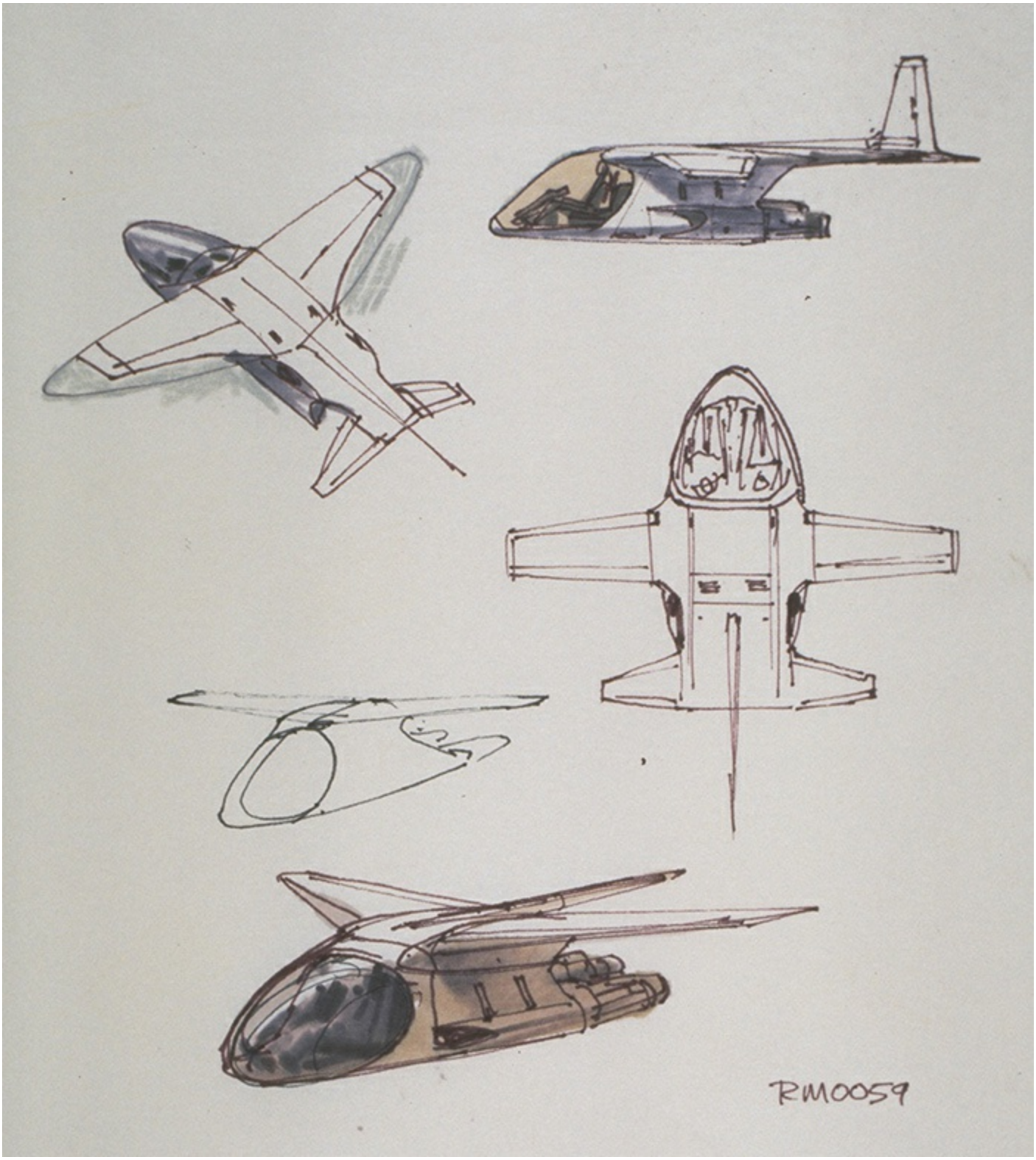
“Pod car” and “shuttle” concepts by McQuarrie (no. 67), December 1977.



“Pod car” and “shuttle” concepts by McQuarrie (no. 68), December 1977.



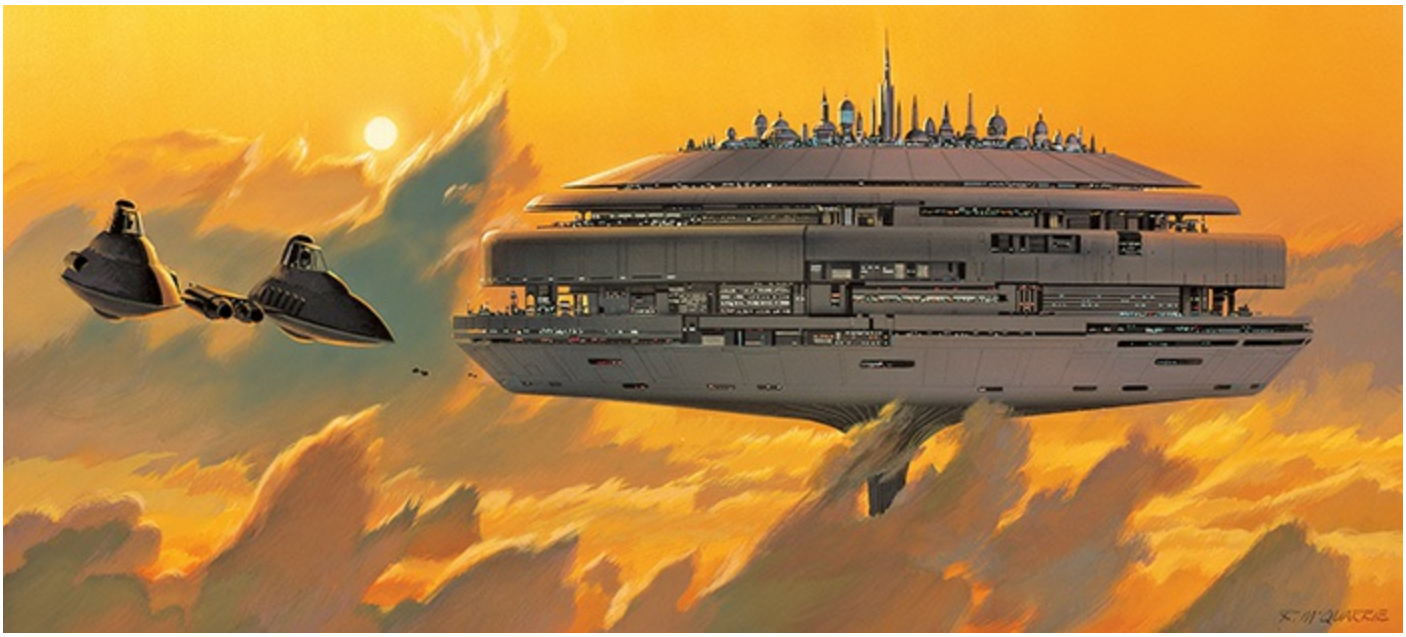
Pod car concepts by McQuarrie (no. 99).



Pod car concepts by McQuarrie (no. 59).



Color sketch by McQuarrie of a floating metropolis.



“City in Clouds” by McQuarrie.



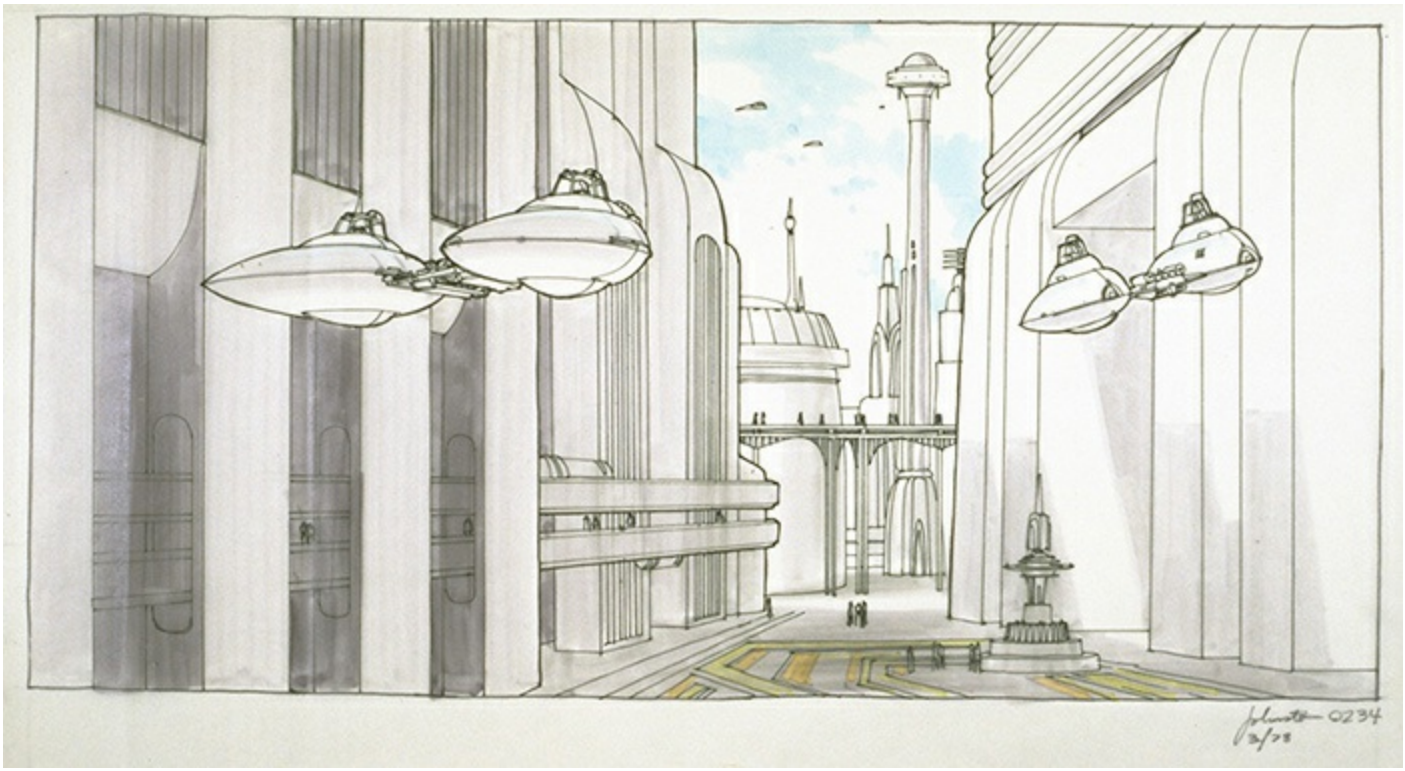
Color study for “City in Clouds”

Initially an Imperial prison in an early *Star Wars* script, the floating metropolis returned in *Empire* now titled “City in Clouds” by McQuarrie, January 16–18, 1978 (nine-plus hours).

“You may note it bears a bit of resemblance to the mothership in *Close Encounters*, which I also created,” says the artist. “I’ve painted this scene a number of times already, originally for the first film. I wanted something more mechanical and I came up with something like the side of an aircraft carrier … I put a kind of city on the top of it that looked like it had ancient monuments.”



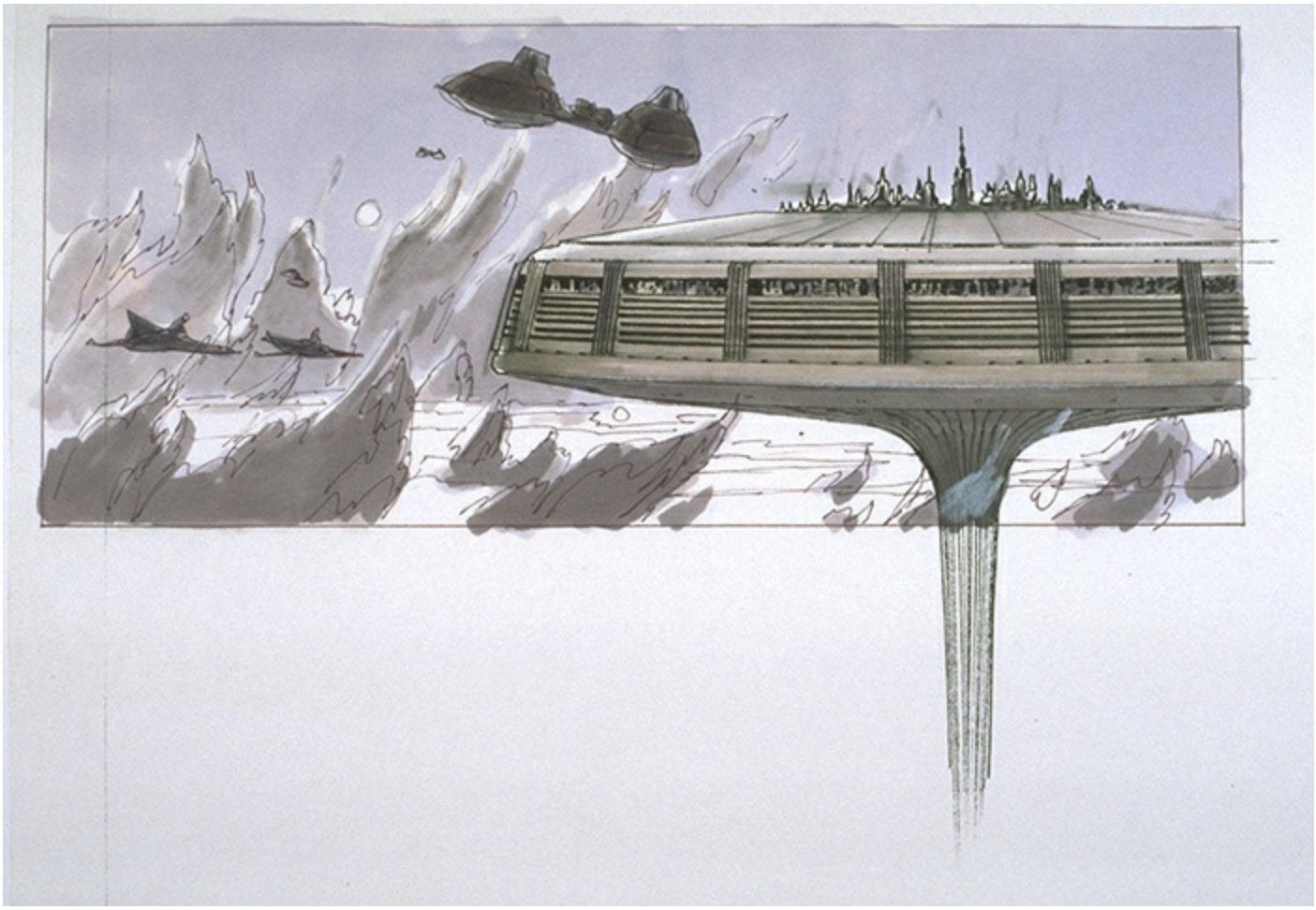
Undated color study of a cityscape by McQuarrie, (possibly for Lucas’s City Planet, ton-muund, or Cloud City).



Cloud City and pod car concept by Johnston, March 1978.



Pod car concept by Johnston, March 1978.



Cloud City concept by Johnston, March 1978.



Cloud City concepts by McQuarrie.

At 54 years old, Kershner had the experience Lucas wanted and more. He was musical, playing several instruments, and had studied painting under Hans Hoffman. He served in B-24 bombers during World War II while stationed in England for two and a half years. "I turned to photography," he says of his life afterward. "I believe that temperament determines everything. Rhythm is an extension of temperament."

At USC, Kershner studied anthropology and history—and discovered movies, almost anticipating the academic path of Lucas many years later. "I did some work in documentaries," he says. "I worked in the Middle East for the World Health Organization. Then I returned to the States to direct one of the first TV documentary series—*Confidential File* [1953]—I wrote, directed, and shot the programs, which was great training and led to my first feature, a picture about drug addiction [*Stakeout on Dope Street*, 1958]. I followed this with a movie about capital punishment and prisons [*The Hoodlum Priest*, 1961]. I was on a highly social kick and I felt that films were a very important part of, let's say, benevolent propaganda."

Like Lucas, Kershner loved the work of Japanese film director Akira Kurosawa and that of the French director Jean Renoir. They also shared a deep interest in philosophy and religion.

"I've been a student of Christianity for many, many years, of Christian philosophy," Kershner says. "I've been interested in the historical basis of Christianity and the Muslim religion. I've been studying Buddhism for many years and I'm quite fond of its notions of Zen. I don't think of myself as a Jew except by birth and by acceptance of the fact that I am a Jew. I'm more a Jew because other people consider me a Jew than myself, and out of respect to my parents, because I don't follow the holidays."

"Quite a number of churches have used *Star Wars* as a way of getting young people into the church," Lucas says. "They use it as an example of certain religious ideas, which I think is good. It gives young people something entertaining to relate to and at the same time it can be used as a tool to explain certain religious concepts, more general good and evil concepts."

Negotiations between Lucasfilm and Kershner began, and Tom Pollock made an official offer on February 13. The two camps discussed the "film by" credit. Kershner wanted the words *An Irvin Kershner Film*, at the front of the movie, but Pollock indicated in a letter that only the same opening credits as on *Star Wars* would be featured—just the company logos—but that they could place the desired wording in the end credits.

"Maybe the first consideration was, they were going to pay me," Kershner says. "I said that under certain conditions, I'd make the film. First of all, if I felt that I could make a film that was better than the first one, that meant having freedom. And sufficient money. George assured me that money was not a problem—within limits, of course. He further assured me it would be my film completely. He also knew that I was disciplined and therefore would plan it well and respect the budget."

While Kurtz did more preproduction work in London that month, Pollock sent a deal memo to Kershner on February 15. Letters were exchanged between lawyers later that month—but a "firm commitment" had been made. "I only saw *Star Wars* twice," Kershner says. "I was fortunate in seeing the picture at one of its first showings at the Academy in Los Angeles, with my 10-year-old son, before it opened, and I ran it once on a Movieola. Then I never wanted to see it again because I didn't want it to enclose me too much. But I retained the image.

"I saw the picture partly through my son's eyes," the director continues. "Watching his reactions and talking to him about it later, it quickly became obvious that a very satisfying thing about the film was knowing who was good and who was bad. The morality within the film had clear definition and since

the good tended to triumph, that was highly satisfying—at least to my kid. But the film appeals to the subconscious in all of us. People are interested in Zen, in the power that is in everyone. That's a step toward assuming responsibility for oneself, which is what the heroes in *Star Wars* seem to be doing."



Rough sketch of tauntaun and rider, by McQuarrie, late 1977. Inspiration for early tauntaun concepts came in part from "Tyrannosaurus and Triceratops" by Charles Knight (for the Field Museum, 1927).



Early taun concept by McQuarrie (no. 44), December 1977.



Early taun concept by McQuarrie (no. 161), January 1978.



Early taun concept by McQuarrie (no. 43).



Early taun concept by McQuarrie (no. 100), January 1978; a note reads, “winterized lizard—seems more like a rodent now.”



Early taun concept by McQuarrie (no. 146).

Ned Brown of Associated Agency personally delivered Leigh Brackett's first draft to Andrew Rigrod on February 21, 1978. In Rigrod's memo to Lucas and Kurtz, he suggested that Bunny Alsup retype the script to give it a more professional appearance (Brackett's submission had a lot of sections crossed out and inserted text written by hand). On delivery, Brackett was due $16,666 (minus taxes, $12,770), and a check was sent to Brown at his Beverly Hills office.

In *Variety*'s February 24 issue, Charles Schreger reported that Fox would "definitely" be getting the *Star Wars* sequel, that Irvin Kershner would direct, and that all three principals would be returning, but "it is not expected that the Alec Guinness character [...] will reappear in the sequel." Schreger ends his article by noting that the second of 12 films will take place on location in Europe and Africa, and that, as of February 22, *Star Wars* had worldwide grosses of $208,934,715.

On February 25 at 3 PM, Lucas, Kershner, and McQuarrie met at the Beverly Hills Hotel to go over the film's concept art; the executive producer and director also discussed the script. Both of them were concerned. Brackett's draft did not have the right feeling for a *Star Wars* movie. That same month, Lucas had signed up another writer, Lawrence Kasdan, to transform his *Raiders of the Lost Ark* treatment into a script for Steven Spielberg to direct.

"Leigh had written something that was of a different era," Kasdan says. "She hadn't quite gotten what it is about George, all the ways in which *Star Wars* revolutionized these kinds of movies; I don't think Leigh was quite up to speed with that. I think she just was in an entirely different mode—and it may be a perfectly valid one, but not in the George mode. And he wanted something that would fall in line with *Star Wars*, that had that same sound and yet deepened the story."

"There were many things that didn't quite work when I first saw the script," Kershner says. "The ending didn't work. There were sequences in the snow that really didn't work."

"The truth of it is, I got captivated by the thing; it's in me now," Lucas says. "And I can't help but get upset or excited when something isn't the way it's supposed to be. I can see that world. I know the way the characters live and breathe. In a way, they have taken over. It's the hardest thing in writing to be able to develop individual characters that aren't a reflection of the mind that created them. My thoughts during the story conference weren't fully formed, and I felt her script went off in a completely different direction."

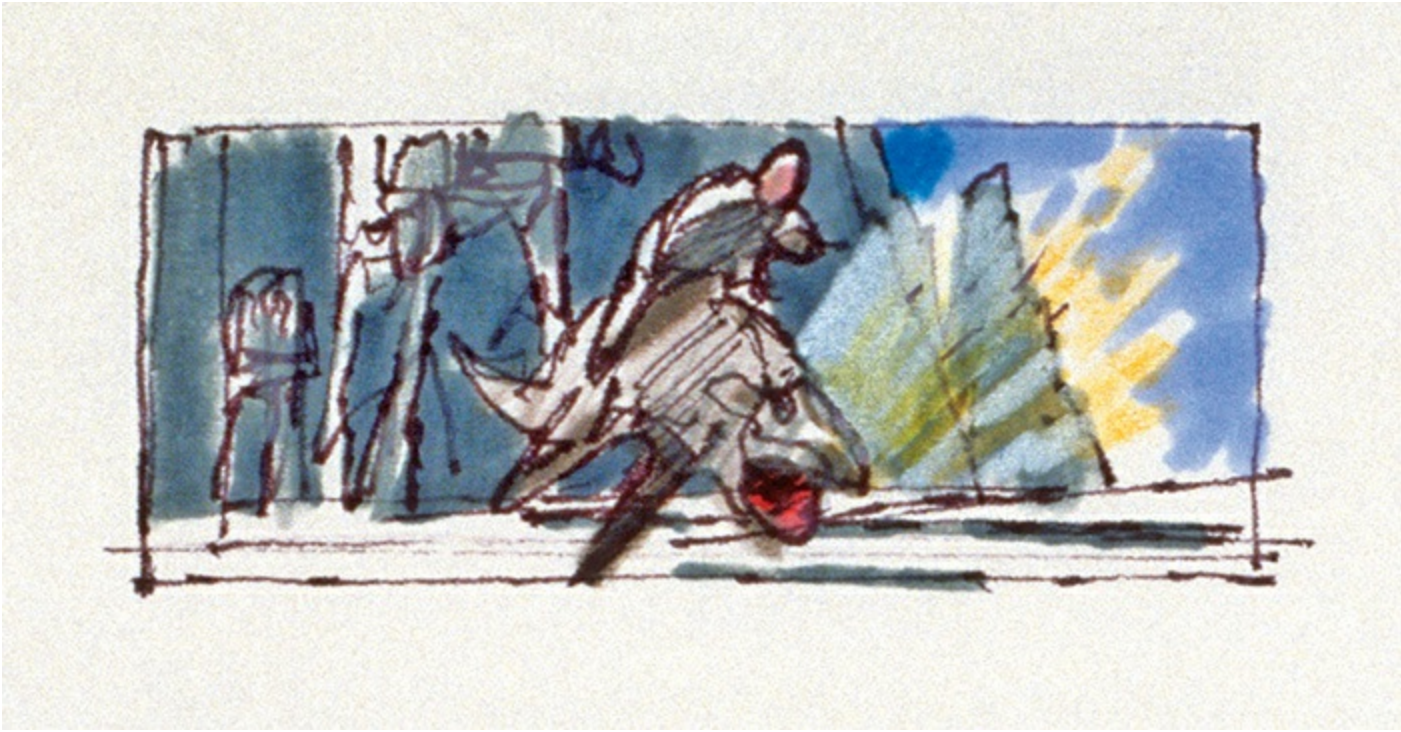
Although Brackett's script was faithful to Lucas's treatment in almost all superficial respects, the dialogue and actions of the personnel seemed to belong in another movie, particularly those of Darth Vader (see the sidebar on this page). Lucas started by making detailed edits on the first 40 pages of the first draft, having Solo say, "There isn't enough life on this ice cube to fill a small space cruiser." He also transforms the "ice castle" of the Rebels into "ice caves." He names a character "Baron Rabatt" and writes new words for Solo: "I wish you'd never found out about him." "He's your father," Leia replies. "Not really ... he never adopted me."

Lucas notes that Luke is "hanging upside down" in the "snowman cave" and that, during the Battle of Hoth, a "force field protects base from above attack." When Luke meets Minch, another edit reads, "Intro more Buddhalike. 'So you've come at last.' " However, about halfway into the script that was so far from what he'd wanted, his detailed comments are often replaced by a simple "No" scrawled next to whole scenes.

"George called up to talk to her about it, but she was in the hospital," Kasdan says.



Preparatory drawing for “Rodent mount.”



Preparatory drawing for “Rodent mount.”



Preparatory drawing for “Rodent mount.”



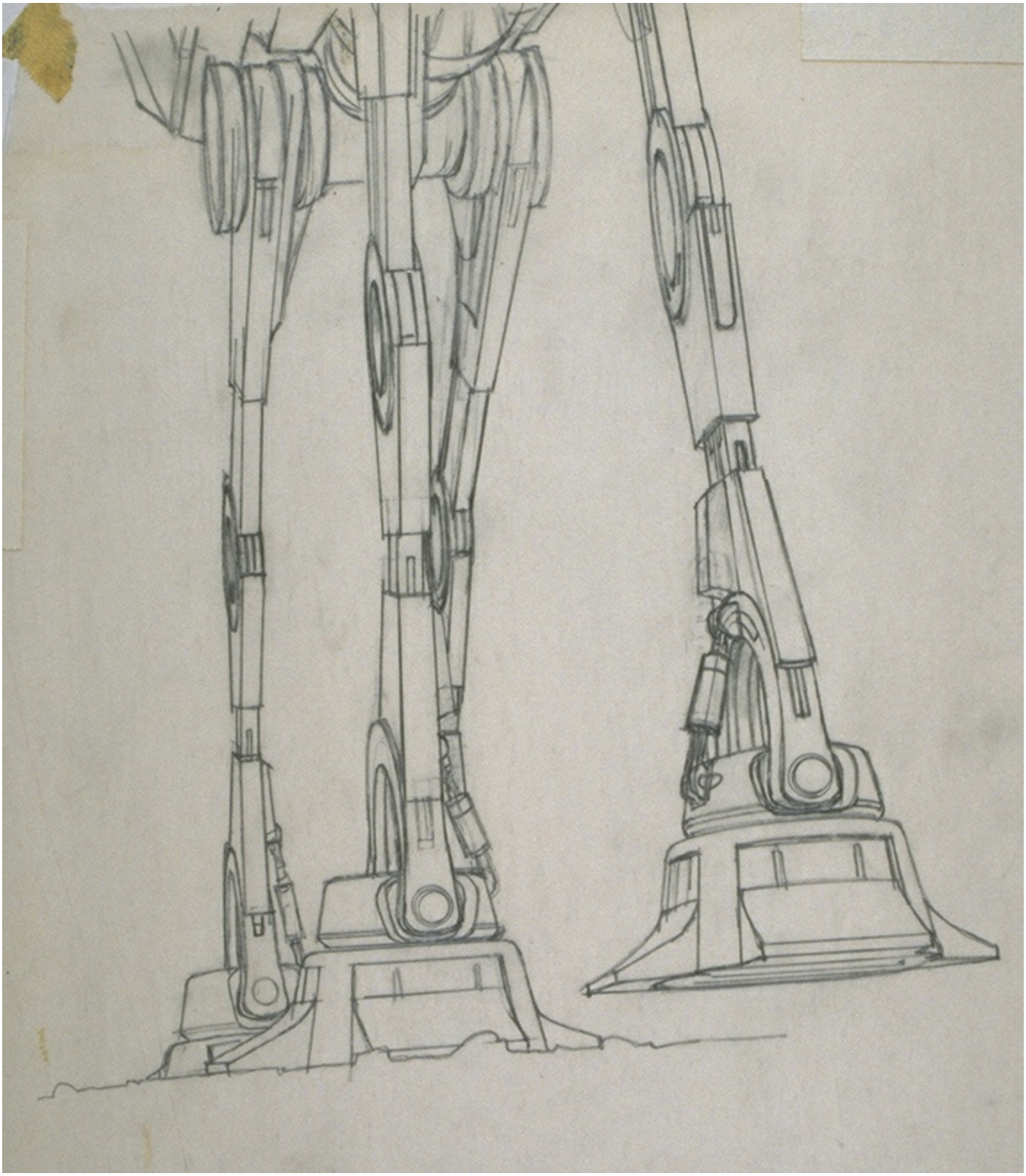
Preparatory drawing for “Rodent mount.”



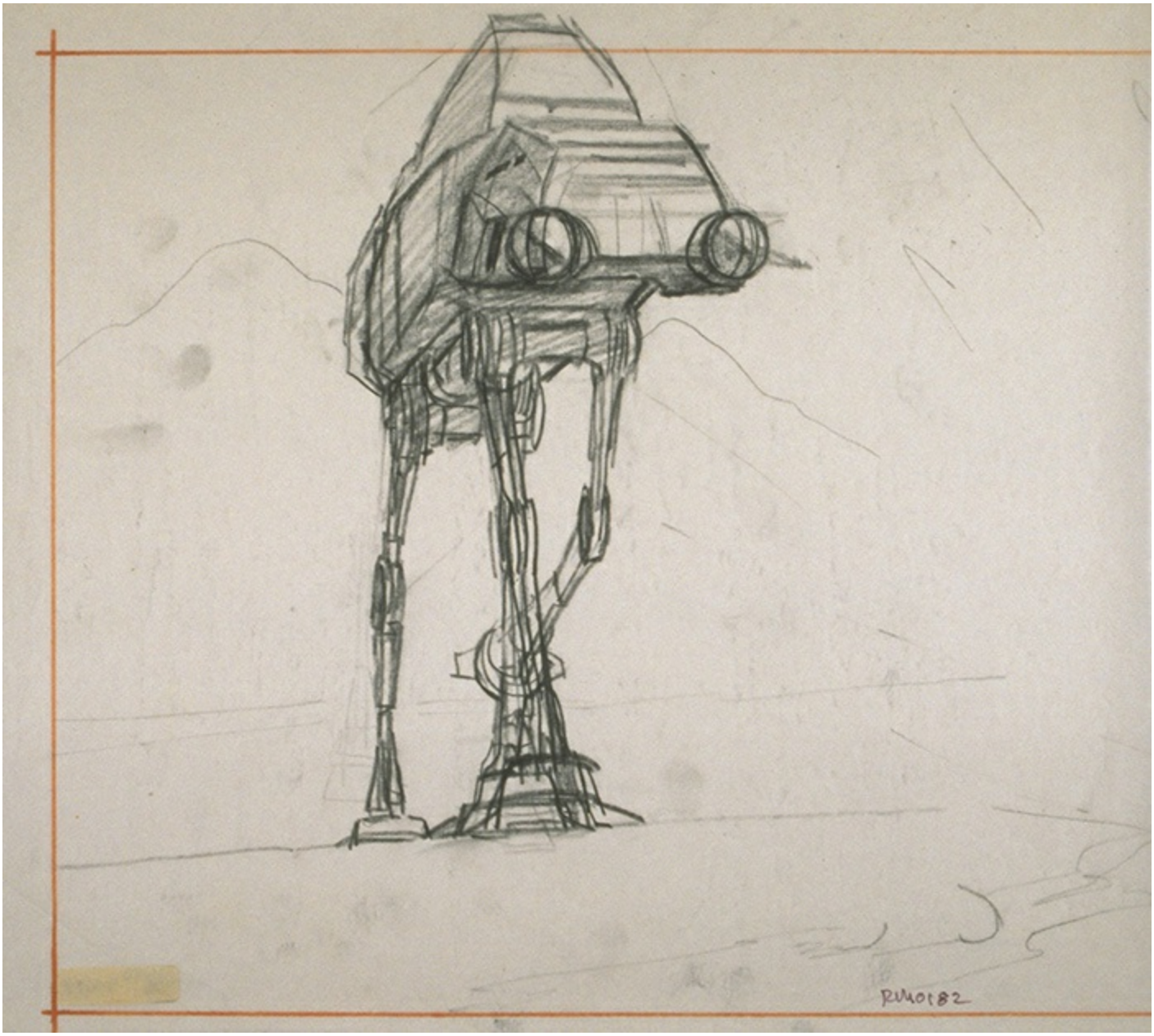
“Rodent mount” (8-plus hours), by McQuarrie, February 9–10, 13–14, 1978.



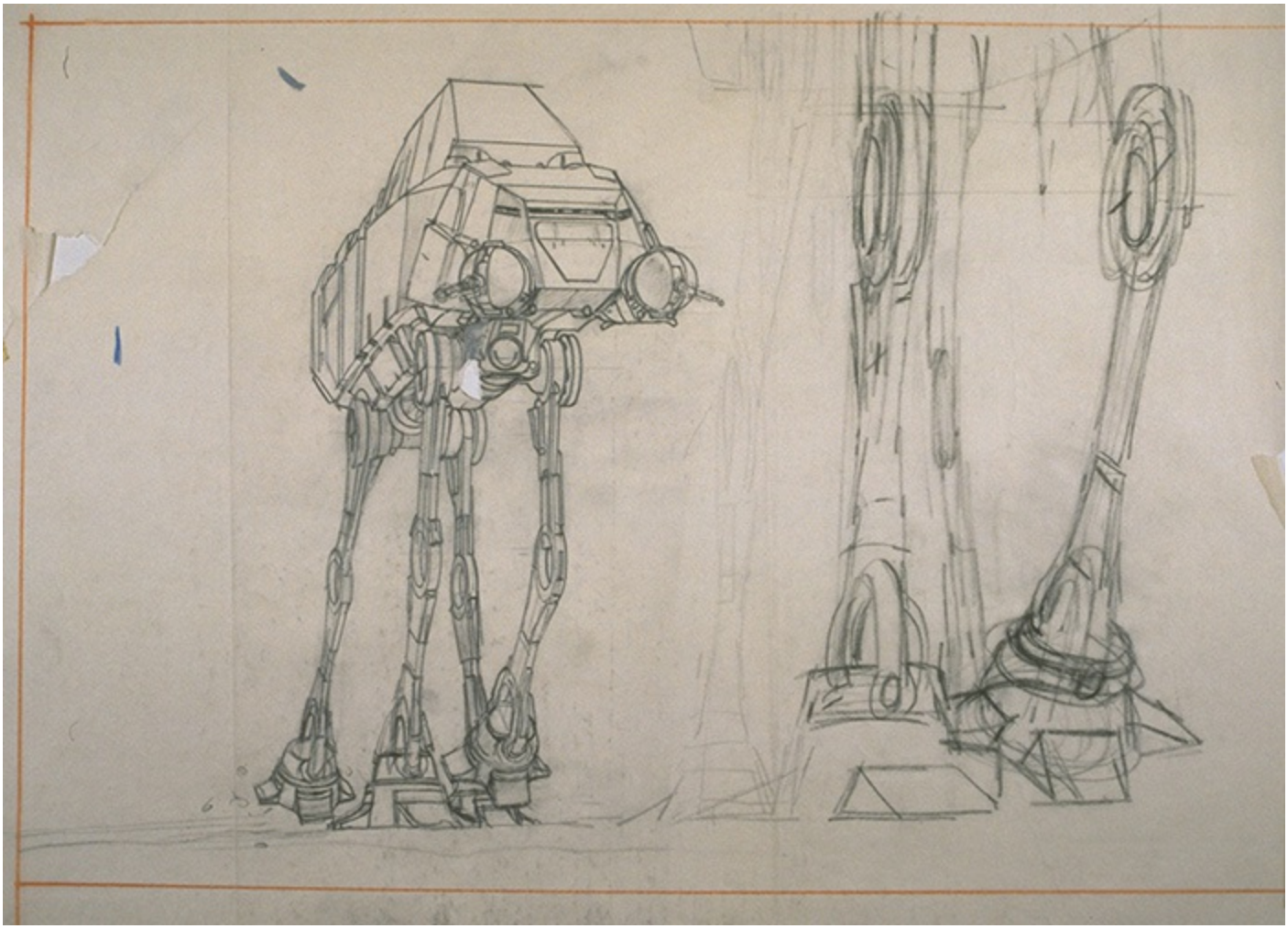
Preparatory sketches for “Rodent Mount” by McQuarrie.



Preparatory sketches for “Rodent Mount” by McQuarrie.



Preparatory sketches for “Rodent Mount” by McQuarrie.



Preparatory sketches for “Rodent Mount” by McQuarrie.

STAR WARS SEQUEL, SCREENPLAY BY LEIGH BRACKETT, FROM THE ADVENTURES OF LUKE SKYWALKER BY GEORGE LUCAS, FEBRUARY 17, 1978—FIRST-DRAFT SUMMARY

Brackett's 128-page script starts on the Ice Planet, where Luke is admiring "a real pretty ice formation on the other side of the ridge"—when he is attacked by a snow monster. Back at the base, Solo grows restless, remarking, "I doubt if even God remembers where he hung this star." In the War Room, the Rebels consult a "three-dimensional model occupying a huge tank in the center of a great ice chamber."

WILLARD

> Since we destroyed the Empire's Death Star, many more systems have found courage to join the rebellion. At the last count, one thousand and twenty-six. But as you see, we're widely scattered and still vastly inferior in ships and men.

After the meeting, Leia gives Han a mission, explaining that, "We've been in touch with your stepfather … Ovan Marekal is the most powerful man in the galaxy next to the Emperor … through his Transport Guild." Han's job is to convince him to join the Rebellion. Meanwhile, "unnoticed, dim white shapes move and watch."



Minch-Yoda concepts by Johnston (nos. 152 and 157), February 1978.



Minch-Yoda concepts by Johnston (nos. 189 and 206), February 1978.



Minch-Yoda concept by Johnston (no. 263), February 1978.

Luke is lying on the floor of an ice cave when he hears Ben's voice: "Remember the Force, boy. Open your mind to it, open your heart." When the snow monster tries to block the way, Luke slashes at him with his lightsaber and the creature melts back into the ice formations (where more seem to live). Back at the base, C-3PO discovers something hidden in Luke's lightsaber: "As he grips the hilt awkwardly, there is a sharp click and something crystalline and shiny pops out of a hidden recess in the hilt."

On the city-planet of Ton Muund, Darth Vader searches for the Rebels. When an alien, with the aid of an interpreter, tells Vader of unusual ship activity in the Granida Cluster, he exclaims, "The coordinates, man! The coordinates!" Vader flies off to check on the story. On the ice planet, the crystal reveals the coordinates of a star system in a remote part of the galaxy. When the Empire's fleet closes on the ice planet, Vader talks of his recent history:

DARTH VADER

> [Luke Skywalker] disabled my fighter and sent me spinning off into space with all systems dead, even the radio … but I knew. I knew when he destroyed the Death Star, using the Force to find the target. I had much time to consider Master Skywalker while I was waiting to be rescued. He's too much like his father …

Even before the Empire attacks, the snow monsters start killing Rebels, and only the Wookiee takes them on: "Chewie looks child-sized by comparison with his adversary. He is also becoming covered with frost where the snow-creature touches him. A human would have been dead by now." Luke, on the other hand, is humiliated when he cannot fend off the monsters using the Force. Han remarks, "You're not a Jedi Knight, and you never will be."

The snow monsters force the Rebels to evacuate, and they damage the *Millennium Falcon*. When the Rebels emerge from their base, they find the Empire waiting for them: "On the snow plain in front of the ice-castle, Imperial ships land. The transports disgorge great tank-type crawlers and armored troopers …" In the chaos, overhead pipes break and many Rebels are frozen—including C-3PO, who is encased in ice (he later thaws out). The Rebels are defeated, but Luke escapes in Leia's ship when he is separated from the others by the battle. Vader complains to a foot soldier, "He lives. Leave me, you incompetent idiot."

But in his "spacer," Luke is attacked telepathically by Vader: "What's the matter? I can't breathe …" Only because R2-D2 takes over and makes the ship jump into hyperspace is Luke saved. "Goodbye, Luke Skywalker," Vader says, believing he has killed Luke. The *Falcon* also jumps to hyperspace to escape Imperial pursuers. R2 crash-lands their ship on the bog planet, where Luke meets Minch.

MINCH

> Skywalker. Skywalker. And why do you come to walk my sky, with the sword of a Jedi Knight? … I remember another Skywalker.

Minch hops away. Later, Luke learns that Obi-Wan trained with Minch on the same planet. In

order to communicate with Ben, Minch summons him—"By the Force, I call you!"

> Suddenly Ben is there … with a saber in his hand … They begin a fencing match which develops into a thing of breathtaking skill and beauty … and Minch is clearly the superior.

Minch's house is "splotlessly clean." Vader's castle, on the other hand, is "black iron that squats on a rock in the midst of a crimson sea." When Luke stretches out with the Force, Vader realizes that Luke is still alive; likewise, Minch can feel Vader.

MINCH

> The dark side of the Force! Luke, you're in greater danger than I realized. Even untrained, you're far more powerful than I.

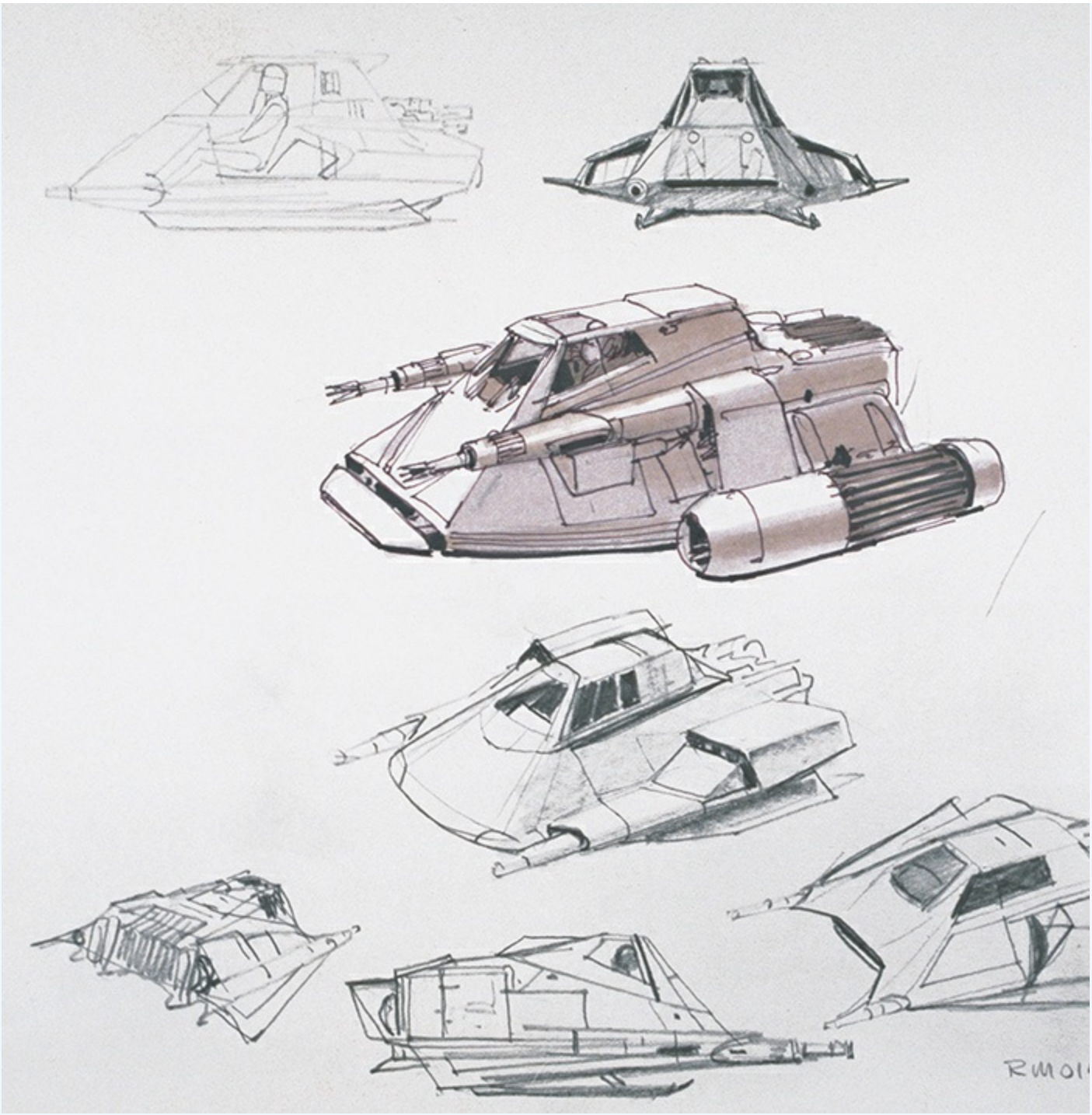
Afterward Vader flips a switch and a screen comes to life: "The man revealed is draped and hooded in cloth-of-gold"—the Emperor.

EMPEROR

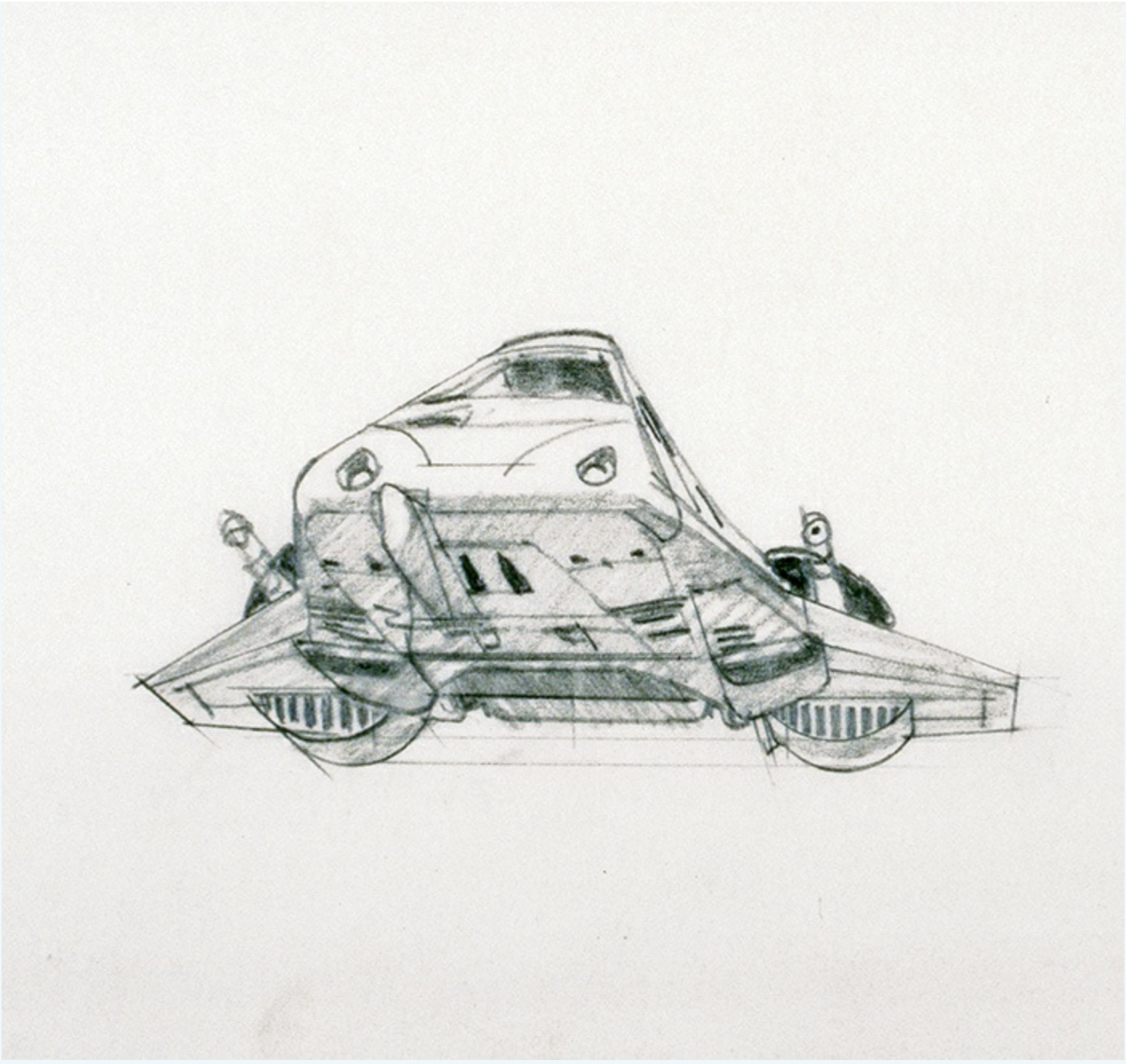
> Skywalker is more dangerous than even I had realized. Remove him this time or I shall remove you.

Meanwhile Han, Leia, and company decide to seek refuge with Lando Kadar, on a world called Hoth—"I think the name means 'cloud,' " Han remarks. After arriving, Solo tries to disguise the identity of Leia, calling her "Ethania Eredith." Lando introduces them to his "old friend, Bahiri, chief of the White Bird clan of the Cloud People."

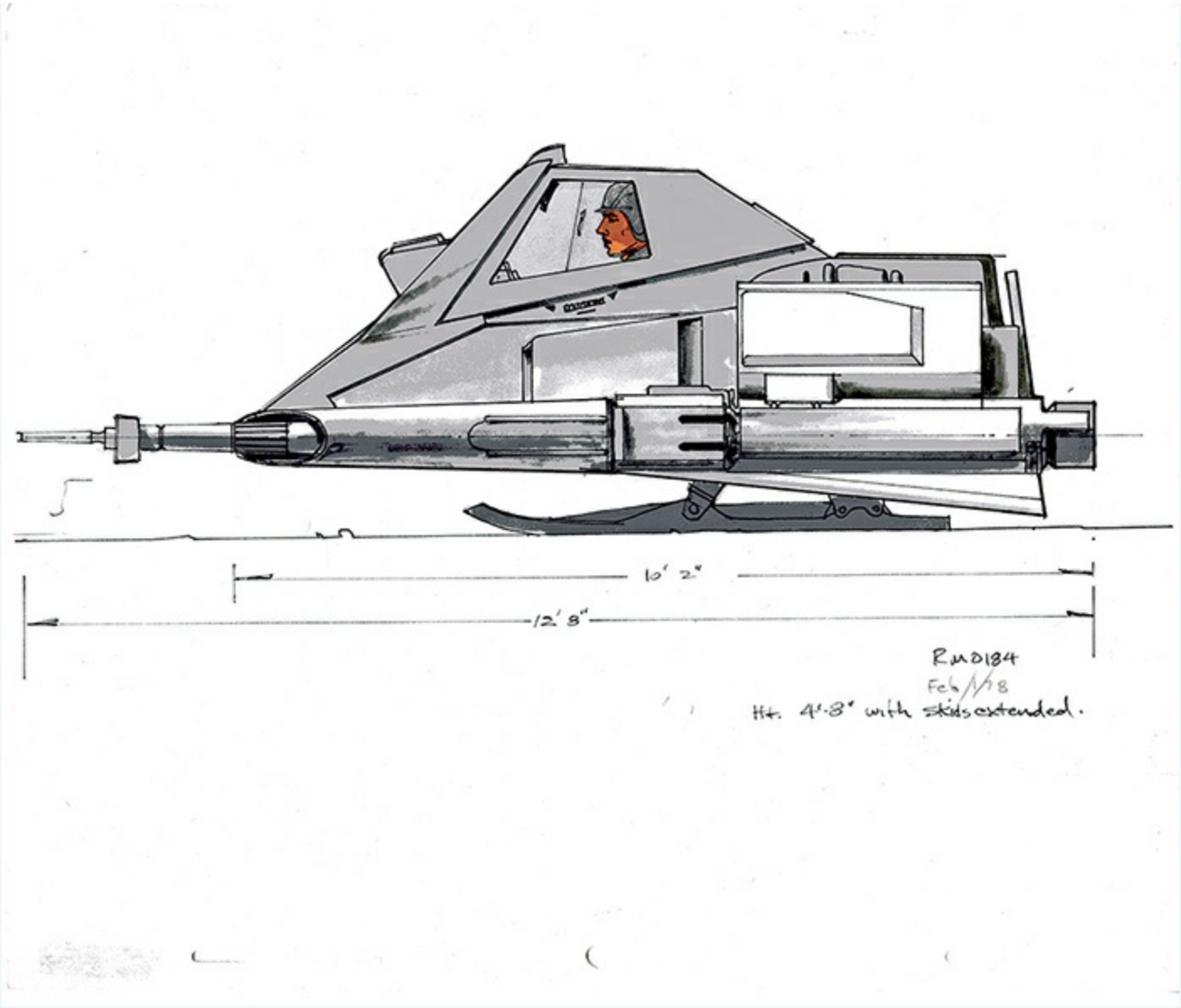
Back on the bog planet, Luke is now able to summon Ben, and the latter appears accompanied by Luke's father, who reveals to Luke that he has a sister.



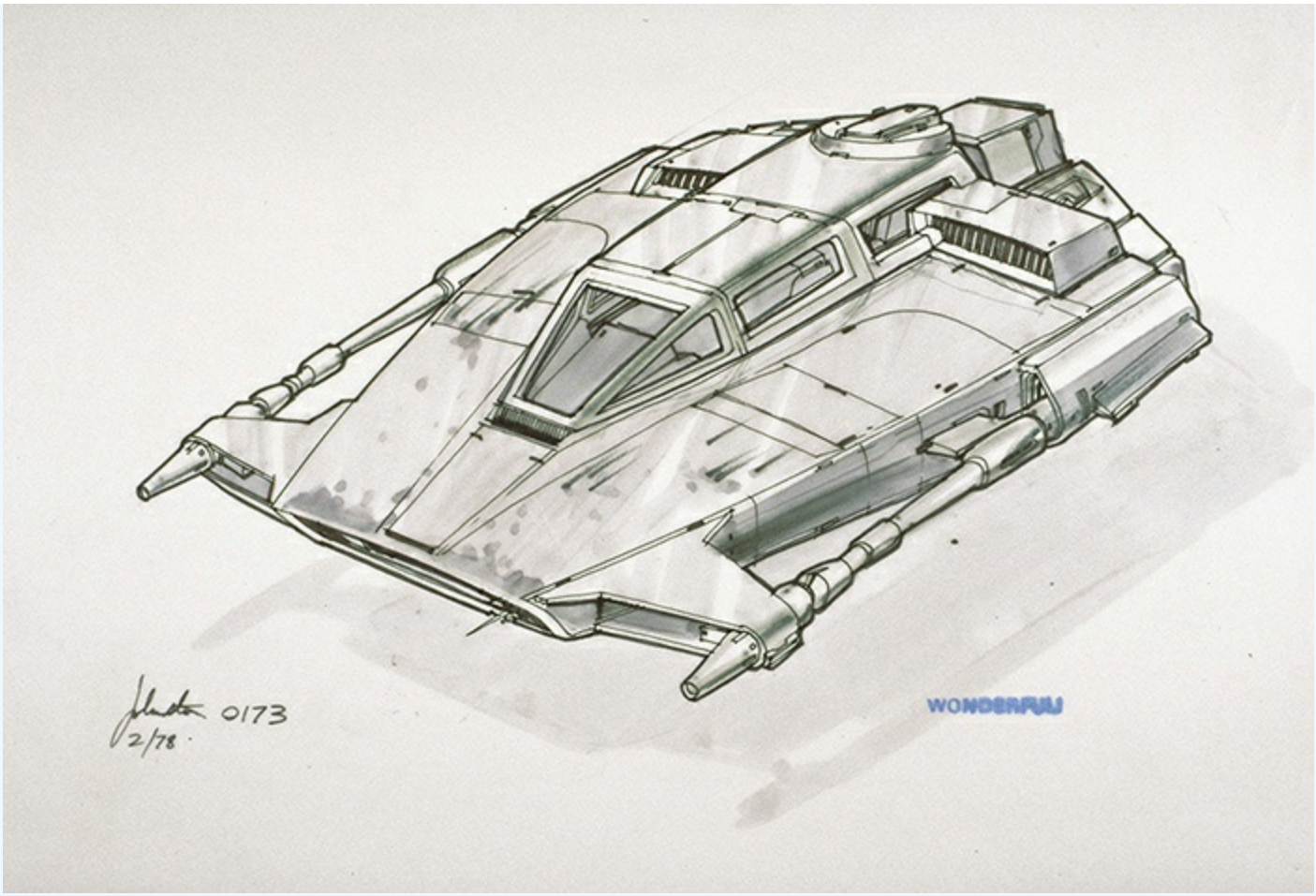
Snowspeeder concept by McQuarrie (no. 158).



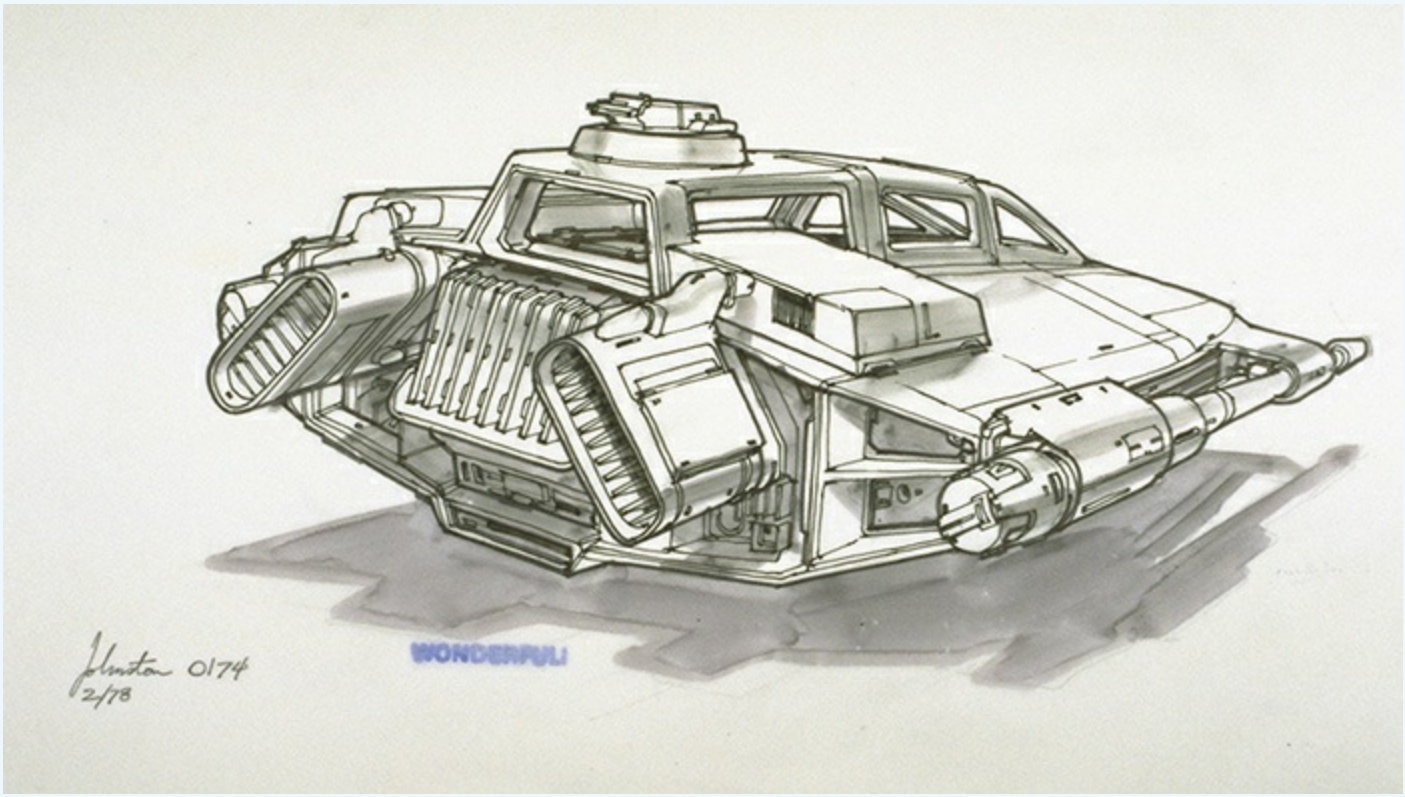
Snowspeeder concept by McQuarrie (unnumbered).



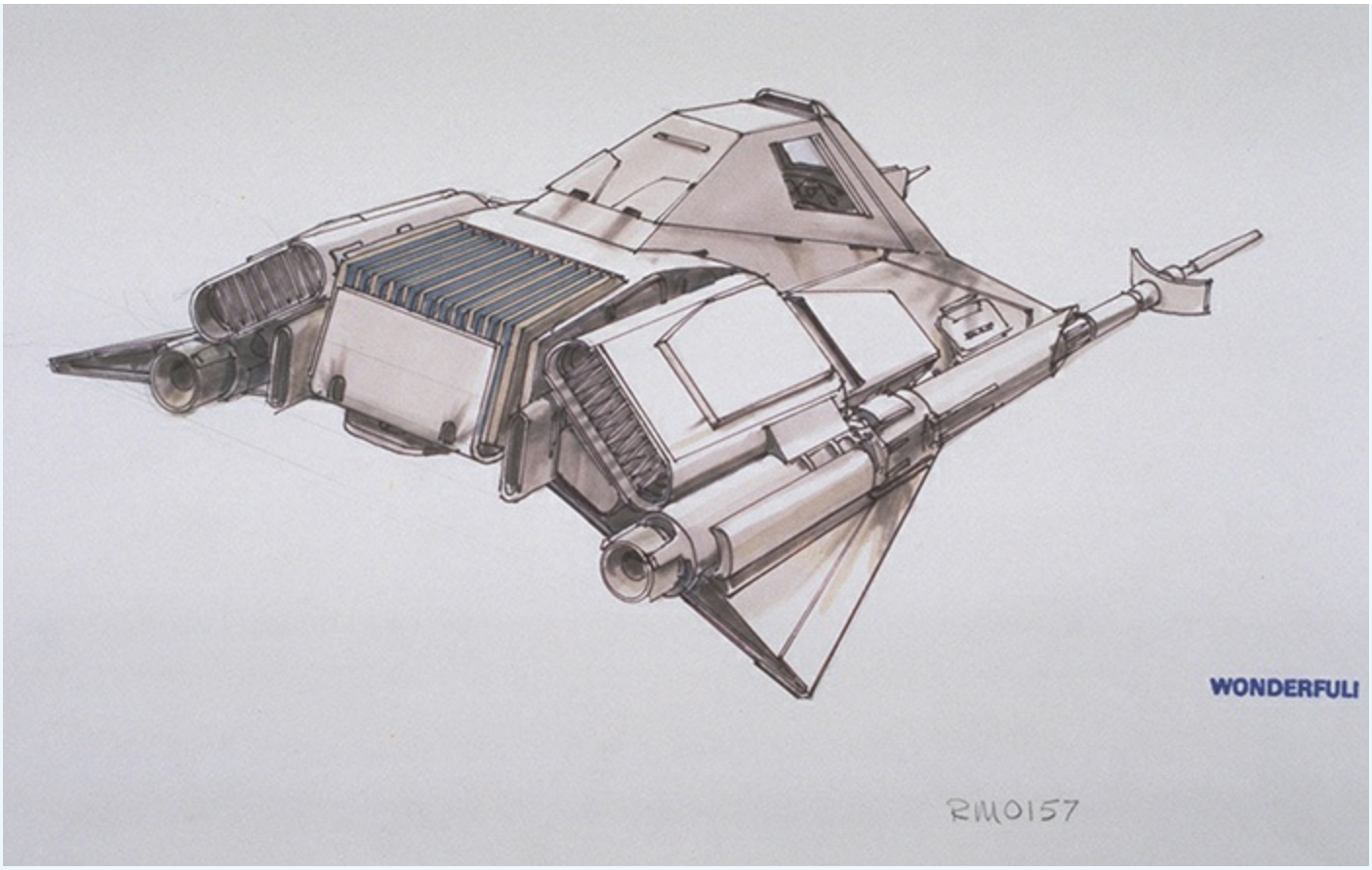
Snowspeeder concept by McQuarrie (no. 184), February 1978.



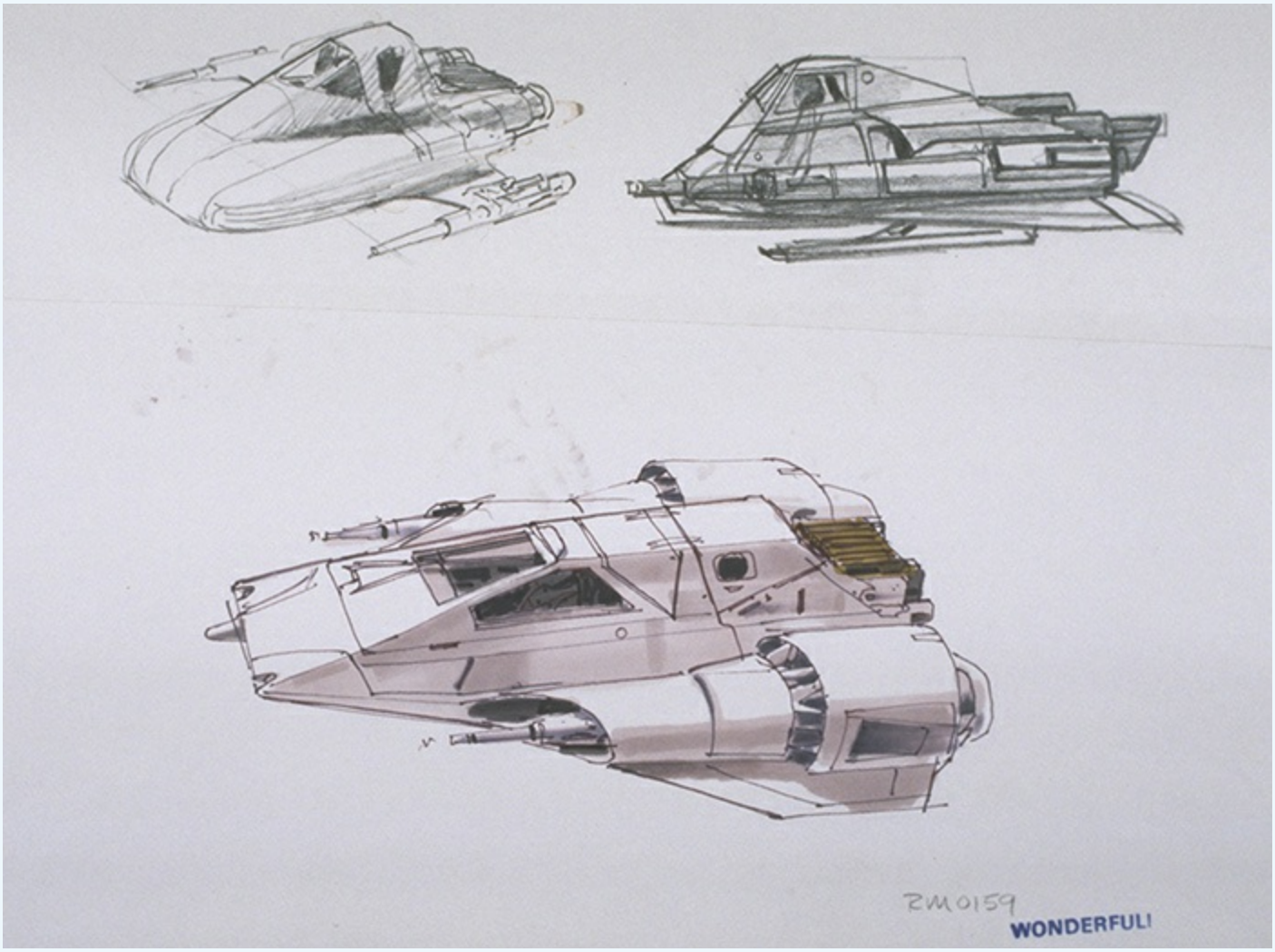
Snowspeeder concept by Johnston (no. 173), circa February 1978 (the Rebels would now use flying craft to bring down the walkers, instead of tanks).



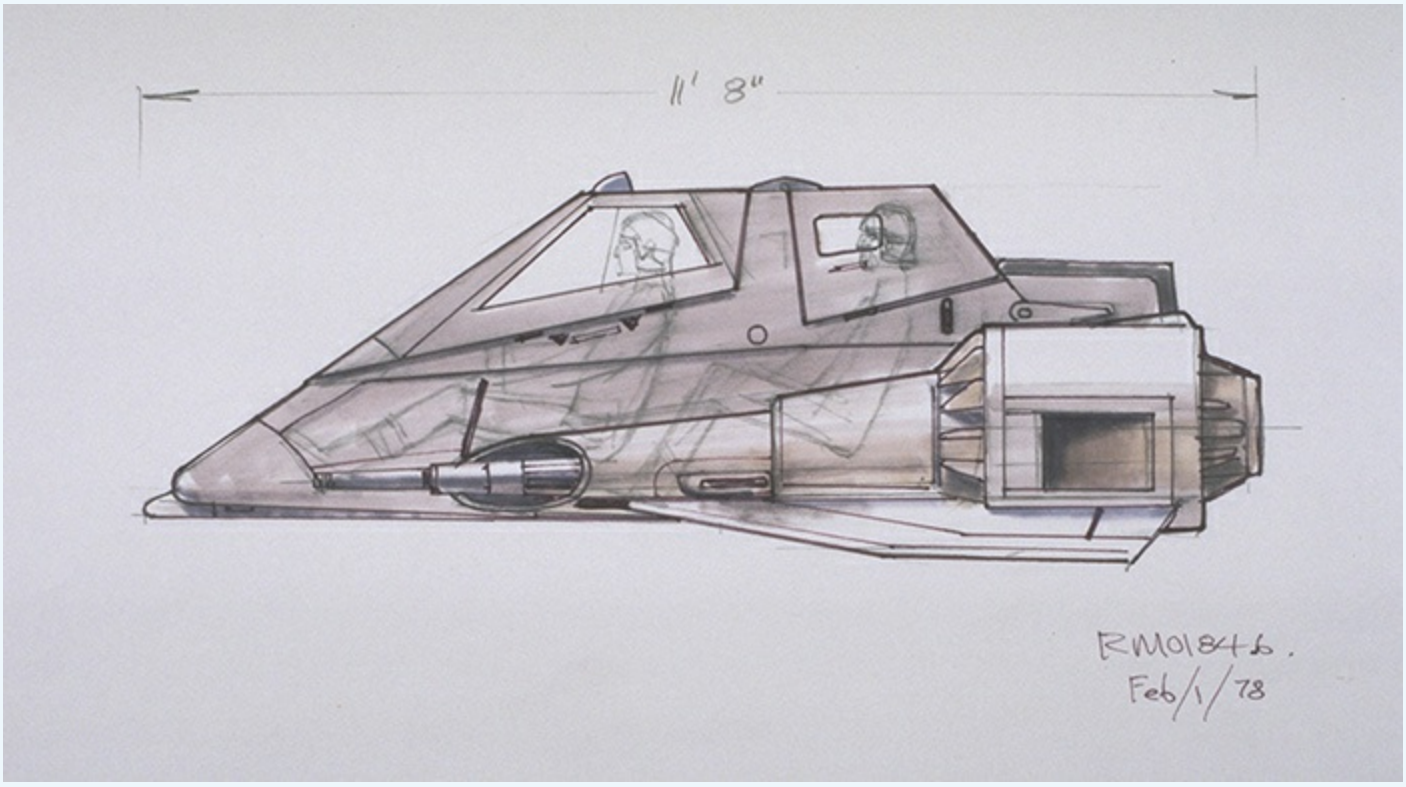
Snow speeder concept sketch by Johnston (no. 174), February 1978.



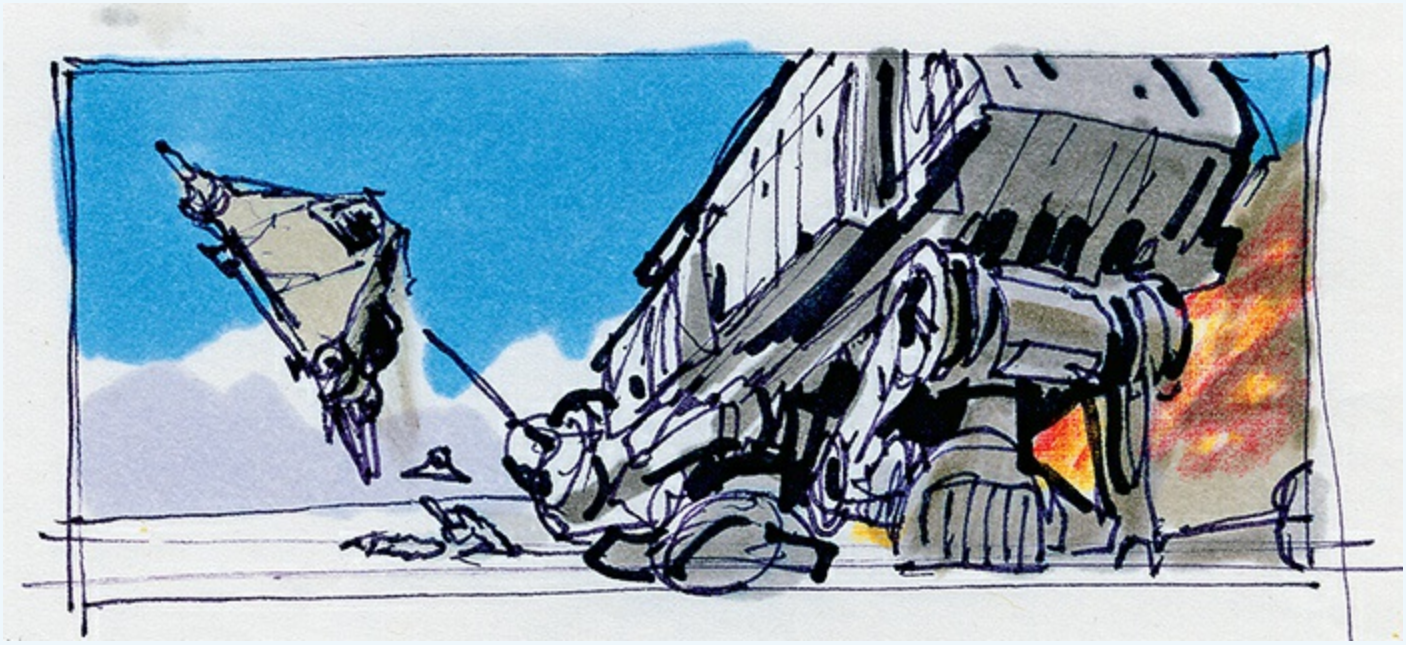
Snow speeder concept sketch by McQuarrie (no. 157).



Snow speeder concept sketch by McQuarrie (no. 159).



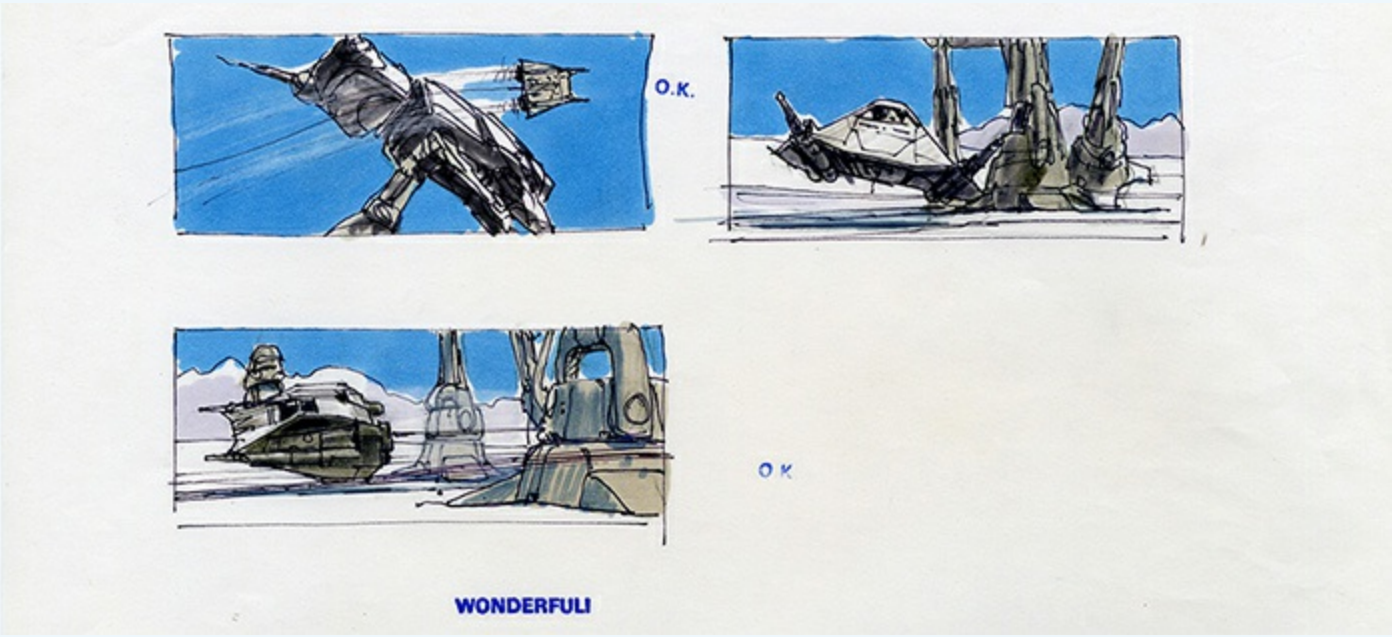
Snow speeder concept sketch by McQuarrie (no. 184.6), February 1978.



Color study of "Armored landspeeders bring down walker" by McQuarrie, February 20–22, 1978.



The final painting of “Armored landspeeders bring down walker” by McQuarrie, February 20–22, 1978: “I worked on a lot of the equipment used on Hoth, both by the Rebels and the Empire,” he says. “The armored speeders are low-level fighters, comparable to the vehicles called ‘tank busters’ during World War II.”



Preparatory sketches by McQuarrie for snow battle painting.

SKYWALKER

I sent you both away for your own safety, far apart from each other.

LUKE

Where is she? What’s her name?

SKYWALKER

If I were to tell you, Darth Vader could get that information from your mind and use her as a hostage … Luke, will you take

from me the oath of a Jedi Knight?

Ben, Minch, Luke, and his father cross sabers and Luke swears to "dedicate my life to the cause of freedom and justice" (next to this passage, Lucas wrote, "No"). Not long afterward, Minch instructs Luke to open his mind to the dark side. Luke and Vader communicate with their minds, and the dark adept tries to tempt Luke (a "No" is also written next to the dialogue below).

VADER

You're in love with Leia. You don't want to lose her to Han Solo … but you will, if you lack the courage to use the strength that's in you. A strength as great as mine, Luke. If you join with me, nothing can stand against us … The Empire is a passing phase. We would rule instead. You and I. The Emperor is a harsh master. You would not be.

On Hoth, Lando reveals a secret:

LANDO

I'm a clone. Of the Ashardi family. My greatgrandfather wanted many sons and he produced them from the cells of his own body. His sister, a remarkable woman, produced many daughters by the same means. Thus we keep the blood pure. But since the wars, there are not many of us left and we try not to attract attention.

When Vader reveals his presence on Hoth, he doesn't imprison Han, Leia, and the others; he simply lets them go about their business, though they're not allowed to leave the orbital city. Luke decides to face Vader, to confront his fears, and travels to Hoth, where he arrives with Bahiri, whom he's befriended. Stormtroopers kill the leader of the alien Cloud People, which makes Lando change sides. Luke then protects his friends. "Suddenly the saber is out and blazing," and Han is impressed. Next, Luke battles Vader, even using the dark side of the Force to get the upper hand, though Vader is more powerful in the end.

VADER

But you've had no training in the dark side. You simply felt more power in it, and you used it for revenge, for hate, for the sake of being able to say that you, Luke Skywalker, had destroyed the great Darth Vader … So, once more, little Jedi. Will you join me?

LUKE

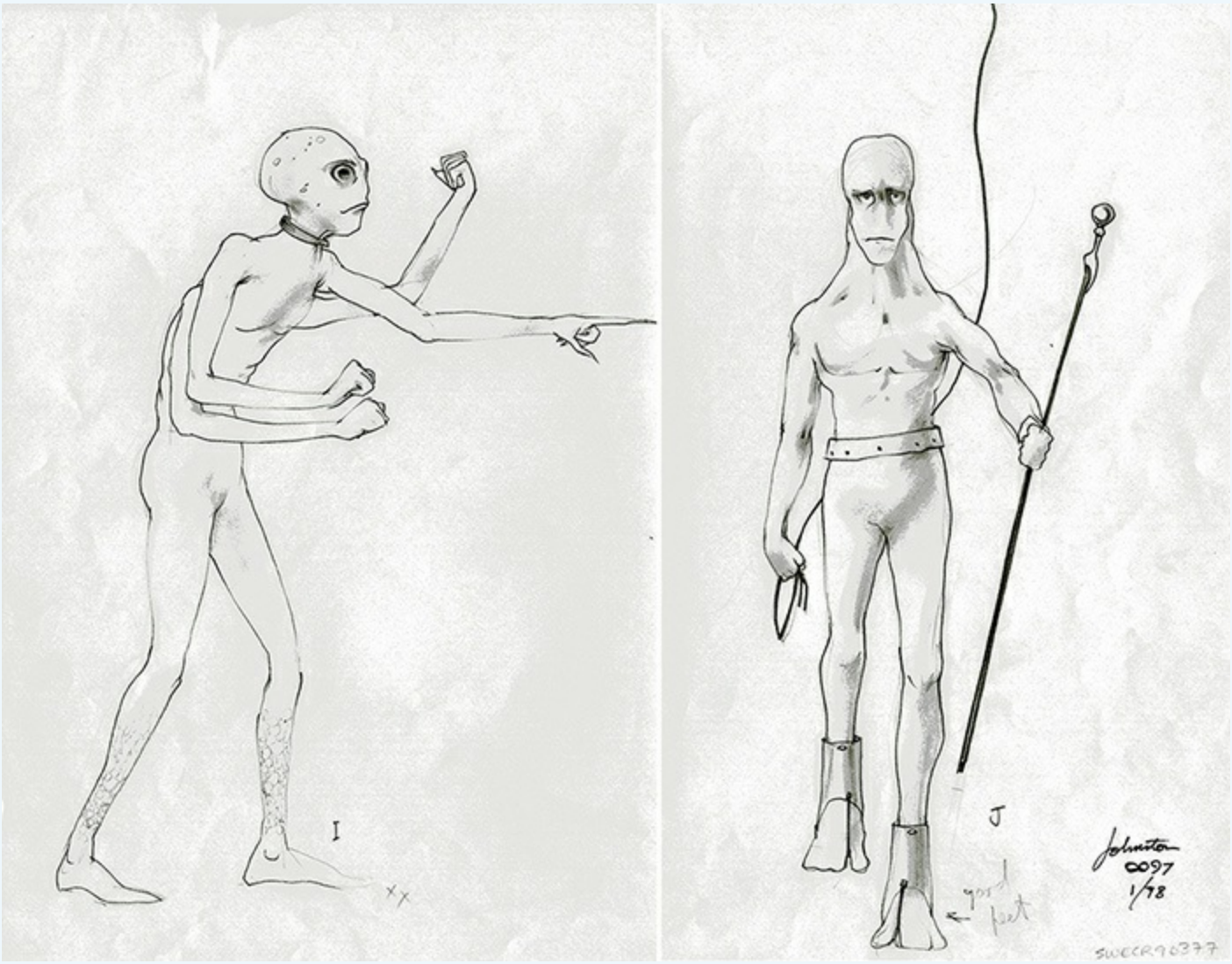
I've wasted and thrown away all the careful teaching I was given. I betrayed my trust. I broke my oath. I would prefer to die.

VADER

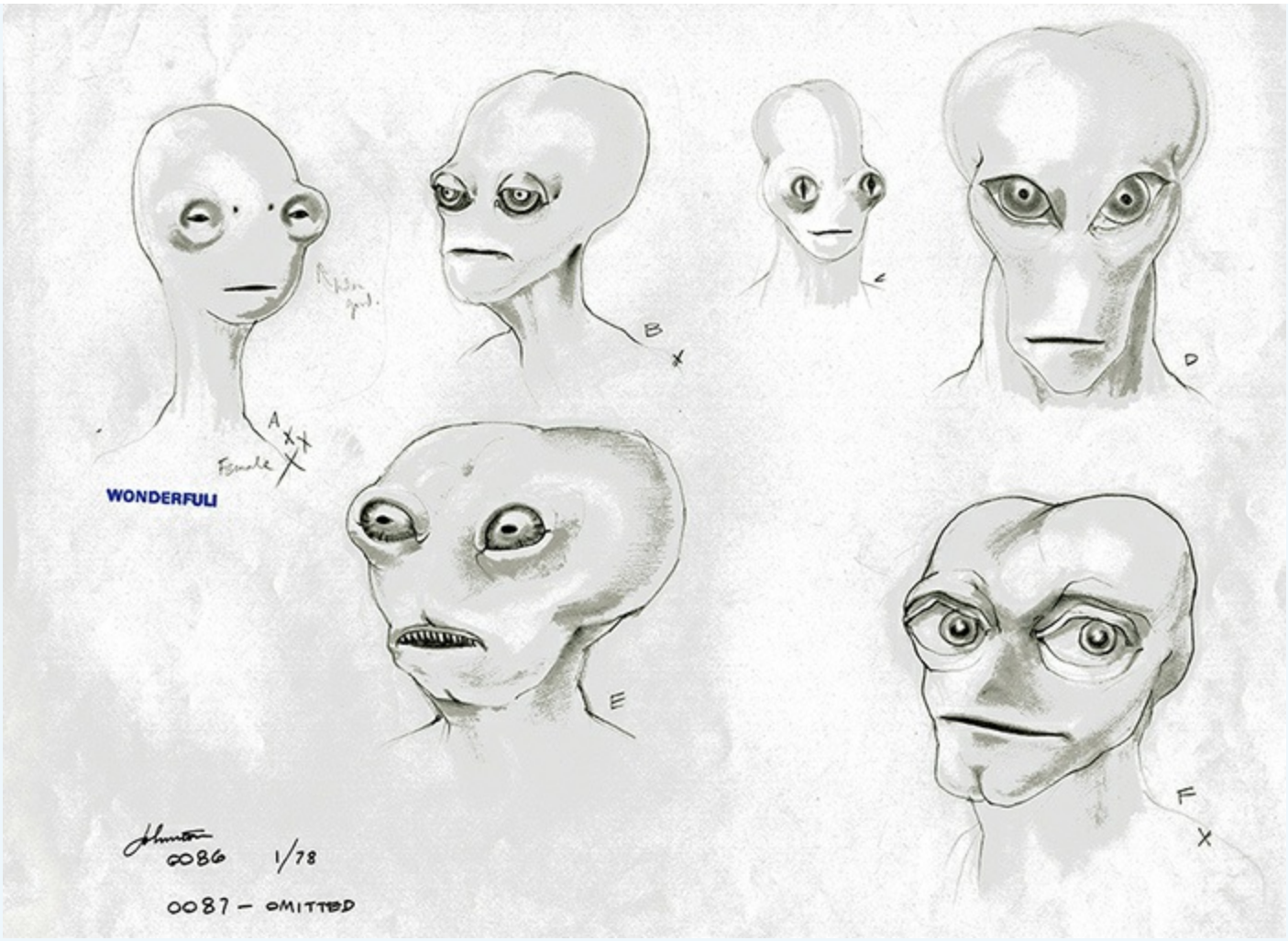
You're a fool, Luke. Nevertheless, it can be arranged.

Luke jumps down a vent shaft. As the *Falcon* blasts her way out with the others aboard, Luke manages to jump on the ship as she passes below. The group takes refuge on a jewel-like planet, Besspin Kaalida. Han then leaves with Chewbacca to persuade his stepfather to join the Alliance, as Leia (who is now in love with Han), Luke, Lando, and the droids watch him go.

Abruptly Luke unsheathes the lightsaber and activates [it], holding it in a position of salute for the departing *Falcon*.



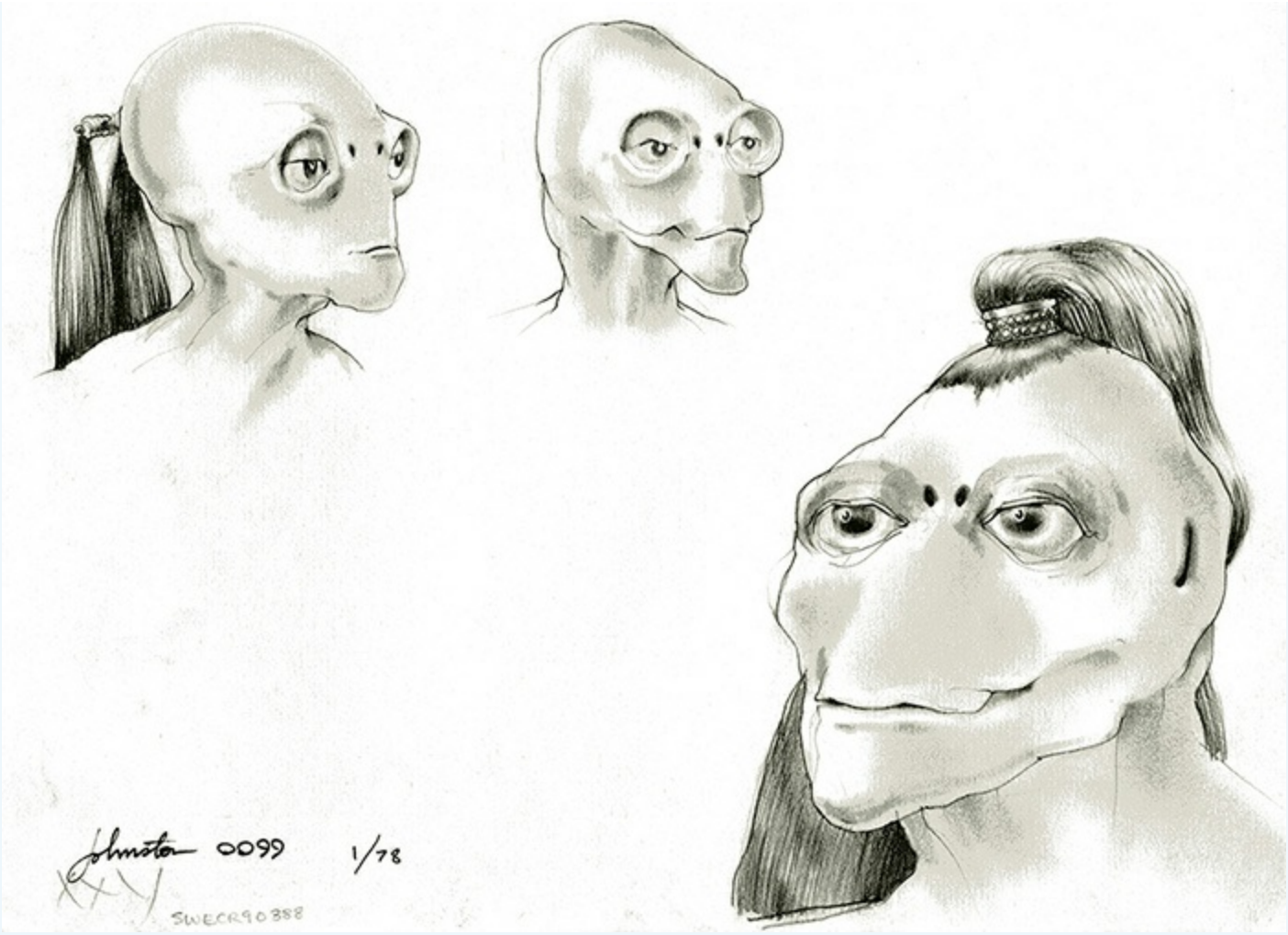
Early Cloud City native concept, perhaps for the alien leader, Bahiri, by Johnston (no. 97), January 1978.



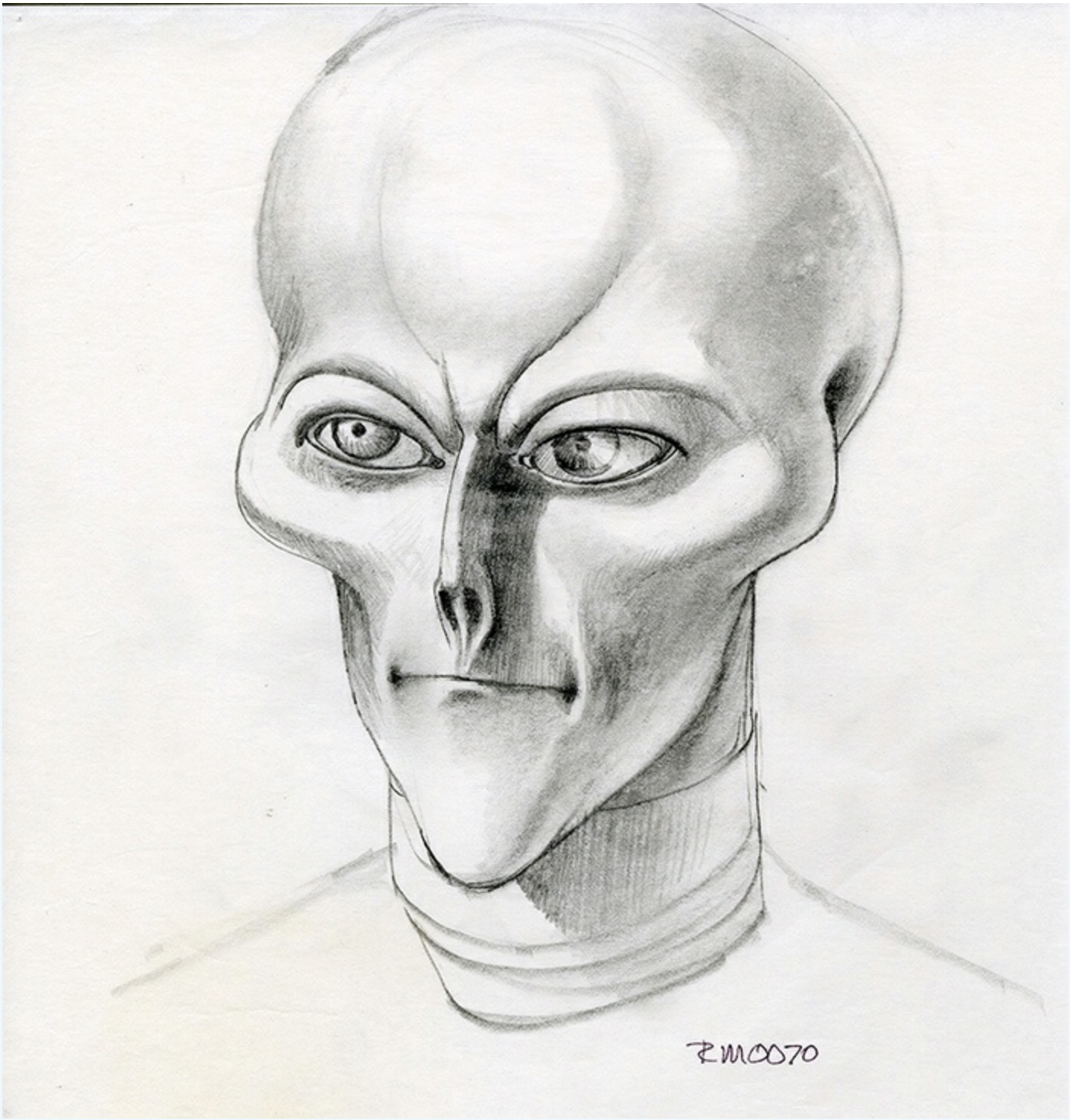
Early Cloud City native concept by Johnston (no. 86), January 1978.



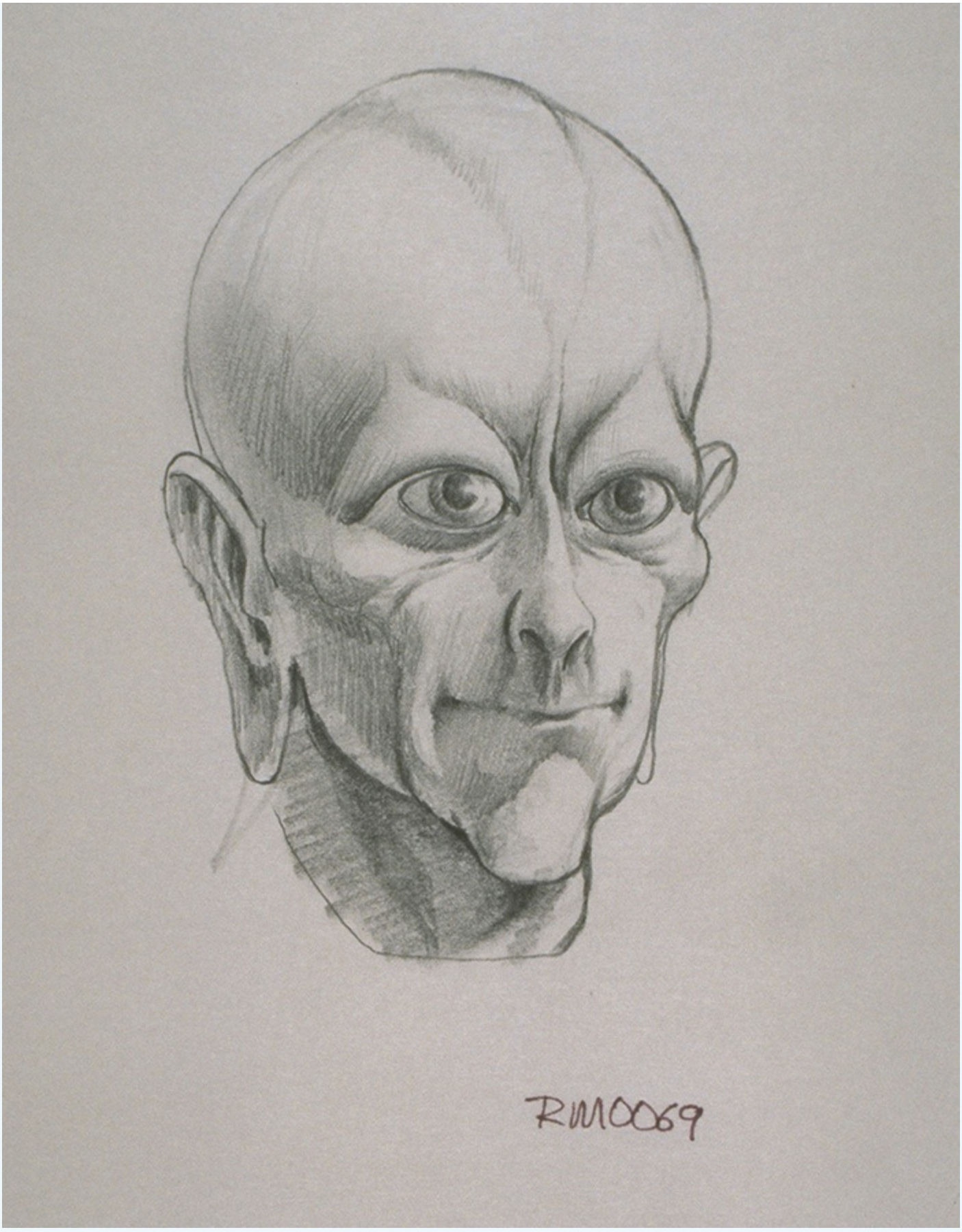
Early Cloud City native concept by Johnston (no. 92), January 1978.



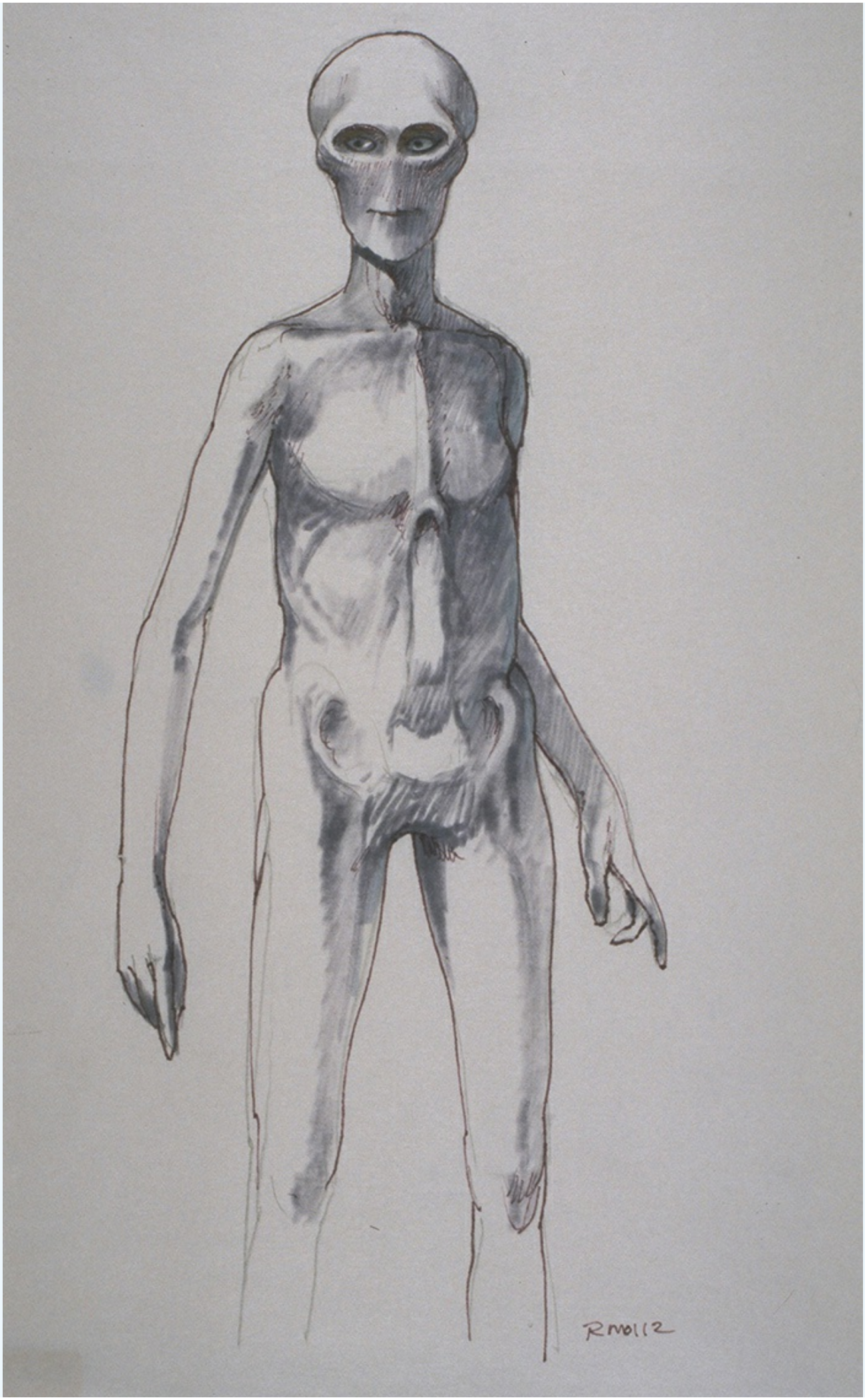
Early Cloud City native concept by Johnston (no. 99), January 1978.



Early Cloud City native concept by McQuarrie (no. 70), early 1978.



Early Cloud City native concept by McQuarrie (no. 69), early 1978.


RMOLL2

Early Cloud City native concept by McQuarrie (no. 112), early 1978.

With Brackett hospitalized, everyone waiting to get started, a locked-in production scheduled, and no other writer on hand, Lucas was left with no choice but to write the second draft himself. "George doesn't like to write," Kershner says. "He hates writing."

The same, of course, had been true for each of Lucas's films so far, but he'd had to write every script, except *Raiders*. "I had no script and I didn't have anyone to write the damn thing," Lucas says. "No matter how much I wanted to get out of writing, I was forced to sit down and work on it."

"George would come in and say, 'Hey, we're going to have this giant snow battle, start doing some storyboards,' " says Johnston. "But there was no script! But George would say, 'Don't worry about that, just do the storyboards.' The process then was to lay out random shots and pick out some that would conceivably work. George would work on the script at home while I would be working on the boards. During meetings, he would pick out shots that he felt looked promising and write them in. It was a very unusual evolution."

"*Pink Panther* was to have been completed by January, but it went over," Brian Johnson says. "So I arrived at ILM on March 13. I talked with Lucas and Kurtz and began setting up the effects for *Empire*. At the same time, Twentieth Century–Fox asked me if I would be interested in *Alien* [1979]. When I told them I was already engaged on *Empire*, they said, 'We think you can combine the two.' Well, I didn't really think so, since it is very difficult to work on two pictures at the same time, but they said they would talk to George and Gary to see if they could come to some sort of agreement. As it happened, *Empire* was being revised—George was still working on the script and the storyboards hadn't been completed—so Fox and Lucasfilm agreed that I could pretty much devote all of my time to *Alien*."

It was now apparent that the biggest special effects question was going to be how to realize the new, very, very small Jedi Master. "When the first draft of the screenplay was out and we had this little two-foot-tall man, we had to decide a way to do it," says Kurtz. "One was to use the technique used in *Darby O'Gill and the Little People* [1959], the Disney movie, where the leprechauns are portrayed by full-sized people or midgets. They had shot them using forced perspective and very high light levels. It looks like they're small, but they're just much farther away from the camera; it's cheated. But you have to build the sets and the props to fit that, which is very complicated, so we rejected that idea as being too restrictive."



A USC newspaper photo capturing several alumni in February 1978 was titled, "The Inspiration"—because actor Clarence (Buster) Crabbe (standing on the left), the original Flash Gordon, is meeting with Lucas (on right; Randy Kleiser stands between them, with Howard Kazanjian in the background).

Sadly, five days after Johnson visited ILM, Leigh Brackett died at Lancaster Community Hospital, on Saturday, March 18, at the age of 60. A press release went out on March 22, saying that the cause of death was "a long bout with cancer." Her ashes were sent to Kinsman, Ohio, to be buried next to her husband, Edmond Hamilton, who had also been a noted science-fiction writer. (A contract would be drawn up on August 25, 1978, between Lucasfilm and the Estate of Leigh Brackett to confirm her contribution and remuneration beyond the original agreement.)

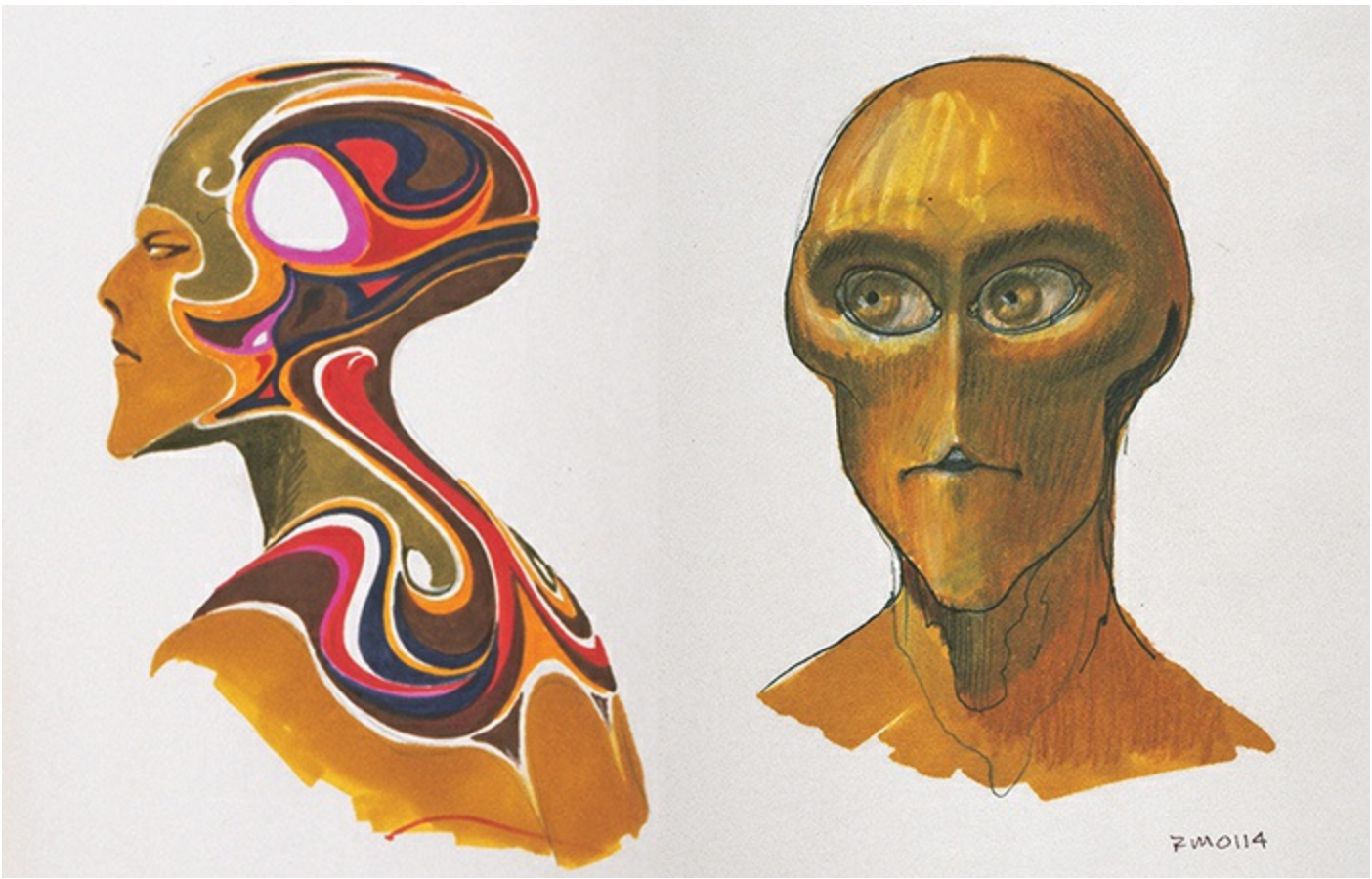
Continuing to work in his San Anselmo home, Lucas very quickly hammered out a second draft, finishing on April 1, 1978 (incredibly fast when that six weeks is compared with the three years he'd spent writing his first *Star Wars* scripts). "I found it much easier than I'd expected, almost enjoyable," he says. "It was easier because it's really part of the *Star Wars* story. I wrote it from my point of view, like I was going into that world. The risk I took was putting the action and adventure up front and then switching to a more personal film where people were going to be philosophical and worrying about emotional issues."

In his script, the final film has taken a definitive form and the scenes are numbered, denoting Lucas's nearness to a shooting script. Because of the two-part nature of the plot, with the following film scheduled to wrap up the story lines begun in the first sequel, the draft structure does move from a big epic battle to smaller personal duels, which would enable the next film, in turn, to evolve from personal

stories to a climactic battle (see the sidebar on this page).

"I wanted to do something that was a little bit more grown-up in terms of the entertainment value, which meant more realistic and more of a fear factor," says Lucas. "But the genre has a range that you're allowed to work in. I try to work in that range while pushing the parameters a little bit to see what I can actually get away with. Still, I was very adamant that it be one movie, that both films have the same sensibility."

Lucas also carefully balanced the film's structure in terms of the main characters' emotional development. In the treatment, Ben had told Luke it was time to leave Yoda; now Luke must choose between an instinctive emotional attachment and the completion of his training. "Luke's decision to rescue his friends is the right one, but his methodology is wrong," Lucas says. Luke's massacre of the stormtroopers, on the other hand, was cut. "I was homing in on how angry he gets and how much do I make him look like he's turning to the dark side. I decided to move him closer to the dark side in the next film, not in this one.



Cloud City native concepts by McQuarrie (nos. 73 and 114), December 1977 and January 1978.

"On the other side, you have Lando who is selling out his friends to save his city, and then you have Han and Leia caught in the middle of the whole mess," Lucas adds. "Lando's decision to save his people and himself is a little like Han's development in *Star Wars* but also like Luke's, where fate steps in: He can't avoid the situation. In this one, all the stories for all the characters are completely interwoven, unlike in *Graffiti* where they only intersect, so *Empire* was a much more elaborate puzzle to piece together."

Apart from establishing the framework and major dialogue, Lucas either added or revived key elements: Han's debt to Jabba the Hutt, which had figured at the end of the treatment but was left out

of the first draft, was reinstated; related to that plotline, Lucas also introduced several mercenaries. "There were quite a few films made about bounty hunters in the Old West," he explains. "That's where that came from."

The central mercenary is called Boba Fett. "When I was writing the early scripts for *Star Wars*, I wanted to develop an essentially evil character that was frightening," says Lucas. "Darth Vader started as a kind of intergalactic bounty hunter in a space suit and evolved into a more grotesque knight as I got more into knights and the codes of everything. He became more of a Dark Lord than a mercenary bounty hunter. The Boba Fett character is really an early version of Darth Vader. He is also very much like the man-with-no-name from the Sergio Leone Westerns."

The earliest version of the mercenary was Prince Valorum, a Black Knight of the Sith, who had appeared in Lucas's rough draft for *Star Wars*, where he was employed by Vader to track down the heroes. But Fett was also the inheritor of Lucas's idea for a super-stormtrooper, sketches of which were completed by McQuarrie as early as October 1977; by March 1978, however, McQuarrie, Johnston, and Lucas had transformed the supertrooper into a more or less completely designed galactic mercenary. There was some urgency to the task as Lucas had decided to feature Fett in an upcoming holiday television special scheduled to be broadcast that Christmas. The idea had also been prioritized to satisfy the needs of Black Falcon and Kenner, both of which wanted to have something to market before the release of *Empire*, still two years away.

"When I'm supposed to be writing, I end up making up names," says Lucas of the mercenary's christening. "I have a couple of little books that are lists of names. Whenever I think of a name, whenever I'm in the shower, I'm with friends, or see a sign, I write it down in my little book. So when I have a new character, sometimes I'll go down the list and pick a name out that seems to fit that particular character."

Other second-draft innovations included naming the snow monster a wampa and giving Yoda a particular speech pattern. "Yoda was one of those where I didn't use the list of names," says Lucas. "I thought, *Okay, I've got this character who is kind of like a little Dalai Lama*, so I came up with an Eastern-sounding name. Then I felt his dialogue and cadence should be unique. In *Star Wars*, I had to write Han's dialogue so it would explain what Chewie was saying, which was hard to do. I tried to give people accents and subtitles. But when the second film came along, I thought, *An accent isn't going to work here*. I've got to come up with something even more dramatic, because he's such a weird, alien character. I had to come up with something that's not a foreign language, not an accent, but somewhere in between those two things. That's how I started Yoda's backward style."

As usual, Lucas had written the draft by hand. He then reread it after Bunny Alsup had typed it up, making corrections and revisions. One alteration involved the film's numerical call-sign within the saga. On the handwritten title page, *Empire* is denoted Episode II, but the typed draft bears the title *Star Wars:* Episode V *The Empire Strikes Back* by Leigh Brackett, from *The Adventures of Luke Skywalker* by George Lucas.

The title had actually just been registered with the Motion Picture Association of America, Inc., as "Episode II (Two): The Empire Strikes Back" in March. And the serialization of the series had, in fact, already been debated for years, when Lucas had started his saga in the middle and had wanted, at one point, to number the first film "Episode IV" (or, possibly, V).

"We got cold feet at the last minute and took that out," says Kurtz. "Fox was worried, and, to be perfectly honest, we were worried, too. People wouldn't have understood what all that meant. They

would have been asking themselves: *What happened to the first three?*"

Another difference between the handwritten script and the typed version was an omission in the latter of the second draft's major revelation: that Darth Vader was the father of Luke Skywalker. Even at this early point, Lucas was well aware that this would be a huge plot twist and would have to remain top secret. Only those who absolutely needed to know would be told. Lucas sent Alan Ladd a copy of the script several months after finishing it—writing a note to the studio executive on the title page: "For Laddie, Here's a rough idea of the film; May the Force be with us! George—P.S. Best read listening to the *Star Wars* album." Lucas sent him only the typed version, with Joe Johnston and Ralph McQuarrie artworks interspersed within the pages, but the revelation was left out. Nevertheless, Ladd liked the script.

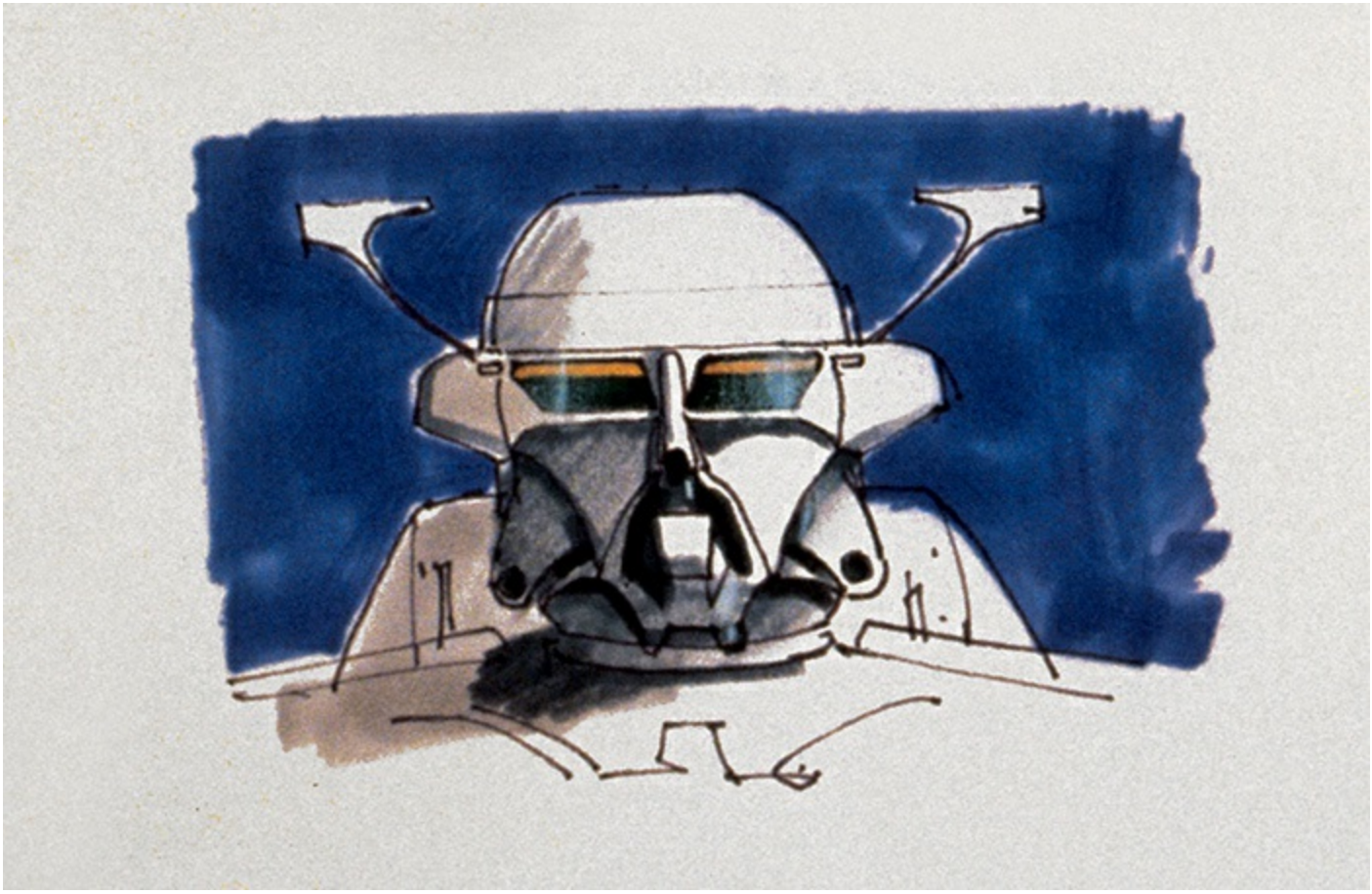
"The issue of Luke's father I kept pretty quiet for a long, long time," Lucas says. "I didn't tell anyone, not even Kersh. I just couldn't risk it getting out."

"We went through everything," Kershner says. "I said, 'I don't think they can walk out of an asteroid in outer space and not breathe! Originally, we were going to do it floating, but it rapidly becomes too much. You notice the floating and forget the story."

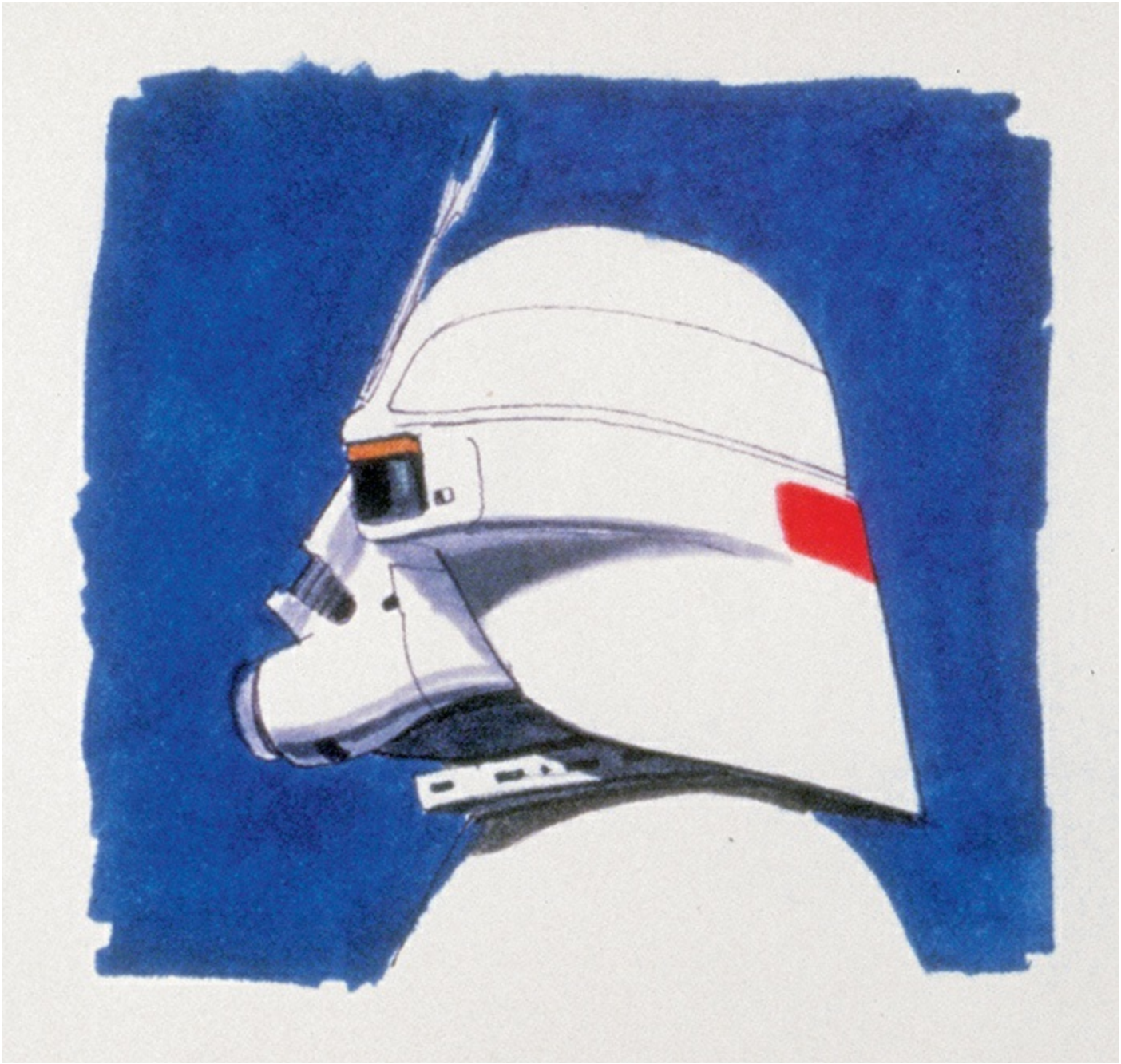
"Then it was a question of breaking down the script and going over it with George and Kersh," Kurtz says, "discussing what things were too hard to do, what things might take too long, what things could be changed to make them better. That's always part of the process with a technical film."



Bounty hunter/dark knight concept by McQuarrie for *Star Wars*, circa 1975.



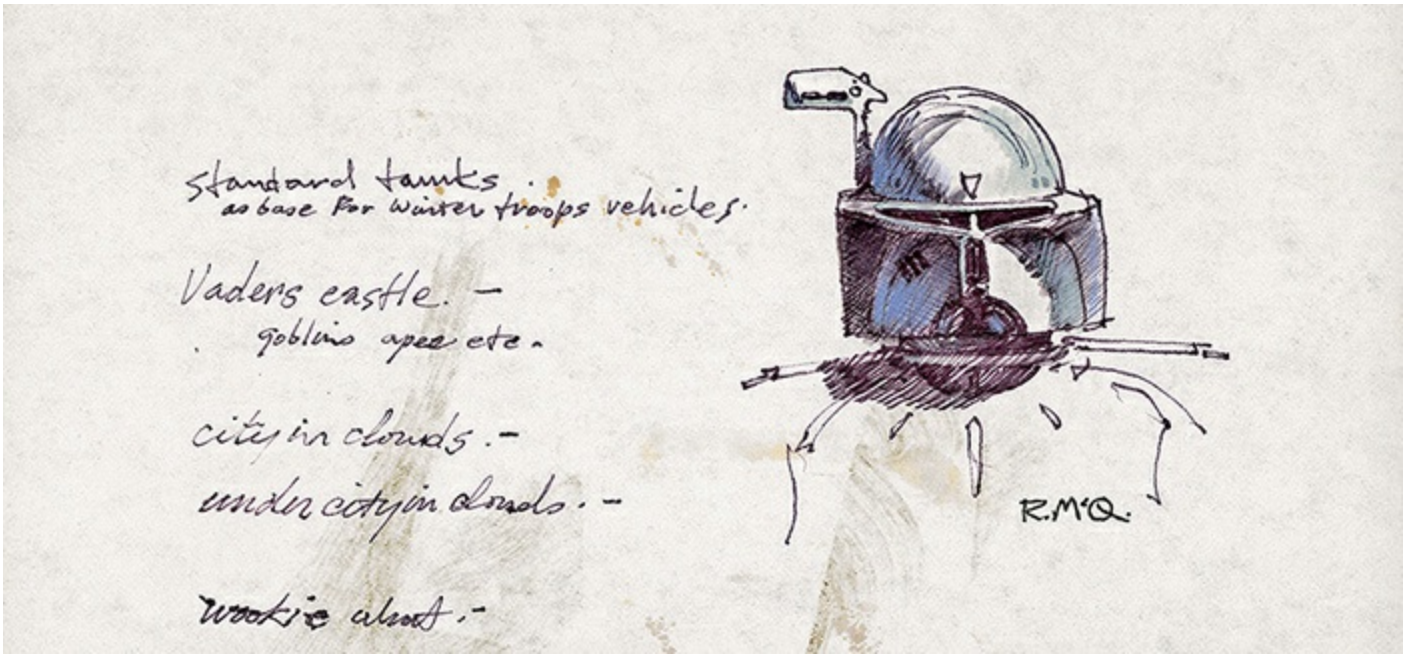
Supertrooper helmet concept by McQuarrie (no. 10), October 1977.



Supertrooper helmet concept by McQuarrie (no. 11), October 1977.



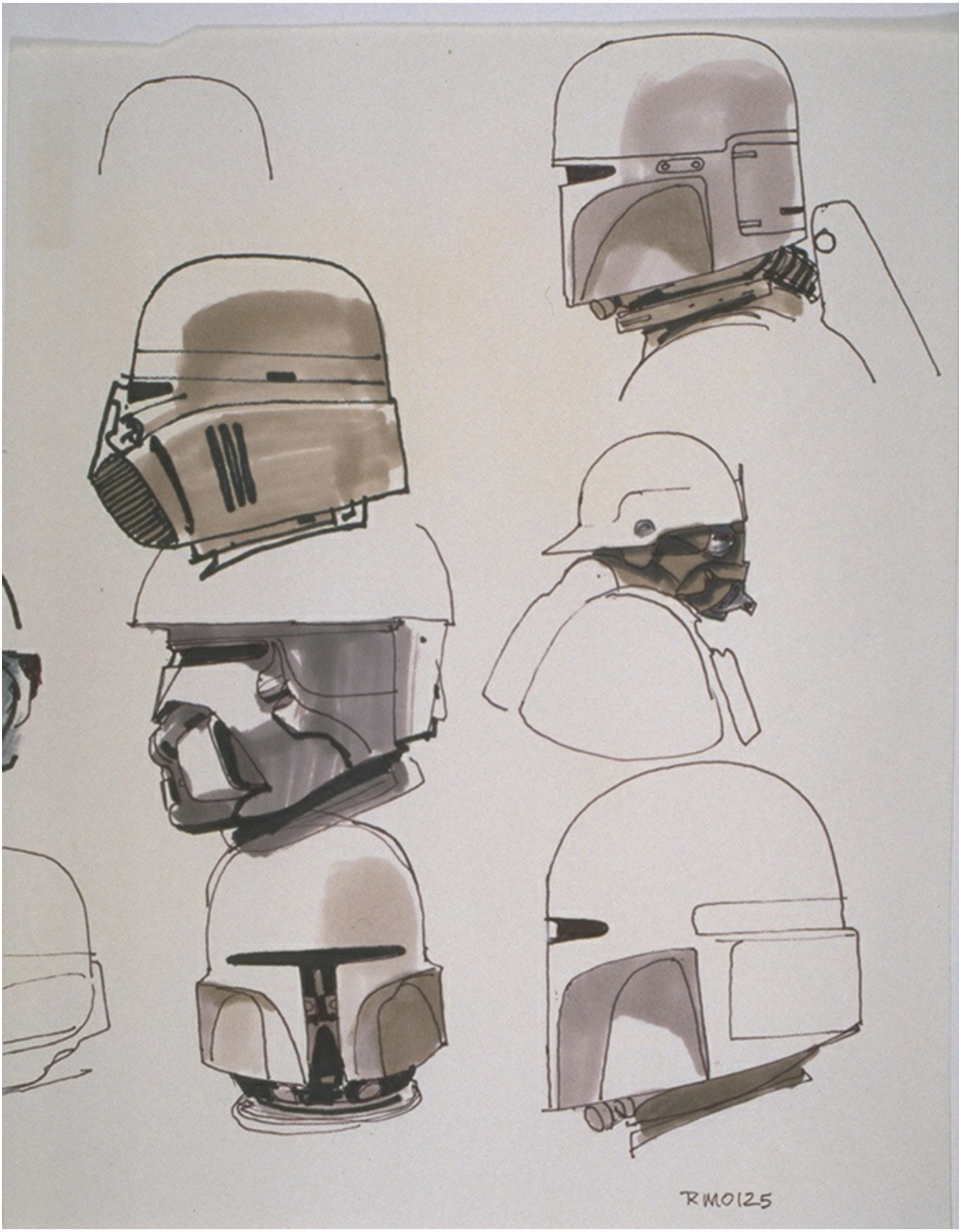
Supertrooper helmet concept by McQuarrie (no. 12), October 1977.



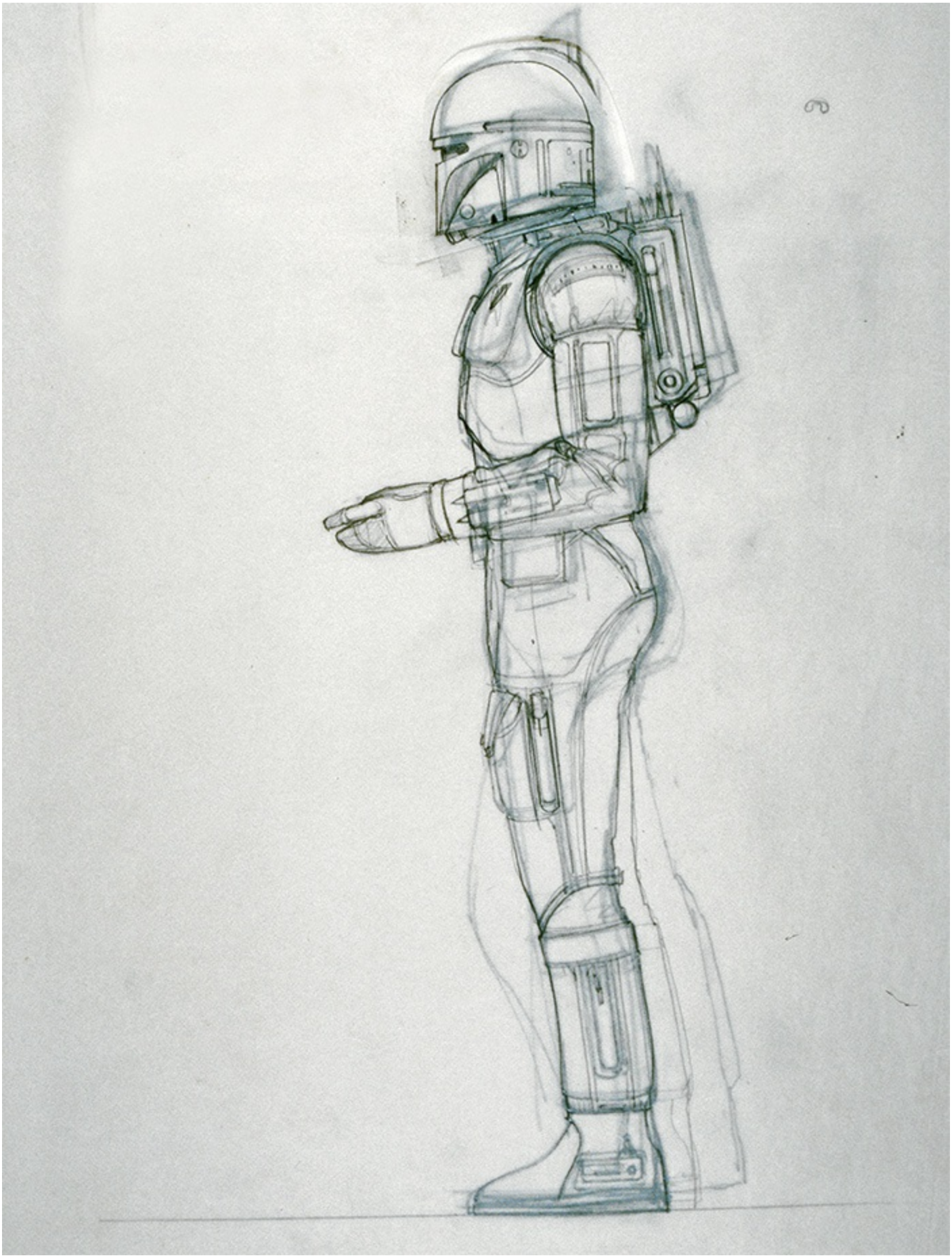
Early helmet concept by McQuarrie, sketched during the artist's first meeting with Lucas, October 1977.



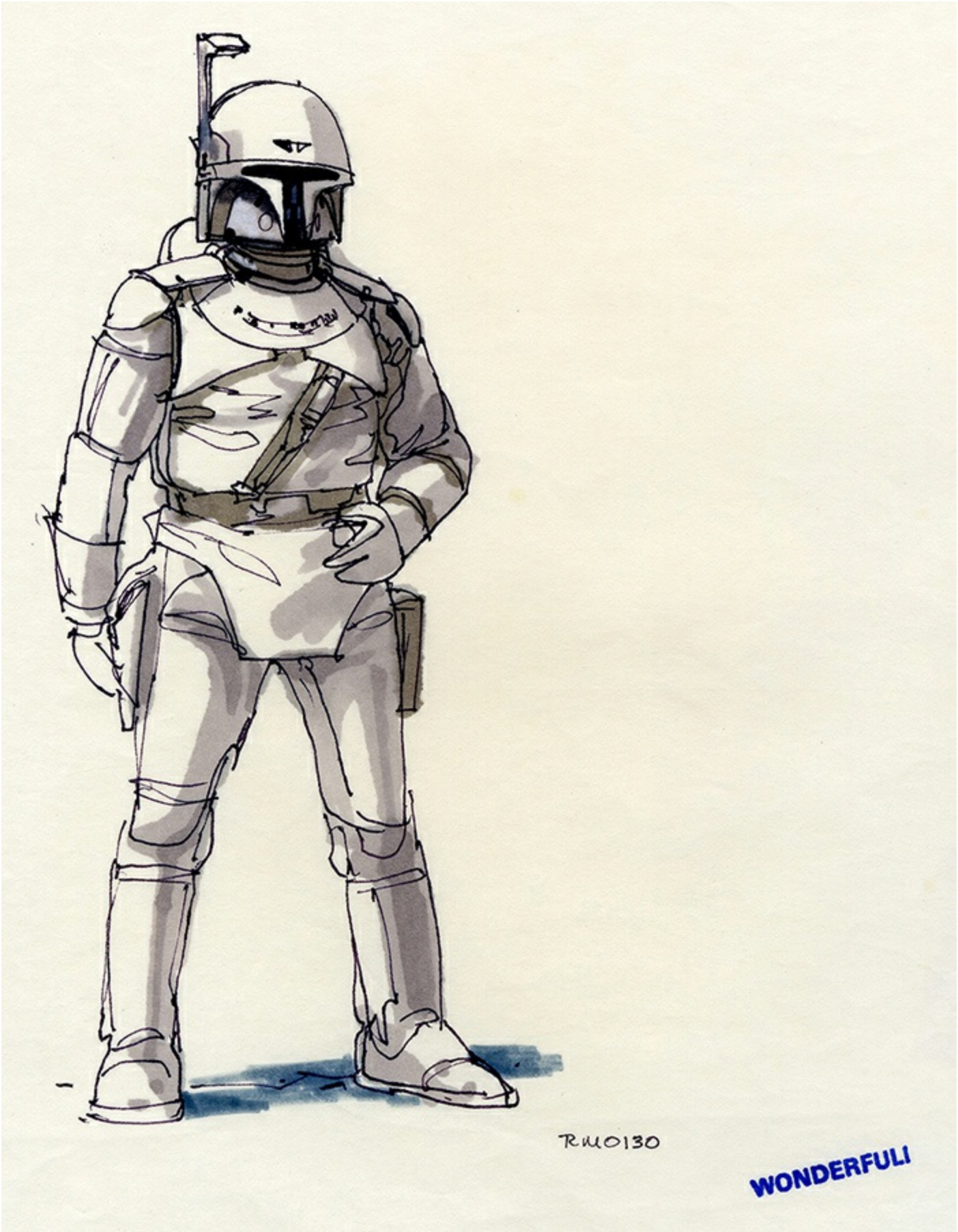
Supertrooper helmet concept by McQuarrie (no. 13), October 1977.



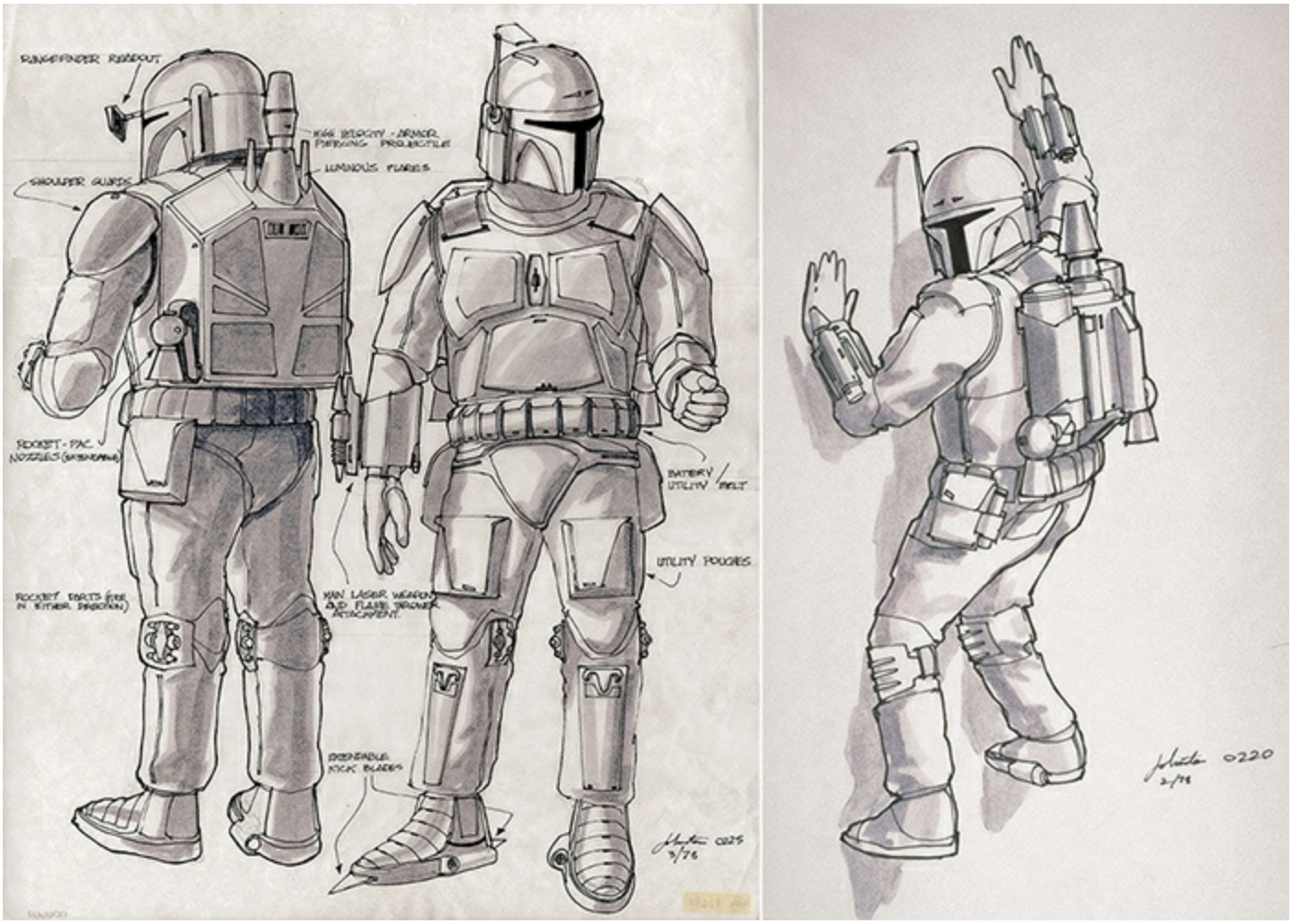
Supertrooper helmet concepts by McQuarrie (no. 125).



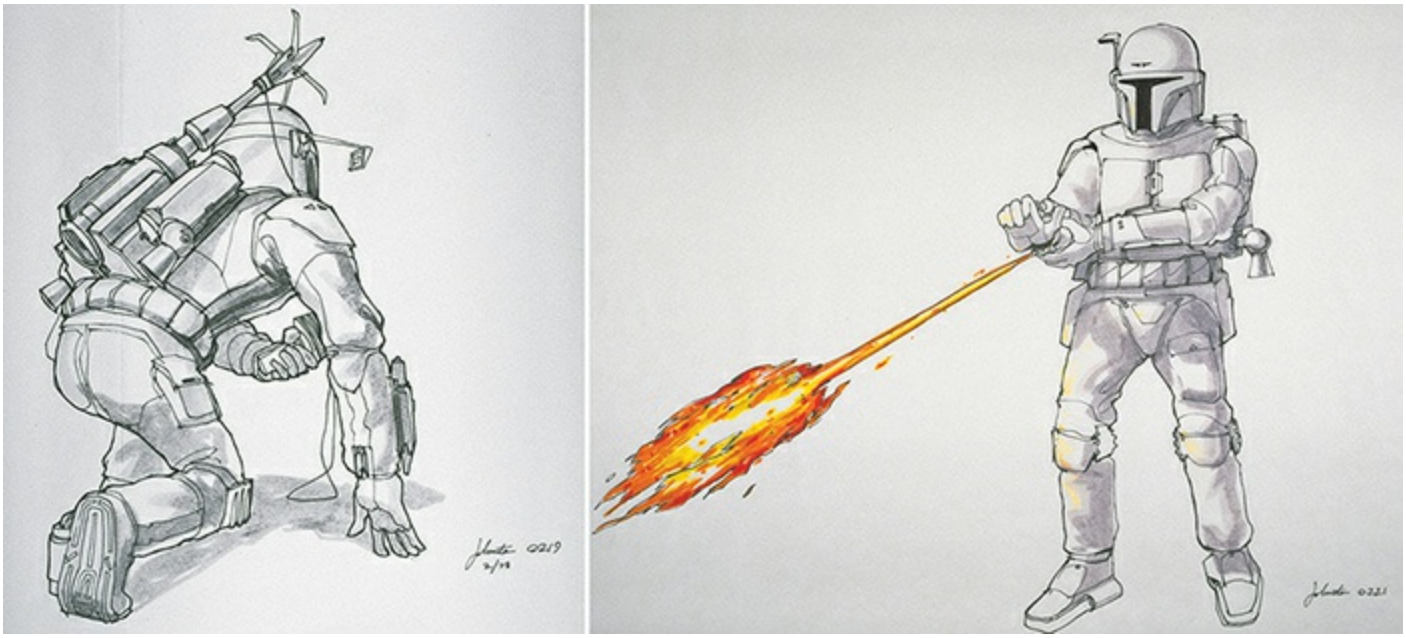
Supertrooper concept by McQuarrie (undated).



Supertrooper concept by McQuarrie (no. 130).



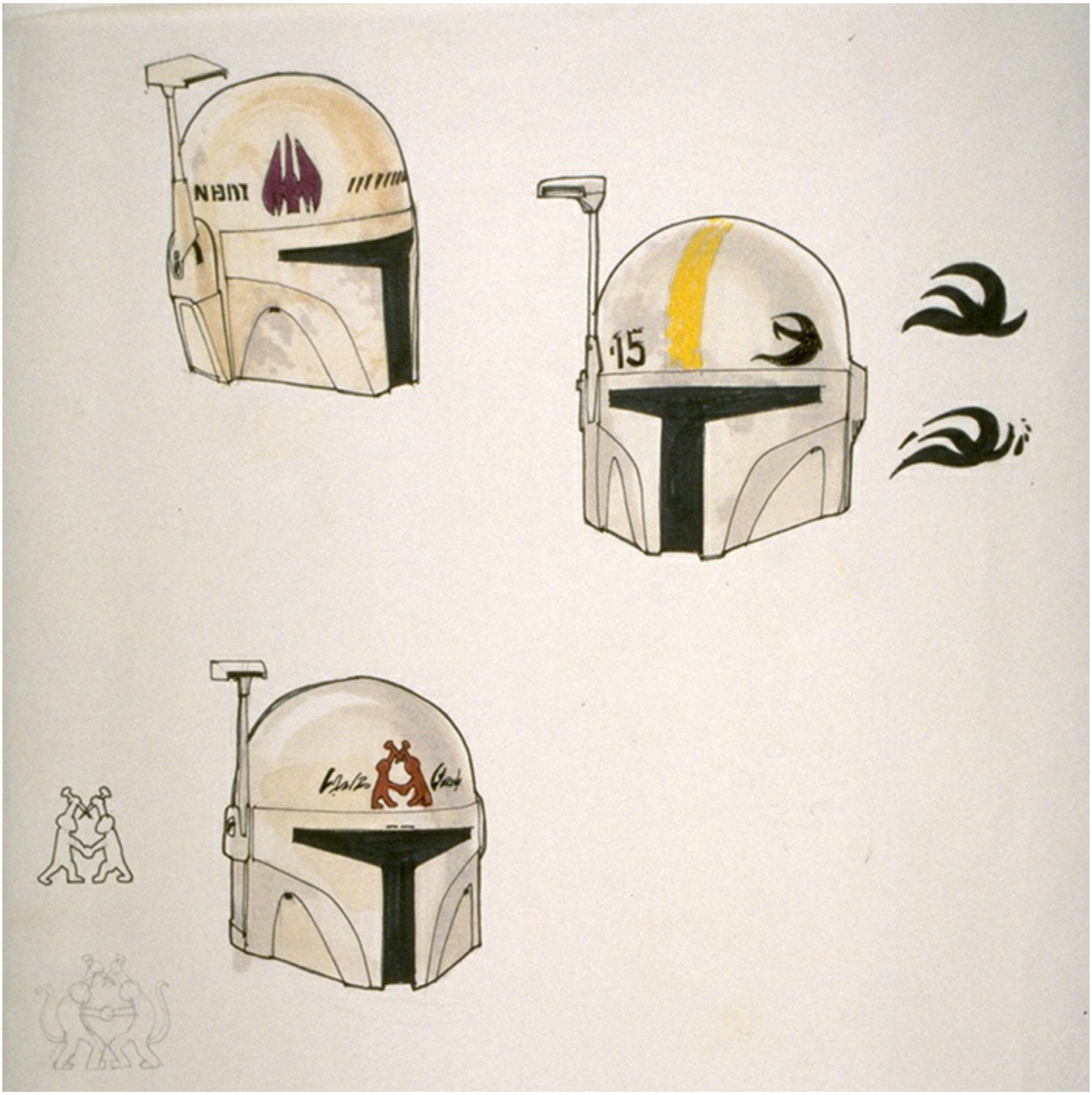
Supertrooper concepts by Johnston (no. 225 and 220, clinging to a wall).



Supertrooper concepts by Johnston (no. 221 and 219), February–March 1978.



Supertrooper concept by Johnston.



Supertrooper concept by Johnston.

STAR WARS: EPISODE V *THE EMPIRE STRIKES BACK* BY GEORGE LUCAS, APRIL 1, 1978—SECOND-DRAFT SUMMARY

For the first time in the process, the script, which runs 121 pages, includes a roll-up (as usual, Lucas wrote his draft by hand; he then made revisions to the typed version, which has been mistakenly referred to as a third draft):

> After the destruction of its most feared battle station, the Empire has declared martial law throughout the galaxy. A million worlds have felt the oppressive hand of the Emperor's agents in their attempt to crush the growing Rebellion. As the Imperial grip of tyranny tightens, Princess Leia and the small band of freedom fighters search for a more secure base of operations …

The ice planet is now called Hoth. Luke follows "a bright object" as it plummets groundward while Han is busy setting "perimeter markers." Han later explains that he has to leave the base because of debts: "I've got to pay off Jabba the Hutt or I'm a walking dead man." Leia reproaches him, but Han says that soon "there will be just too many [bounty hunters] to stop … Remotes, Gank killers, even Bell Cambos." In a tense scene with Leia, he adds, "They say I kiss very well. But don't worry, I'm not going to kiss you here—you see, I'm quite selfish about my pleasures and it wouldn't be much fun for me now. I'm going to wait for you to grow up a little more. I'm sure we'll meet again."

STAR WARS

Episode V

"THE EMPIRE STRIKES BACK"

By

Leigh Brackett

From

"The Adventures of Luke Skywalker"

By

George Lucas

For Laddie

Here's a rough idea of the film -- May the Force be with us!

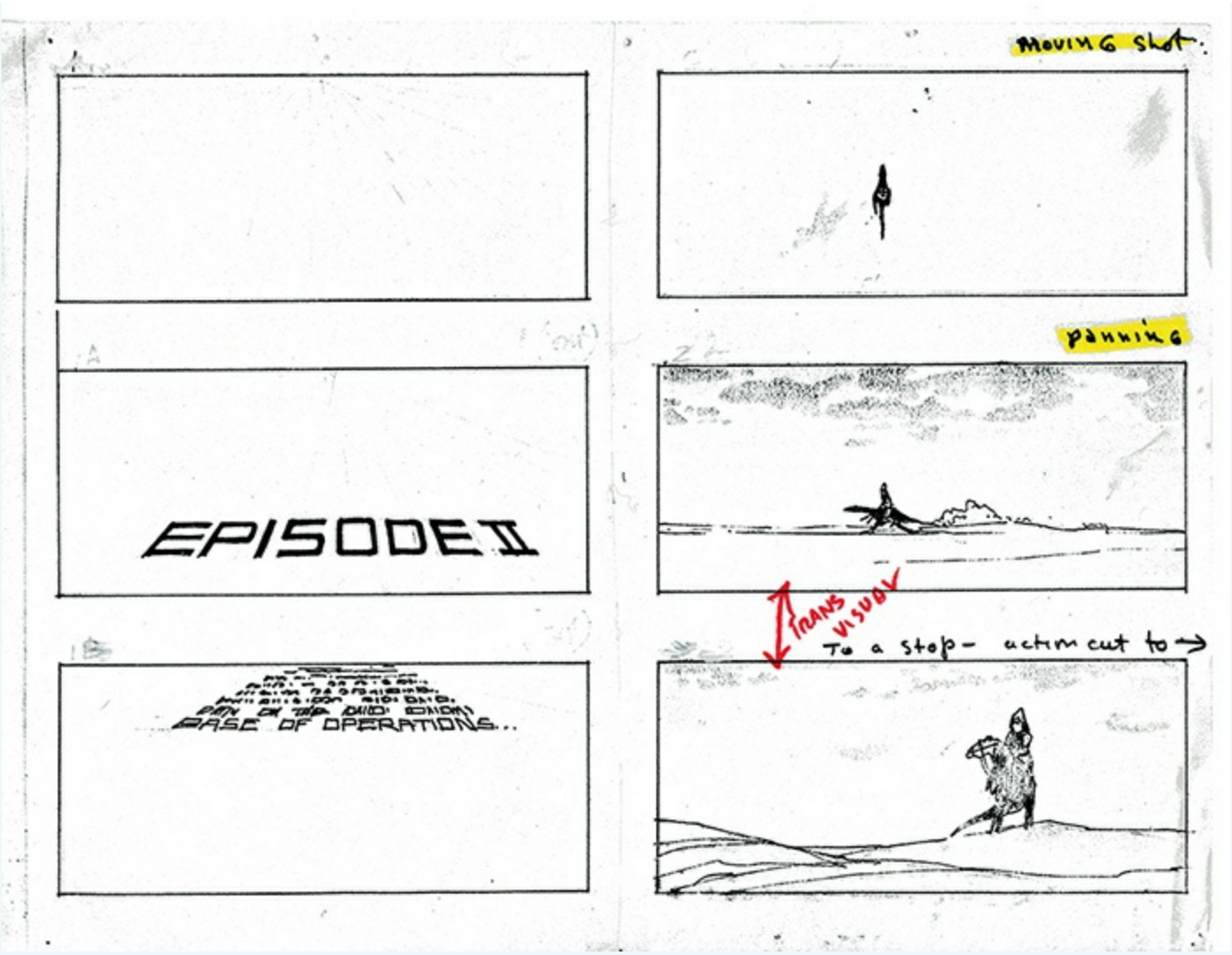
Esq

P.S. Best read listening to the Star Wars album.

SECOND DRAFT
BY GEORGE LUCAS

2D April 1978

Title page of Alan Ladd Jr.'s copy of the second draft, with a note from Lucas: "May the Force be with us!"



Storyboards by Johnston for the second draft, with rollup still calling the film "Episode II" and opening tauntaun shot, spring 1978.

A "probe robot" seeks out the Rebels, disintegrating a snow creature in the process and generating a force field around itself as a buffer against the cold night. In the snow monster's gorge, Luke is suspended by his ankles, but the voice of Ben councils him, "Think the saber in your hand." Luke uses the Force to call his weapon to him, cuts his bindings, injures the snow monster, and makes his escape. He is stumbling in the snowstorm when Ben tells him, "Go to the seventh moon in the Dagobah System. You will learn from the one who taught me: Yoda." Luke collapses, but Ben's spirit leads Han to the fallen adept. To keep Luke warm, Han now shoves him into the innards of a dead tauntaun (an old Native American trick, according to Kershner).

As the Rebels wait for news of Luke and Han, they have to close the blast doors of the base because a tauntaun has been mauled and they fear the monsters may attack at night. After Luke is brought back to the base, he is put in "a chamber filled with a thick, red slime. Luke begins to thrash about, raving in his delirium …"

LUKE

Great creatures … dangerous … move through ice … must go there … must survive. Yoda … go to Yoda … Base invaded … must survive …

A medical robot, Too-Onebee, helps Luke to recover (his humiliation scene has been cut). Meanwhile, the Rebels battle invading snow monsters, one of which they blast with a bazooka. It turns out the monsters are not carbon-based and, as R2-D2 reveals, are attracted by the Rebels' high-pitched whistles. Han and Chewie find and destroy the probe robot.

Vader first appears on a Star Destroyer (he's no longer seen in his home). Han is delayed from leaving by the snow monsters' attack, while Vader strangles officers who don't perform well. When the Imperials attack, Rebel ships escape thanks to big guns that destroy enemy vessels in their path. Because the Imperial fleet comes out of hyperspace too close to the planet, the Rebels are alerted to its presence and throw up a shield.

> Suddenly the troops stop their activity, a Sergeant gives the signal to be quiet, and all the troops watch the distant horizon. A distant thumping can be heard. A regular, rhythmic pounding: thump-thump, thump-thump. It grows louder now, a high-pitched metallic rattling. The Rebel troops are nervous … Through a set of electro-binoculars they appear … four, maybe five, huge walking machines, like deadly monsters they plod over the horizon.

Luke flies in an armored speeder; he is Rogue Leader and communicates with Rogue Junior. Luke's copilot, Dack, is killed. The Rebels use tow cables against the walkers, but Rogue Two disintegrates in a gas-ball explosion. After his aircraft is disabled, Luke rappels up to a walker, which he blows up with a hand grenade.

General Rieekan is mortally wounded, but Han, Leia, Chewbacca, and C-3PO escape. When Vader and stormtroopers invade the base, the latter open the wrong door and have to battle the snow monsters. Seventeen Rebel ships escape, including the *Falcon*—which has troubles because she can't make the jump to hyperspace and has to hide in a crater on an asteroid.



Miscellaneous alien concept by Johnston, early 1978.



Miscellaneous alien concept by Johnston, early 1978.



Miscellaneous alien concept by Johnston, early 1978.



A close-to-final snow creature concept by Johnston, early 1978.

Luke (no longer asleep) pilots his X-wing to Dagobah and crash-lands when his vision is obscured. R2 is attacked by a "swimming thing," but disgorged onto the land. As the X-wing sinks into the

swamp, Luke wonders how they're ever going to leave. R2 "beeps a short, 'Got me, boss.' " When a "strange voice" speaks, Luke ignites his lightsaber and turns to see a "blue creature … dressed in rags of somewhat human design. The creature lets out a long giggle, as it brushes its gray hair out of its eyes." The creature also speaks in a backward syntax: "Harm I mean you not."

LUKE

Run along; We have a man to find.

CREATURE

Yes, I found him! I am he? That's me!

LUKE

How long had you been watching us?

CREATURE

On and off, all your life guess I.

Back on the Imperial Star Destroyer, Vader talks via hologram with Sate Pestage, "Grand Visor to His Eminence, The Emperor." Vader then speaks to the Emperor, who says that the "son of Skywalker" could be turned to the dark side. Back in the *Falcon*, Han and Leia argue but end up sharing a long, deep kiss. Then a Mynock, "a five foot … leathery creature," gives them trouble—and something else is amiss:

HAN

There's no time to discuss this in a committee. Strap yourself in, we're taking off.

LEIA

(angry)

I am not a committee!

Han pilots the *Falcon* out of the gullet of a "monstrous moray eel type creature."

Vader convenes a group of bounty hunters on the ship: Bossk, Tuckuss, Dengar, and Boba Fett. When the Imperials espy the *Falcon*, Solo tries again to make the jump to hyperspace and fails, protesting, "It's not my fault!" He turns the ship around and "attacks" the Destroyer, hiding on its hull.

Yoda teaches Luke while being carried in the latter's backpack: "Once you've embarked on the dark path, it will dominate your destiny … If you flow with the Force, you will see the target bolts before they are fixed." Luke approaches a tree that is a servant of the dark side.

LUKE

I don't think I'm ready … How do I know you aren't using me to get rid of something in there that's too powerful for you.

YODA

There is nothing in there I assure you. Letting the dark side of the Force do your thinking you are. Throw those thoughts out

of your head, yes. That is why you are here. You must press on with our learning, beyond fear.

LUKE

I'm not ready. It will kill me …

Luke enters the gigantic tree, lightsaber on, as Yoda "lights up his long, wooden smoking pipe." Meanwhile, the *Falcon* floats away with the garbage, and Han decides to seek shelter with Lando Calrissian in the Bespin system. When Han approaches Cloud City (the subplot with aliens has been cut), the ship is buzzed by two twin-cockpitted fighters. The city is described as "art deco" and "half of the troops, as well as citizens of the city, are black," including Lando. Back on Dagobah, Luke feels that his friends are about to suffer.

On Cloud City, Lando escorts his friends through a plaza overlooking the tops of the towers, remarking, "The power reactor is connected by a long shaft below the city, which keeps the pollution down." He then betrays them to Vader in the dining room—this time, Han tries to blast him, but Vader deflects the bolts with his hand and grabs the pistol with the Force. Luke's feelings intensify. Yoda and Ben warn him not to go to his friends' aid, but he leaves.

BEN

He is our only hope.

YODA

No, we must find another.

Han is tortured. Fett is concerned that Solo may be too damaged for the reward; Leia is also tortured off screen. Vader prepares the Carbon Freezing Chamber and tests it on Solo. As they put Han in the chamber, he tells Leia, "I'll be back." Luke arrives, trades shots with Fett, and says:

LUKE

I know you're with me, Lord Vader, I can feel your presence. Show yourself, or are you afraid?

Vader steps into view behind Luke.

VADER

The Force is with you, Skywalker, but you are not the master yet.

Lando rescues Chewbacca and Leia. However, they get stuck in an elevator and Lando scrambles on top to fix it—when R2 makes the elevator suddenly descend rapidly, and only a sure shot by Lando triggers the brakes and stops them. Meanwhile, Luke continues his duel against Vader.

VADER

I feel your anger, good, let yourself hate me.

LUKE

I have no feelings for you.

VADER

I destroyed your family. I destroyed Kenobi.

Ben speaks to Luke—"Lose hate, lose anger, Luke. The dark side is no stronger" (in the typed second draft, Lucas cut out his dialogue). On the gantry (the propeller blades have been cut), the battle becomes personal …

VADER

The Force runs strong in the Skywalker line, you must use the dark side. Together we would be the most powerful. Stronger with the Force than even the Emperor.

LUKE

Never will I join with you.

VADER

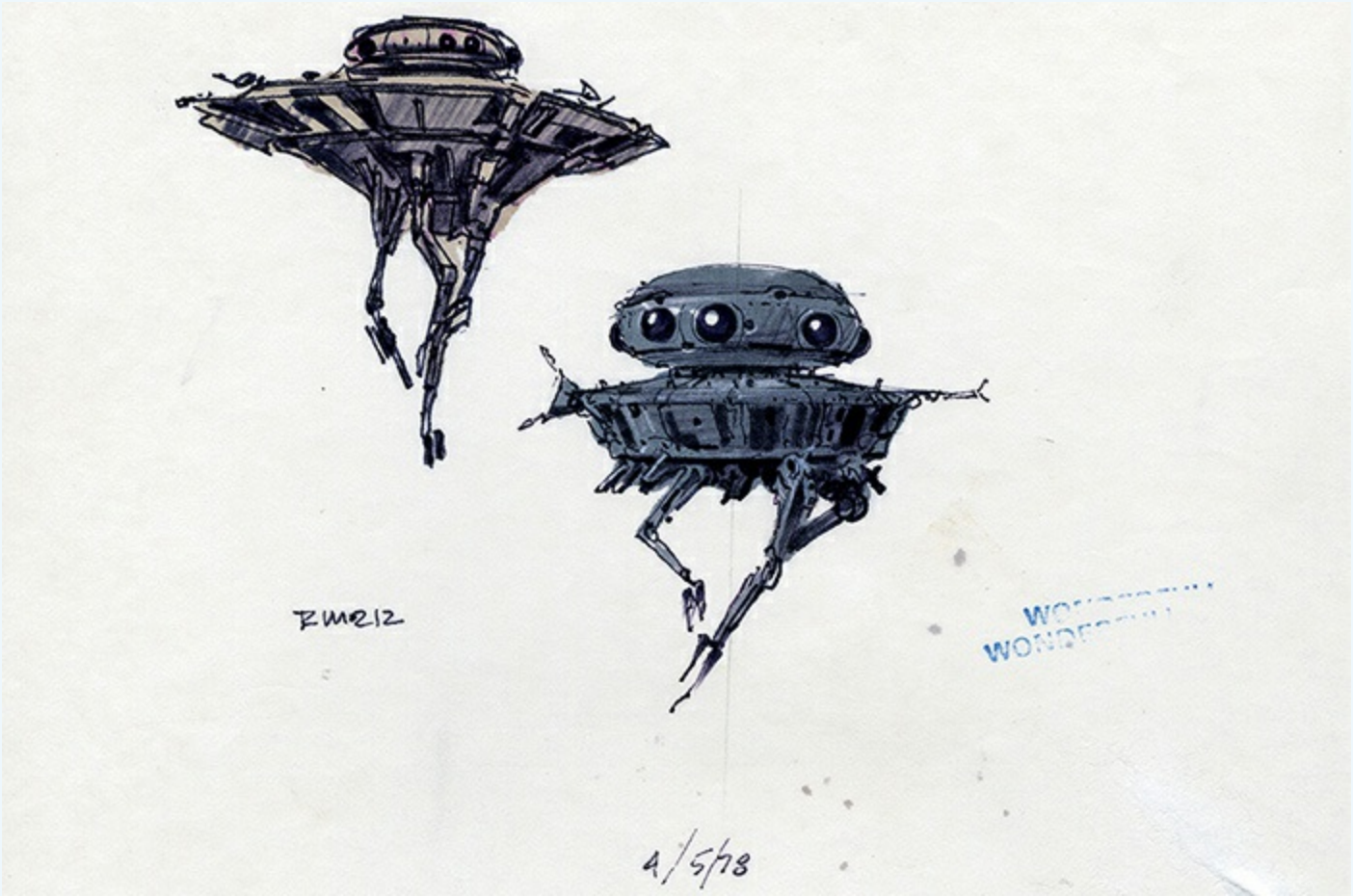
We will rule the galaxy as father and son.

LUKE

What?

VADER

Old Kenobi never told you what happened to your father did he?



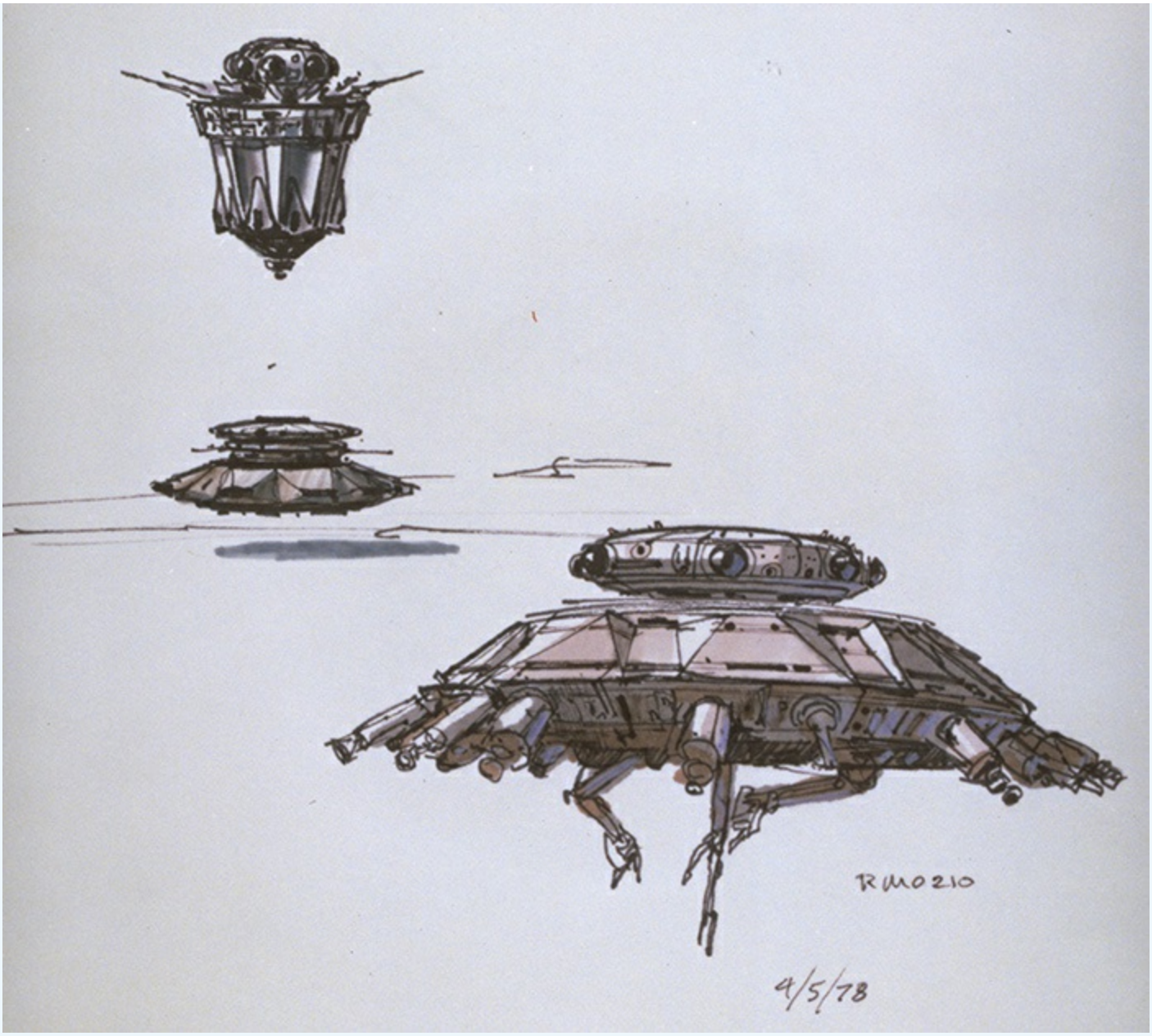
"Floating Robot" concept by McQuarrie (no. 212), April, 1978.



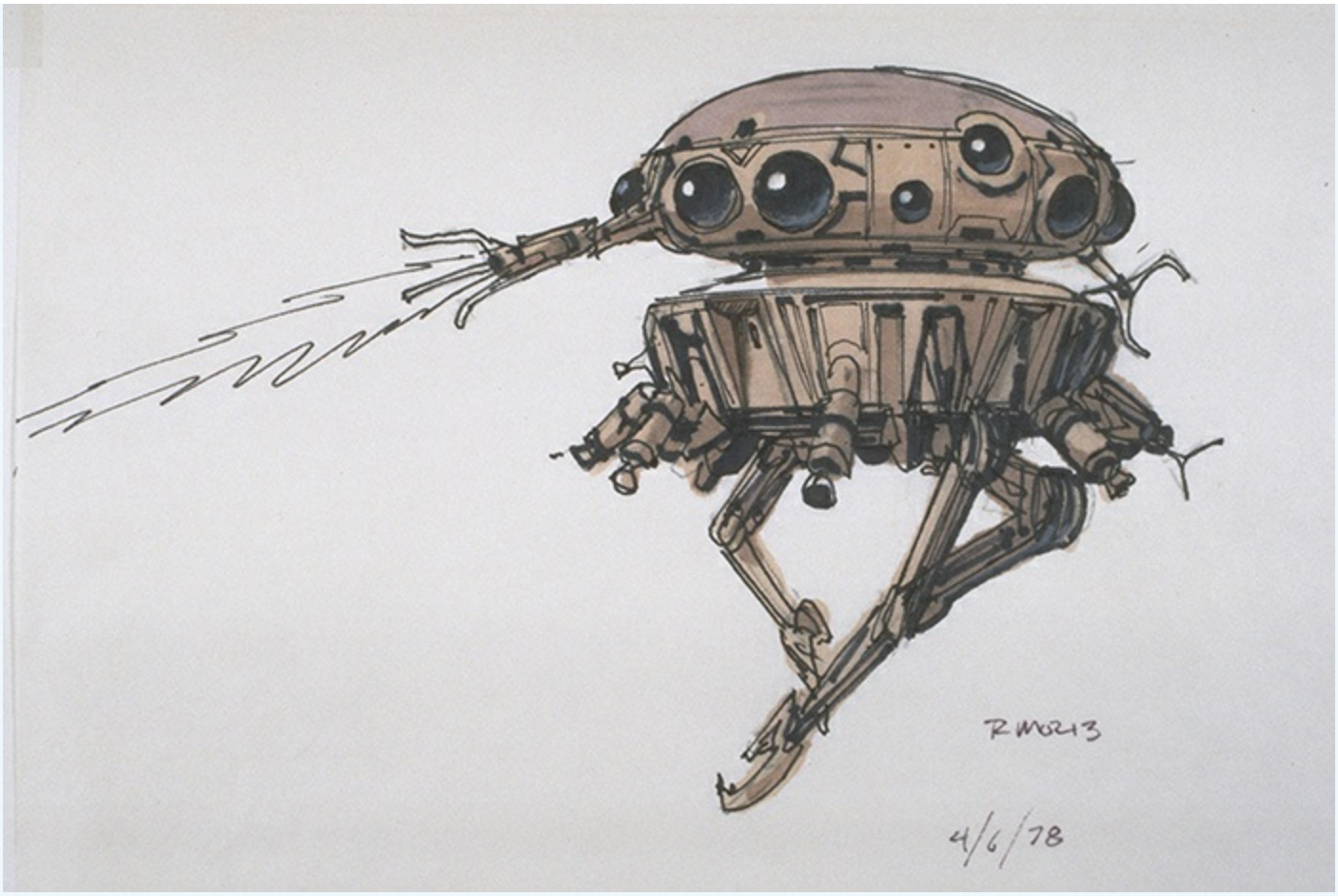
"Floating Robot" by McQuarrie, April 20–22, 1978. "I started with one that floats," says the artist. "I got into things like tendrils or arms hanging down from the body of the unit. The color came from some exceptionally good ice landscape reference in a *National Geographic* article on Alaska. I liked that look because it gave the picture a weird appearance."



"Floating Robot" concept by Johnston.



"Floating Robot" concept by McQuarrie (no. 210), April, 1978.



"Floating Robot" concept by McQuarrie (no. 213), April, 1978.

LUKE

Enough! He said you killed him.

VADER

I am your father.

LUKE

That's impossible. It's not true.

VADER

Search your feelings; you already know it to be true. Join me.

Vader is winning the battle of wills when Luke jumps "into the endless abyss" and Vader "slumps in disbelief." As Luke clings to a weather vane under Cloud City, he asks Ben to help him contact Leia, who, in the *Falcon* cockpit, then hears Ben's voice: "Luke, help Luke." They return and Lando catches Luke as he falls from the vane, unconscious; thanks to Lando's repairs, the *Falcon* makes the jump to hyperspace. They rendezvous with the Rebel fleet.

Vader.

that's it, use the dark side.
Hate. Don't be afraid.

Luke

I will destroy you, if it is my last act.

Vader

the force runs strong in the skywalker line, you must use the dark side. together we will be the most powerful. Stronger with the force then even the Emperor.

Luke.

Never will I join with you.

Vader.

We will rule the galaxy as father and son.

Luke

what?

Vader.

Old Kenobi never told you what happened to your father did he.

Luke

Enough! He said you killed him.

Vader.

I am your father.

the two have been battling all through this dialogue. Luke pulls away at this revelation the two warriors stand staring at one another; father and son.

Luke

That's impossible. It's not true

Vader.

Search your feelings you already know it to be true. Join me.

Luke

No! ... never ...

Luke starts backing away from Vader.

Vader

There is no escape. Don't make me destroy you here. Together we could overthrow the Emperor. He is stronger with the force than he is. He has foreseen this. It is your destiny.

Luke

Never.

Luke lunges for Vader with his lazersword, but missing, stumbles to the other side of the platform. In the distance the wind can be heard working its way up the long shaft. Luke is out of breath, exausted, and badly wounded. He hears the wind approaching, gives Vader a long hard look.

Luke

Never!

Luke staggers to edge of the platform and jumps off into the endless abyss. Vader slumps in disbelief.

Vader.

no!

Lucas's handwritten second draft pages reveal for the first time Darth Vader's avowal to his son.

Leia and Luke say good-bye to Lando and Chewie, who are going after Han; "Luke moves to Chewie and starts scratching his chest vigorously, which the Wookiee loves. He barks his enjoyment." In the handwritten version, much is explained (which is cut in the typed version):

LANDO

I am grateful Chewbacca has allowed me to go with him … I will return with Han or die in the process. I have a great debt to repay.

LEIA

May the Force be with you. [Lando and company leave.]

LUKE

I will be leaving shortly also. I have left unfinished things.

LEIA

You know it's Han I love don't you?

LUKE

Yes … But I have been swept into another sphere. Han is better for you … Don't worry, they'll find him.

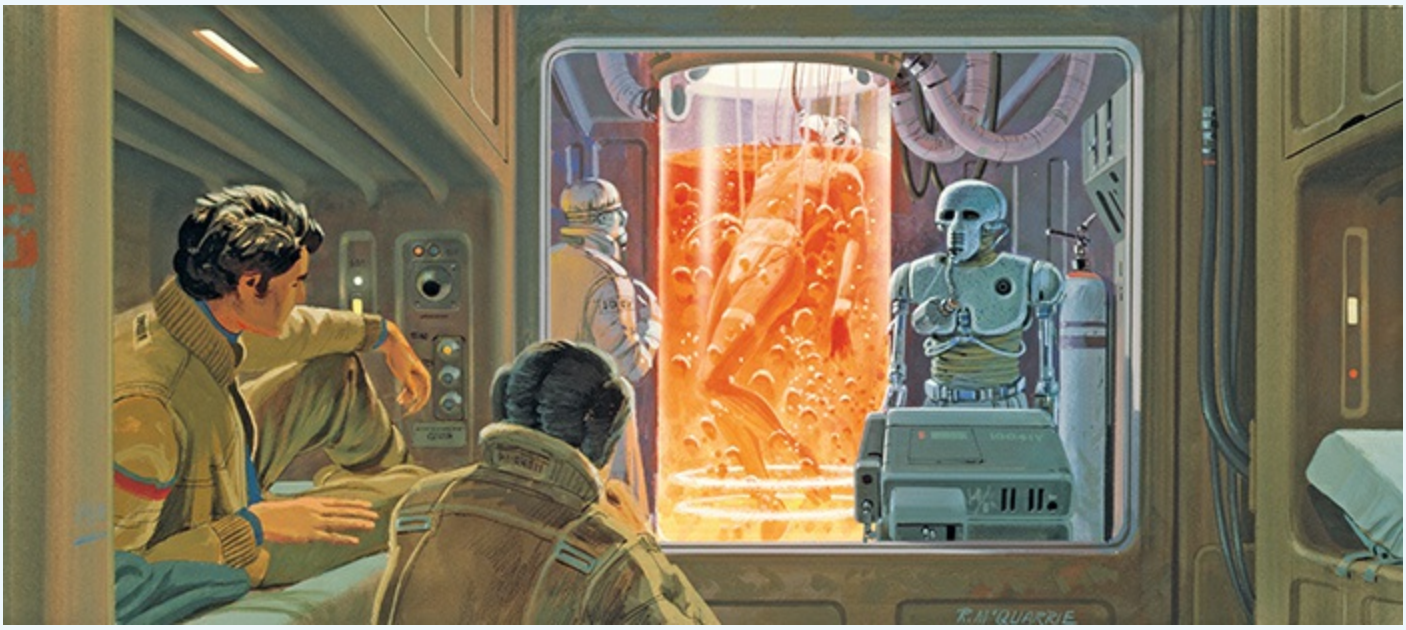
He smiles and gives her a kiss on the forehead. The Jedi and the Princess turn and look out the giant view port as the *M. Falcon* pulls gracefully away and disappears into the sea of stars.



RM0207

4/6/78

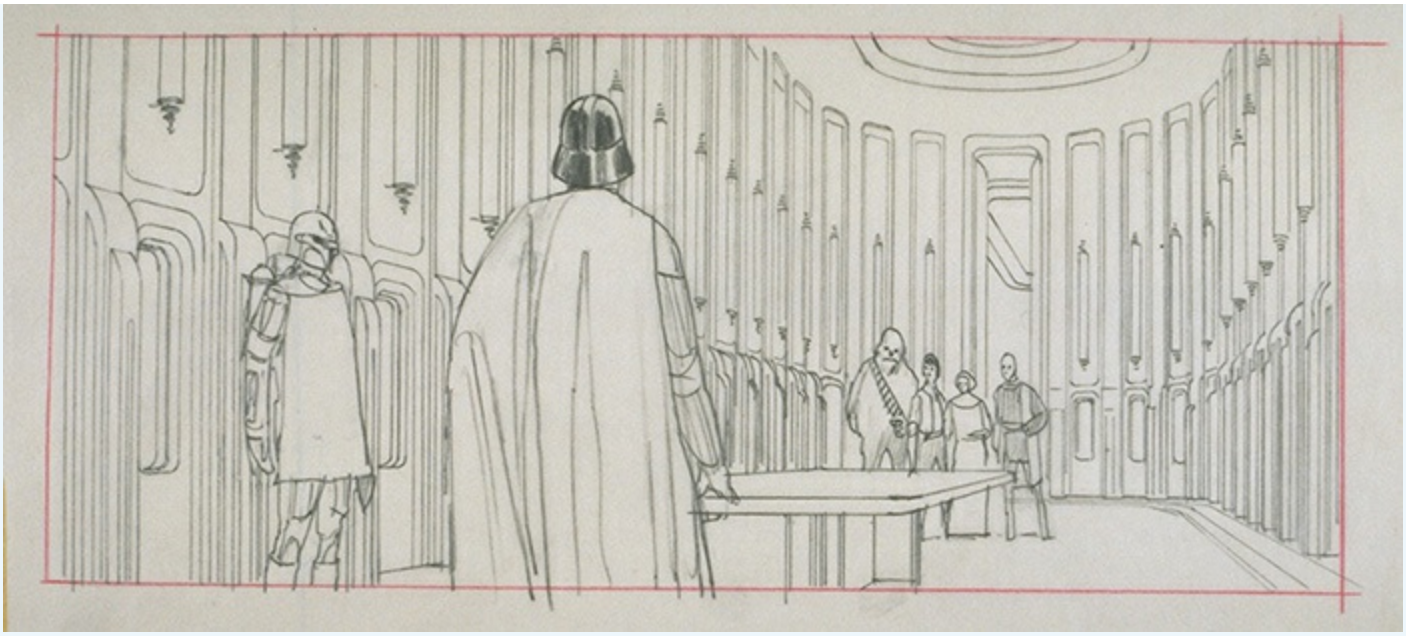
Preparatory sketch for “Med Center” (with alien doctor) by McQuarrie (no. 207), April 6, 1978.



“Med center” by McQuarrie, April 19–20, 1978 (with medical droid).



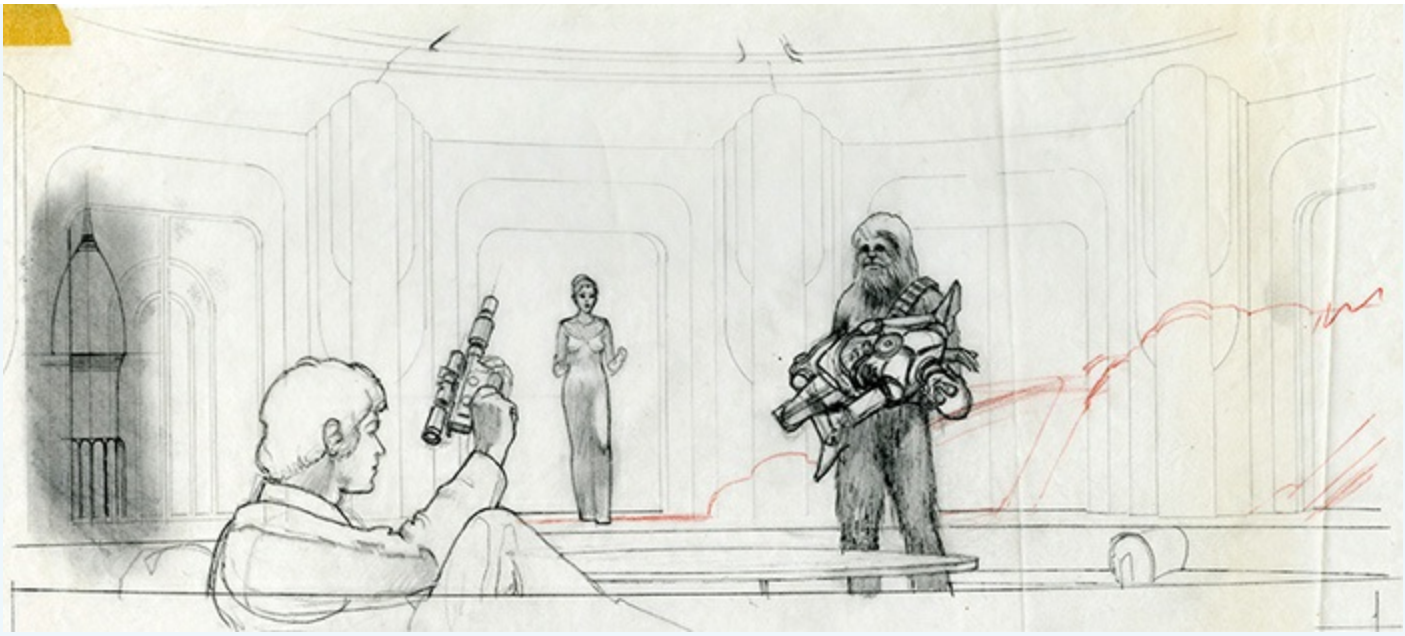
“Cityscape” with Leia and Lando by McQuarrie, April 11–13, 17, 1978. “They planned to film a few actors on a moving sidewalk; it was an idea for a matte painting.”



Preparatory sketch of Fett and Vader taking the heroes prisoner, by McQuarrie.



Final painting of Fett (in white armor) and Vader taking the heroes prisoner, by McQuarrie.



Preparatory drawing of Han and Leia on Cloud City (with Chewbacca and C-3PO), by McQuarrie.



Final painting of Han and Leia on Cloud City (with Chewbacca and C-3PO), by McQuarrie.

In early March, several industry newspapers had reported that Mark Hamill, Harrison Ford, and Carrie Fisher were having their first script conferences with Lucas and Kershner. Columnist Army Archerd quoted Ford as saying, "The sequel to *Star Wars* will be a completely different film. It has a chance to be an even better film than the first one. It has a stronger plot—and some exotic locations."

The fact that Ford was attending the story meetings meant he had verbally signed on for the sequel—a big relief to the burgeoning fan community, which had been collectively worried that the actor would not come back. "In the beginning, I didn't sign a contract with an option for a second film, because I'd been tied up in studio contracts before," Ford says, referring to his early experiences at Columbia and Universal. "I wasn't going to make that mistake again. And I didn't discuss doing the second one before the first one had been in release for a while, but when we came together, I had no difficulty deciding I would do part two. In fact, I was happy to do it again because I thought I could do it better. I also felt I had a moral obligation."

For their parts, Hamill and Fisher had already been optioned for second and third movies, while Ford remained uncommitted to a third. All three actors kept busy between films. Fisher had worked with Laurence Olivier on a TV version of *Come Back, Little Sheba* (1977) and was soon going to tape her first appearance as host of *Saturday Night Live* (1978), while Hamill had starred in *Corvette Summer*.

"Luke certainly isn't the same boy now as he was in the first film," Hamill says. "I think that will keep him interesting. I'm not the same Mark Hamill and I hope that makes me more interesting."

"I saw the success of the first film as an opportunity to diversify," says Ford, "to become known as an actor, not as the person attached to *Star Wars*, which could have given me a beginning and an end to my career, but no middle. I know that a certain segment of the audience prefers to see the same thing dependably brought by a familiar face, but there's also a kind of dependable quality to a person that can be there; the humanity of that person is available regardless of the part they're playing—unless you're in a piece of total dogshit like *Force 10 from Navarone* [1978] in which you can't do anything. I ended up doing that because it was the only non–Han Solo role offered to me and, quite frankly, because they were going to give me billing above the title, second to Robert Shaw. After *Heroes* [1977], I went and did a small part, a cameo really, in Coppola's *Apocalypse Now* (1979). I played a colonel in army intelligence, a quirky kind of character. I called myself Colonel 'Lucas,' because I know those guys enjoy so much that kind of in-humor."

The supporting cast of *Star Wars* was similarly active between films:

Anthony Daniels (C-3PO); David Prowse (Darth Vader, whose voice had been provided by James Earl Jones); Kenny Baker (R2-D2); and Peter Mayhew (Chewbacca). But some of those who had been wearing masks were feeling frustrated. On August 3, 1977, R2-D2, C-3PO, and Darth Vader had put their footprints in cement in front of Grauman's Chinese Theatre, but Anthony Daniels was the only actor from the film present in costume—and even he was feeling a great disparity between the fame of his character and the trajectory of his career.

"It's like that poem 'all for naught since no one ever knew,' " Daniels says. "*Star Wars* was such a hit, but the filmmakers seemed to want to deny that I existed. 'See-Threepio is entirely mechanical,' the publicists for the distributors once actually claimed, and I have to be honest and say it hurt. I couldn't go anywhere in the world at that time without there being the music, images, whatever. I can understand their motivation, but I put everything into the character at a time when my theater career was

progressing well."

According to Daniels, when he looked for work in such organizations as the Royal Shakespeare Company, they were not impressed that he had played an important role in *Star Wars*. "I was out of work for 10 weeks and I began to wonder what I had done."

At the Academy Awards on April 3, 1978, *Star Wars* received Oscars for Best Visual Effects, Art Direction, Costume Design, Film Editing, Music, and Sound. At the awards gala, Daniels appeared in costume, and Darth Vader made an appearance without Prowse (Kermit Eller was the man in the suit for much of the publicity between films). "I object to not being asked to do the more important appearances," Prowse says. "I object to the fact that they had other people wear the costume."

And although it had been evident to at least some of the cast and crew that his voice wouldn't be used as Vader's, Prowse learned of Jones's voice-overs when director Russ Meyer in Los Angeles cabled him clips of reviews. "I really felt that when *Star Wars* came out, I had the raw end of the deal," Prowse says. "Here I was playing what became the cult figure of the film, in the biggest film of all time, and very little was being issued on me, publicity-wise. Twentieth Century–Fox was categorically refusing to issue any pictures of me out of the mask. I can understand, to a certain extent, of wanting to do that, but they didn't take any consideration of me."

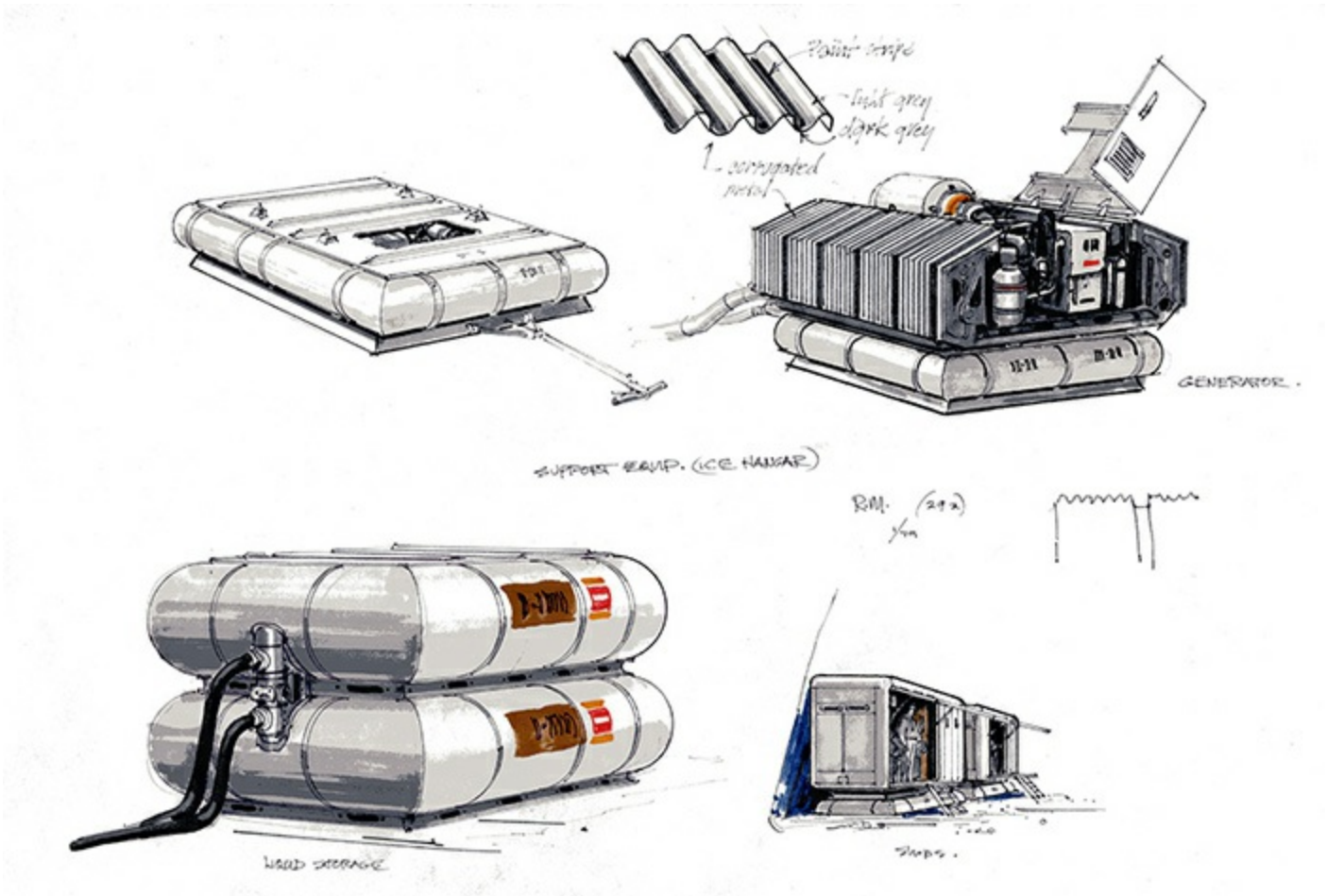
To add irony to the situation of both Prowse and Daniels, their suited counterparts were a sexual draw, as letters from fans were often risqué. "They're all proposals of marriages," says Daniels.



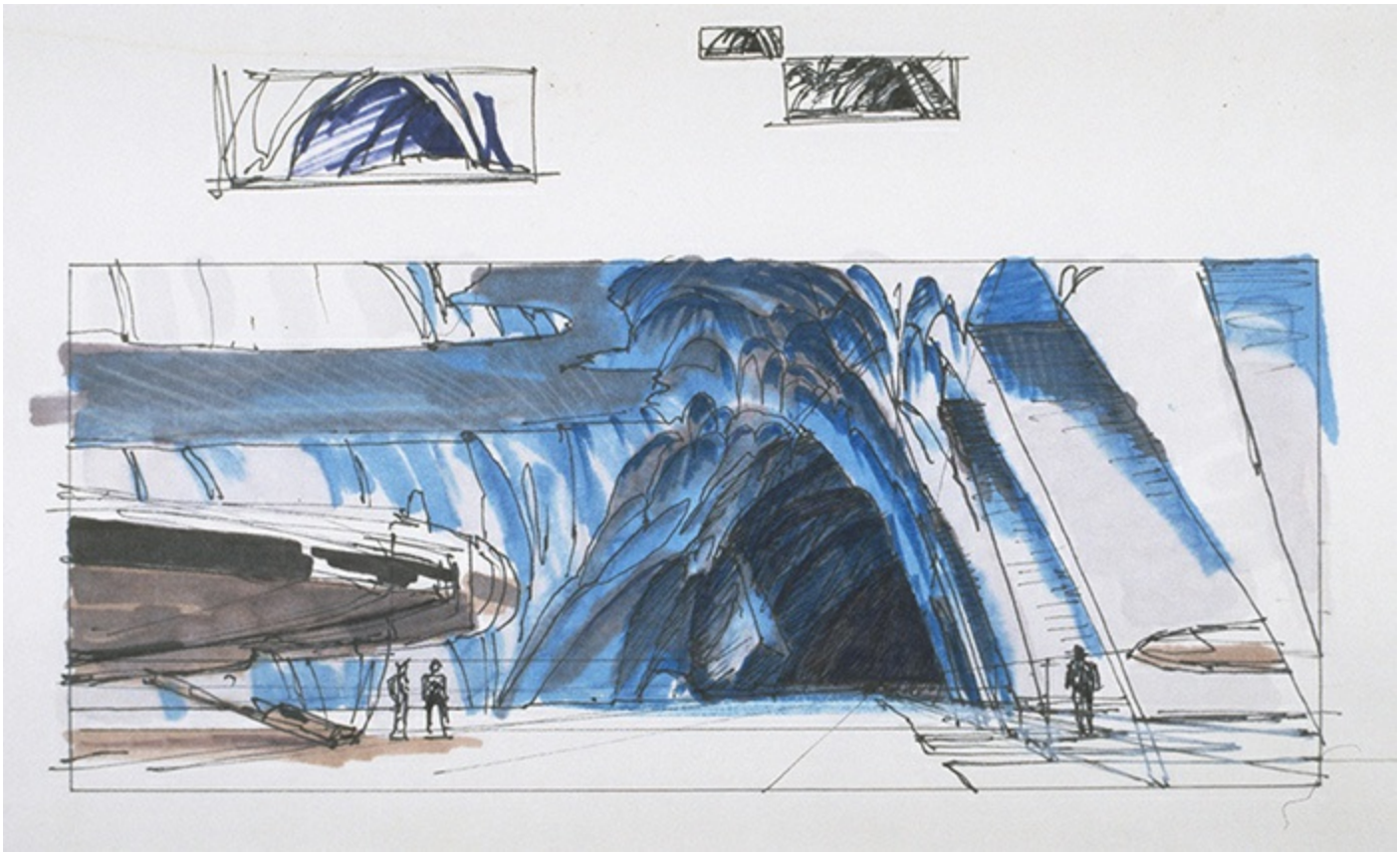
"Ice Cave" (looking toward door) by McQuarrie, April 24–26, 1978. "The snowspeeders here are shown in detail during a transitional stage of their development," says McQuarrie. "Joe Johnston and I had different concepts about them originally. He had a feeling that they were indigenous craft, something the Rebels had taken over when they got there, and Joe took my basic design and really improved it. He came up with a frontal construction that worked very well. There were a lot of difficult-to-draw angles in the early models. If you look carefully in the background of the ice cave hangar, you'll also see an early version of the tauntaun."



"Ice Cave" (reverse view) by McQuarrie, May 10–11, 1978. "George will usually ask for specific things in each painting," says McQuarrie. "He decided we'd better figure out exactly what the tunnels look like. The ice caves are natural to the planet, but they've been modified by the Rebels to accommodate their ships with huge sections of ice carved out for hangar space, repair, and refueling ports. It was my feeling that lasers would be used to accomplish the cutting in long, straight lines. That helped give me a key to part of the solution in these illustrations."



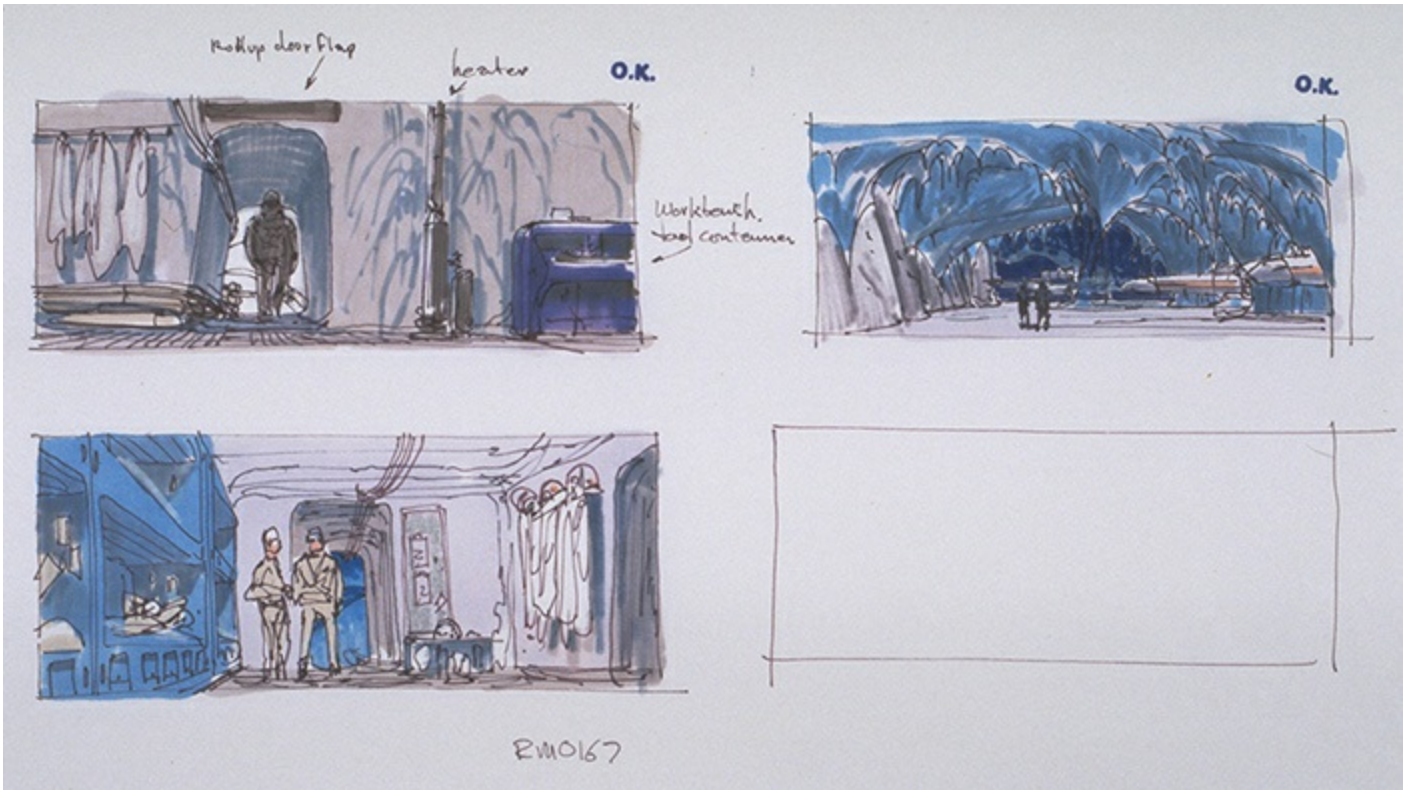
Preparatory drawings and explorations for "Ice Cave," by McQuarrie.



Preparatory drawings and explorations for “Ice Cave,” by McQuarrie.



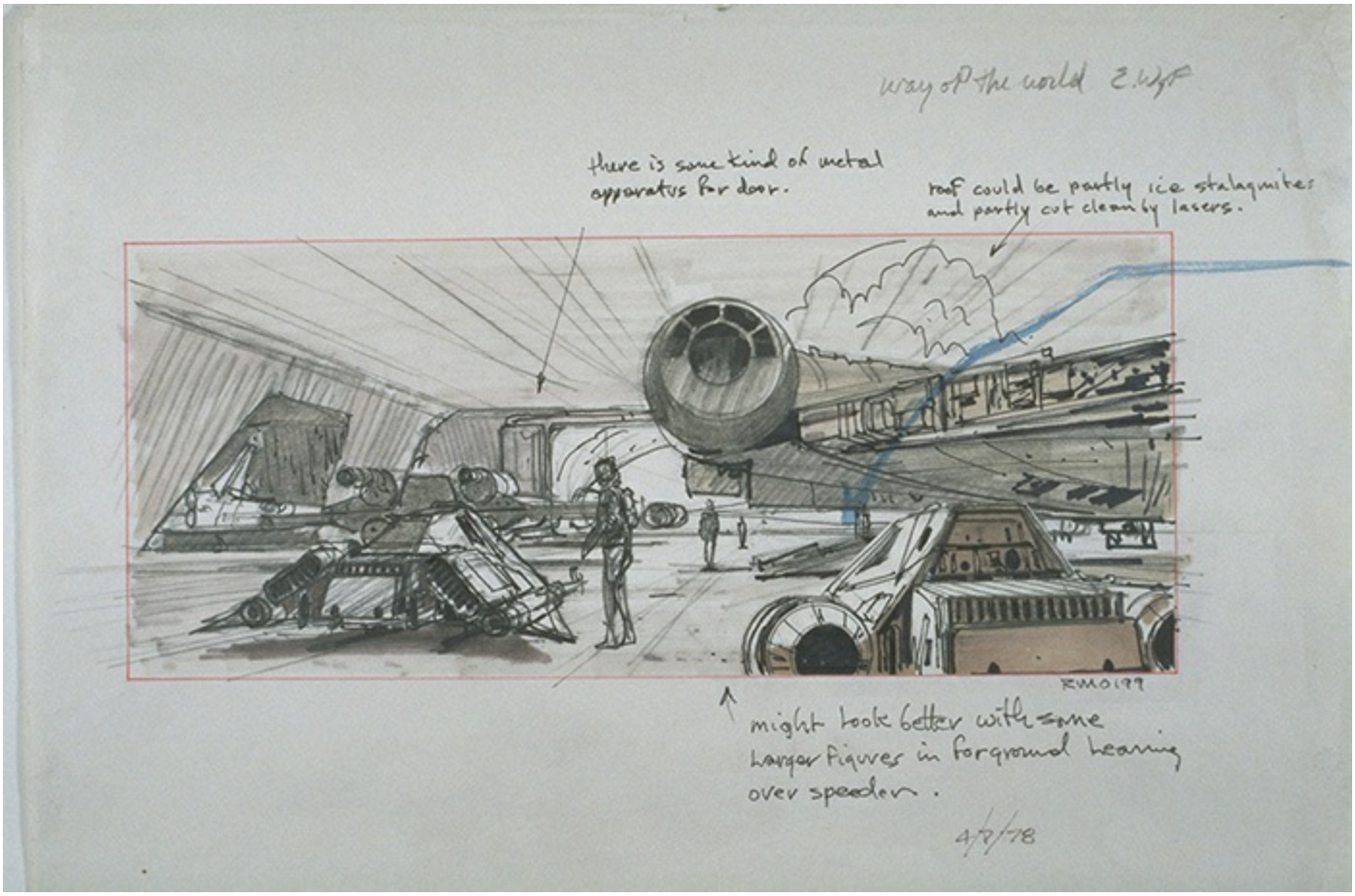
Preparatory drawings and explorations for “Ice Cave,” by McQuarrie (no. 40).



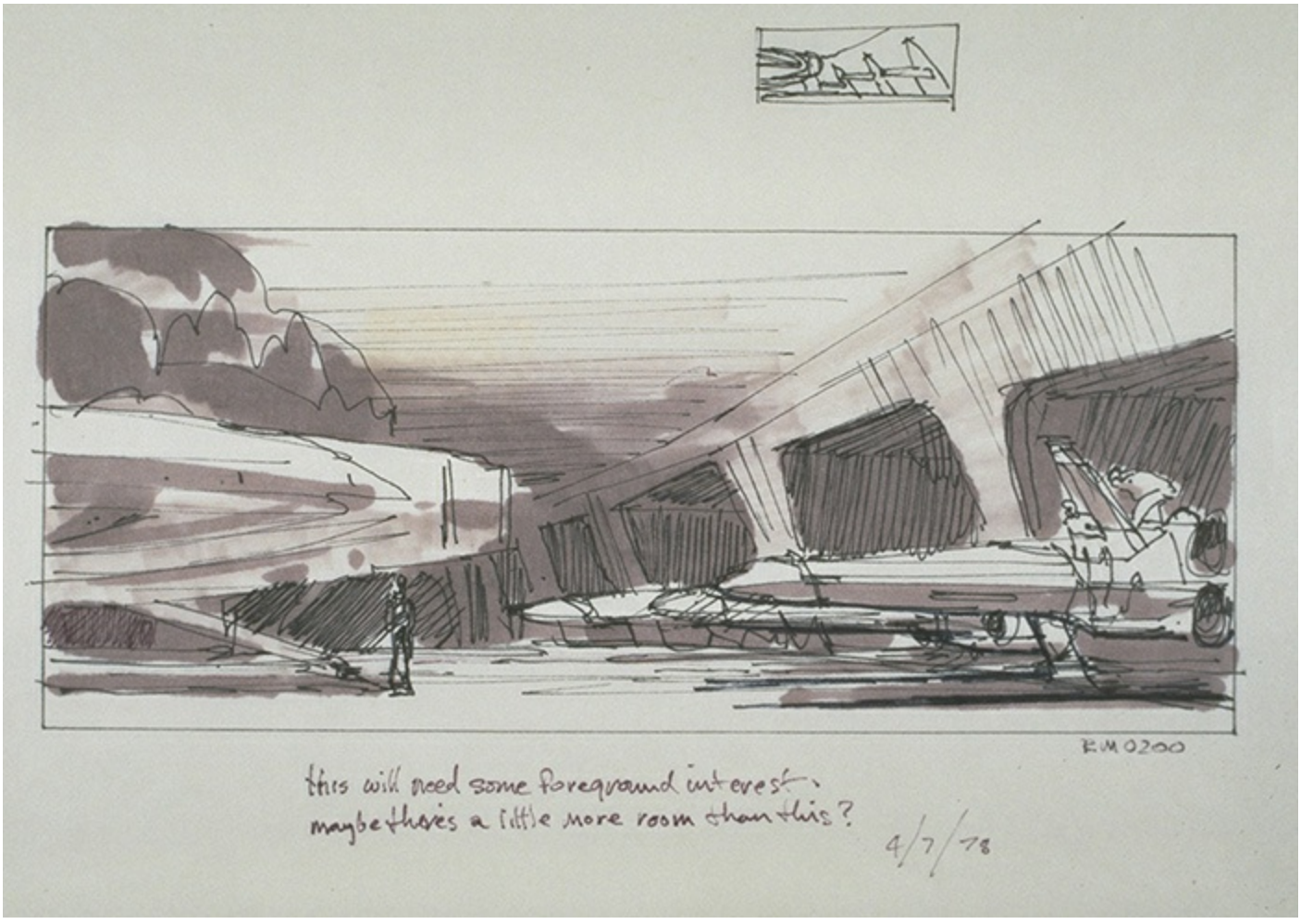
Preparatory drawings and explorations for “Ice Cave,” by McQuarrie (no. 167).



Preparatory drawings and explorations for “Ice Cave,” by McQuarrie (no. 198).



Preparatory drawings and explorations for “Ice Cave,” by McQuarrie (no. 199).



Preparatory drawings and explorations for "Ice Cave," by McQuarrie (no. 200).

"The eroticism lies in the fact that he's big and black," says Prowse. "That really is it. I've had experience of this once before when I did a film with Russ Meyer, a very violent production called *Black Snake* [1973], and I feel the same thing applies to Darth Vader. Darth Vader is my body and movements, and he's James Earl Jones's voice. The women send photographs, mind you, and it gets to be quite pornographic."

Even Alec Guinness found some of his fan mail to be bizarre. "There are some 30 or 40 letters on my desk this morning," he would say of an average day. "Unanswered as yet, I'm afraid. Some are very nice, but others, frankly, are dotty. You'd be surprised how many people with problems imagine Ben Kenobi can solve them. For example, there's a lady in LA whose marriage is in shreds who wants me to come and stay with them. The dotty ones who want a guru in the house are mainly in California."

To reverse his situation, Prowse hired a press agent in America and one in England to garner more personal appearances, but he then ran afoul of the studio's public relations department. Meanwhile, his wife had become a born-again Christian. "As I turned to evil, she turned to God," he says. "But it has caused a rift in our marriage. She is off doing her good deeds, while I'm busy with my acting work."

Peter Mayhew was sanguine about the whole affair and attended the film's premieres in Canada and Spain, in addition to making appearances throughout England. "Initially, the change was very dramatic," he says. "I was still living at home with my folks. After the picture's success, the press descended and that went on for weeks. Every time the phone rang or there was a knock on the door, you're always a bit dubious about who it was and what they wanted. But also it was a great kick, a sort of excitement coming every time."

Kenny Baker also appeared publicly on several occasions, including an unofficial spot for an Olympia beer promotion in Chicago with the slogan: "The best thing to come out of a can since R2-D2." Unlike Daniels's initial experience, Baker's double act with Jack Purvis, the Mini Tones, benefited from the exposure offered by *Star Wars*.

"We get more things, like the Dickie Henderson show [*I'm Bob, He's Dickie*, 1977]," Baker says. "They can put a clip from the film, perhaps an interview with me with Dickie, then a part of our act. We were introduced as two of the stars from *Star Wars*. That was all. We couldn't use any of the props, or the Artoo unit."

Daniels would eventually add a picture of C-3PO below his own photograph in his passport and would make, in the United States and abroad, what he referred to as many "*impersonal* appearances, since I'm dressed as See-Threepio."

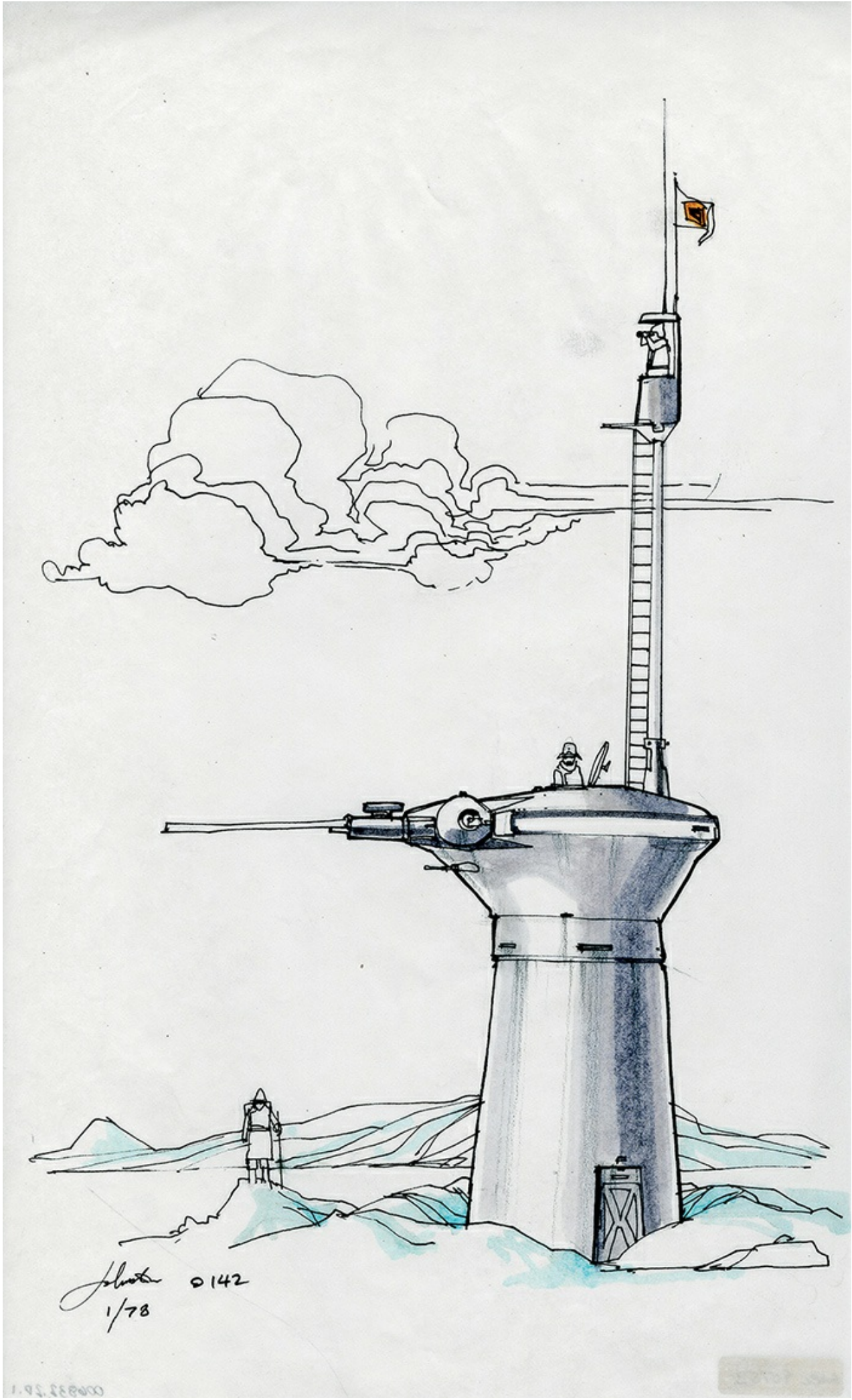
ESCAPE FROM LA

"I spent the whole of the month of April in California," says associate producer Robert Watts, who was in town for the Oscars ceremony and a series of production meetings. "Whilst we were all in Los Angeles at the time of the Academy Awards, John Barry opted to go and do his own picture, *Saturn 3*, which he was to direct."

Because Barry's film had received financing, Reynolds stepped up from art director on the first film to production designer on *Empire*, with Barry continuing as consultant. "Norman and John both grew up in the industry and went to the same school together," says Kurtz. "So Norman took over when John went off to direct." (Norman Reynolds's contract had been finalized back in February.)

Earlier in 1978, Watts and Barry had scouted locations in Central Africa to serve as the bog planet and several colder countries for the ice planet. Where to film, along with many other questions, was now discussed with Lucas, Kershner, and Kurtz.

"They had been doing reconnaissance trips all over northern Europe to find the snow location," says Kershner. "We needed a location that didn't look Alpine. Also, I didn't want any trees, and that's not easy to find unless you get way above the Arctic Circle. So we started up there, looking in northern Finland, Sweden, Lapland, and Norway. We also looked in northern Canada and Alaska. Several locations were found that looked terrific, but they just weren't close enough to civilization to be reliable."


Johnston ©142
1/78

Rebel lookout concept by Johnston (no. 142), January 1978.

"A film location must offer two essentials: accommodation for the crew and a link with transportation to get people and equipment in and out," Watts explains. "Otherwise, filming at the North Pole would be feasible."

"The Finse location was recommended by one of the Fox distribution people in Norway who said it was used for cross-country skiing and was a glacier," says Kershner.

"We had a Fox distribution meeting in Paris and Norman mentioned Finse," says Kurtz. "I wrote it down and looked it up in my notes again about three months later, almost by accident, when we were still looking around. I think a Norwegian tourist office in London said, 'That's probably too mountainous.' But we sent someone there anyway."

"By the time John Barry and I had finished our tour, Finse was a fait accompli, although we obviously didn't have the authority to make the decision," says Watts. "We did have on April the fourth, in Los Angeles, a general meeting, which was the first time we met Kersh, with George. In clear weather, the glacier in Finse provides the uninterrupted, treeless expanse we need for the Hoth scenes. John and I also showed the photographs that we'd taken both in Scandinavia and in Kenya, for the bog planet."

Lucas, Kershner, and Kurtz liked the look of Finse and planned additional recces to check it out. "I returned to England at the end of April," says Watts. "In mid-May we made a trip to Finse with Gary and Norman Reynolds, who was now the designer on the show. We definitely confirmed that it would be the location, even though at this time Kersh hadn't seen it."



An early 1978 location scout (recce) for a treeless area that, when frozen over, could stand in for *Empire*'s ice planet.

That spring, *Time* magazine published an article on Lucas in which it was reported that he was helping his friend Coppola cut *Apocalypse Now* ("I've always thought that sooner or later, somewhere down the road, I will go back and [direct] another [*Star Wars* film]," Lucas says in the article. "But it will be toward the end of the cycle, about 20 years from now.")

Lucas also continued his core creation of Lucasfilm by moving his special effects company, ILM, northward—though at the time, it was called The Kerner Company to disguise its connection to *Star Wars* and because of its new address on Kerner Boulevard in San Rafael. Legal paperwork had begun on the Kerner building on March 14, 1978, with a map titled "Parcel Map Lot Line Adjustment Lots 6 and 7 Bahia de Rafael Industrial Park," which included 3210 Kerner Boulevard in the city's industrial zone.

Indeed, Lucas had been looking for a suitable location for his new company headquarters for some time. San Rafael was a good locale for ILM because it was about 20 minutes from San Francisco (where Lucas had helped Coppola found the independent film company American Zoetrope in 1968), just across the Golden Gate Bridge, and about 15 minutes from Lucasfilm headquarters on Park Way in San Anselmo.

"My original intent back in 1974 was to do the special effects in San Francisco," says Lucas. "But after discussing it with John Dykstra and Gary and everybody, we decided that to try and put it so far away from the film laboratories was probably going to be the straw that broke the camel's back. So I said, 'Okay, we'll leave the effects in Los Angeles.' Moving the effects back north really came out of the Zoetrope idea, which was we'd make our own movies with the support of our own facilities; and if we had the best facilities, we could make better movies and we'd pay it off with the movies. It's the philosophy I'm trying to continue."

To help expand the company, Lucas hired *Graffiti* veteran Jim Bloom as an assistant producer. "I'd been working with Phil Kaufman on *Invasion of the Body Snatchers* [1978], and Gary called and asked me if I wanted to come work with him and George on *Empire*," says Bloom, who had reportedly made about $10 per day on *Graffiti*. "We talked about it and I agreed to do it. One of my first responsibilities was to bring ILM up from Van Nuys to San Rafael. I had to help supervise the move of all the equipment."

Of course, the ILM building would have to be staffed, which meant sending out feelers to see who was interested and who was not. Consequently, over the next six months a slow trickle of veterans and newcomers slowly signed on.

"George invited the core group to Northern California, to Marin County, to start this whole new facility and to make the next *Star Wars* film," Johnston says. "There were 10 of us and I was the only one that immediately came up. I said, 'What, are you kidding? Stay here in Van Nuys in this crummy part of town, in this dumpy building that was inadequate from the very beginning, or move to Marin County, have a new building and have a new film to work on in this great environment?' It was a no-brainer for me. But of the original core group of 10 or 12, only a few others would come up. Dykstra convinced the rest of them, saying, 'Stay with me and we're gonna make our own effects facility and we can compete with ILM.' And they stayed in that same building on Valjean Avenue."

"My first contact on the film probably occurred in April 1978," says Dennis Muren, director of special effects photography on *Star Wars*. Muren was working at Future General on *Close Encounters* (where another *Star Wars* veteran had stuck a small R2-D2 among the buildings on the mother ship) when he

met with Kurtz at his Universal office; Muren said that he had to finish prior commitments before making a decision on whether to leave his home down south.

Two others who were seen as possible recruits at Apogee were Richard Edlund and Lorne Peterson. "Richard was the one who first came and talked to me," says Peterson, who had been one of the key model makers on *Star Wars*. "He said, 'You really oughta phone this number and talk to George Lucas and Gary Kurtz 'cause they *really* wanna move up north.' And I said, 'Really? God, how could they do that?' And he said, 'Well, they don't want to do it with the whole group, either; just a few of us would go.' And I was thinking, *Oh man. That's a tough one*. I wasn't financially a part of that group, but friendship-wise and everything else, I was making my living by working on *Galactica*. So I didn't phone. But after some time, Richard said again, 'You really oughta phone that number.' So I talked to Gary Kurtz, I think, and he said, 'What would you like to do?' And I said, 'Well, I have to come up there to see what we're talking about, what physically it would be, how this is all—I have to have time.' So they sent me a ticket and I flew up to kind of figure out the area."

"I began hiring all of the people to come up to the Bay Area," says Bloom. "Which is how I met Phil Tippett. I remember meeting all the cast of characters: Joe Johnston and Richard Edlund and Dennis Muren and Ken Ralston."

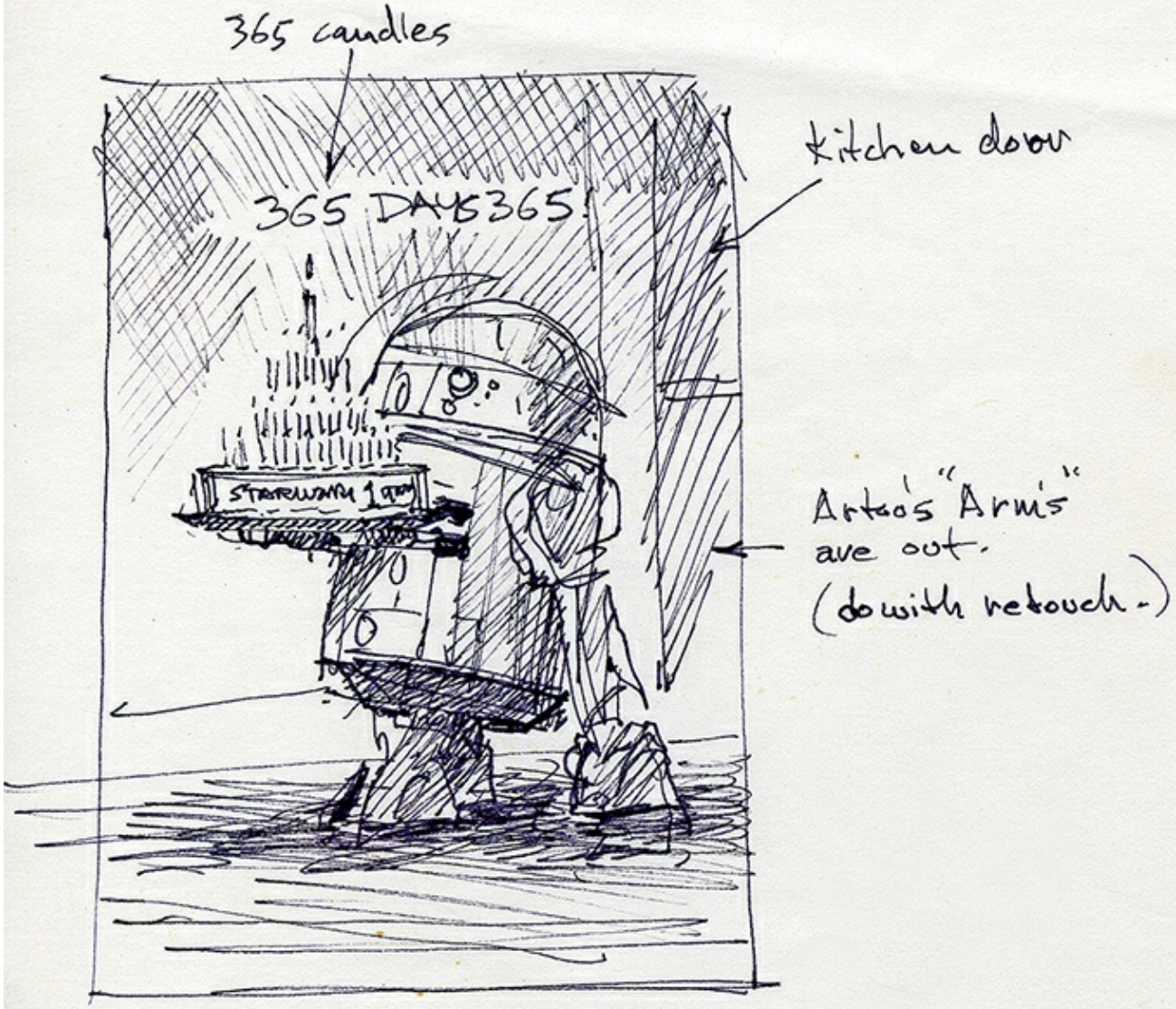
Like Johnston, Ralph McQuarrie made a relatively quick decision to move north. He read the second draft on April 4, before completing several production paintings after consultations with Lucas. Negotiations with Kershner were also wrapped up that month, with the director signing his contract on April 26. Internal documents show that final discussions resulted in Lucasfilm's intention to procure a DGA waiver that would allow them to place the director's credit at the end of the film, and to give Kershner a "film by" credit in paid advertising.

"We negotiated for three months," Kershner says, "became mortal enemies, finished the negotiations, and became friends again."

STAR WARS

From the Desk of

Ralph McQuarrie

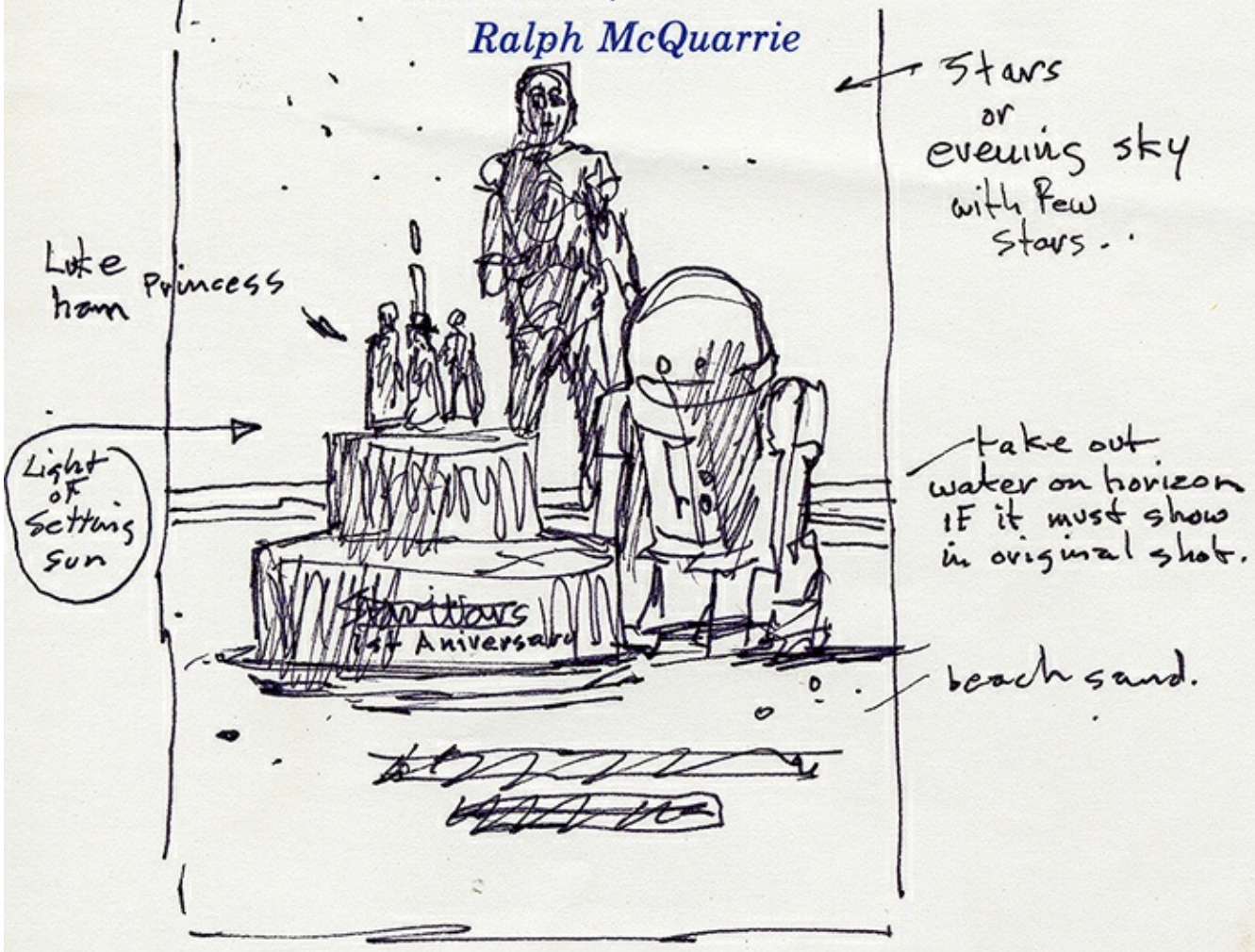


Concept sketch by McQuarrie, early 1978, for *Star Wars*'s first anniversary poster.

STAR WARS

From the Desk of

Ralph McQuarrie



Concept sketch by McQuarrie, early 1978, for *Star Wars*'s first anniversary poster.



Concept sketch by McQuarrie, early 1978, for *Star Wars*'s first anniversary poster.

May the Force be with you.



One year old today.

PG PARENTAL GUIDANCE SUGGESTED
SOME MATERIAL MAY NOT BE SUITABLE FOR CHILDREN

"STAR WARS" ACTION FIGURES COURTESY OF KENNER PRODUCTS

©1978 20TH CENTURY-FOX

The *Star Wars*'s first anniversary poster, which was finally realized photographically.

XANADU IN THE SKY

"Another of my other first responsibilities was to help with the budgeting," says Jim Bloom. "I started on *Empire* working at Park Way with Jane Bay, Chrissie England, Lucy Wilson, and with George, who was constantly building the company."

The internal budget that Bloom helped compile is dated April 27, 1978. At $15,494,475—up from $10 million—the revised number may have caused some alarm. But it was only a few million more than the final budget for the first film, so work carried on. Lucas had decided on shooting in Finse, and arrangements were put in motion for a principal photography start date in spring 1979. Throughout the summer of 1978, the production team would meet regularly with Norwegian government, shipping, railway, and banking representatives to hammer out the details.

On May 14, Lucas turned 34. While still building up his own company, he continued to help Coppola, from time to time, on the editing of *Apocalypse Now*.

"We hired a guy named Duwayne Dunham to inventory all the equipment and get all the editorial systems set up in preparation for *Empire*," says Jane Bay. "Then we realized that we needed a gopher, so I hired Steve Starkey, who had been a house painter. I was hiring a lot of people who didn't have any experience in the film industry, but we thought that was a good thing because that way they didn't come tainted from the Hollywood thing."

"I became the house production assistant for Lucasfilm, which was a pretty small company," says Steve Starkey (who would form a partnership with director Robert Zemeckis and Jack Rapke when they founded ImageMovers in 1997). "Every day at lunch, there was a volleyball game out on the side of the house. They had a net set up and that was a big social activity. I mean *everyone* cleared out of the house and went to this volleyball court."

The filmmakers' family zeitgeist achieved its most important boost in the company's history when Lucas purchased 1,700-acre Bulltail Ranch from the Soares family on Lucas Valley Road. "When *Star Wars* came out and was a success, I made the decision that I was going to do what I really wanted to do, which is the ranch," says Lucas. "Most of the land will be used for ranching, so it'll be like making movies in a ranch environment. Since I grew up on a walnut ranch, I like that idea." (The property is sometimes reported as 1,882 acres; the road was named after John Lucas, who in 1882 inherited much of the surrounding valley as a wedding present from his uncle, an early settler of Marin County.)

Over the years, Lucas would purchase several adjoining lands, tripling the acreage. His plans for what came to be called Skywalker Ranch always included vineyards, orchards, grazing lands, and a Victorian house; four editing studios, a sound facility; guest residences for friends and filmmakers; music and film libraries; and a recreation complex.

"Writers can't work a straight eight-hour day," he says. "So it's great to be able to go out and play tennis at lunch and then go back to work. It really comes out of when I was in cinema school. Film school is a very small community of like-minded kids who help each other make films, look at films, and talk about films. I wondered why you couldn't have that kind of setup on a professional level."

"It was already a natural in the sense that it was a hidden valley away from the road," says Ferguson. "That is the single largest thing that drew George to select, in my memory, that facility. Despite it being a bit remote from San Rafael and certainly remote from San Francisco, it fit the creative retreat concept

and there was room enough for expansion."

"It was only because George wanted to enjoy anonymity that I purchased it under my name," says Richard Tong. "Then, of course, I almost immediately transferred it back to him. But on the title, on the records, it appears that I am the purchaser because nobody at that time knew who Richard Tong was."

Having the accountant be the front man was fitting, because the ranch was a huge financial gamble. *Star Wars* profits were essentially tied up in *Empire*, and it was only Black Falcon and its licensing revenue that was going to enable Lucas to start building; from June 1978 onward, the ranch, in a sense, was the tail wagging the corporate dog.

"Most of this effort to build a company is so I can create a dream I've had for a very long time," says Lucas. "The amount of money needed to develop a facility like that is so enormous that the money I have doesn't amount to anything. You need millions and millions of dollars to build such an operation. The only way I can do it is to create a company that will generate profits. There's a world of difference between the moneymaking abilities of corporations and those of individuals. For an individual to make two or three million dollars is a big deal. He'd feel very wealthy and secure. But most corporations have to make thirty or forty million dollars a year in order to feel secure. To take care of just the overhead of a company, to pay all the employees every year, costs several million dollars. I couldn't direct enough films fast enough to pay for all those people. So I had to develop a company. The truth of it is that I'm very overextended right now."

"One day, in June of '78, George took a group of us out to the ranch," says Bloom. "It was George and Marcia Lucas, Hal Barwood, Matthew Robbins, Bob Dalva, Carroll Ballard, Jane Bay, Ben Burtt, Duwayne Dunham, probably Dennis Muren and Richard Edlund, Lucy and Chrissie—all of us—just to have a sandwich lunch and show us around. I remember listening to George, who, and I say this fondly, had this *Citizen Kane* kind of wonder in his eyes as he told us about all these visions that he had for what the ranch was going to be—all the buildings, how it would be a campus community where filmmakers could work away from the kind of nitpicking, backstabbing quality of studios down in Los Angeles. A place where they could just work on their movies, talk with each other, and share scripts and rough cuts and ideas."

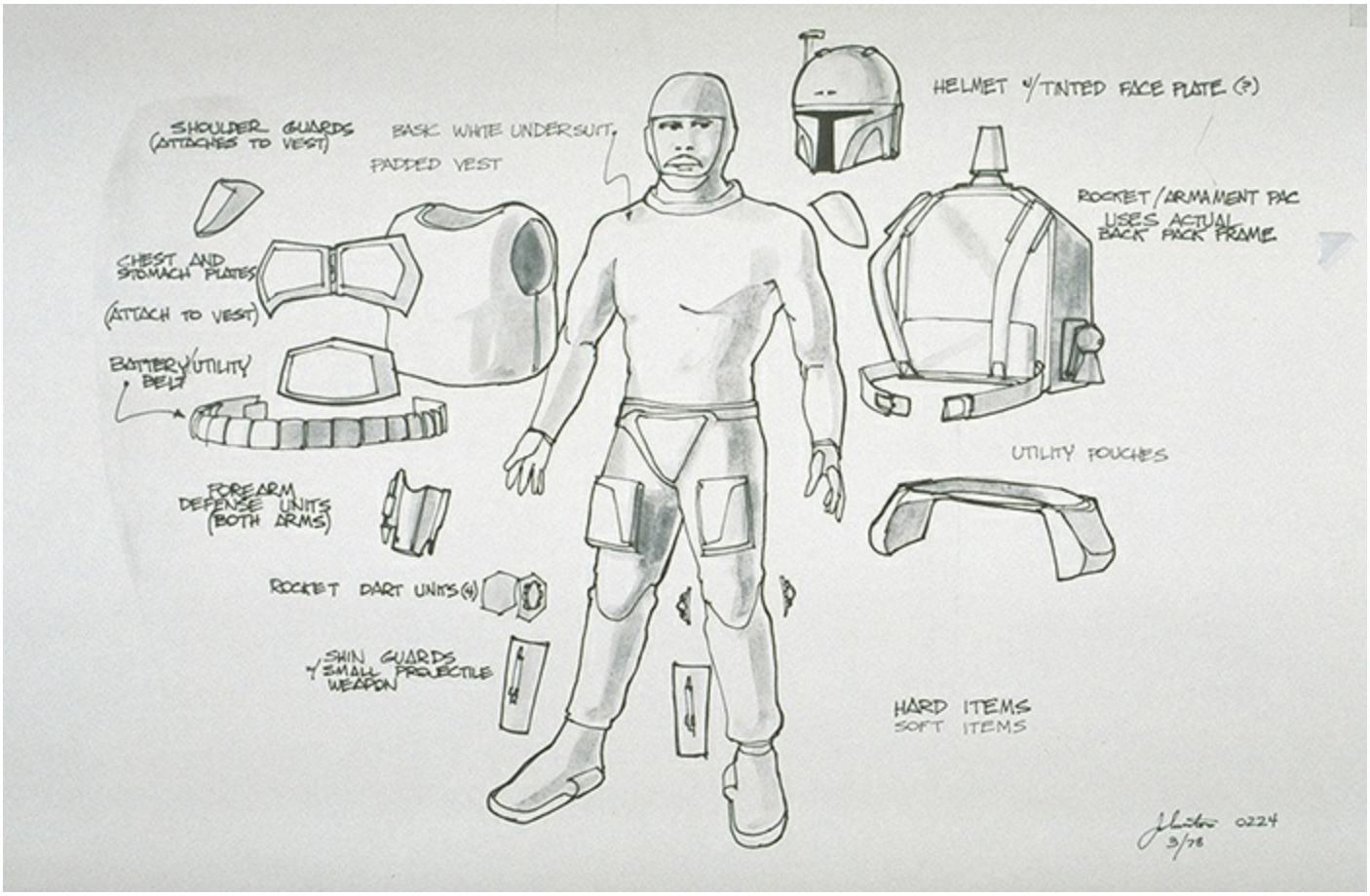
"George would sit at his desk with yellow legal-lined tablets," says Bay. "And he drew out all these buildings, the future home of Lucasfilm, which he wanted to turn into a film center where people worked on each other's films—and also to promote regional filmmaking, to have a home base for Bay Area filmmakers."

"I've always had a few filmmakers renting space at my office," says Lucas. "So I'm including them in the idea, which is primarily a design for San Francisco filmmakers. They will then have access to all the screening rooms, the library, and all the other things. We're experimenting in walnuts and grapes. I'm going to put in a vineyard. And then we'll run cattle on the property."

"We all kind of thought he was crazy to take all his profits and put it into offices," says Lucy Wilson. "But I was happy he was doing it because one of my big book memories is reading *Rebecca* [by Daphne du Maurier, 1938] and the road to Manderley, that huge mansion. I thought it was so fabulous that he was building a place like Manderley where I could work, but not have any of the grief of actually owning it. We came out once and Gary Kurtz had a Jeep and drove all around the property. He was driving like a maniac and he'd go down in ditches and bounce up—I hit my head on the roll bar. But there was nothing there yet …"

By June 8, 1978, Andy Rigrod was able to write a memo to Charlie Weber stating that production had official deal memos "for the services of Harrison Ford, Carrie Fisher, and Mark Hamill." As stated, Ford's deal was only for *Empire*, whereas Hamill's and Fisher's included not only terms for *Empire* and a third, but also for *Star Wars IV*—an additional film beyond the first trilogy. By June 15, all three actors had signed their contracts. That day also saw the addition of a key member to the crew: Lawrence Kasdan, who was in San Anselmo to deliver his first-draft script of *Raiders of the Lost Ark*.

"George took me out to lunch," Kasdan says. "He told me he was up against it. He had to start building sets for a March shoot. 'Would you like to write the movie?' he asked me. I said, 'George, don't you think you should read the *Raiders* script first? How do you know you want me?' He said, 'Well, I just get a feeling about people.' He laughed and said, 'If I hate *Raiders*, I'll call the whole thing off.' He was kidding—I think. Anyhow, he liked *Raiders* and I agreed to start work on *Empire* after I took a short vacation."



Johnston illustrated Fett's elaborate armor and weapon assembly in March 1978 (no. 224).









A reference photo compared Fett's helmet to a stormtrooper's. The day of the test, Dunham exhibited Fett's wrist flamethrower, which ILM had rigged up—unfortunately, his arm caught on fire because of a propane leak and that idea was scrapped. The CO_2 cannister in

the jetpack worked fine, though.



At Park House, sound designer Ben Burtt introduced an all-white Boba Fett costume (worn by assistant film editor Duwayne Dunham) on June 28, 1978, to Lucas.

"What happened with the writing situation was we needed to find someone very quickly who could step in," says Kurtz. "Larry was familiar with the material and George got along with him very well. His background with the genre is not great, but it was pretty much all set down by George's story."

"The reason George wanted me to write it is because I'm really strong in people," Kasdan says. "That's what all my original screenplays are about. They tend to be much smaller stories about a smaller number of people, comedies and thrillers, but they're still entertainment. George thought it was very important that *Empire* have that. If anything, we wanted *Empire* to have deeper characterization, more complex psychology for the characters than the first *Star Wars*."

The month before, Lucas, Kershner, and Johnston had met to go over the latter's early storyboards, sitting down in Ancho Vista, next to Park House, the latest building to be acquired by Lucasfilm in what was becoming a Gypsy-caravan type of operation.

"George had started acquiring office space," Steve Starkey says. "He eventually moved his office to Ancho Vista, which was right below Park House. I used to describe my job at Park Way as working for the Park Way Princesses, because of Jane, Lucy, and Chrissie."

"Then we moved down to this other house, Ancho Vista, and we became the 'Vestal Virgins,' " says Chrissie England. "I continued to be George's secretary and Joe Johnston was brought up here and he actually worked out of Ancho Vista before we moved in there."

On June 27, 1978, Ben Burtt sent a memo to Lucas outlining projected expenses for sound equipment,

including $1,000 to build "a 160-channel matrix switch bay" and $5,000 for travel expenses to record original sounds. Burt also estimated that the new sound room would be ready by December 1. Consequently, Black Falcon would "loan" to Sprocket Systems—the newly christened sound department—$25,000 that summer.

On June 28, Burtt presented a 20-minute screen test of Boba Fett, whose equipment was close to final although, as a remnant from his original conception as a super-stormtrooper, his costume was all white (Johnston would paint it not long afterward). "The first time I ever saw the costume, it wasn't Boba Fett," says Watts, who was back in the States. "It was completely white. He was going to be a super-stormtrooper. Duwayne Dunham modeled it so we could all have a look, but the suit didn't quite fit."

"Ralph and I worked on preliminary designs," Johnston says. "And we traded ideas back and forth. Originally, Boba Fett was part of a force we called supertroopers; they were these really high-tech fighting units and they all looked alike. That eventually evolved into a single bounty hunter."

From Wednesday to Friday, June 28 to 30, a series of important "Chapter II Production & Design Meetings" took place. "Norman and I went over to San Francisco in June of '78 and had a week there," says Watts, "which was really a solid meeting around the conference table, which George led. Kersh was there and this was the first time that Norman and I had any real contact with Kersh, where we really just went through the whole production to get the idea of what George was after in the making of this picture."

"Mostly, I dealt with Norman Reynolds through the mail," says Johnston. "I would send him drawings of speeders and ice caves, and he would send me back his revisions and his changes. It was a long-distance relationship with Norman."

"I remember talking to the architects and talking to Charlie Kuhn, who was the contractor at the time, about building ILM," says Bloom. "It was always like the Winchester Mystery House: 'This is up, that's down, this changes,' hallways and whole areas. The original layout was all the offices up in front and then you'd go to the screening room on the right and then out to the camera office and optical department on the left; the model shop was back on the left with the stage shop, two or three camera bays, a matte painting bay, and an animation department. All these different areas were being constructed."

"I went in there to pick out my office with Jim Bloom, who was the acting manager, I guess," says Johnston. "It was basically these open bays. There were offices up front, but then it was like a warehouse space, an empty shell. There was nothing in it. I was the first employee to have an office there, so I could have any room I wanted. I said, 'Great, I'm gonna move into the front office [laughs].' So I had all my paints and everything set up in what would become the general manager's office, because it had the best view."

McQuarrie was probably the second artist to grab office space at ILM. Others would shuttle back and forth until they were ready to commit and/or ILM was ready to accommodate them. "We had those first meetings with George, Gary, and Irvin Kershner in June," says Muren. "I believe Jon Berg and Phil Tippett were brought onto the project at that time."

Tippett started out, as did Berg, by working first in Los Angeles before moving up north. "Being born in Berkeley, it was a huge, huge, huge thing for me to be able to get the hell outta LA and move up to the Bay Area."



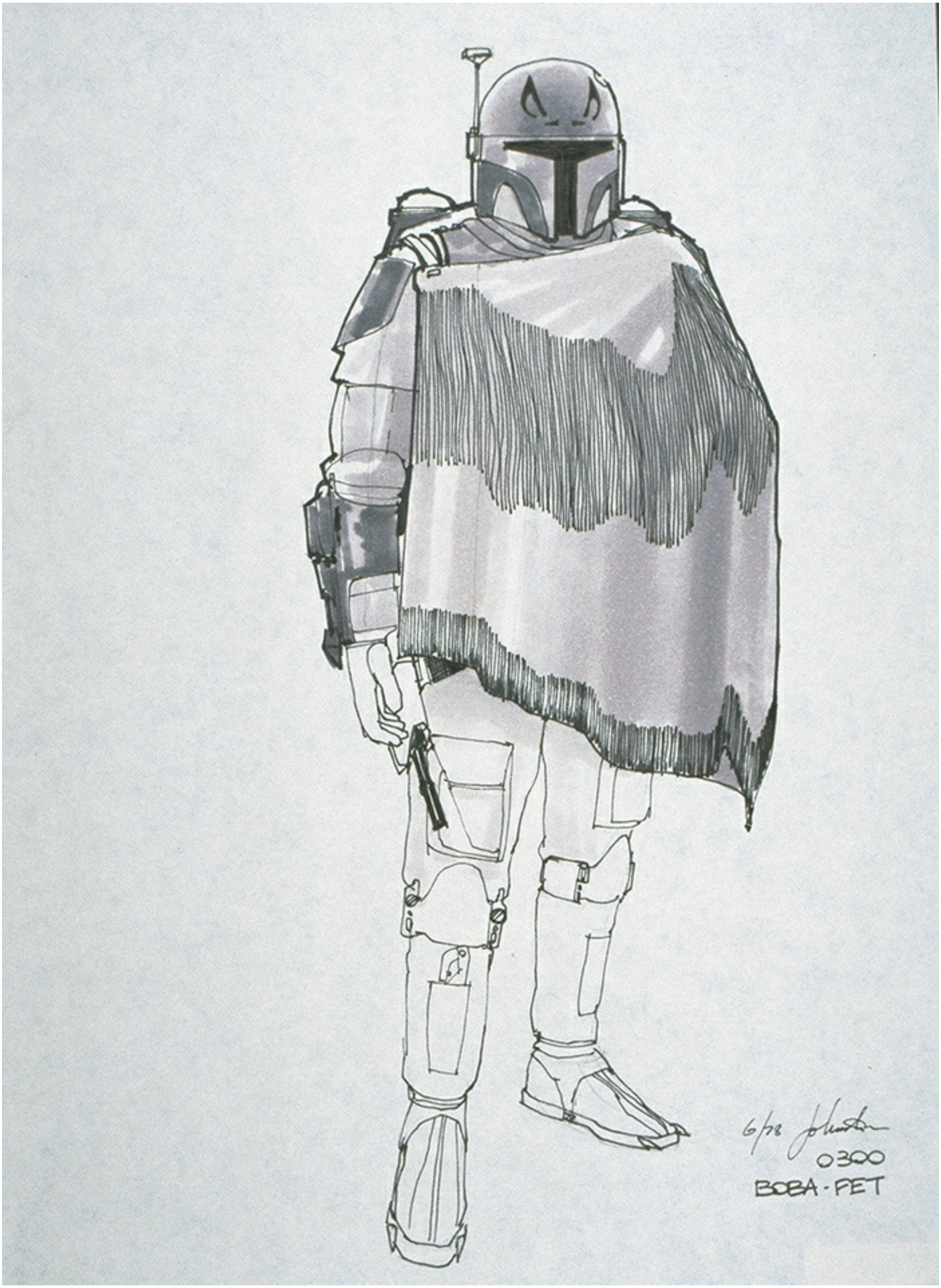
Johnston, special visual effects supervisor Richard Edlund, Dennis Muren, and Irvin Kershner go over concept art and reference material.



A production meeting at ILM in late June 1978 grouped (from left) director Irvin Kershner, associate producer Robert Watts, production designer Norman Reynolds, Joe Johnston, effects director of photography Dennis Muren, and Ralph McQuarrie. "Everyone was real excited to finally meet and see the artwork," Muren recalls.



A Fistful of Dollars (1964).



Clint Eastwood's costume and style in Sergio Leone's Spaghetti Westerns, including *A Fistful of Dollars* (1964), inspired Fett's "pancho," as seen in Johnston's sketch of Boba Fett (no. 300), June 1978.

According to Muren, the Imperial walkers began as an analogy to the kind of unwieldy armament and tactics the US military forces had used in the jungles of Vietnam, with the Empire using inappropriate equipment for its attack on the ice planet base. The question was how to best realize them on screen. For advice, Lucas and Kurtz had already met with stop-motion legend Ray Harryhausen (*Jason and the Argonauts*, 1963; *Clash of the Titans*, 1981).

"I believe that meeting happened in the early part of 1978," says Muren. "I don't think they ever expected Ray to actually take the job; George and Gary really wanted to meet Ray, and that was sort of a way to do it."

"I do recall a number of different ideas about what the Imperial snow walkers could have been," says Tippett, who, with Berg, had done the stop-motion animation in *Star Wars*. "At one point they were gonna be radio-controlled wheeled things and other times they were gonna be more like tractor tanks. I think it was pretty much Dennis Muren who was instrumental in advising George to attempt to do something quasi-animalistic. I think Joe Johnston was very much behind that as well. The rationale was that the artifacts of stop-motion animation—a mechanical or strobing look—would still be okay: 'It looks robotic, but it'll fit the character of a robot. That should work, right?' "

At Muren's urging, Lucas considered creating a separate stop-motion department as part of the construction at ILM, partially because it would be the most time-effective way of doing the work. "I'd been a stop-motion animator and cameraman in my past, so I was real familiar with that," Muren says. "And I just thought we should do at least that chunk of the film with stop-motion, which was a tried-and-true technique that we could schedule and we could get done—and if it looked a little funky, it's okay because they're machines anyway. The time saved would allow us to focus on all the highly technological stuff in the other scenes."

"George chose stop-motion to be the main drift of that particular movie," says Lorne Peterson. "He loved that chess set that Phil Tippett and Jon Berg did in the first film."

"I felt I could better control the look and reality of a shot if I could see it finished through the camera, and stop-mo on tabletop sets would let me do that," Muren adds.

Once Lucas decided to do the walkers in stop-motion, tests still had to be made and a prototype built. "It has to be poseable," says Jon Berg. "It has to hold that pose in each position you place it in without slipping or sliding; it has to work very smoothly, so the animation is as clean and precise as you can get it without a lot of resistance from the mechanics of the figure. I worked that out when I started on the picture; once I had the engineering figured out, we built a prototype based upon the principle I'd designed."

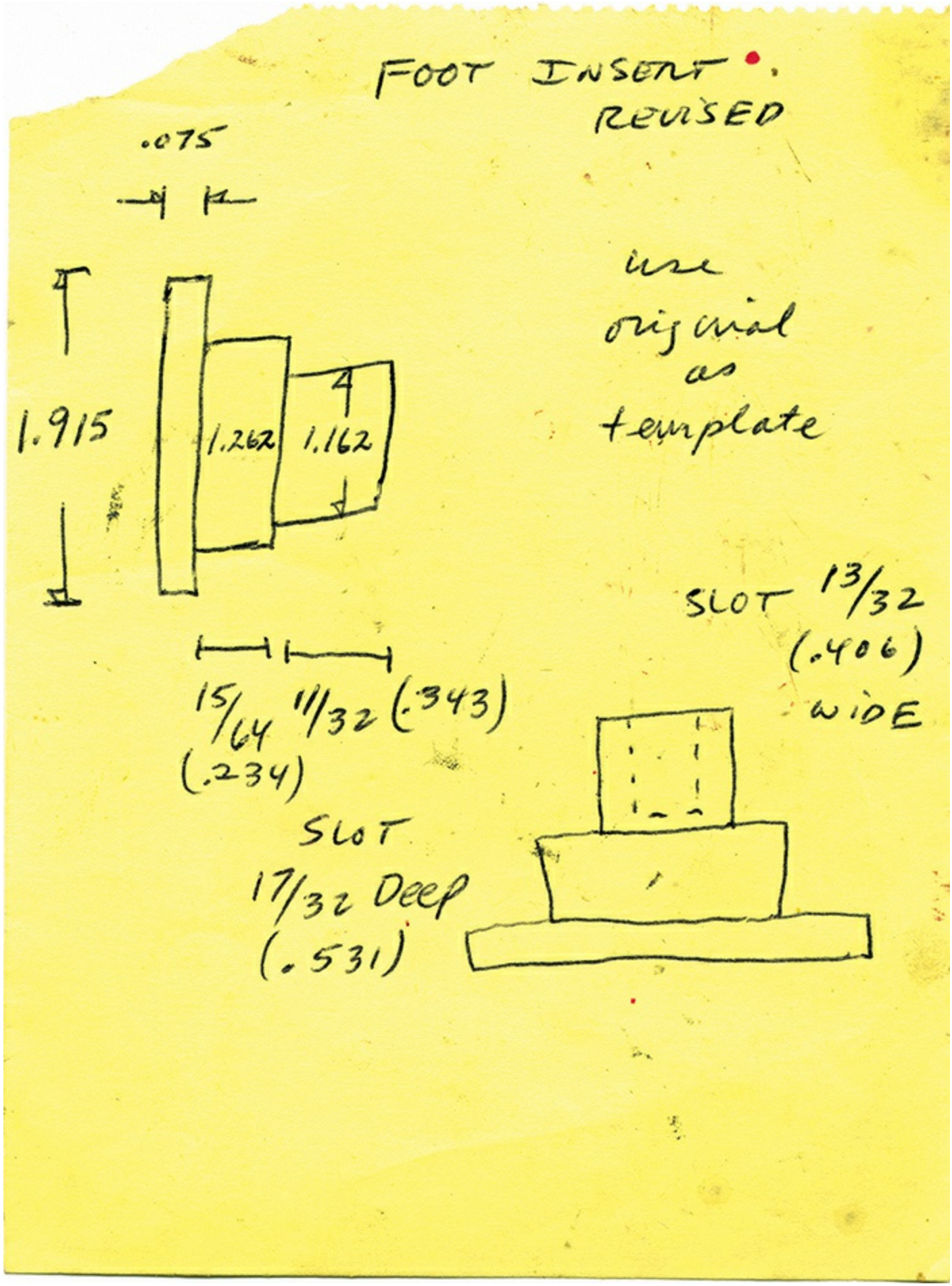
"If there was one person responsible for getting the walkers on the screen, it was Jon Berg," Johnston says. "He developed the entire armature, working from just a couple of my rough sketches. And he managed to integrate a lot of experimental ideas that worked really well."

"Jon broke it all down and figured it out," says Tippett. "It was a minor miracle of engineering. Joe worked very closely with Jon in developing a functional prototype for how this thing would actually move, because the functional stop-motion parts were right on the surface and had to operate—so the engineering that Jon had to put into this thing was quite complicated, like little cams and pistons that would self-animate as you moved the legs, along with some very odd couplings that Joe had designed."

The preproduction crew in England, meanwhile, was considering the tauntaun as a man in a suit.

“They gave it some thought,” says Tippett.

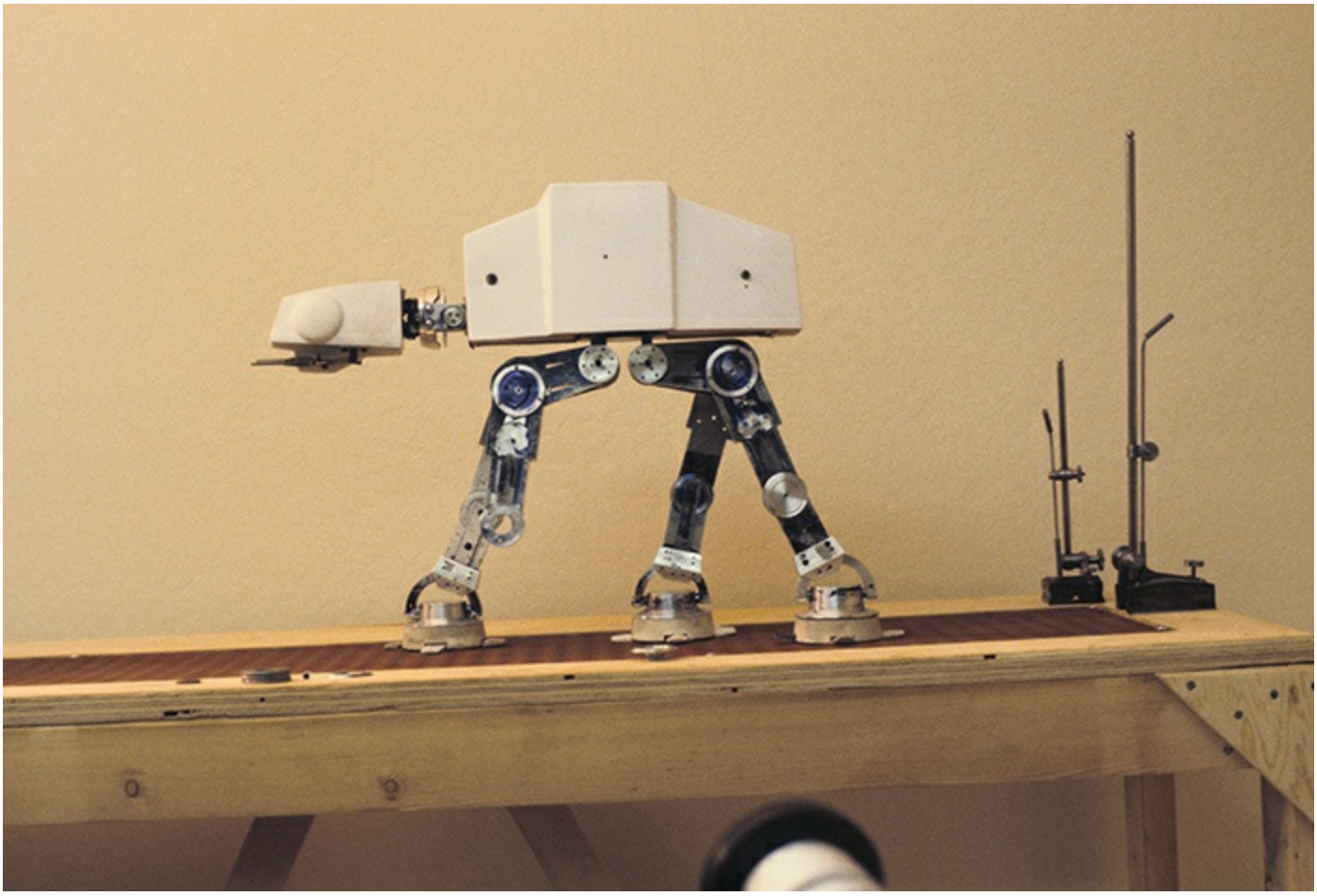
“They were trying to make an actual walking tauntaun,” says Muren. “Phil and I failed at talking them out of it. I wonder how much money was spent on that …?”



Notes on how to build the walker, “Foot insert revised” (Jon Berg received a $500 check for his work on the prototype on July 22, 1978.).



Stop-motion animators Jon Berg and Phil Tippett, and Johnston. Berg built the prototype walker (whose parts are here being swapped out with model shop parts). Before beginning work on the prototype, Berg visited several surplus stores looking for parts (at his first meeting with Kurtz, there was talk about creating the walkers as marionettes).



The prototype walker.



Stop-motion animator Jon Berg and Joe Johnston work on the prototype walker.



Berg works on the prototype walker.

SIZZLING AIR

Last but not least for the busy month of June, Twentieth Century–Fox commenced civil action against MCA, Universal, and ABC, charging the three companies with having infringed upon its *Star Wars* copyright with their TV show *Battlestar Galactica*.

"We all felt that *Battlestar* was a rip-off of *Star Wars*," says Kazanjian. "And we immediately sued Universal Studios because not only were they copying *Star Wars*, they were using ILM's equipment on *Battlestar Galactica*. It was up to me at a certain point to say, 'We now need the equipment back.' They knew they didn't have it forever, but I had to get it out of that plant, get it away from Los Angeles, and take it up north."

"It made us all feel like traitors because we had done the work," Johnston says. "We all felt like we were betraying George, but he didn't hold it against us."

"There's a line between just doing something similar and doing something that is trying to copy it directly, especially when you move it to a different medium," says Lucas. "People felt something like *Battlestar Galactica* was a television version of *Star Wars;* it was the same thing and they tried to sell it like it was the same thing, as if I had made it. Not only does it upset me because I didn't think the quality was very good, but it also upsets me because, if I wanted to do a TV series of *Star Wars*, I couldn't. They've already spoiled the television market."

"There's no question it's a very big gamble," says Glen Larson, producer of *Battlestar Galactica*, "and

we are very vulnerable."

(Interestingly, a seed for future *Star Wars* effects had been planted the month before down south, when an enthusiastic 15-year-old named John Knoll had talked his way into spending a day at the Van Nuys facility. Once inside, he saw them shooting a snow planet for *Battlestar* while Dennis Muren was working on a test for Spielberg's *1941* [1979]. Seeing real people doing the fantastic, Knoll felt, "If they could do it, I could do it." Years later, he would become visual effects supervisor on the Prequel Trilogy.)

On a lighter note, Lucas inaugurated the company's first July 4 picnic on the still untouched fields of his new ranch, inviting employees, family, and friends.

"The first year we had a company picnic, there was nothing," says assistant sound editor Laurel Ladevich. "The gate was still locked with a padlock and the combination was *1138*. The first picnic was maybe 25 people. We just had two 12-foot-long tables with red-checkered tablecloths and we all brought a salad; the company provided drinks, hot dogs, and hamburgers. It was very casual. George had dogs, so there were always dogs around. Somebody had set up a volleyball net and so we played volleyball. At the second picnic, Duwayne Dunham tried to come in on a hot-air balloon—and crashed. That was very amusing for all of us, except for Duwayne."

"One time, Duwayne came in a hot-air balloon, so that was a very interesting picnic," says Lucy Wilson. "I think Jane is one of the best organizers of parties of anyone I have ever known in my life, just for something that feels good and natural."

"George expects a certain level of service and I have put that bar very high," says Bay. "I do my best and I want other people to do their best, too. And people almost always exceed my expectations within the company and outside the company, because I'm very clear about what I want when I'm producing these events."


STAR WARS

Poster artwork by Charles White III and Drew Struzan for the *Star Wars* re-release in July 1978.



Lucas and Johnston at the first July 4 picnic at Skywalker Ranch, 1978 (on July 11).



Robert Dalva and Lucas at the picnic; Dalva was a friend and fellow editor.

PREDICTIONS OF FANTASY

Perhaps to fill Lucasfilm's rapidly emptying coffers—and certainly to meet ongoing demand—*Star Wars* was re-released in July 1978, playing small towns where the movie hadn't been shown before. The film opened in 1,700 theaters, and that number quickly climbed to 2,000. The reissue was a huge success.

A loan-out contract between Lucasfilm and Chapter II Company—a surreal but legally necessary contract in which Lucas made a deal with himself—was signed on July 1, 1978. It specified that, as executive producer, Lucas would receive a symbolic $10,000 plus the more important five gross points. For his story treatment, he would receive another $10,000, but nothing for his script.

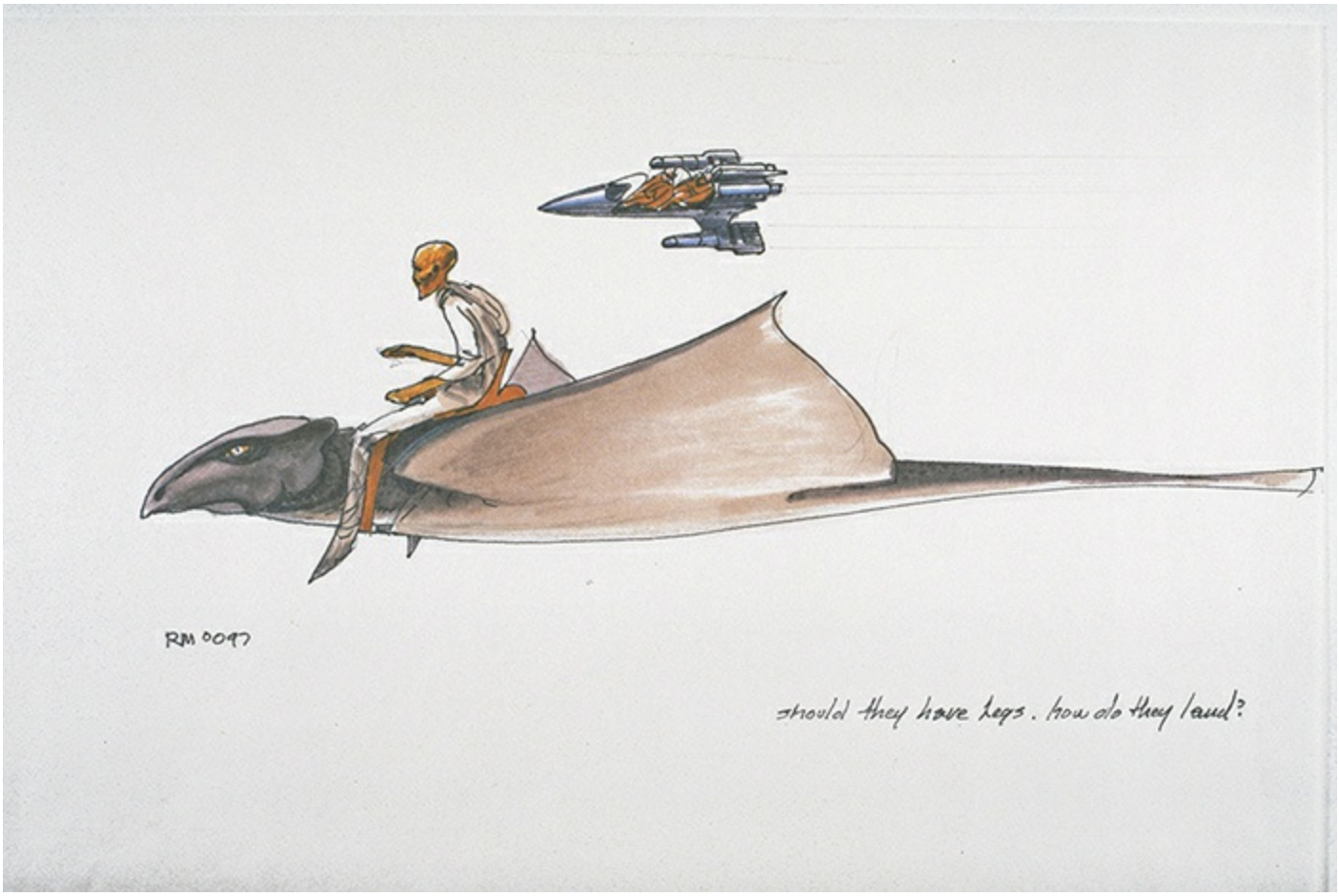
That same month, a single solution to two problems was found: In order to avoid traveling to Africa to film the bog planet and to provide enough space at Elstree Studios, Lucas decided to construct an enormous sound stage. "When he and I were negotiating with EMI's corporate body to build the new stage, Andrew Mitchell, the managing director of the studio, was excellent—a huge help," says Watts. "Particularly during the month of July. We actually started construction at the beginning of August."

"We decided we needed a big stage and there was no other big stage available," Kurtz says. "The one at Shepperton Studios that we'd used on the first film was scheduled to be torn down for a housing redevelopment, so we decided that it was best to go ahead and build one. There was space at the studio. But we really didn't build our own. What we did was pre-finance the building of the stage in a somewhat complicated deal with EMI where they eventually took ownership by paying back the money."

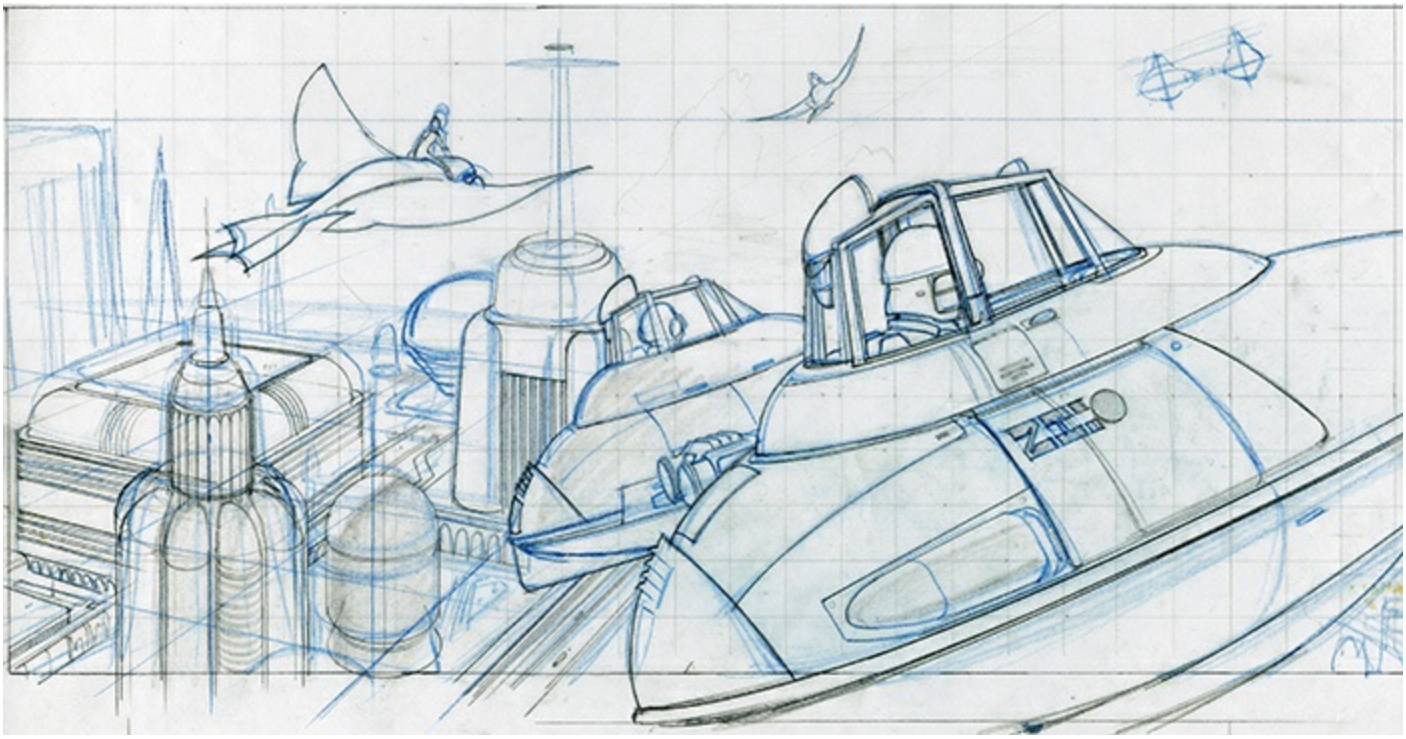
Following his short vacation, either in late June or early July, Kasdan met with Lucas and Kershner for a multiday script conference. Kasdan was given only Lucas's draft from which to work. "We discarded Leigh's script, which we never treated as the basis for anything," Kasdan says. "The writing part is always the hardest part of filmmaking. Almost anyone can direct—they won't necessarily direct well, but the machinery works—you can take someone off the street and put them with an experienced crew and the movie will get made. But writing can't be faked. It doesn't run itself. It has to be worked out very specifically, word for word, image for image."



Flying manta concept sketch by McQuarrie (no. 98), January 1978.



Flying manta concept sketch by McQuarrie (no. 97), January 1978.



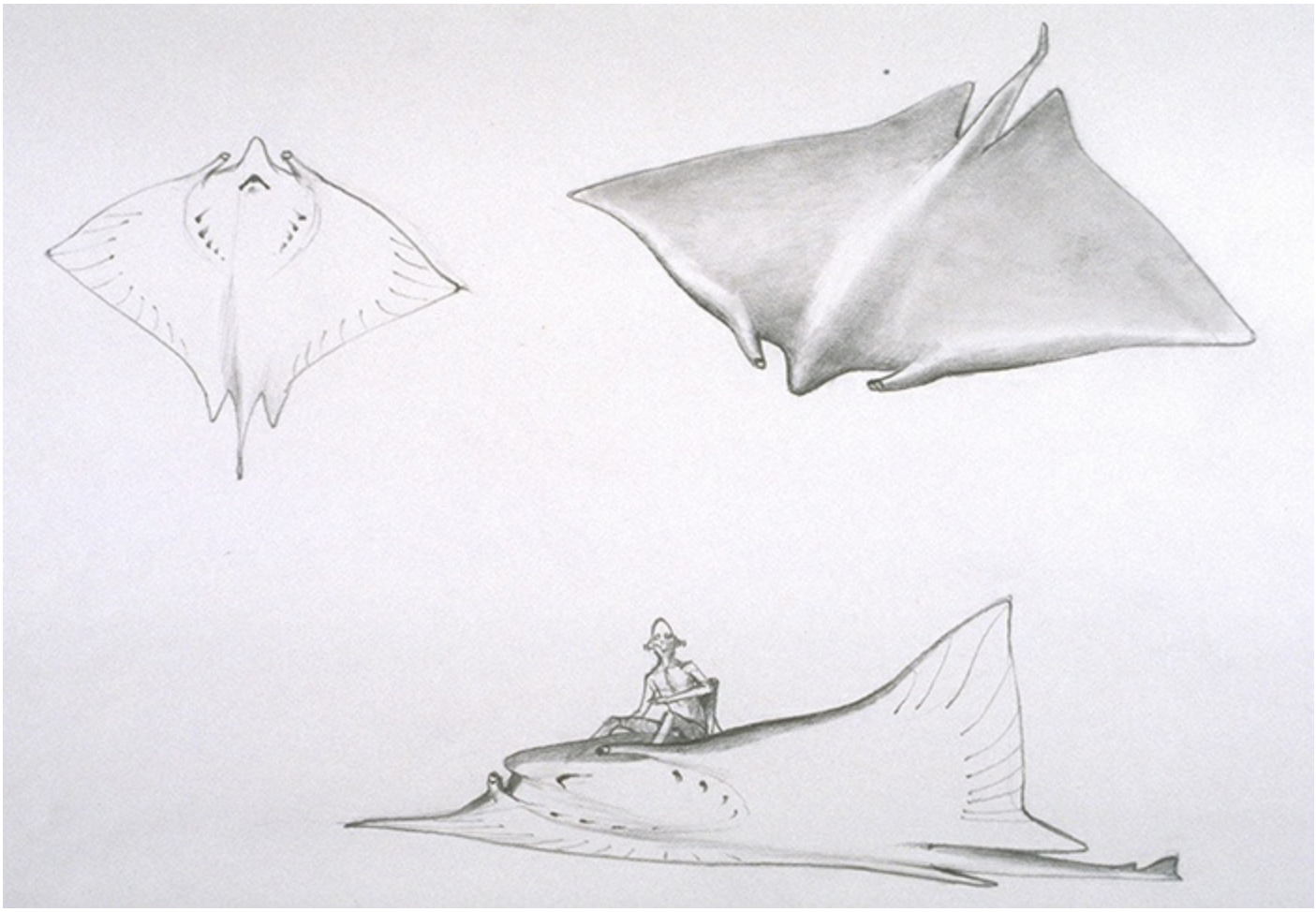
Detailed, sectioned pencil drawing by McQuarrie.



Color study by McQuarrie.



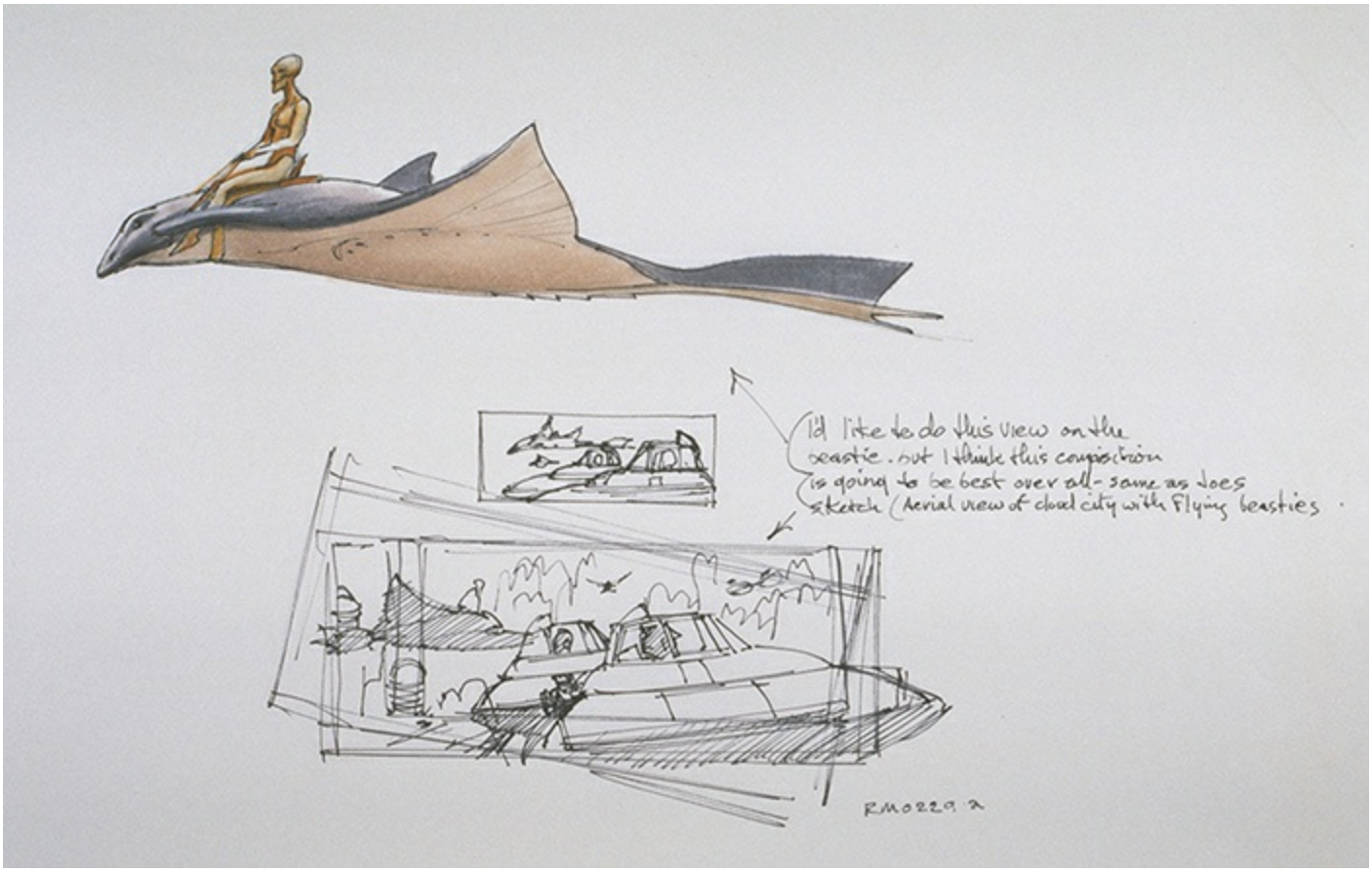
A detailed, sectioned pencil drawing by McQuarrie and color study led to his “Cloud cars over Cloud City with flying beasties,” by McQuarrie, June 12–15, 1978.



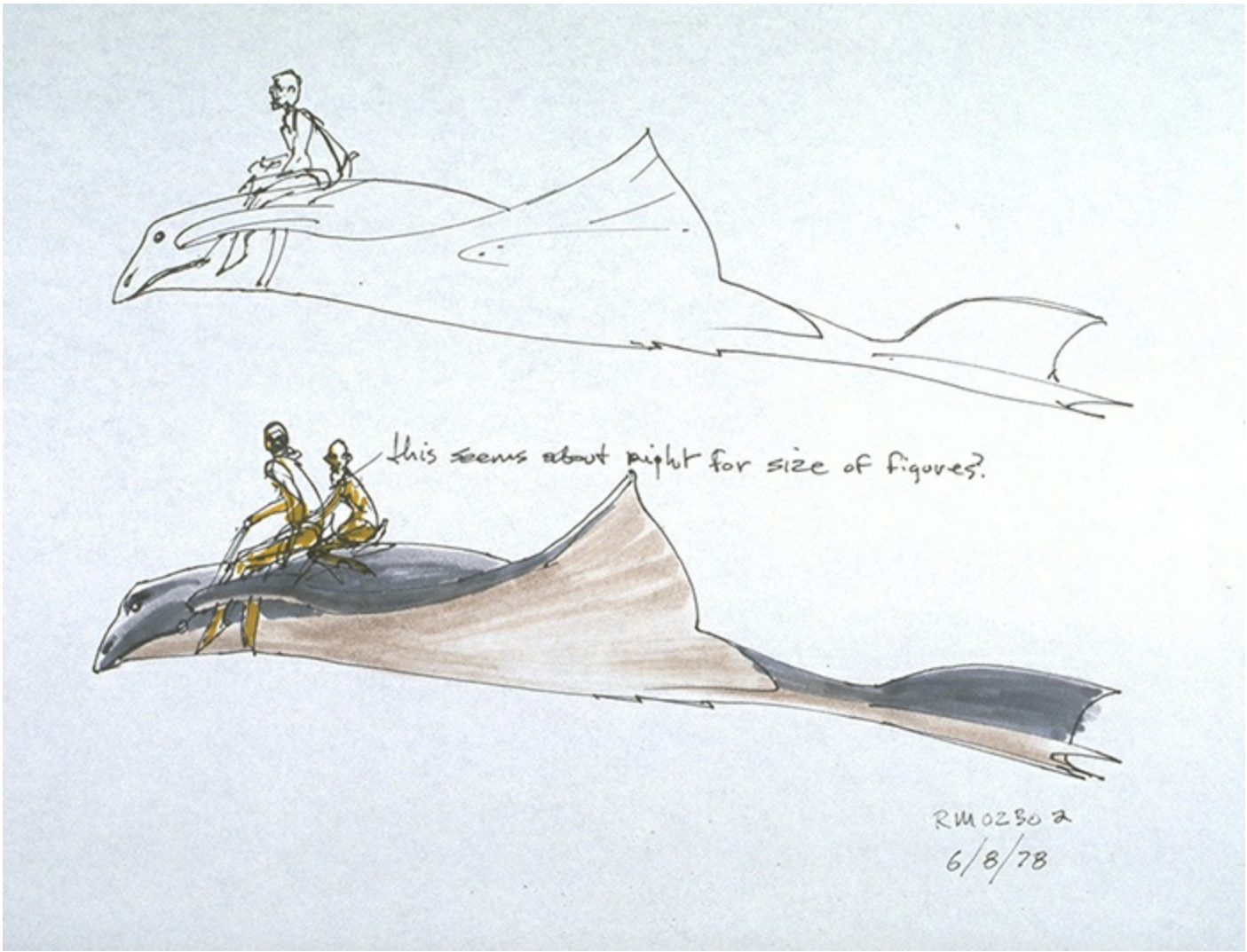
“Flying Beasty” preparatory drawings and concepts, by McQuarrie.



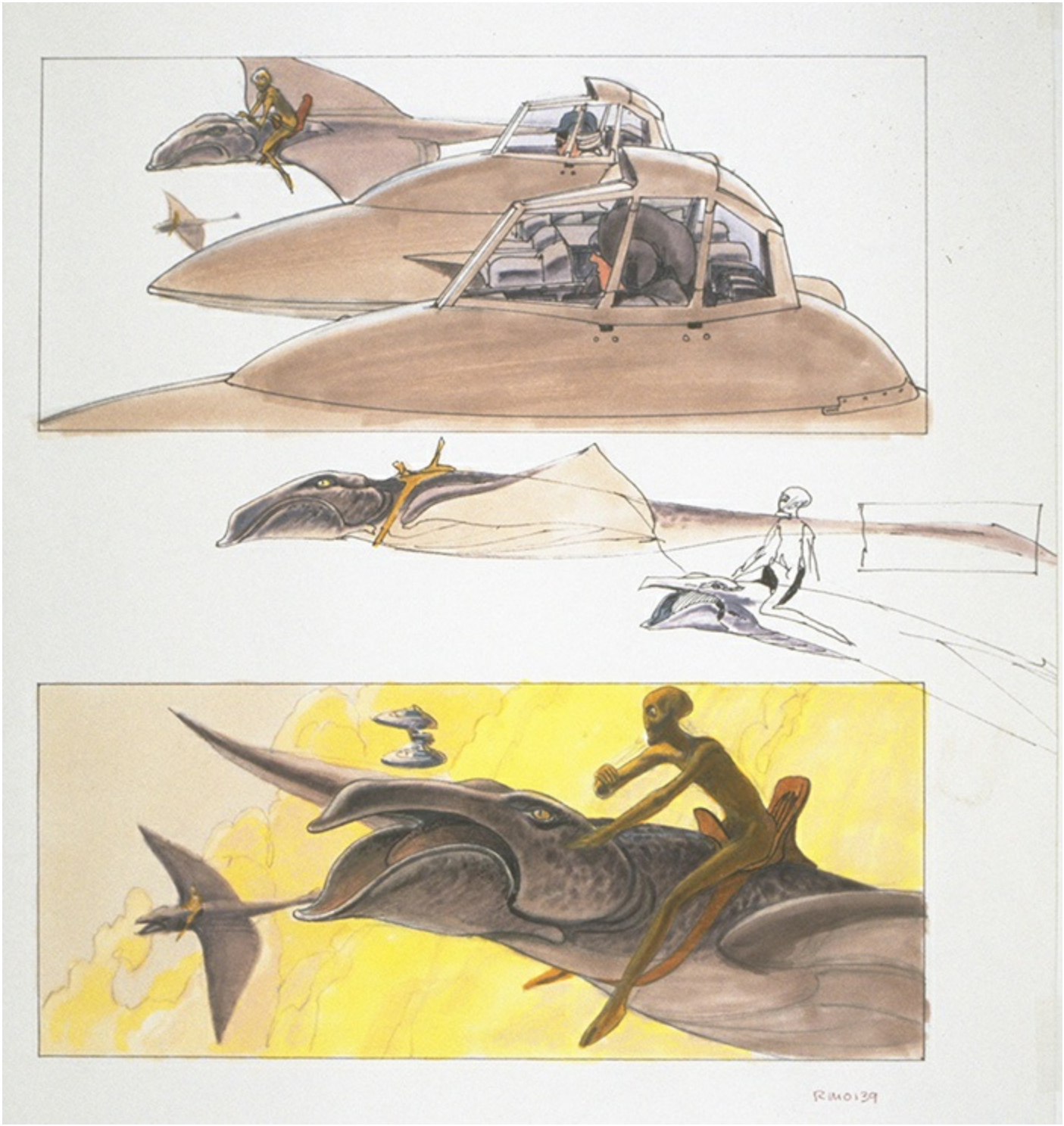
Flying manta concept sketch by McQuarrie (no. 52).



Flying manta concept sketch by McQuarrie (no. 229).



Flying manta concept sketch by McQuarrie (no. 230).



Flying manta concept sketch by McQuarrie (no. 139).

"We'd sit around and go through it page by page, the three of us," Lucas says. "Kersh would say, 'I suggest it should be like this' and I'd sometimes say, 'No, this is *why* this is like this.' "

"The first script meetings were fantastic," Kasdan says. "They were designed to get me into the whole *Star Wars* mode. There's a certain kind of talk. There are certain conventions. There are some things you just don't talk about: certain units of measurement and any and all references to the planet Earth. You have to cleanse all that from your mind. What's possible? What can a person do? What can another type of creature do? There's no question that on *Empire*, George knows what it should be. He has the larger

saga in mind at all times and he knew which way things were going. Kershner and I, neither of us knew."

"Working with Kersh and Larry, I had two advantages in that situation," Lucas says. "One, being the executive producer; the other, I know the world and I know the story. And I knew what the third movie was going to be. So there was a lot of, 'No, no, no, I need that for the next movie' or 'This is what the Force can and can't do, and this is how it operates and everything.' So I'm the encyclopedia. If they wanted to change anything, first I would have to run it through the encyclopedia and say, 'Okay, that works.' But then I'd have to run it through the story: 'This is where things are going and this is where they've been.' They were stuck with the fact that I had a vast amount of information, some of which they didn't have and wasn't really relevant to this particular story."

"George, Kersh, and I talked about every line in it," says Kasdan. "We talked about what this script was really supposed to be and what was missing. A lot of the dialogue was wrong. It was put there to convey the idea of the action to us. It wasn't meant to be a finished script."

"I've been changing my attitude toward drama, in fact, toward art in general," says Kershner. "Whereas, at one time, I felt that naturalism was the highest form of art, I now feel that it is merely one of the forms of art and not particularly the highest form. I love the challenge of fantasy. I remember reading an article about Aldous Huxley, which was written about 1926 in a film journal, and they asked him, 'What do you foresee as the direction that film will be taking in the years to come?' And he said, 'Well, I certainly think it will move through naturalism into pure fantasy, because film is the only medium that can make believable the most unbelievable thing possible. When you see something, you will believe it more easily than when you read it or when you hear it. And when you can see it and hear it, you can make the most outlandish, the most far out thing perfectly believable.' Now, therefore, you can create a new world—this is what I believe."

"Ralph McQuarrie was doing these fantastic paintings," Kasdan says. "McQuarrie sure had a big influence on me. I would say that one of the key factors that stoked us all during the creation of the script was his paintings."

Sitting in his bare-bones ILM office, McQuarrie had just clarified the look of Cloud City, which Lucas had approved. "I came up with round buildings because, if they were square, they'd wind up looking just like the Black Tower at Universal Studios," McQuarrie says, later noting design antecedents such as Gene Autry's *Radio Ranch* (1940) and the Emerald City in *The Wizard of Oz* (1939). "You try and come up with an idea for a building that hasn't already been done, which is pretty hard to do."

Only a few days later, McQuarrie and Lucas considered the bog planet. "I was trying to find a look for Dagobah," the former says. "The trees were like the ones in the swamps of Louisiana."

"At the point we were writing, we didn't have sets or special effects to work from; it was sheer dreaming," says Kasdan. "We ran the risk of writing words and not really knowing what they meant physically. But one of McQuarrie's paintings would inevitably show up at that point and give us something to hang on to: 'Oh yeah. Now I see.' Many times, they gave us ideas about where to take the action as well."

"*Empire* is a rather sad story," Lucas says. "It's the second act and has all the problems of a second act. Everything goes wrong in the second act and gets straightened out in the third. But we all agreed 100 percent that what we had to do was make this movie work by itself. So I was struggling and struggling and struggling to get to a climax that would feel satisfactory, but whose resolution is left hanging in the air. I had blown up the Death Star in the first one, but I'd stolen it from the third and

put it in the first to give me an ending. I was sort of borrowing from Peter to pay Paul. But I didn't know whether Paul was ever going to get made anyway, so what the hell. But with the second one, I had no real climax other than the fact that Vader was his father and that it was more of a psychological movie."

"I felt that when I came onto *Empire*, I was really a very keen instrument for George," says Kasdan, who left the meeting with an urgent deadline. "We agreed that we would meet about every two weeks and, in that time, I was expected to do about a fifth of the script each hiatus. I had never shown pages to anyone as I wrote—but in this case we were under so much pressure that I had to turn out the script quickly."



"X-wing in Bog" (8-plus hours), by McQuarrie, June 20–22 (with retouches on July 20), 1978.



Preparatory thumbnails for his “X-Wing in Bog” painting, by McQuarrie.

MCQUARRIE'S METHOD

"I was hired to give George Lucas a chance to get as close as he could to the ideal look for things he had been dreaming about getting into his films," says McQuarrie. "Actually, he could have done any or all of the conceptual sketches himself, because he draws quite well. But George concentrates more on the ideas and lets me get them into shape because I have a greater facility for drawing and painting."



Color study (no. 238a).

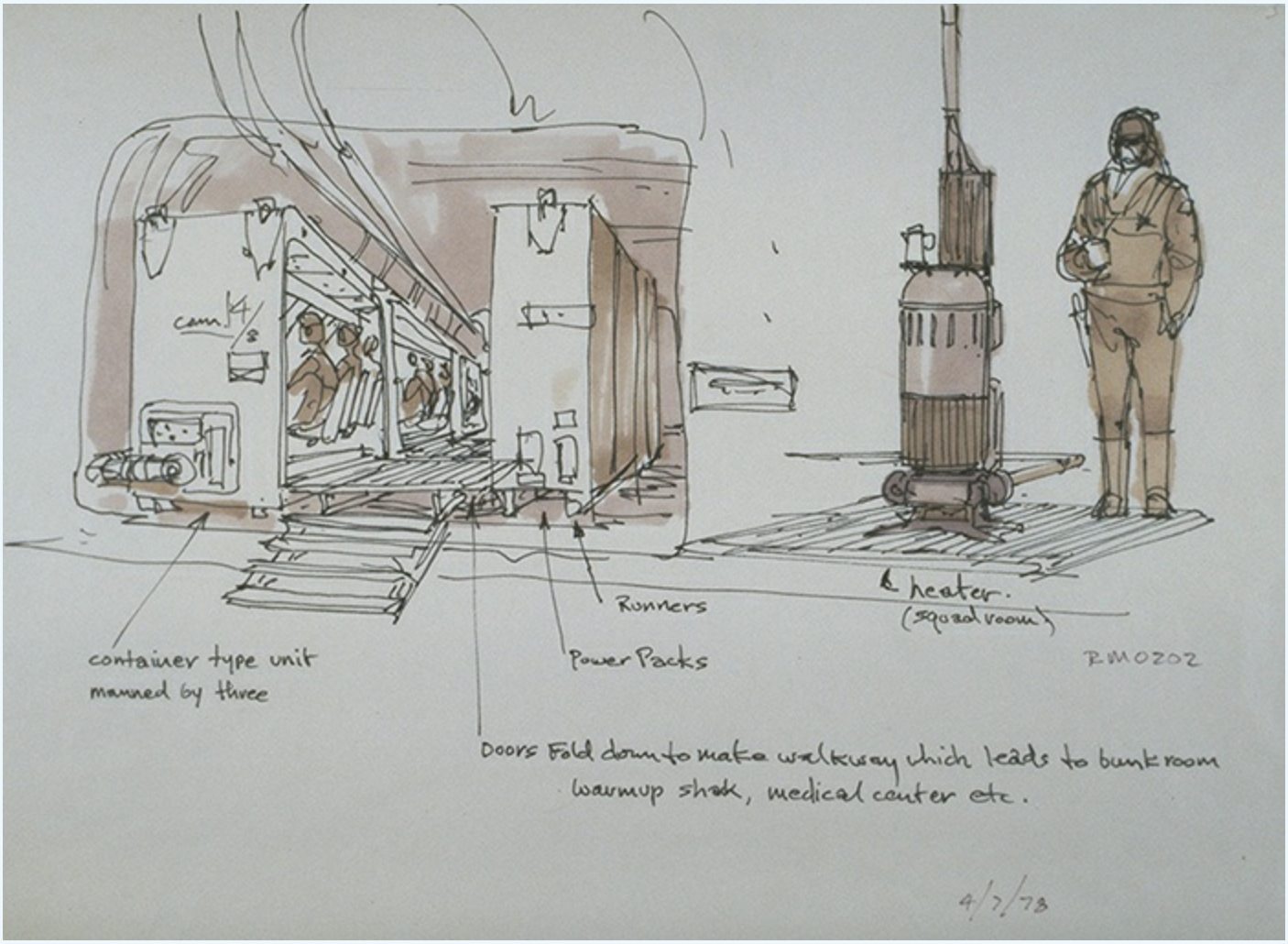


Drawing of Darth Vader.

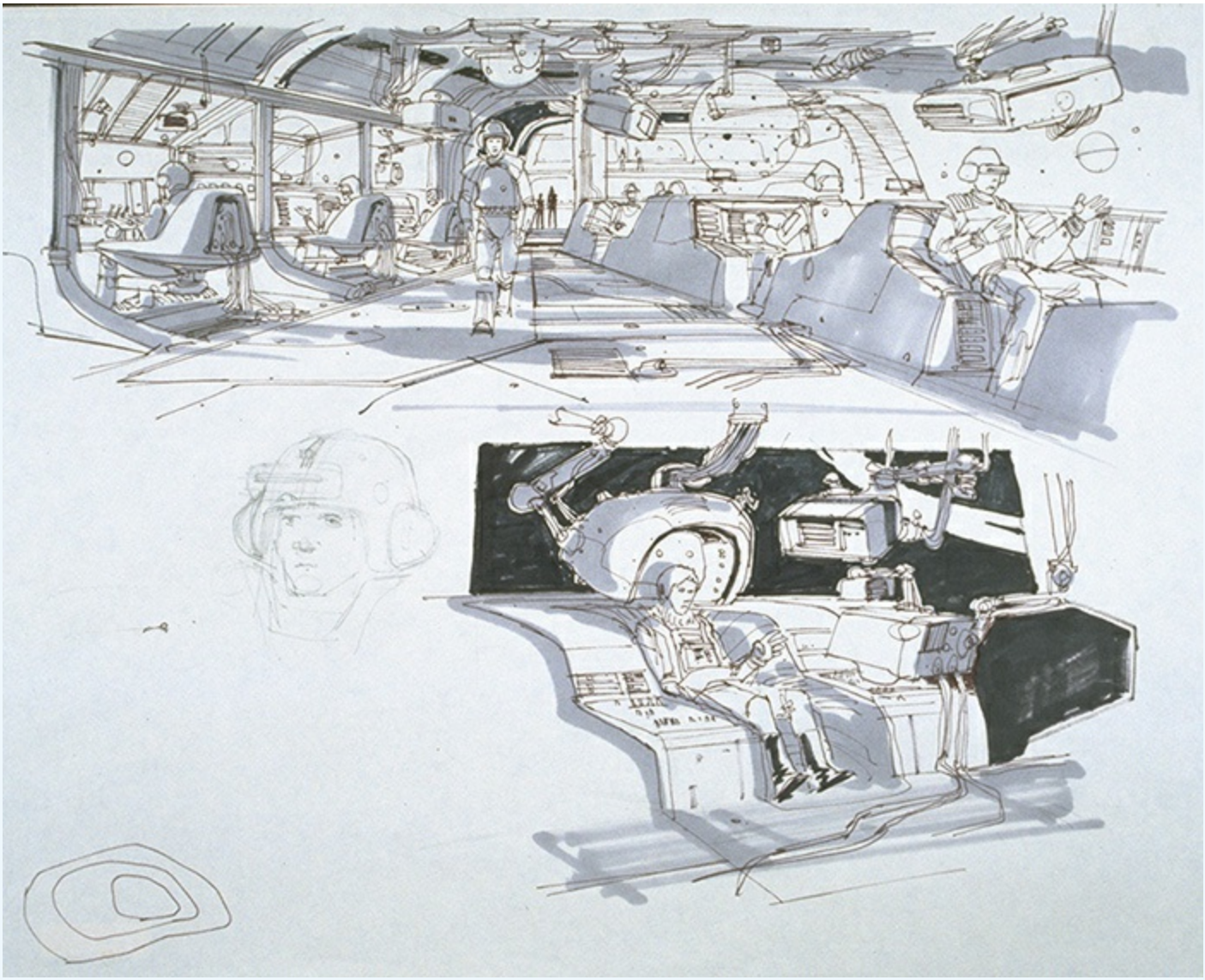
Materials: "In all of my illustrations, creating an atmosphere is my goal. After deciding on the idea I want to present, I complete the drawing on tissue paper, sometimes two or three tissues, slightly altering the composition, perspective, and organization of elements. Then I make small thumbnail sketches that establish general color value patterns. Next, I take a wash of waterproof cel vinyl over the whole board, trace the drawing over that wash, and begin to paint, starting with objects in the extreme background and working forward as fast as the paint dries. I use cel wash and designer's colors because they can be painted over without smearing, and the wash has a generally transparent look to it."



"Communication Center" by McQuarrie, May 18–19, 22, 1978.



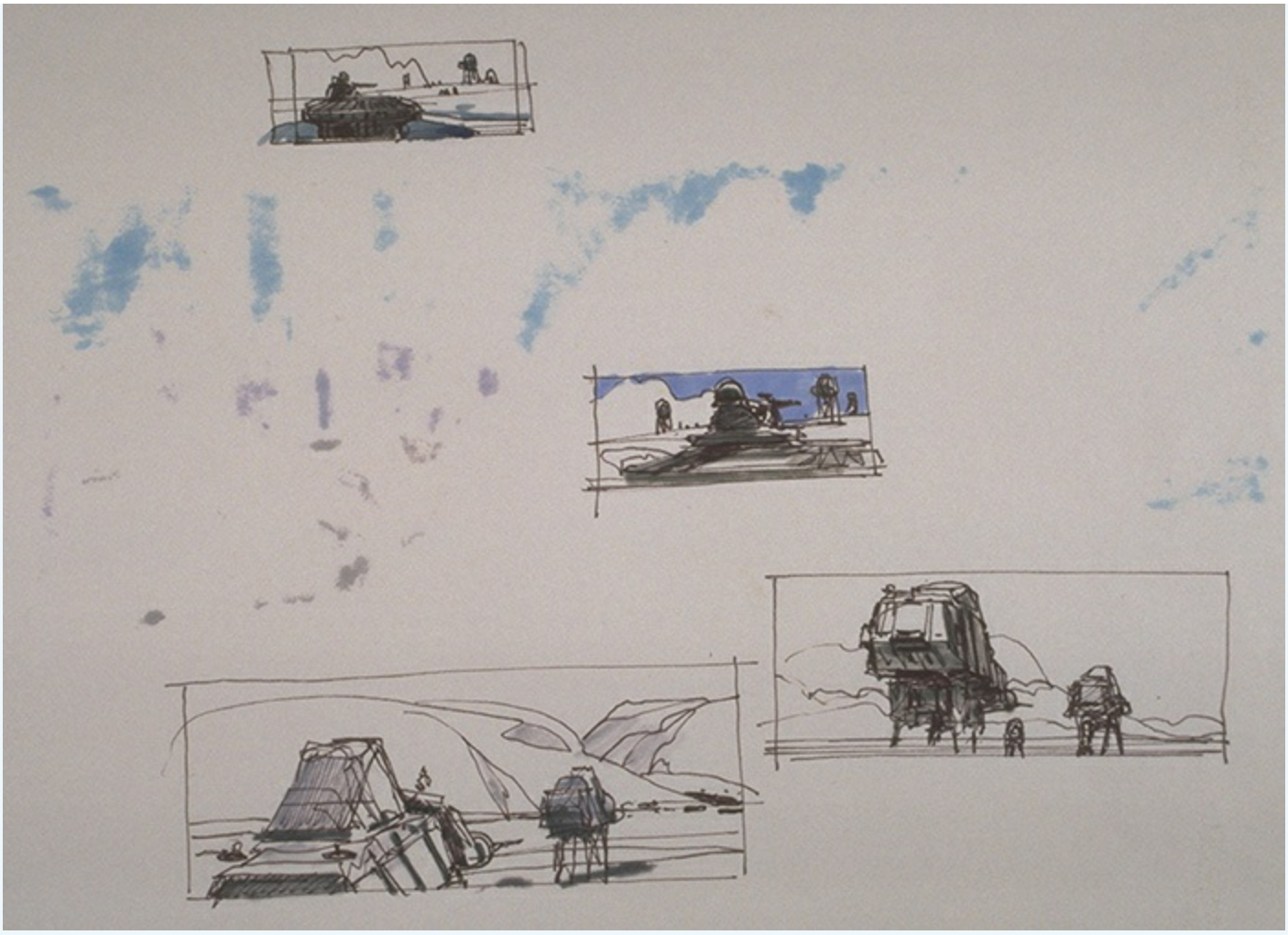
Preparatory material for "Communication Center," by McQuarrie.



A Johnston concept for the rebel communication center on Hoth.



“Ice cave exterior” (with early tauntaun) by McQuarrie, May 26, 29–30, 1978.



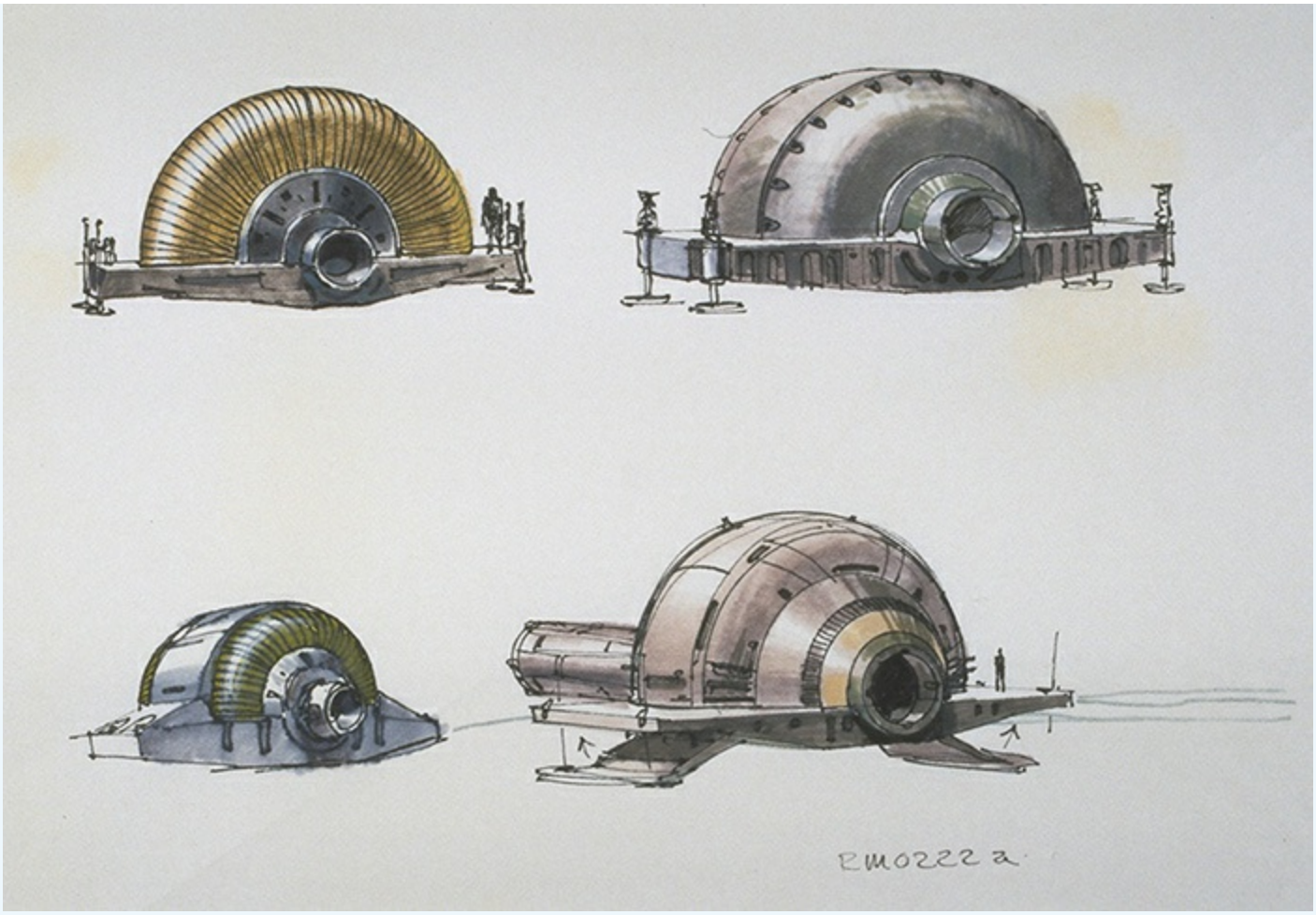
Preparatory drawings for “Ice Cave Exterior,” by McQuarrie.



Preparatory drawings for “Ice Cave Exterior,” by McQuarrie.



“Attack on Generator” (14 hours) by McQuarrie, June 23–24, 26, 1978.



Preparatory sketches for “Attack on Generator,” by McQuarrie.



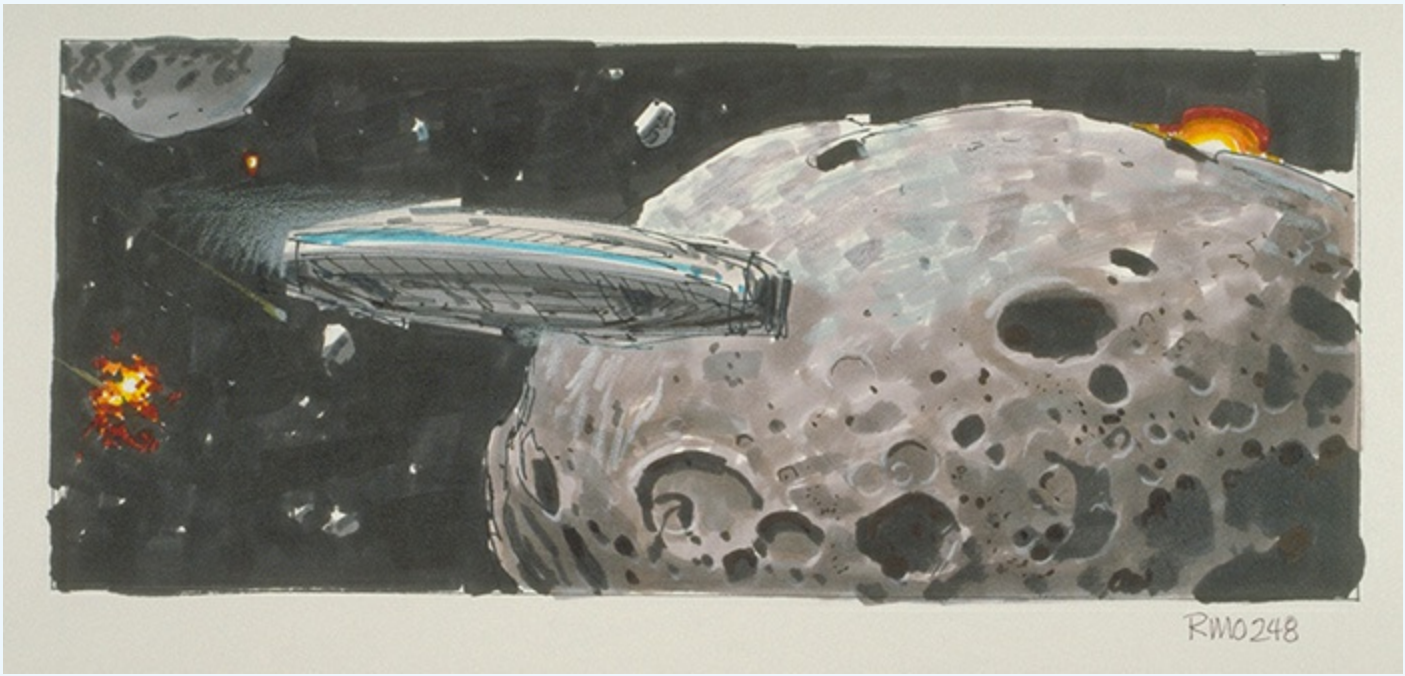
Preparatory sketches for “Attack on Generator,” by McQuarrie.

Color: “I get some nice visual effects sometimes by letting the wash show through in certain areas, making the rest of the piece very opaque and solid. At times, I will use an airbrush for graduated

tones, color changes, or modifying color values in specific areas. I try to use flat patterns and shapes with subtle color schemes. I combine colors to get rich effects without being splashy, but often get a little shy, and lean toward neutral, gray tones at times. To me, color goes beyond the spectrum and has to do with lighting sources and angles. I will never do a painting at high noon, but rather when the sun is low and casts raking shadows."



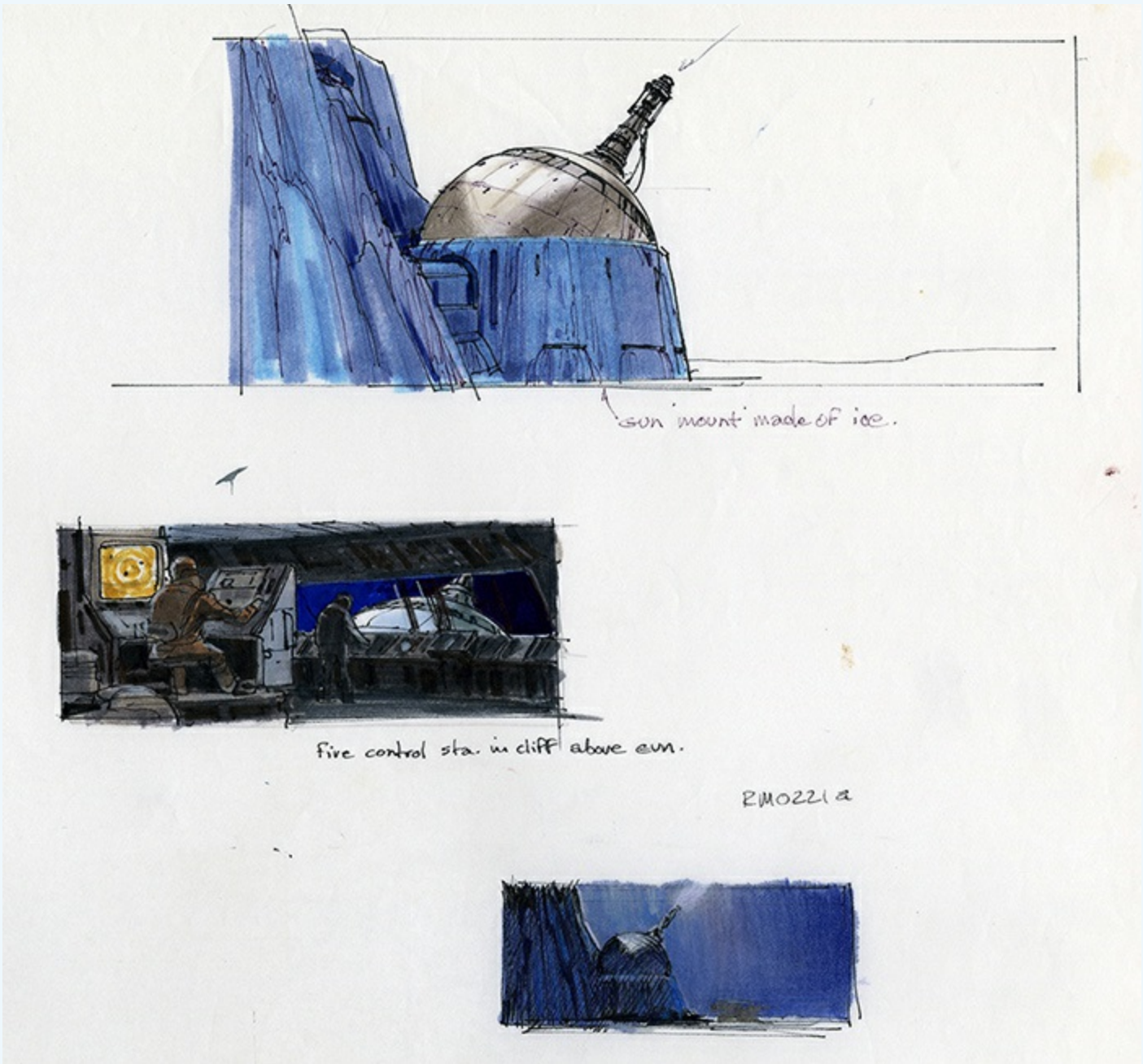
"*Falcon* into crater" by McQuarrie, July 12, 1978.



Preparatory color study for "*Falcon* into Crater," by McQuarrie.



"Big gun" by McQuarrie, July 13, 1978.



Preparatory thumbnails for “Big Gun,” by McQuarrie.



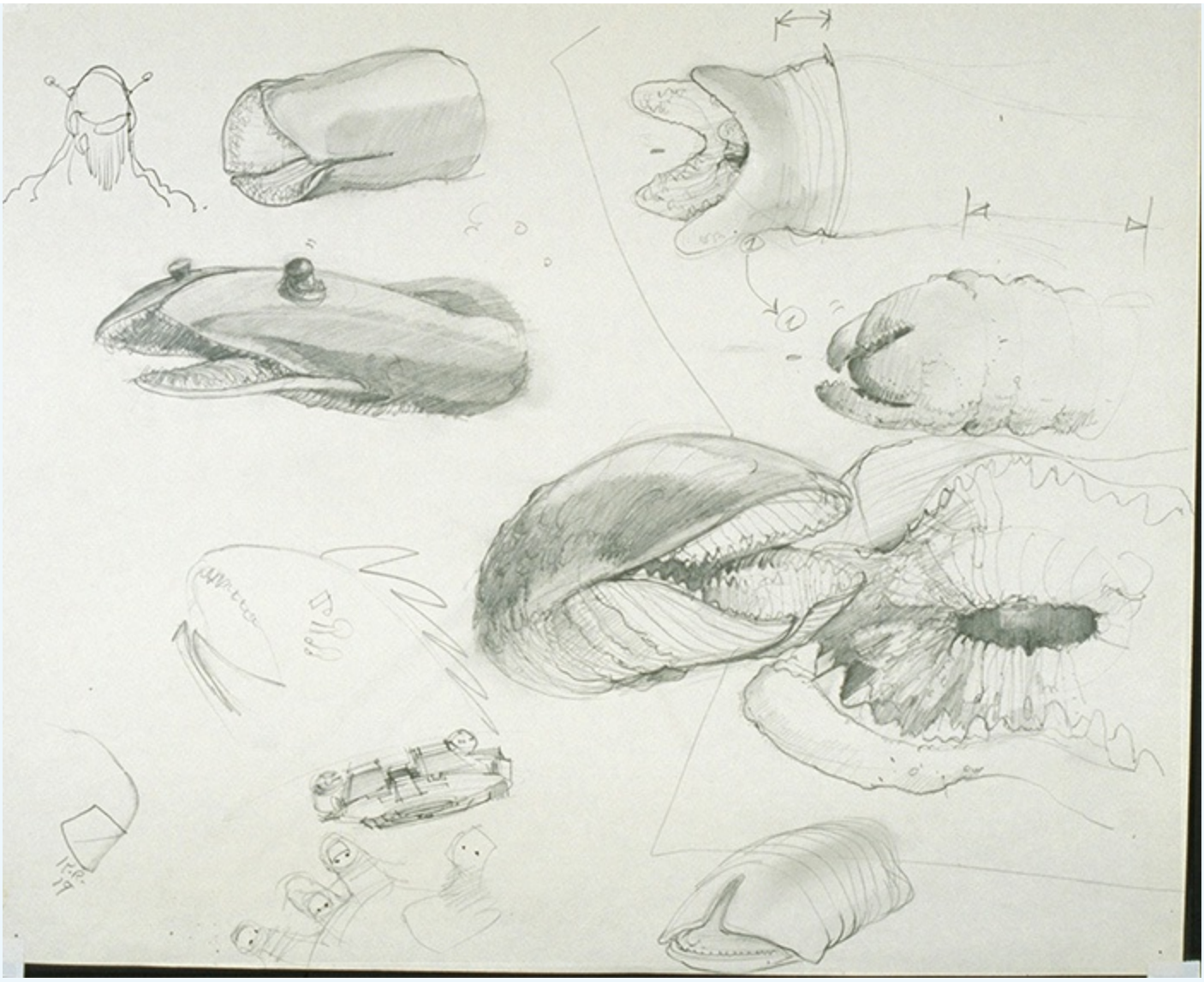
“Giant worm” by McQuarrie, July 20–21, 1978.



Giant worm concept by Johnston.



Giant worm concept by Johnston.



Giant worm concepts by Ken Ralston.



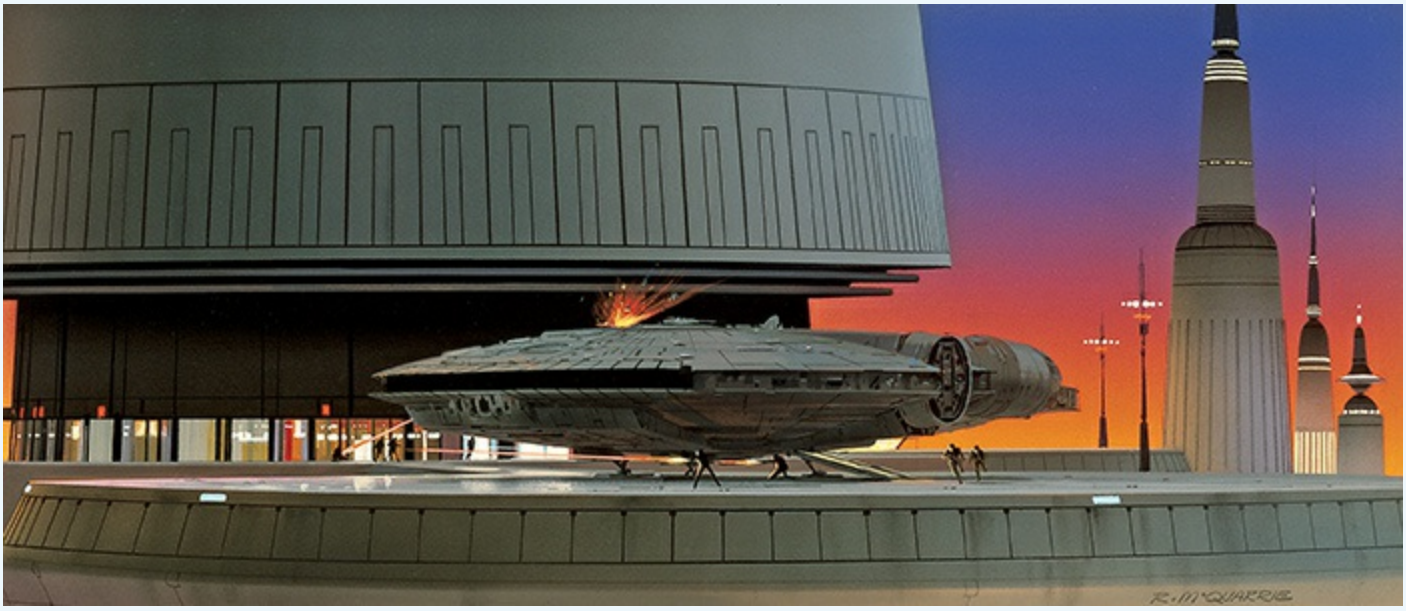
"Rebel big gun, control booth" by McQuarrie, July 26–27, 1978.

Time: "How much time I take to complete a painting varies greatly, depending on the complexity of

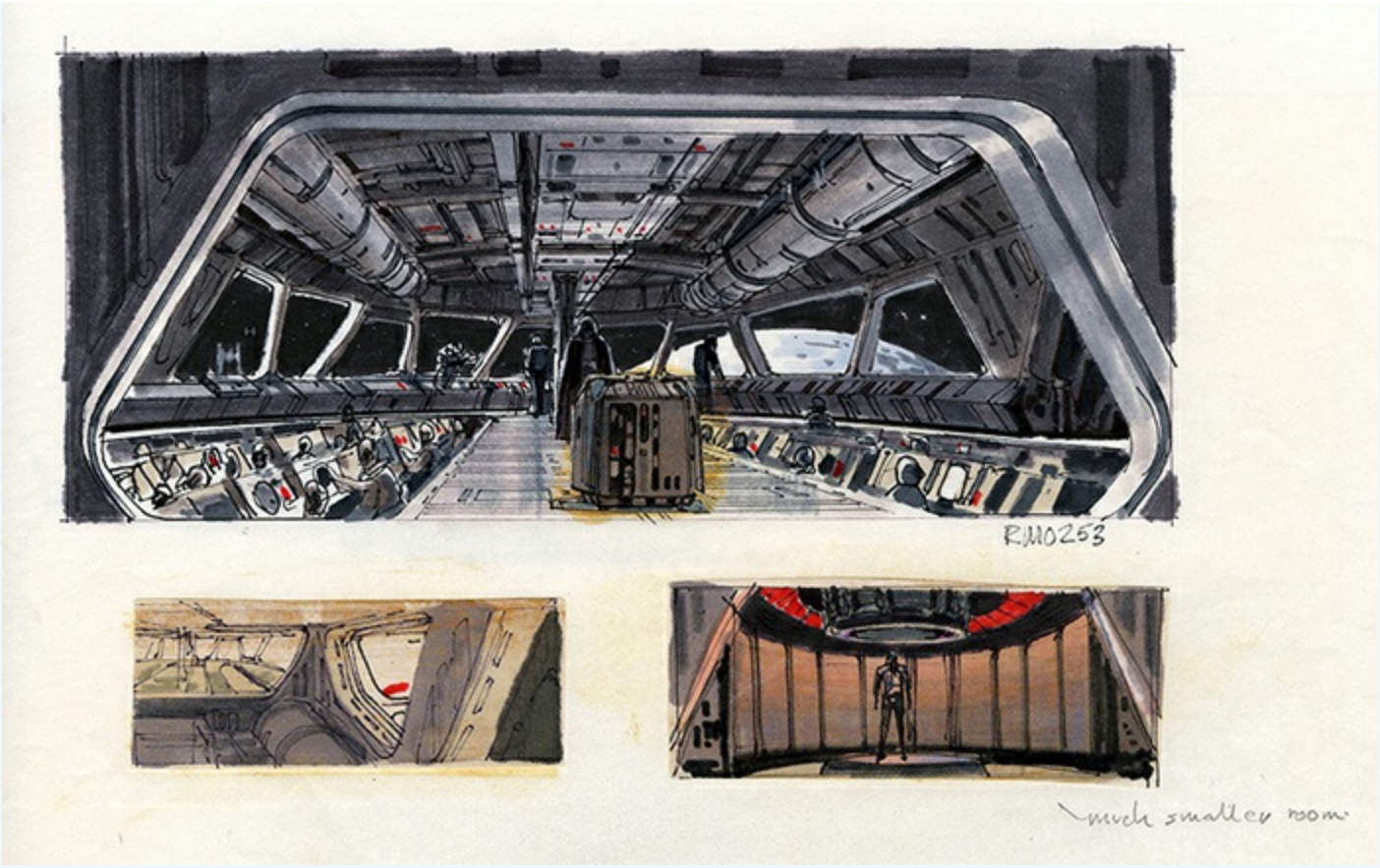
its elements. Some of the paintings I've done for *Empire* have taken as long as seven days to complete. Others, I've finished in a day. The average is two or three days. Science fantasy allows me to create realities that have *never* been seen before, which is the primary challenge each new job presents. I've done a lot of dreaming in my life—and now I'm getting a chance to put it all to work."



Color study by McQuarrie for his "Dusk battle on Cloud City," July 24–25, 1978.



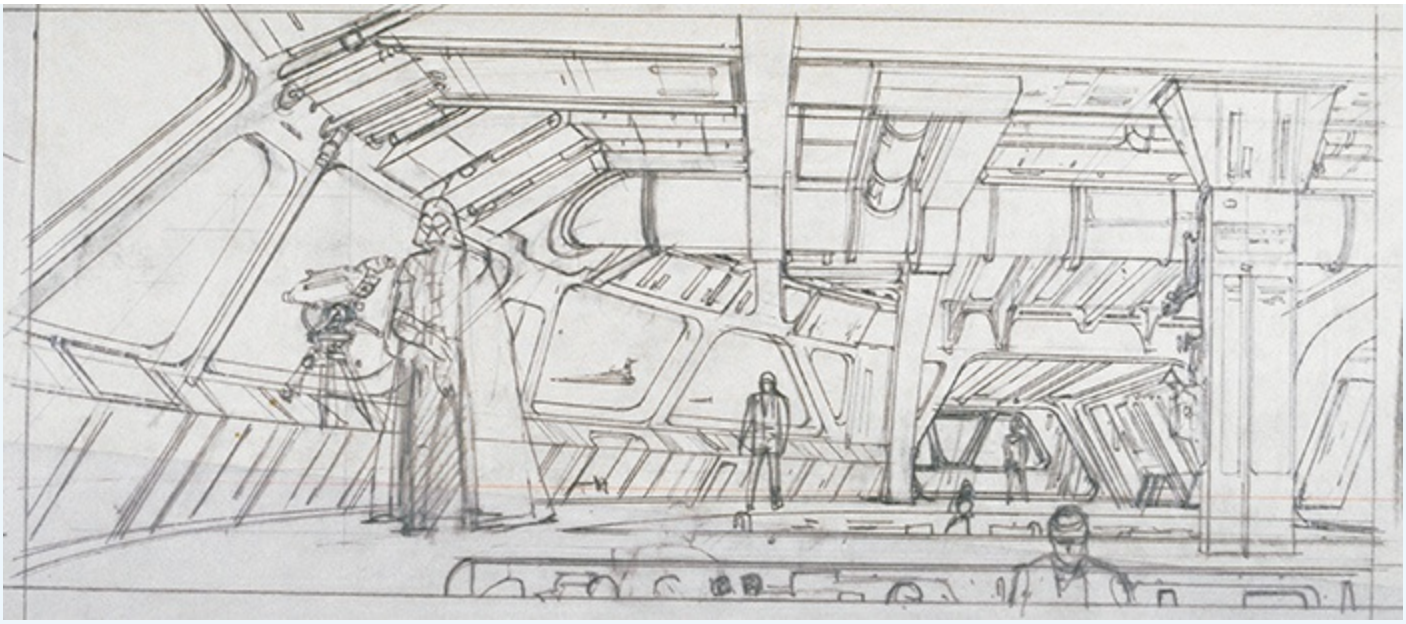
"Dusk battle on Cloud City" by McQuarrie, July 24–25, 1978.



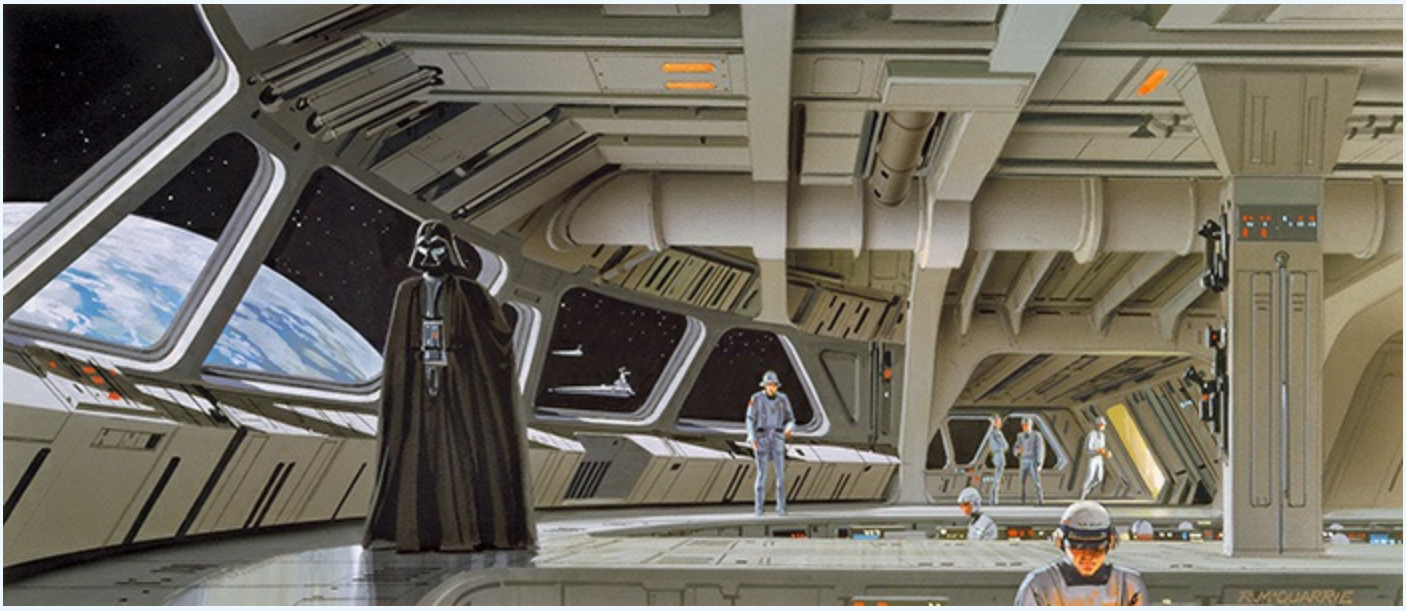
Final painting and preparatory thumbnails of Vader's bridge, by McQuarrie.



Final painting and preparatory thumbnails of Vader's bridge, by McQuarrie.



Preparatory sketch by McQuarrie for his “Star Destroyer bridge (looking at right-hand inboard side)” (12-plus hours) July 18–20, 1978.



“Star Destroyer bridge (looking at right-hand inboard side)” by McQuarrie.

THE ART OF DOING

JULY 1978 TO FEBRUARY 1979

CHAPTER THREE

During the month of July, preproduction seesawed between recruiting for ILM, work on the third draft, and creation of the walker prototype. Dennis Muren visited the ILM offices three times before committing. Ken Ralston, who had been Muren's camera assistant on *Star Wars*, joined him for what was probably the key trip.

"Dennis and Jon Berg started talking to me about moving up there," says Ralston. "I said, 'But *Star Wars* was so hard.' I was hedging. They said, 'Ah, come on up.' So I flew up with them to San Francisco and it was a beautiful day: big clouds, cool, with the Golden Gate and the fog. We drove up to Park Way to see George and hear his dreams of the future. He rolled out big blueprints and said, 'This is Lucas Valley Road—no relationship to me,' which I thought was really odd. He showed us where the ranch was gonna go and the effects facility; it was really cool to hear him so excited. Then just for the hell of it, Dennis, Jon, and I got in a car and drove up Lucas Valley Road. We jumped the fence and walked up the dirt road to this empty, old dairy farm. I remember just being in shock the whole day. I finally said, 'Sign me up!' "

"By that time, I was thinking that this was something I wanted to do," says Lorne Peterson. "I had gone to San Francisco State and I liked San Francisco a lot more than I liked LA."

"We basically moved every damn thing out of ILM on Valjean, right down to the air hose fittings, up to the new ILM," says Edlund. "We quickly took over the whole building, though I think there was a muffler shop and a welding shop—we had to wait until we could get them out of there. By that time, *Star Wars* being the monolith that it was, we called ourselves The Kerner Company because we didn't want to have kids going through the trash looking for model shop sweepings. We were deities to a lot of people, so we had to keep a low profile."

Because ILM wasn't ready yet as a facility, Jon Berg continued his skilled craft in LA. "I went to Jon's house in Silverlake where he's got his little machine shop," says Ralston. "He wanted to just show us how the legs work. It was a very early moment on the movie and it was really neat. It was like, 'God, Jon, you'—because these pistons were doing one thing and the head another; it was so complicated."

"It was taking something that was a free-born imaginative concept," says Berg, "and breaking it down not only so that it could be manipulated in the manner that we needed it to be, as a stop-motion puppet, but so that it would also look like it was operating realistically and believably."

MYSTERY OF THE RASCAL SAGE

On July 18, more building improvements were approved for the Kerner facility. The next day, a deal memo from Norman Kurland to Tom Pollock solidified, retroactively, the deal between scriptwriter Lawrence Kasdan and The Chapter II Company. Kasdan would be paid $40,000 for the "rewrite" and $20,000 for the subsequent polish.

Kasdan had completed at least one-fifth of the script when he sat down for another grueling story conference with Lucas and Kershner. "The first session after we met was the hairiest," says Kasdan. "I had written about 25 pages. They sat in the room and read those pages, and then they came back to the

table and we all tore into them. They told me what they were happy about and what they were unhappy about. Actually, the way George works is that he never tells you what he likes, just what he doesn't. If you're sensitive about your ego, this can be tough. He'll come to a new scene or a new stretch of dialogue I've written and just flip through it. I'll be dying with each movement of his eyeballs, eager for praise. No way. His silence was my only reward."

"It was a great experience working with Larry and Kersh," Lucas says, "because they are very serious about what they do and they really went through and analyzed everything. I had to explain or rationalize what was going on. They wouldn't just say, 'Okay.' It was more like, 'That doesn't make sense. I don't believe you—why is it like that?' I had to go down, down, down and rethink things sometimes. And if I couldn't come up with an answer, then we would try and figure out another way of explaining it. They challenged *everything* in the script. I was defending things, but, at the same time, if they had a great idea or they had a point, then it immediately went into the script."

"A great deal of the emotional basis for the film takes place in the first fifth," says Kasdan. "There are three or four important scenes where the characters are all together. You have to establish the dynamics of the romance that follows and the drama that follows. In fact, you're not going to have many opportunities later in the film to bring the people together again and have them talk. So you have to figure out how these people feel about each other now. We don't know what the relationships are between Leia, Han, and Luke. Threepio and Artoo, where did they come down as far as who is their master? What are Chewie's feelings about where they are? Luke broke off his training to be a Jedi when Ben was lost—how important is that to Luke? It was a very rough task."

"Larry was focused a lot on dialogue," Lucas says. "I had a rudimentary version of Yoda. If you looked at it, you might say, 'Well, it's kind of the same'—but it's not. You can speak and act using Larry's dialogue for Yoda. He mainly made the dialogue better and the characters more consistent. Between Kersh and him, they added depth."

"This was my first time writing the *Star Wars* language and creating long talking scenes, emotional scenes," Kasdan continues. "Kershner, George, and I all had different ideas about the way each of these scenes would go. That first session was ragged and rugged, with many, many hours of figuring out what was the best way to set up the story and communicate what's happened just prior to the story."

In addition to the established characters, Kasdan continued to develop the new ones. "Boba Fett is a real villain," he says. "Lando starts out a villain and develops. There is also a very strong, positive alien [Yoda], who I really think is going to be one of the stars of the movie. He figures very heavily in the dramatic and spiritual development of the whole story and particularly in Luke's education."

"At first I thought Yoda should be eight or nine feet tall with a big beard, like an oversized Moses," says Kershner. "After all, he is a Zen master, almost god-like. But that was too much of a cliché."





Early sculpts of “man-in-suit” tauntaun, created by the art department in England, summer 1978.



Tauntaun and rider concept by Johnston (no. 292), June 8, 1978.



"Snow planet scale" by Johnston (no. 301), July 1978.



Rebel outfit concepts by assistant art director Nilo Rodis-Jamero, August 1978.

By this time, responsibility for Yoda's visual characterization had moved from Johnston to McQuarrie, who completed two paintings featuring the rascal-sage. "We worked for about four months before coming up with a design we liked," Lucas says. "You can see the progression from Joe's drawings to Ralph's paintings, see the character's look improving, acquiring more personality."

"Joe Johnston had done some sketches on him, and they seemed to me to be kind of puffy, lacking in bone structure," says McQuarrie. "I'd hoped to see him have more of an ascetic look, so my sketches gave him that."

"Yoda started out as little drawings," Kershner says. "We had artists making all sorts of sketches when I was working with George on the screenplay, but we had no idea how or if it could be done. We were sitting for days saying, 'Geez, if we try to make him two feet tall, how are we going to do it?' I thought we could do it as a Muppet. But then I'd go look at Muppets and puppeteers and decide that wouldn't work. They don't look real. How are you going to shoot a close-up of a Muppet? It's just a piece of cloth and Ping-Pong balls."

"We experimented with the idea of a monkey dressed up in a costume," says Kurtz, "which didn't work because most animals don't like things blocking their vision, over their heads. Stuart Freeborn used

to recount stories of the baby monkeys used in *2001*. To make them not look like monkeys, he did special makeup on their faces and their ears, but the baby monkeys spent all of their time trying to tear away all this stuff because they just didn't like it."

"We thought we could dress up a monkey," laughs Kershner. "But I said, 'How are you going to get the words out of it? Can you train a monkey? No, you can't train a monkey.' "

"We thought about doing it with stop-motion," Lucas says. "But to do a stop-motion character like that and have it act, and not look like a cartoon—I just didn't think it was going to work. We explored doing stop-motion, but it just became very apparent that yes, you can get the movement, but can you get the face and all that stuff? It's impossible. We wanted a combination of Kermit and the skeletons from an old Ray Harryhausen movie. But it's like, *How is that going to work?*"

"Meanwhile, the artist was making him a little bigger and a little bigger," Kershner says. "We realized that maybe he was trying to tell us something. If he was three feet tall, we could get a midget. But how good an actor would that midget be? We needed a terrific actor. But there's no great actor that's three feet tall. Then we thought of a child. But he would have to be four or five years old. Come on—the discipline under those lights, saying lines, and making motions a certain way—where could we find a child capable of that? We were ready to give up!"

"Yoda is the lead samurai from *Seven Samurai*," says Kasdan of Akira Kurosawa's 1954 film. "*Seven Samurai* is for me the greatest film ever made and enormously influential for George. If you see *Seven Samurai*, you see Yoda is Shimada, the lead samurai. He's the mentor figure who gets the whole picture."

The solution to a practical Yoda had to be shelved temporarily, even as it was obvious how key a character he was going to be, because finishing the script was the priority. "I went away and I'd show them a new section each time, plus the old section I'd changed," Kasdan says. "We did that draft very, very rapidly."



Early Minch-Yoda concept by Johnston, spring 1978.



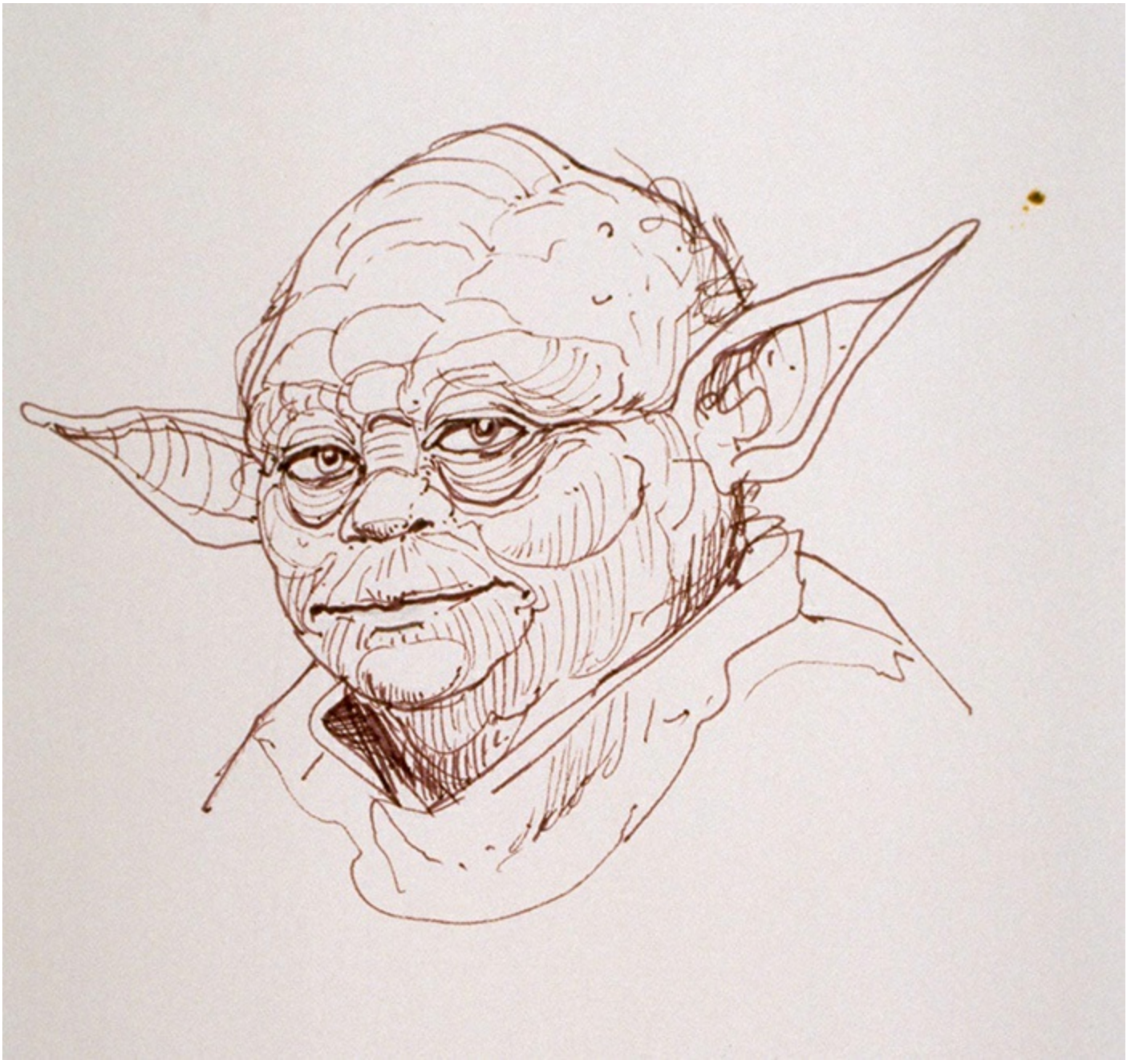
Early Minch-Yoda concept by Johnston, spring 1978.



Early Minch-Yoda concept by Johnston, spring 1978.



"Minch Muppet" measurement (18 inches) by Johnston (no. 303), July 1978.



Minch Yoda concept, by Johnston.



Minch Yoda color variations, by Johnston.



A monkey is outfitted with cane and mask, and measured.

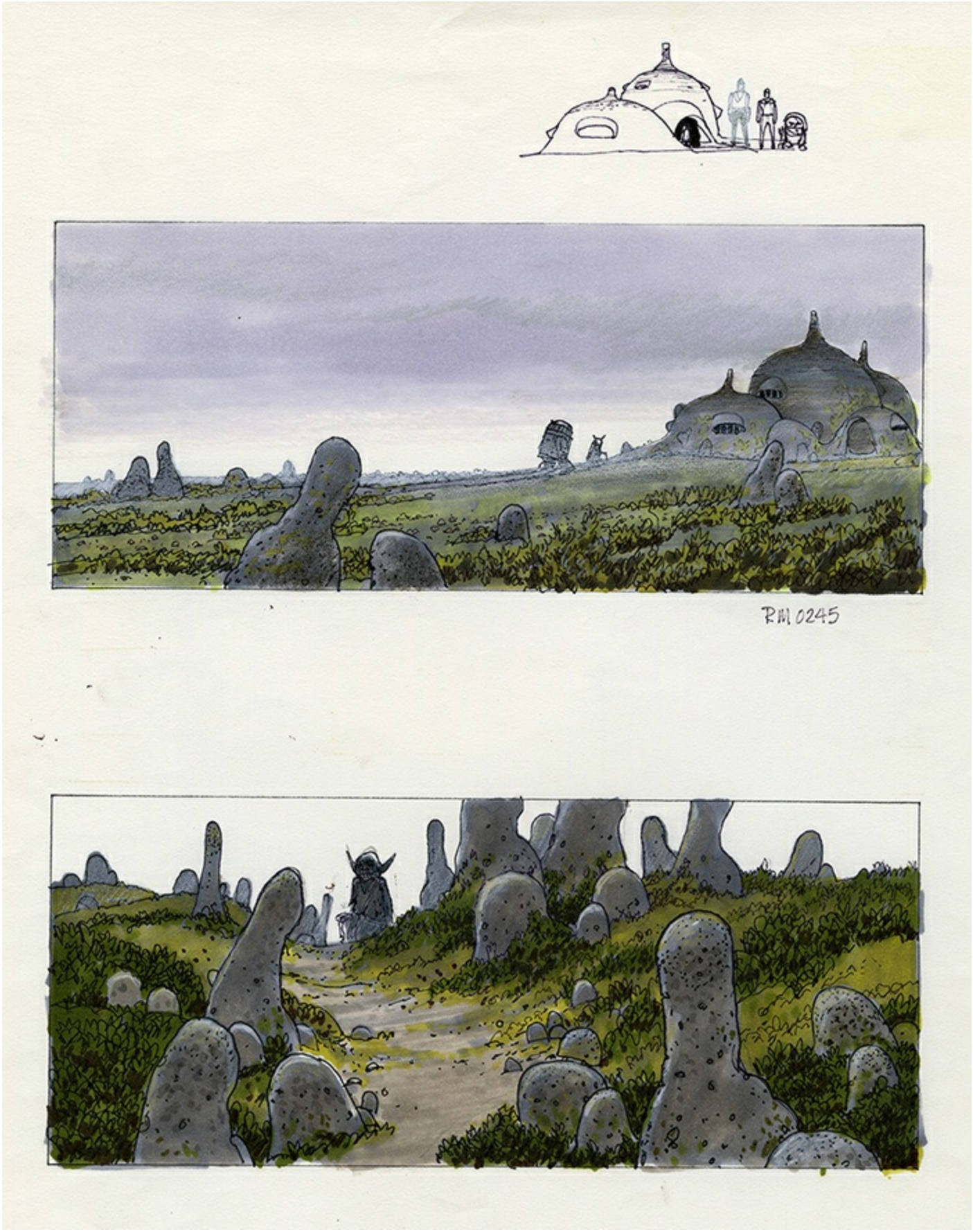


The simian was also briefly considered for walking shots of Minch-Yoda that would have been impossible to perform with a puppet.

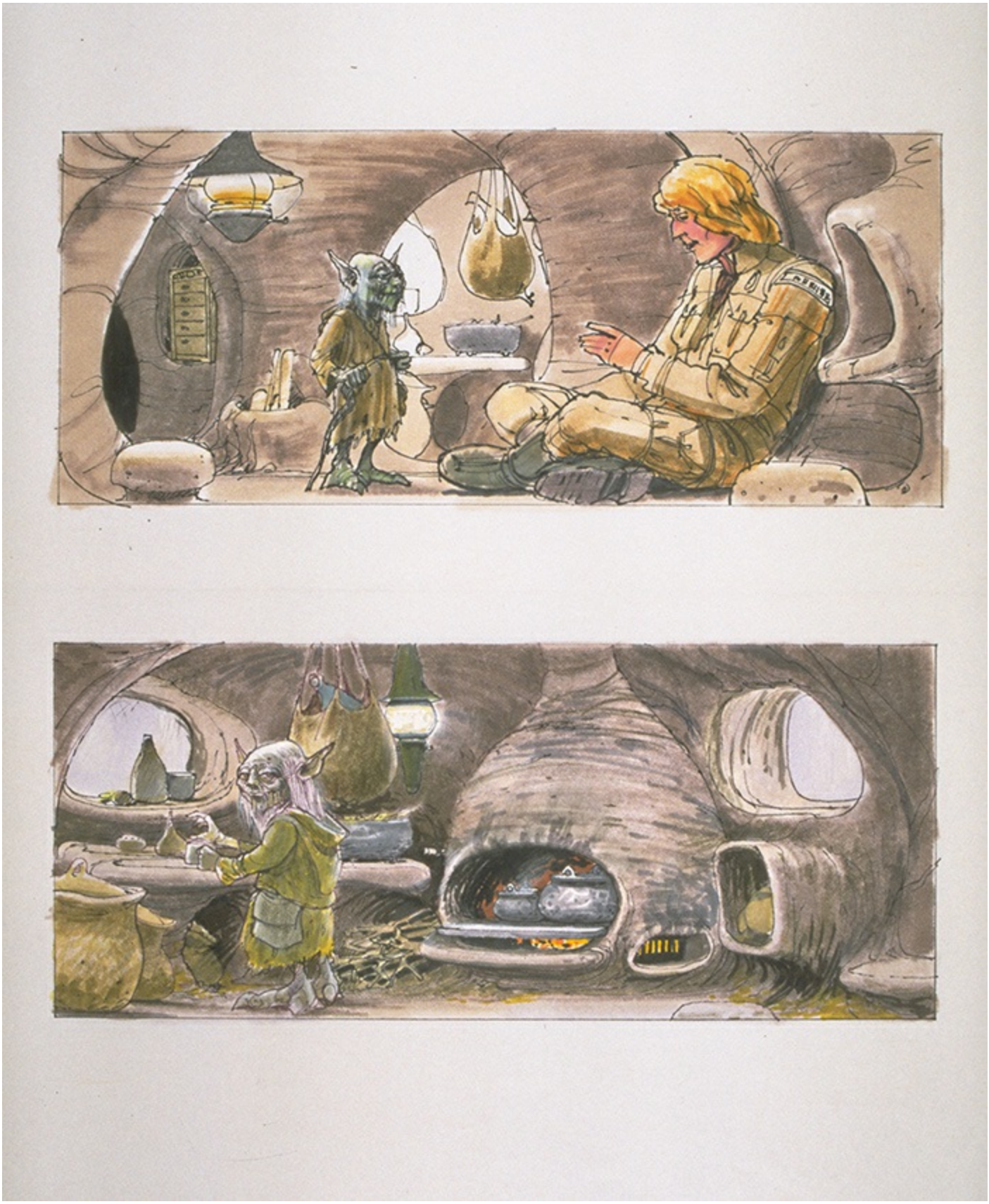




"Minch house [exterior]" by McQuarrie, July 15 & 17, 1978.



Color sketches of Yoda and R2 on Dagobah, by McQuarrie.



Preparatory drawings of Luke in Yoda's home, by McQuarrie.



Final painting of Luke in Yoda's home, by McQuarrie.

INDUSTRIAL STRENGTH

Lucasfilm and Fox officially released to the trade papers and the public the name of the sequel on August 4. "I love the title of *The Empire Strikes Back*," Hamill says. "It's got that gaudy Saturday-afternoon quality that's important for us."

"When George first told me about the title, I wasn't so sure he was serious," Burtt says. "It seemed like such an extreme-sounding pulp title. But that's what we were making: a big version of those old serials, with names like 'Fate Takes the Wheel' or 'The Crimson Ghost Strikes Out.' "

Also in August, Watts continued the groundwork for the location shoot—"I returned to Finse with both Bruce Sharman and Philip Kohler, who was to be the location manager, and started preliminary stuff in terms of bank accounts and meeting with shipping agents"—while production began paying for a security system at ILM and discussing a bank loan for the facility: $180,000 for construction, $50,000 for optical lens design and construction, and $27,000 for a high-speed VistaVision camera. All told, nearly $1 million. Despite the fact that the building was mostly non-operational, a first group of department heads was added to the payroll. Johnston and McQuarrie were now joined by assistant art director Nilo Rodis-Jamero on August 7 (he and Johnston worked at Ancho Vista until ILM was readied); Phil Tippett on August 8; Richard Edlund and Dennis Muren on August 16; and Lorne Peterson on August 17. *Star Wars* veteran Bruce Nicholson, optical photography supervisor, started on August 16. Model makers Paul Huston and Steve Gawley would be salaried as of September 5.

"We tried to create this esprit de corps, you know, which came from George and other people," says Jim Bloom. "Our attitude was, 'Let's go do something even bigger, better, greater than we did before. Let's not rest on any laurels.' That was the feeling behind *Empire*."

"There were only a few of us that moved up from Los Angeles," says Tippett. "But the enthusiasm left over from working on *Star Wars* was just profoundly huge. We were like kids in a candy shop. We were all guys that grew up watching crummy horror movies in the '50s and the '60s, and had figured out how to do a lot of that stuff in our own garages with no money."

Jon Berg was one of the ILMers who moved north, but he scared quite a few people when he walked through the facility's front door. At over 200 pounds, six feet plus, in cowboy boots, a black leather vest,

long hair, and a beard, "He looked like a Hell's Angels biker," ILM manager Dick Gallegly says. But after people got to know him, they all thought, "Jon was a 'pussycat.' "

"I was working with Bruce Nicholson on *Battlestar*," says Edlund, who was dividing his time between Los Angeles and the North Bay. "He was the only guy to whom I could really go in there and say, 'Look, this shot is not working.' "

"I had worked on *Close Encounters* and then on *Battlestar Galactica* with the Apogee group for almost a year," says Nicholson. "So it was difficult, in a way, because some people were going to stay down there and we were going to come up and set up the facility. But I was very excited about it, having gone to school up here."

"I took two people from old ILM, Steve Gawley and Paul Huston," says Peterson. "Steve had really wanted to go and Paul really wanted to go, too, and we were friends. So I already had three people, myself included, in the model shop."

"I knew during the *Star Wars* period that George had wanted to do sequels," says Huston. "Then on the grapevine, I heard that he might start a place up here in Marin County. I heard about that from Lorne Peterson, so I submitted a portfolio and came up for a job interview and Lorne hired me. Then we had to start the shop here."

"One of our major problems in the beginning was to cope with the logistics of the various departments and decide how they were to be set up," says Edlund. "We tried to look as far ahead as possible, because once you put an optical printer down and set up a department around it, that setup gets firmly entrenched. Things get bolted to the floor, utilities get piped in, air-conditioning systems are installed. This, together with the initial challenge of coming into Marin County, which was not oriented toward film, probably presented our chief difficulties in getting started."

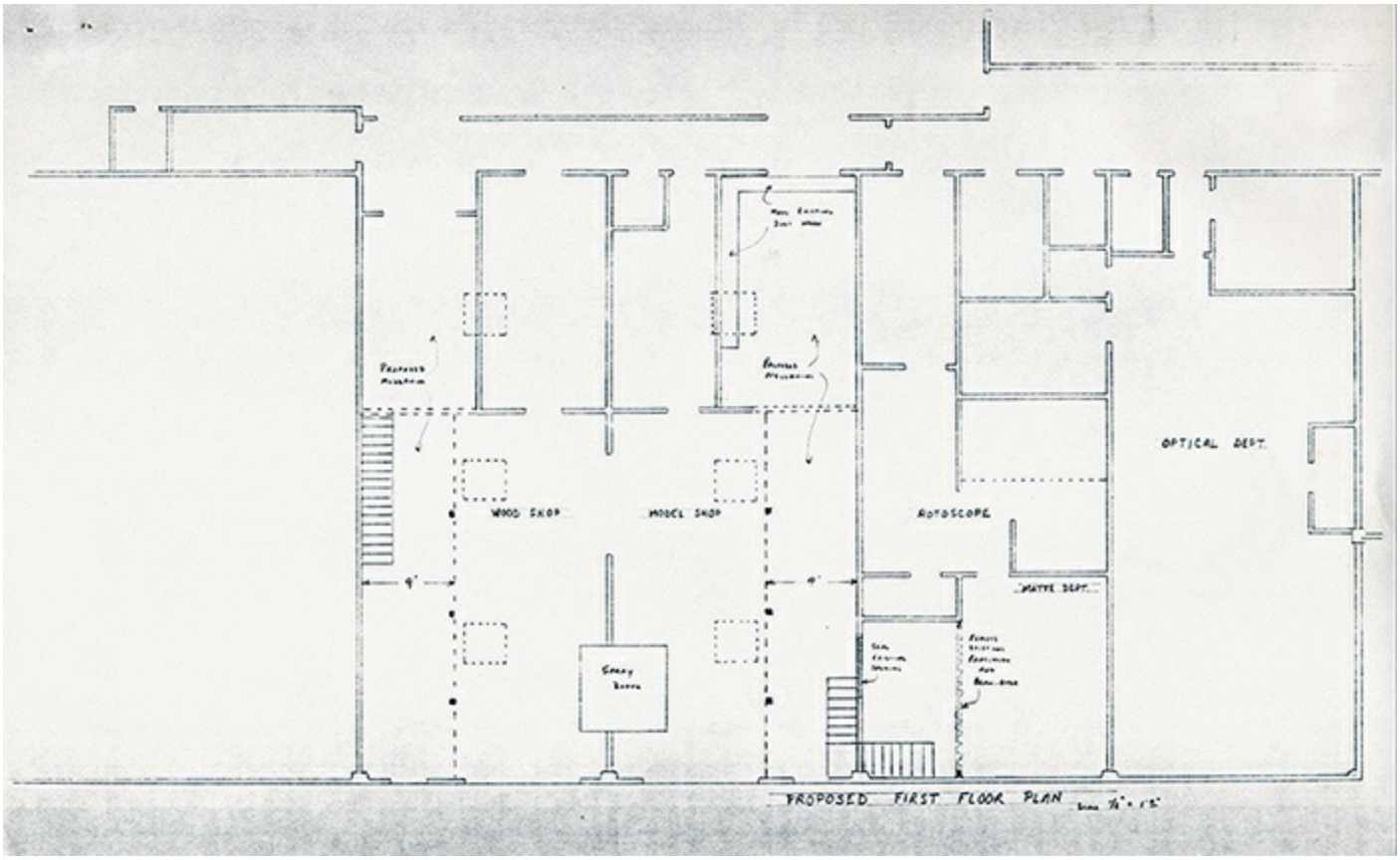
"When we arrived, the ILM building was still under construction," Muren says. "Walls were being set, equipment was being shipped up from Los Angeles, storyboards were being redone. There was no electricity in the building."

"We had to buy a lot of equipment that we needed to do our work," says Huston. "When I say 'we,' I mean Lorne was responsible for it. But Lorne's management technique was to involve people pretty heavily; he was very good at delegating lots of tasks."

"I spent months on the phone finding vendors up here, talking to contractors," says Peterson. "It seemed like my ear was growing into a cauliflower. It was basically an empty warehouse. No walls inside except for that little office area in the front. So me, Richard Edlund, and Dennis Muren actually laid out two-by-fours."

"All the equipment that George had retained ownership of had to be moved," says Nicholson. "So we had to take everything apart, all the equipment had to be dismantled and prepared for shipping, which was a big deal."

"We were trying to do it really cost-efficiently," says Steve Gawley. "So Richard Edlund and I would have help loading up the equipment in LA and then I would drive a truck up. Then I would fly back down and drive up another truck, fly down, and drive up another truck. George had a small production crew in one of our bays working on *More American Graffiti*, and we were gonna occupy half of the building."



An architect's drawing for the "Proposed First Floor Plan" of Industrial Light & Magic's new home in San Rafael, California.



An ILMer took a photo of his truck and the onramp to California's Highway 5—a very long and straight stretch of road from LA leading north.



The exterior of ILM on Kerner Blvd, San Rafael (the words “Kerner Optical” had just been added to the front door).



The first floor and mezzanine take shape as work progresses in the model shop (the rotoscope and optical departments are in the rear).

KING TAUNTAUN

As it was on *Star Wars*, the model shop had to be the first department to create practical elements for the film's visual effects, given that the camera department would have very little to film without the miniatures. The most significant miniature development in August was a change for the tauntaun. "Phil came along and said, 'This isn't going to work,' " Johnston notes. "As long as Phil was building and animating it, we felt that he might as well design it."

"Both Joe and I did sketches for the tauntaun," McQuarrie says. "Joe gave it a bird-like quality. But both of us left it at that point and Phil Tippett took over. He was the one who actually did the model work on the creature."

"It was Lucas's decision to have something more original looking than a guy fitted into a suit," says Tippett. "The final consideration was to get something that looked like a thing unto itself, rather than an object that looked dead or artificial. And the only way to do it was with a small model: stop-motion and motion-control combined. It was a big help to be able to build and animate a creature of my own design, one I could live and work with for a year.

"Our roles expanded quite a bit with *Empire*," Tippett adds. "For the first time probably since *King Kong* [1933], stop-motion animation was actually being used in a big-budget motion picture. Previously, it'd been displaced to the gulag of low-budget fantasy pictures, which Ray Harryhausen had pretty much kept alive during the '50s and the '60s. But now George was going into that territory—and he was upping the production value, bringing his cinematic expertise and design to it. He was very well read and studied in the history of visual effects and knew what you could get."

The tauntaun joined the walkers as responsibilities for the fledgling stop-motion department, which, as yet, had no walls and only an old camera—the Dykstraflex, which had been built for the first film and was still in mothballs. "The task of delivering *Empire* in two years just seemed insurmountable," says Muren. "With all the other stuff we had to do, I figured there's no way we could ever get the show done in time."

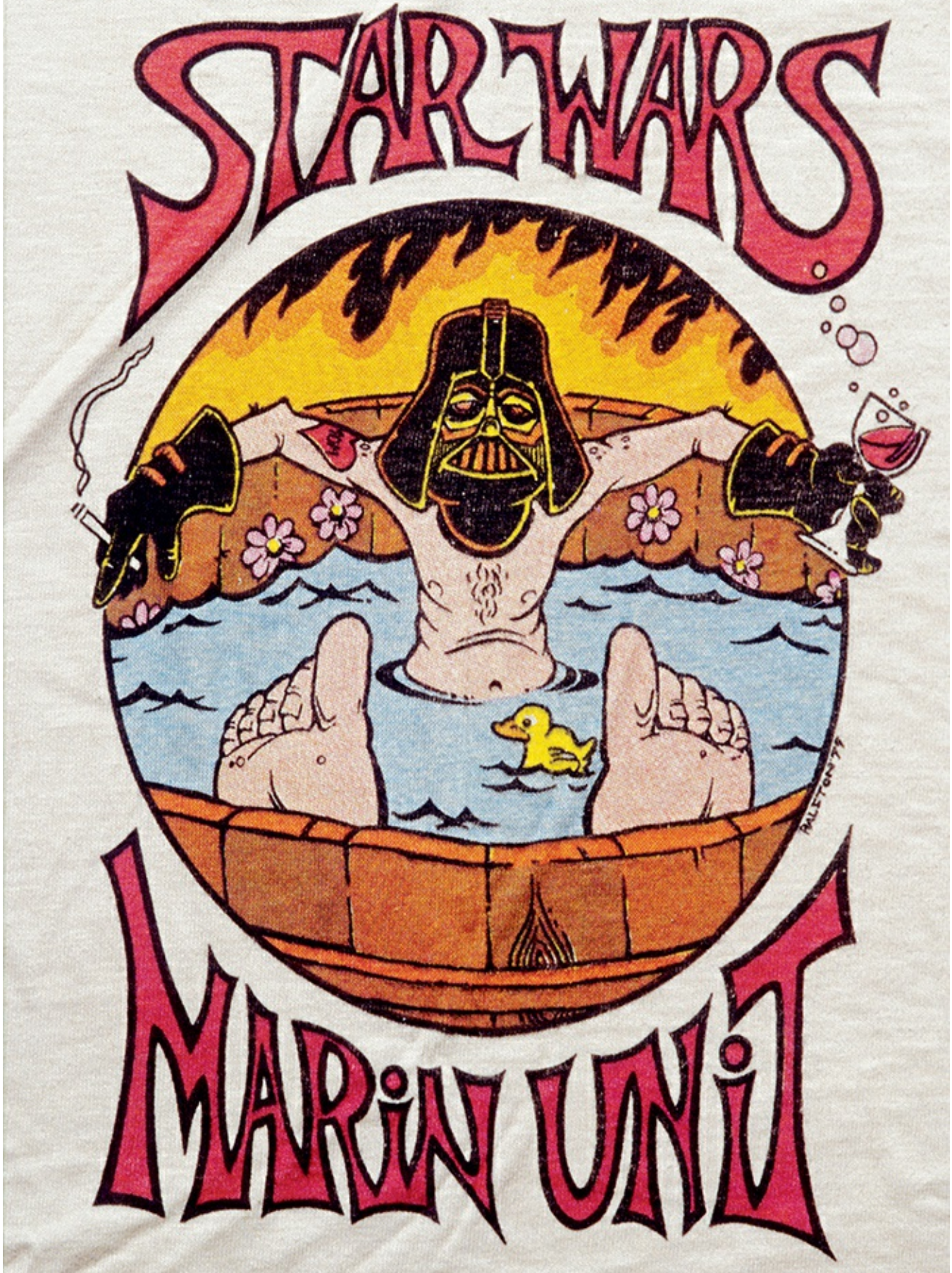
Chief model maker Peterson agreed: "It seemed like a very, very difficult task."



Outside one of the bays, Lucas lends a hand and a hammer to the construction of ILM (with Richard Edlund on the left).



Inside the bay, Lucas talks with supervising stage technician Ted Moehnke. ILM didn't always have time to get permits as preproduction revved up. Once when word came that a building inspector would be arriving the following morning, an ILM crew stayed up all night constructing a fake wall (which they decorated, too) to hide some construction behind it (presumably, a permit was later obtained when time became more abundant).


STAR WARS
MARIN UNIT
RALSTON 77

A T-shirt illustration by Ken Ralston celebrated ILM's new Marin County location—and its reputation for laid-back hot-tub living.



Chief model maker Lorne Peterson on the phone looking for material and personnel (a familiar sight those first few months).



Johnston holds a ringed booklet of storyboards.

THE ROAD TO OZ

In early August, Kasdan delivered his rewrite, the third draft. McQuarrie read it on August 10 and, on August 18, Kershner traveled to San Anselmo from LA for a script meeting with Lucas and the screenwriter (Kershner was reimbursed $123.08 for his expenses).

"I was handed the Kasdan script to break down into the number of days shooting and what was going to be a special effect," says Kazanjian. "And then of course George put in his two cents on that script, too. But probably, in the real world, if it had gone to the Writers Guild for arbitration, I don't think Leigh Brackett would've gotten a story credit. I said that to George and he said, you know, from his heart he felt she should get a co-writing credit on it, so he gave that to her."

"I didn't like the first script, but I gave Leigh credit because I liked her a lot," Lucas says. "She was sick at the time she wrote it and she really tried her best."

In general, Kasdan had tightened up the dialogue in some scenes and expanded it in others where the action had taken place too quickly for the characters to react. Much of the dialogue was brand-new and snapped with wit, particular Yoda's scenes and words, which are much more to the point, including, "Try not. Do."

"The philosophy of doing, putting your all into something, instead of just trying, is a philosophy that goes through all of my movies," says Lucas. "It's something I encountered first when I was in college where a lot of the students would give up. For me, it was all about making movies, even if it was something that was completely impossible. There was not even a remote consideration that it could actually happen—but I put my mind to it and never even considered any other possibility—and it was

through that that I eventually did manage to do the impossible."

In the asteroid cave, Kasdan amended Lucas's dialogue so that Han says to Leia, "I think you like me because I'm a scoundrel. I think you haven't run into enough scoundrels in your life." Overall, the Han–Leia love scenes are longer in the third draft. Several scenes are new or have been relocated, including one in which Vader has been moved from the deck of a Star Destroyer into his "private cubicle."

Addendums to the main script had new ideas. Insert "A" has Vader cutting "Luke's arm off at the elbow! Luke's forearm flies away in the wind as the boy himself almost goes over the edge … He wipes the tears and blood from his eyes, but still can barely focus on his massive opponent." Insert "C" comes at the very end of the story and explains, "Luke's lower left arm is exposed, revealing metal struts and electronic circuits, similar to Threepio."

While Yoda's words were honed, a solution to his practical physicality was beginning to be realized when Lucas spoke to his friend Jim Henson, creator of the Muppets. Henson's puppets had started their rise to fame mainly in the Washington, DC, area in a TV show called *Sam and Friends* (1955–1961), but they took off nationally in 1969 as part of *Sesame Street*, which became a giant PBS phenomenon. Henson had hired Frank Oz in 1963 to be one of his puppeteers, and the two of them were in New York and LA filming *The Muppet Movie* (1979) in the summer of 1978.

"The essential part of Yoda was to get the very best actor, the very best puppeteer, because I was obviously trying to make this a real character," says Lucas. "In England, while we were making the first film, we'd worked across the street from ITV, which is where Jim Henson's group was, and I got to know him. We were very much alike: independent, out of the spotlight, obsessed with our own films. And I really admired the Muppets. I thought he was the very best puppeteer, so I asked him if he thought we could get together and create a very realistic-looking puppet. He thought about it and said it was an exciting idea. But he was extremely busy working on another project, so he recommended his co-puppeteer/significant player in his organization: Frank Oz."

"Jim called me into his trailer when we were shooting *The Muppet Movie* and showed me a sketch of Yoda—and it felt right," says Oz. "Sometimes you have to work at something before you have that feeling, but this felt really good. Jim asked if I was interested and said he would be talking to Gary Kurtz. Months after my first talk with Jim, we met with Gary for the first time, along with a few other people from our workshop."

"So we rejected the monkey idea and the marionette idea," says Kurtz. "We then decided on the hand-puppet idea and I met with Jim Henson very early on, showed him pictures and the concept. He liked the idea and wanted to cooperate. I met with him again in New York and then met Frank Oz, who he suggested as his best Muppeteer. We experimented in New York and took the measurements of Frank's hand. We went into great detail on the way they operated, and they also showed me some characters they were developing for another film that they're going to do in the future. It became a mutual thing, because they needed some advice on their film and we needed their expertise in the puppet area."

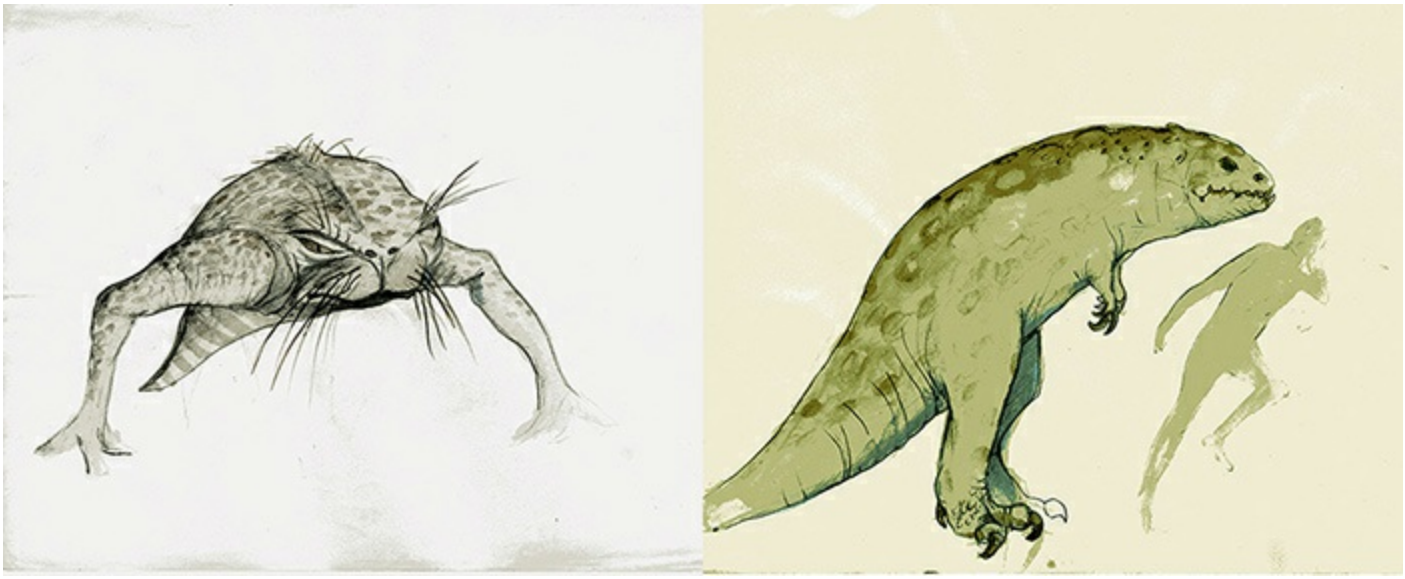
"Early on, we had the sketches of the puppet," says Lucas. "Frank came in as soon as we started building the puppet and he helped technically evolve the puppet in a way he would really be able to act with it."

In Henson's troupe, Oz had brought to life, among many others, the Cookie Monster and Miss Piggy, but Lucas was counting on him to provide the puppeteering only, not the voice. As he had for Darth Vader on *Star Wars*, Lucas planned to hire an actor in post to dub Yoda's lines. But Oz signed on because

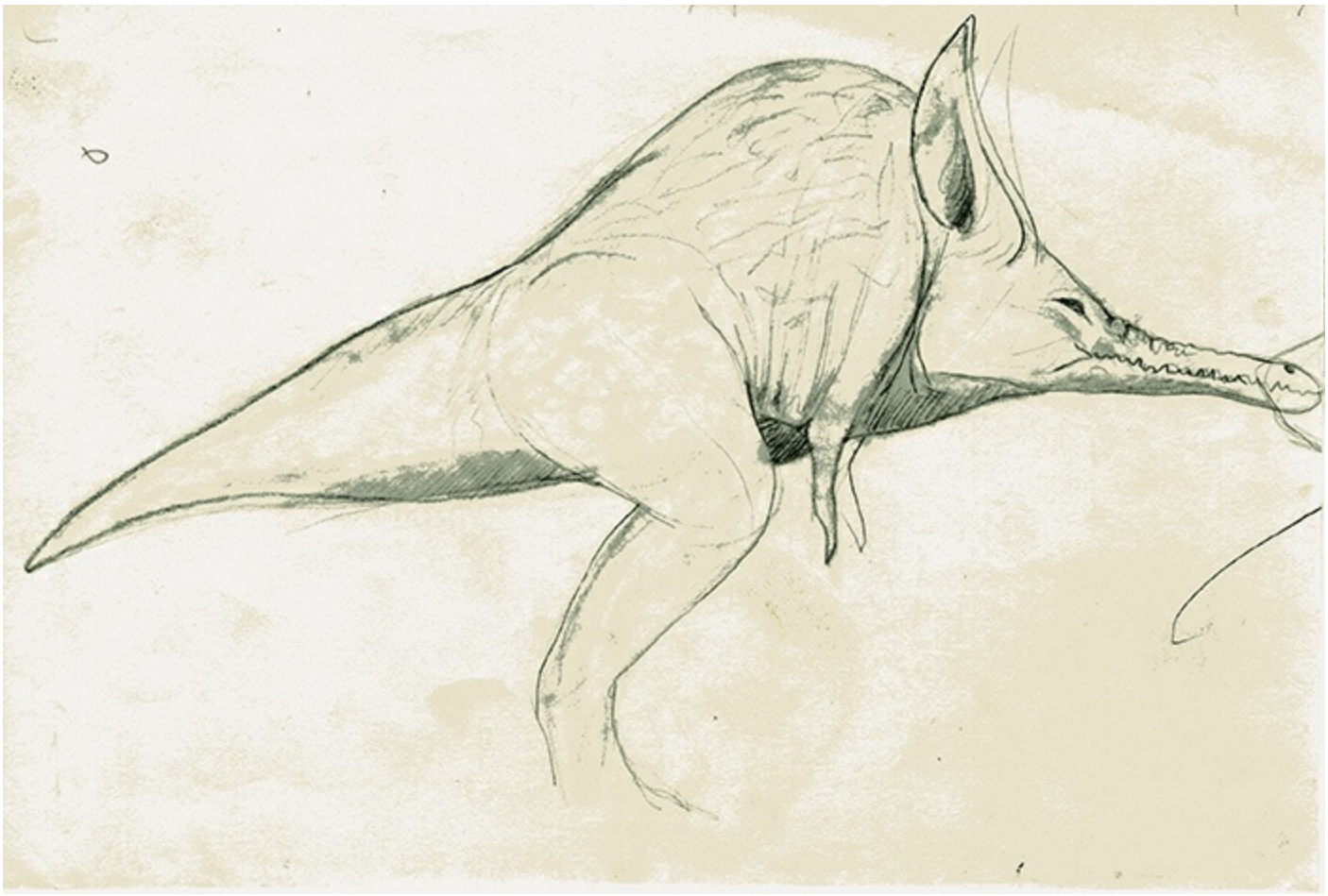
he wanted to learn how Lucas and his department heads made movies, essentially doing insider research for what would become Henson Associates' *The Dark Crystal* (1982). For that film and *Empire*, something far beyond a Muppet was envisioned, a new kind of mechanical puppet.

"I wanted control of the face, the emotions, the body," says Kershner. "That meant a combination of gadgetry that made each thing controllable, so we could make it come alive. That's all we knew. We still had no idea how."

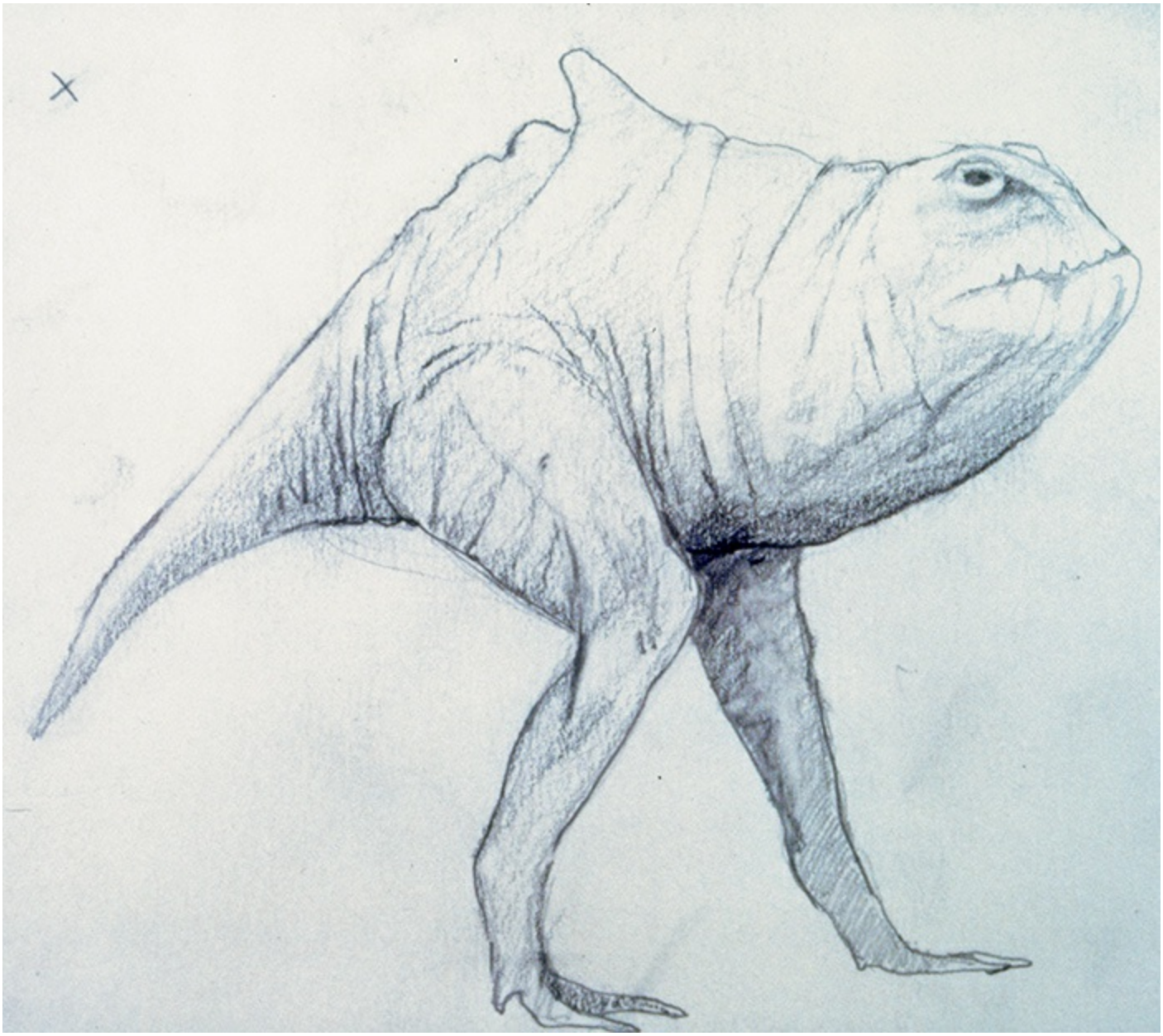
Brian Johnson noted: "Yoda is going to require a lot of hard work, I think, to become believable."



Tauntaun concept by stop-motion animator (and sculptor) Phil Tippett, August 1978.



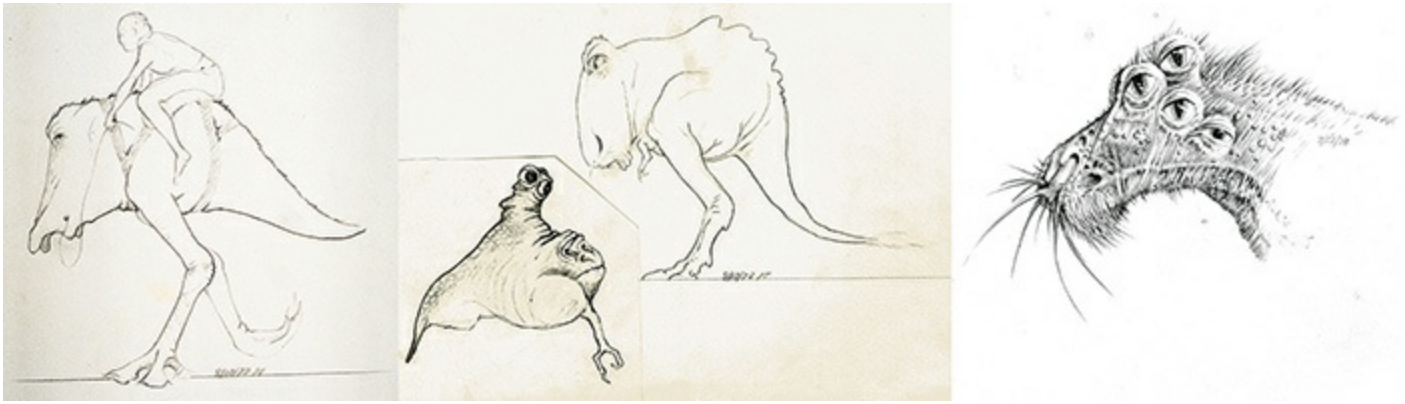
Tauntaun concept by Tippett, August 1978.



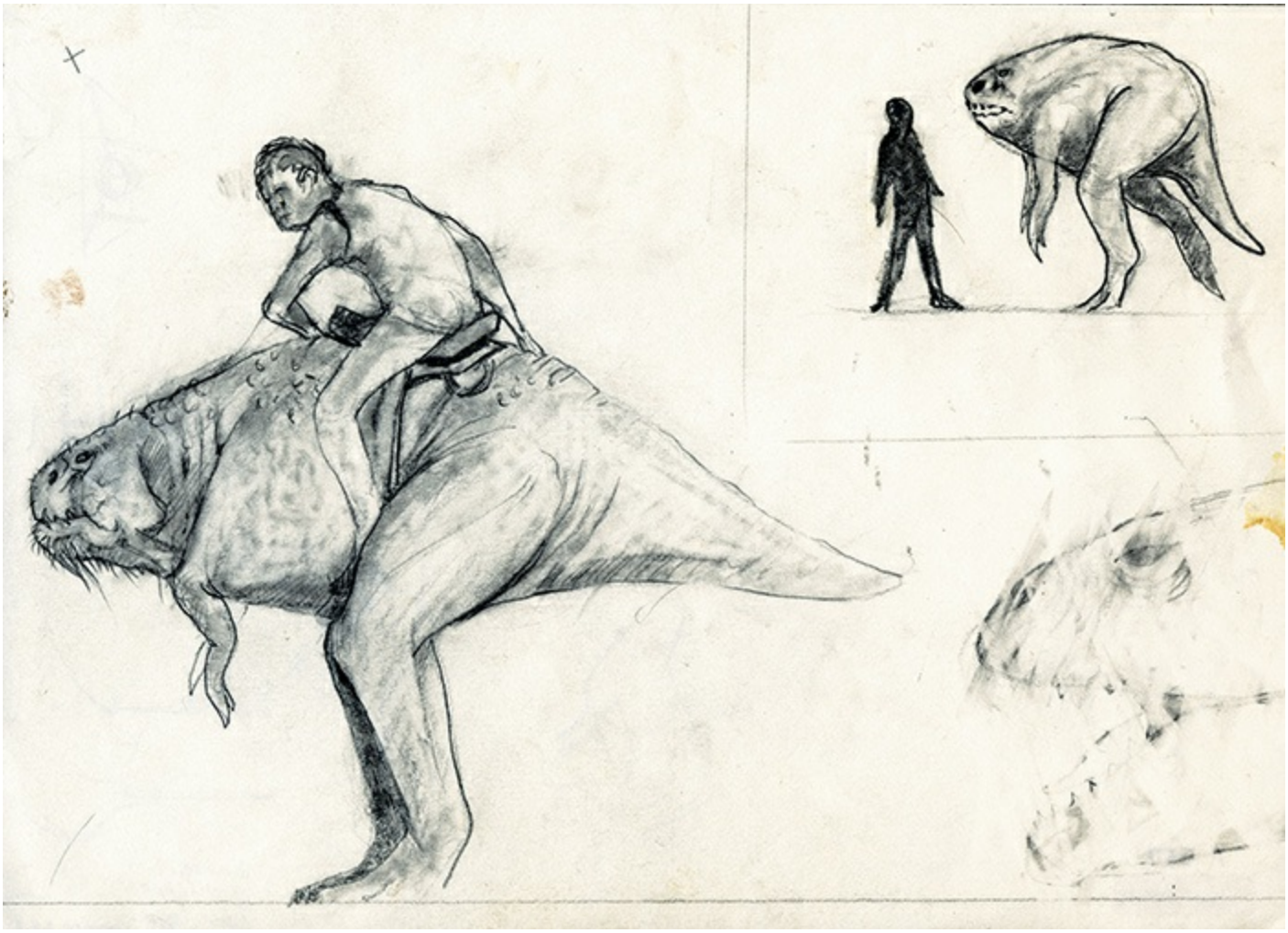
Tauntaun concept by Tippett, August 1978.



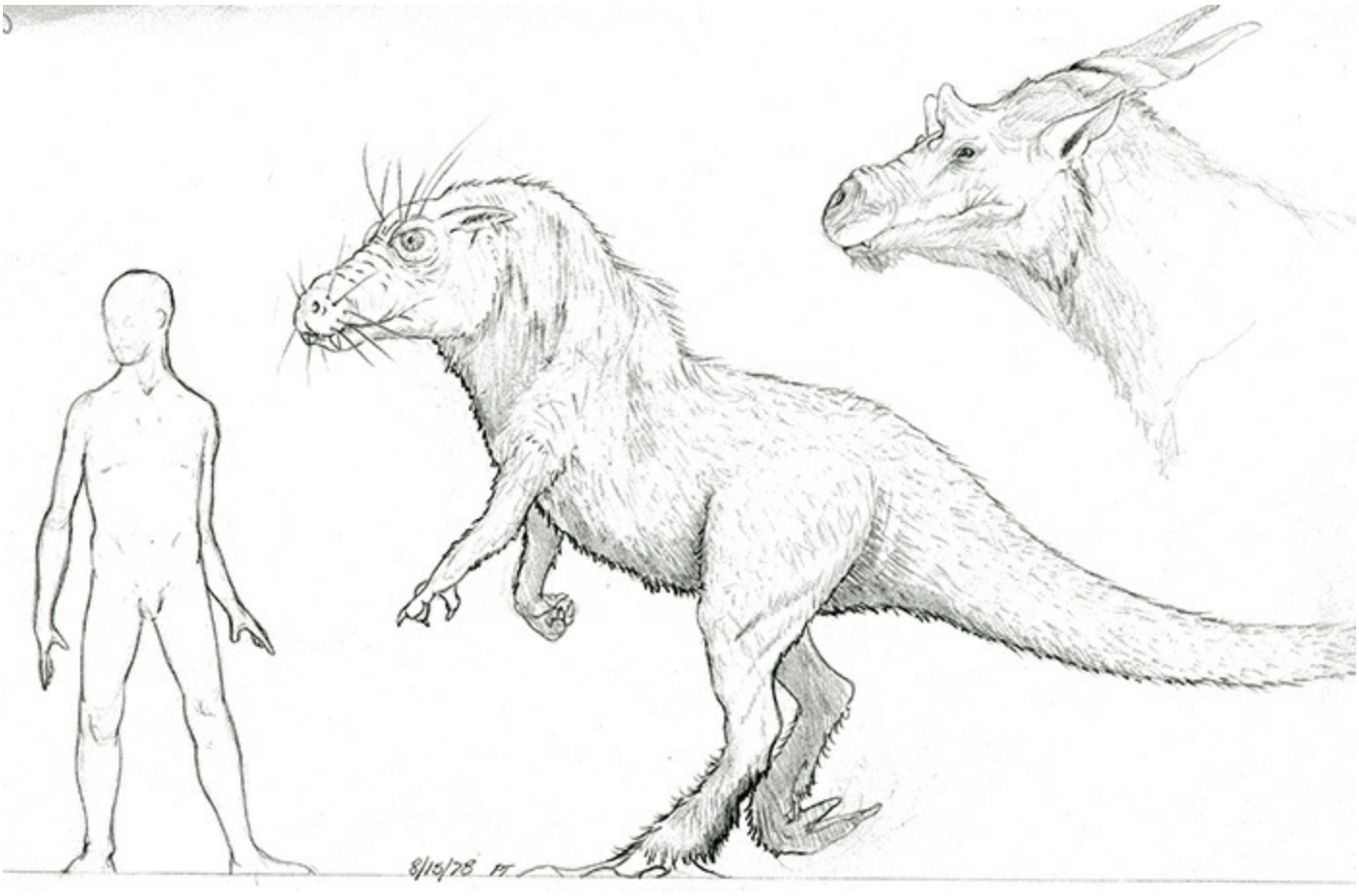
Tauntaun concept by Tippett, August 1978.



Tauntaun and rider concept by Tippett, August 1978.



Tauntaun and rider concept by Tippett, August 1978.

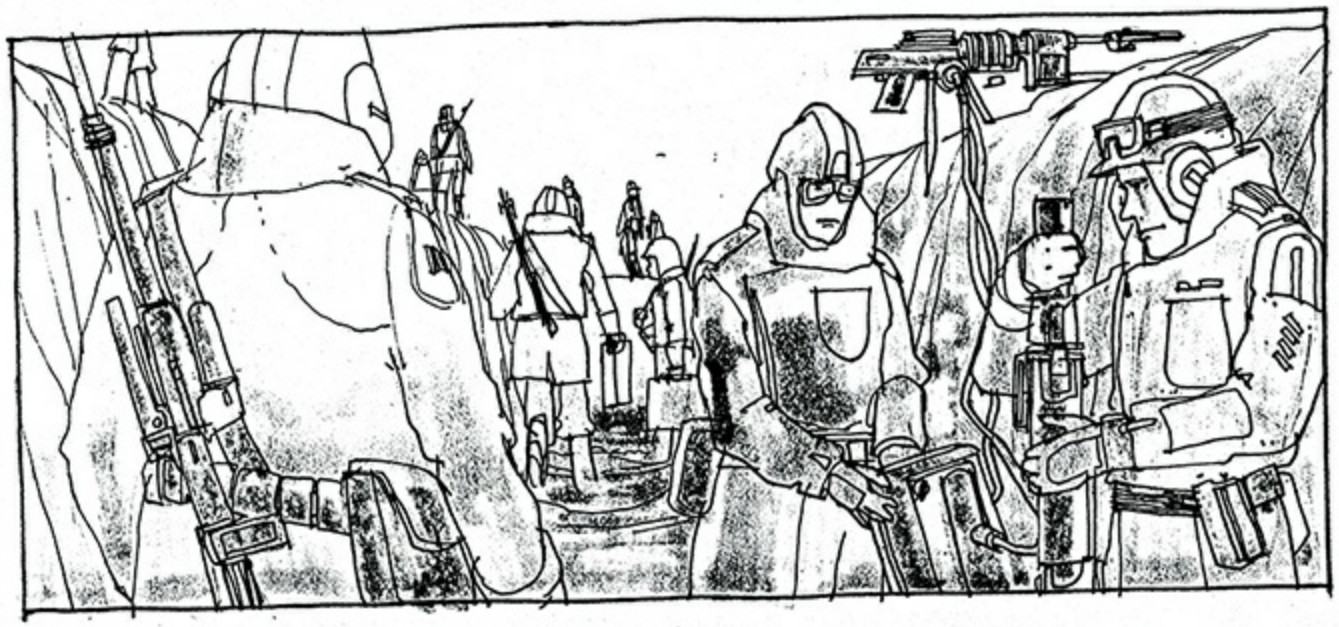


Tauntaun and rider concept by Tippett, August 1978.

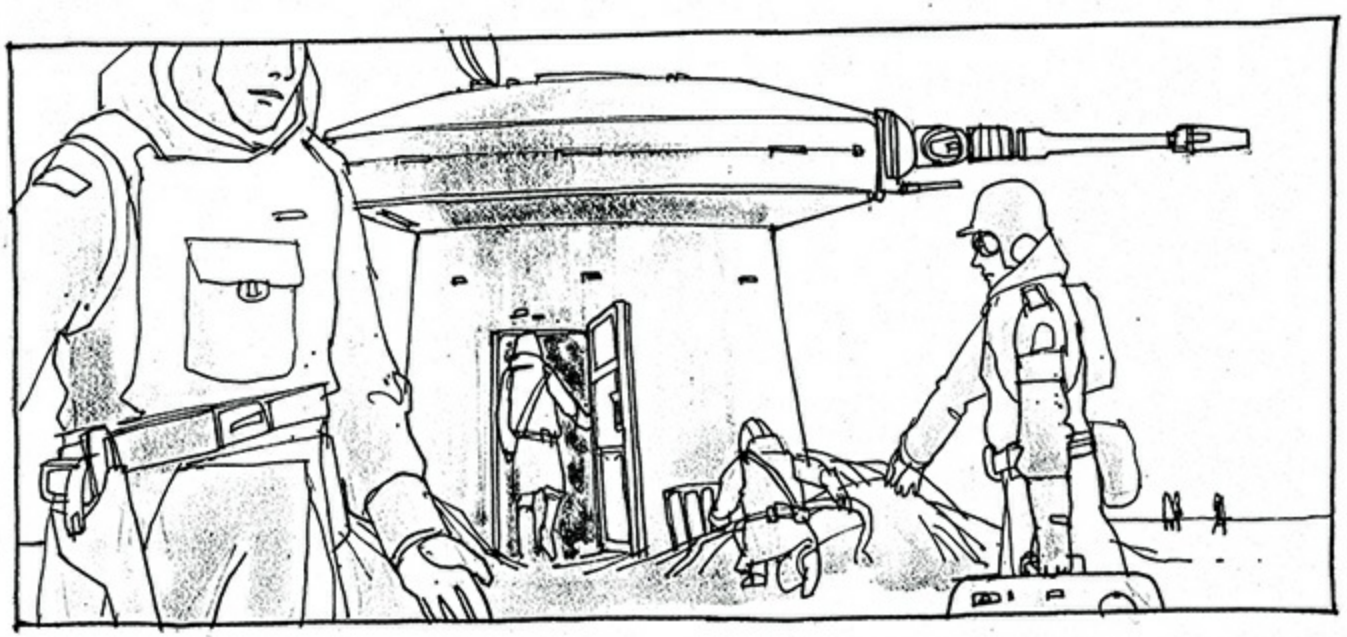


Tauntaun and rider concept by Tippett, August 1978, which shows how a man might be incorporated into the taun costume (the idea was still being championed by production in England).

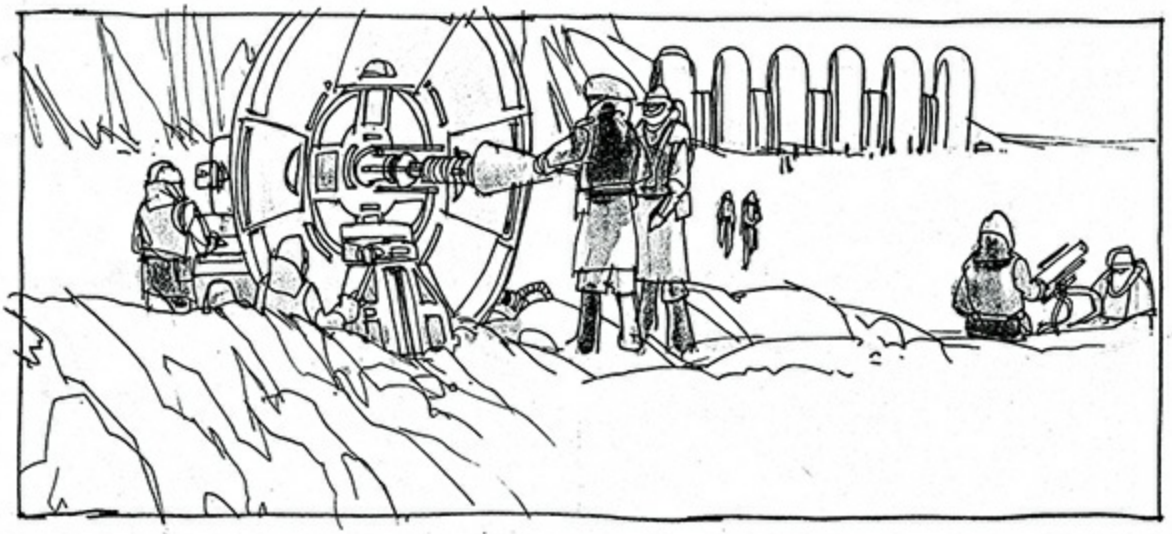
Early storyboards of the battle on Hoth (including the death of General Veers) by Johnston, summer 1978.



1 MED. SHOT - Rebel troops carry heavy bazooka-type weapons into position along a snow trench. Men rush about as officers yell orders and brace themselves against the rhythmic gusts of wind. (PV) 1-L 1



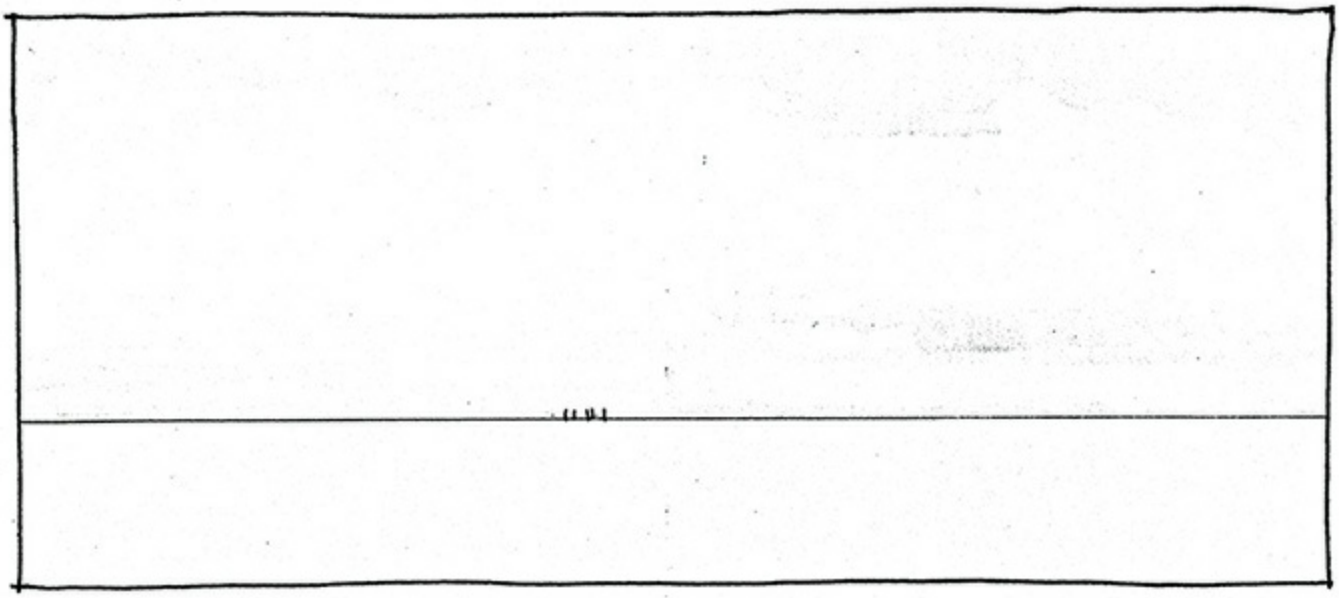
2 MED. SHOT - Rebel troops load power packs into a gun turret, and swing its guns into position. (PV) 1-L 2



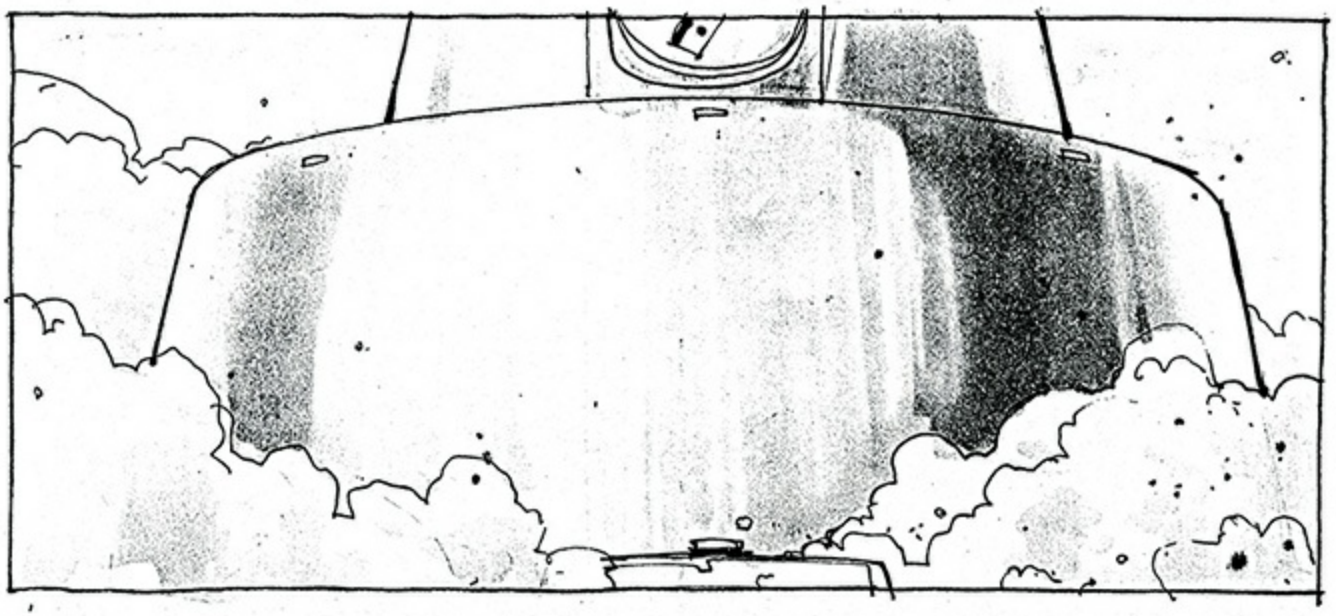
3 MED. SHOT - Rebel troops move a dish-like ray gun into position. The huge main power generator can be seen in the BG against the ice cliffs. (VV) 3
1-L, 3-M



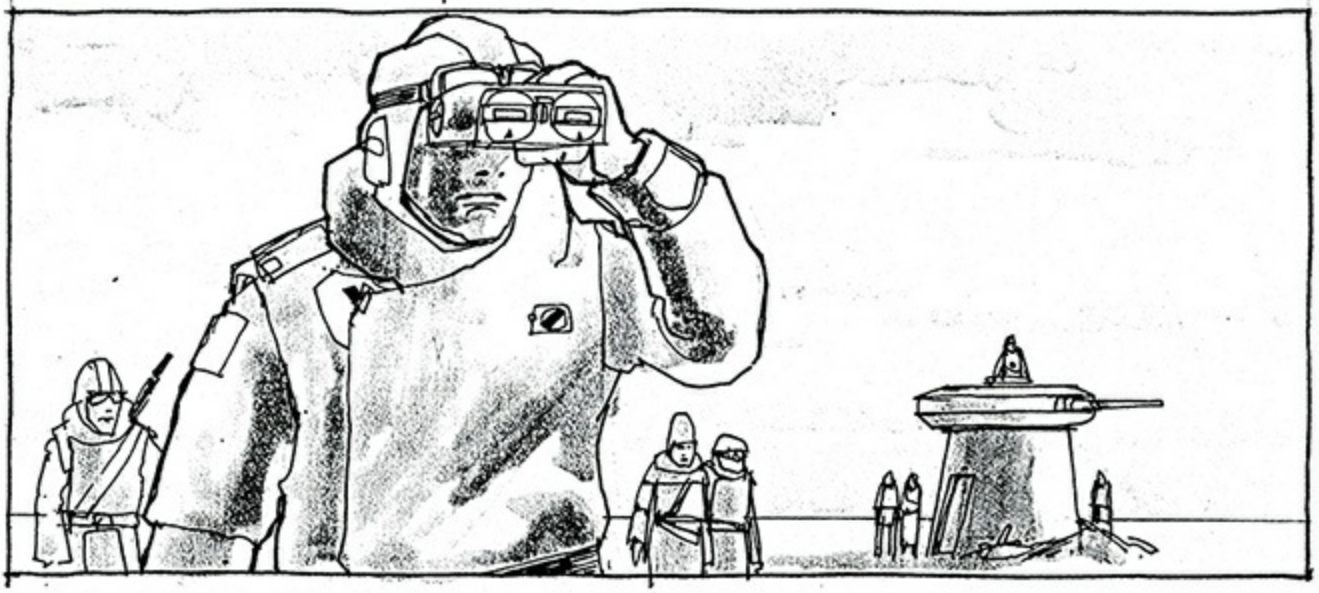
4 MED. SHOT of generator, as men scurry about in the foreground carrying equipment. The loud buzz and popping of the generator is deafening. Long fingers of energy fly off the huge cores every so often. One trooper moves into the foreground as he hears something but can't quite make out what it is. (VV) 4
1-LB, 3-M



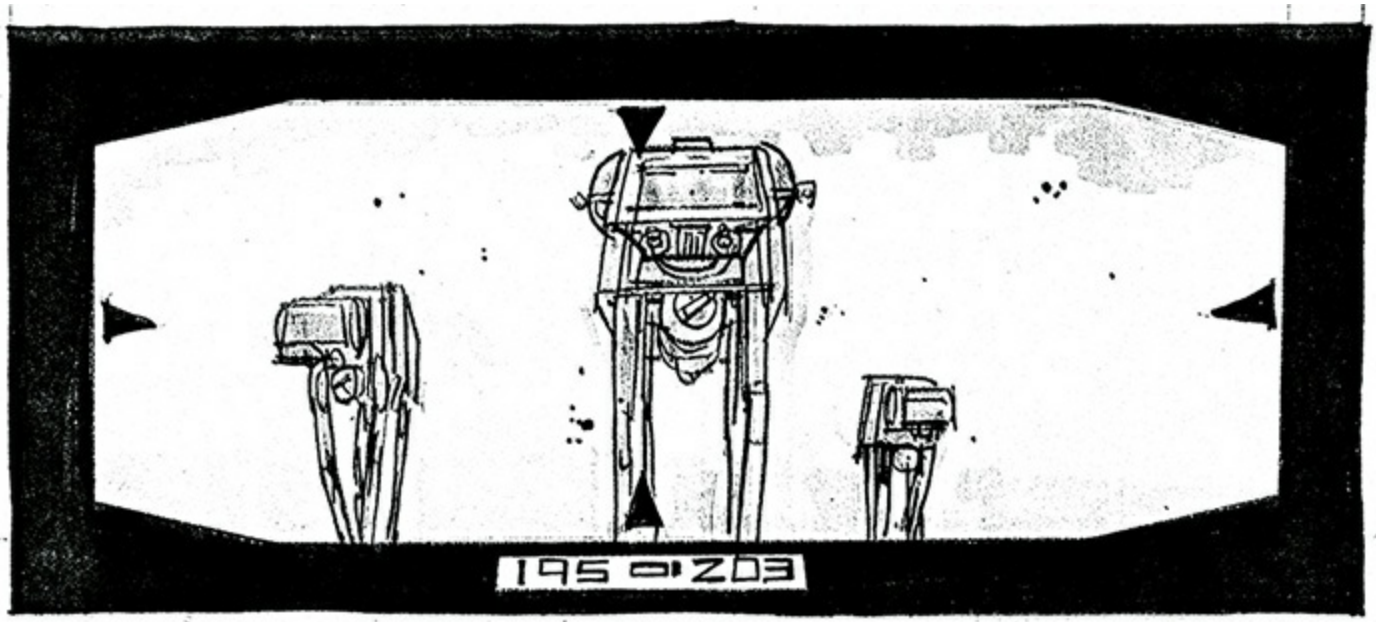
6 WIDE SHOT - A thin horizon line cuts across the bleak landscape. Small dot-sized objects begin to appear on the horizon: the wind begins to pick up. 1-LP, 3-A 6



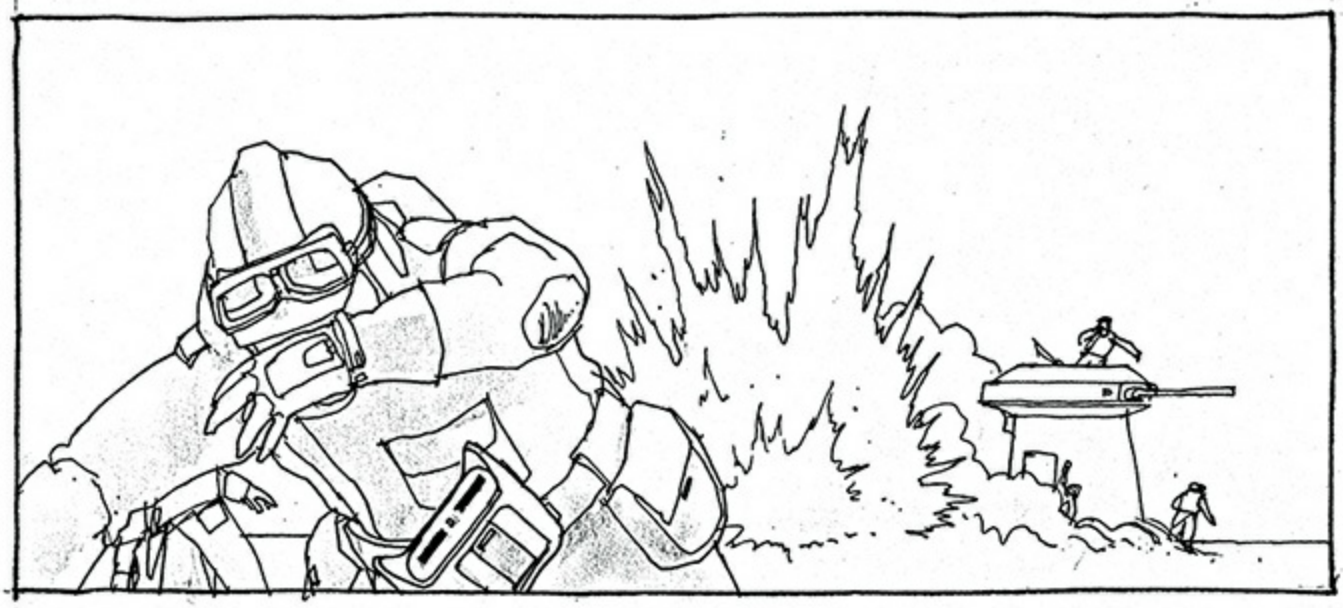
7 7 EXTREME CU - The giant foot of an Imperial snow walker crashes thru frame, kicking up snow and ice. It rises out of frame. (VV) 1-SX 7



8 MED. SHOT (camera position C) - The rebel officer lifts a pair of electro-binoculars to his eyes. 8
1-L

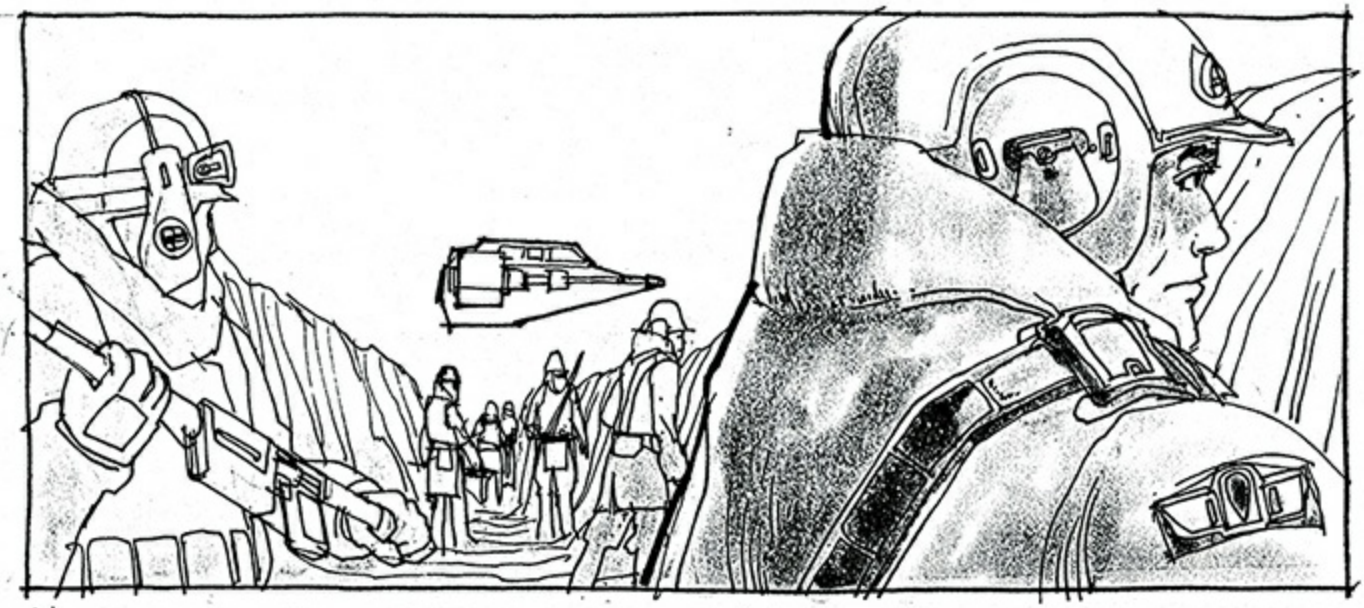


9 ELECTRO-BINOCULAR POV of very close view on a giant walker, the view ZOOMS back to reveal a full shot of three approaching walkers. Small flashes appear around the guns of the lumbering monsters. (VV) Video 1-A, 3-SX 9

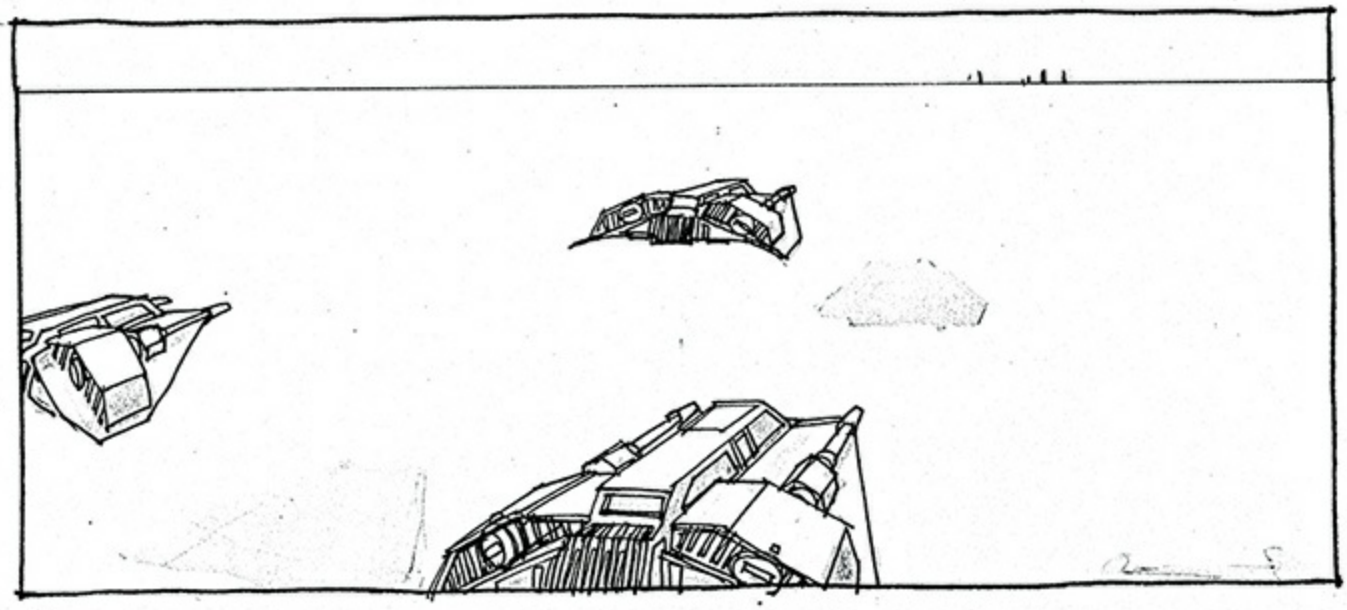


10

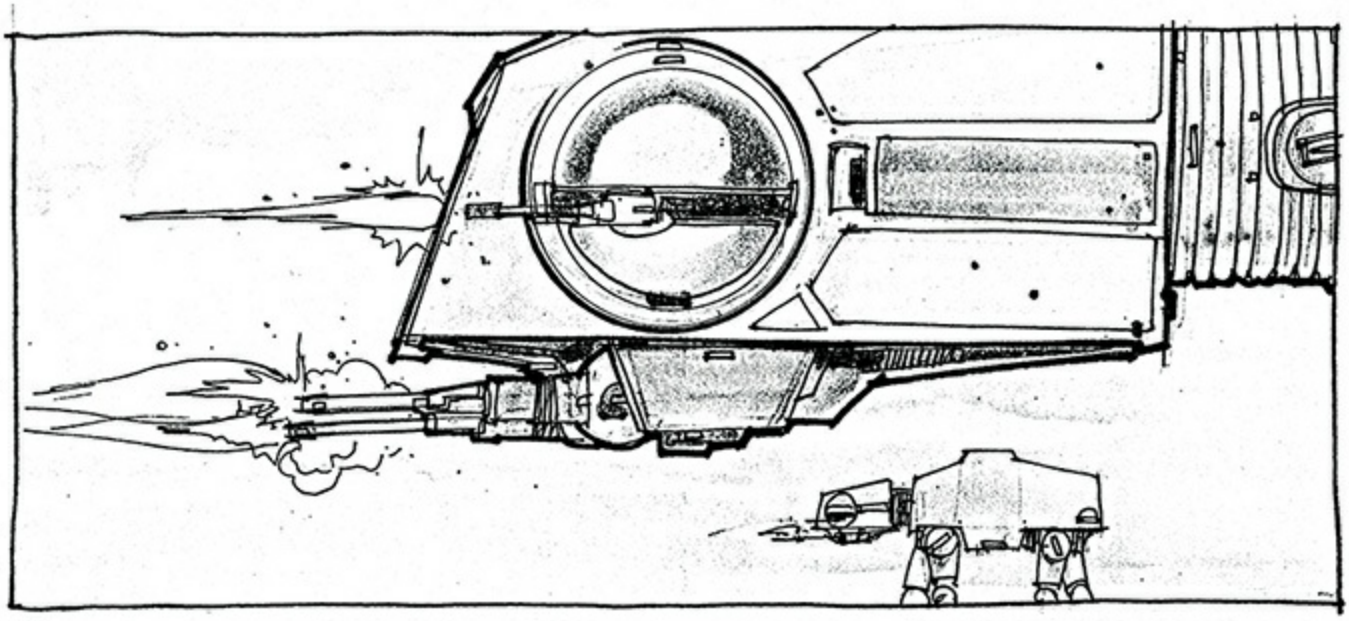
The ice and snow explode around the officer and his men. (PV)
1-L



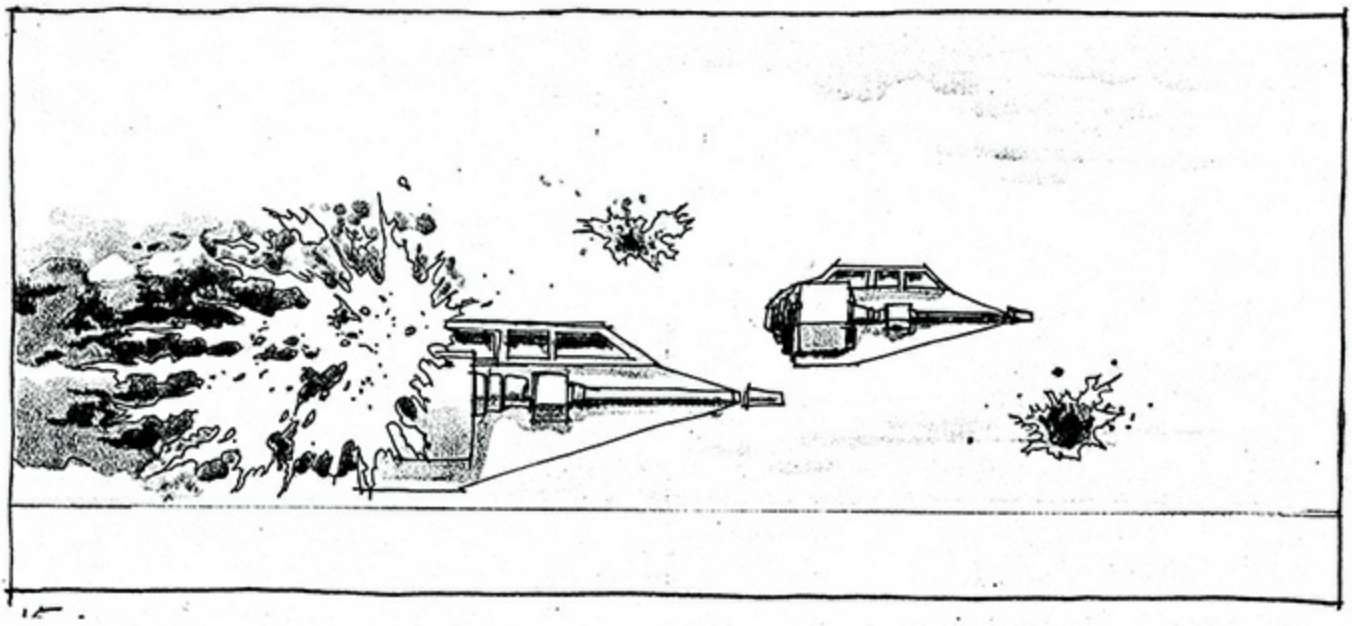
11 11 MED. SIDE ANGLE (cam. pos. A) - The rebel troops aim their weapons at the horizon as explosions erupt all around them. They are nervous, and tighten their weapons from the cold or fear. Behind the troops a dozen speeders race screen left to right. (VV) 11
1-LB, 3-SX



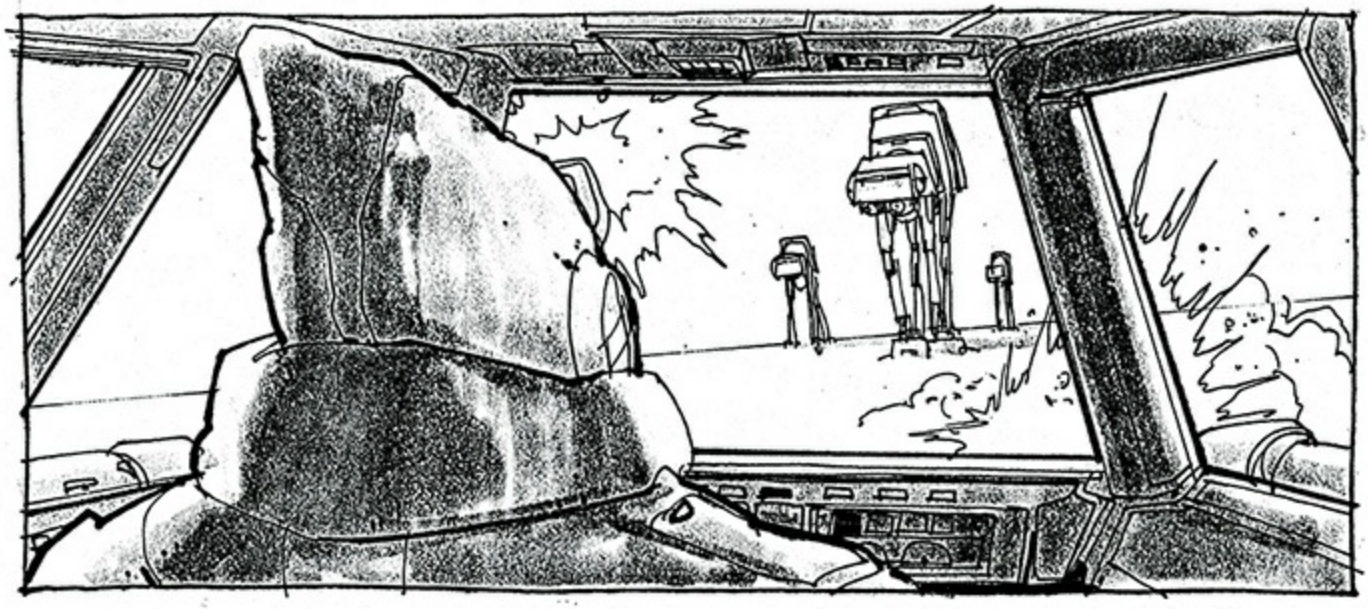
13 HIGH ANGLE - Trucking with speeders as they accelerate away from camera toward the distant walkers. 13
1-SX, 2-A, 3-LP (Helicopter)



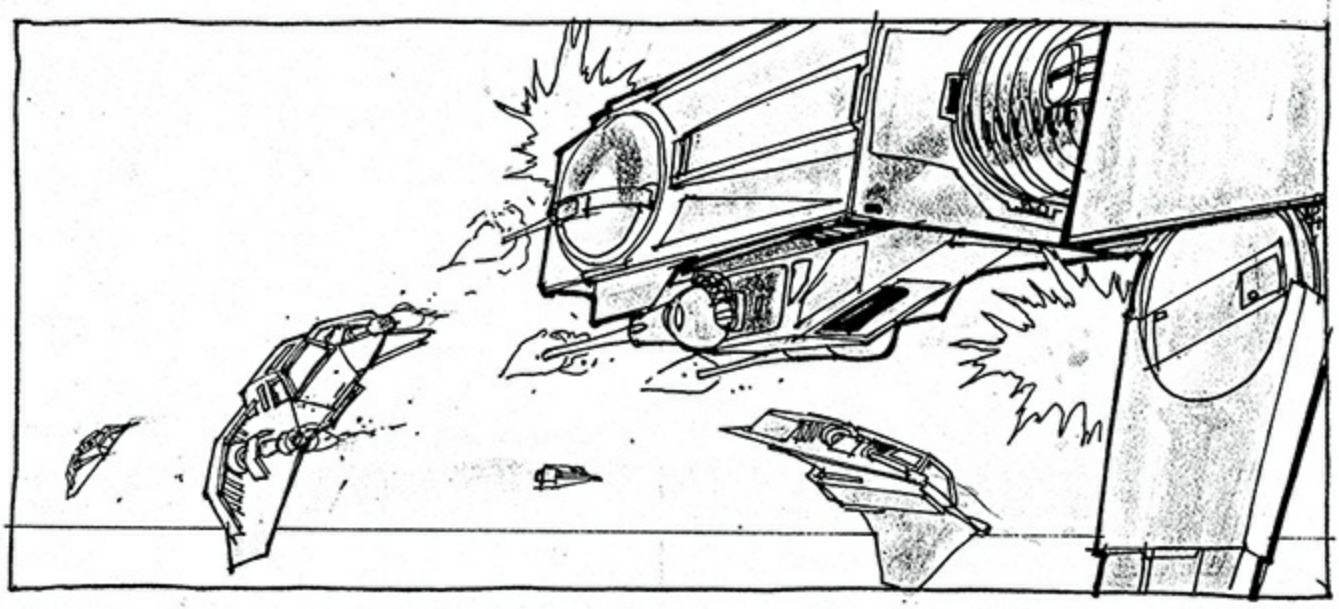
14 MED. CU - Walker head fires at speeders. Second walker in BG. Moving R to L. 14
1-SX



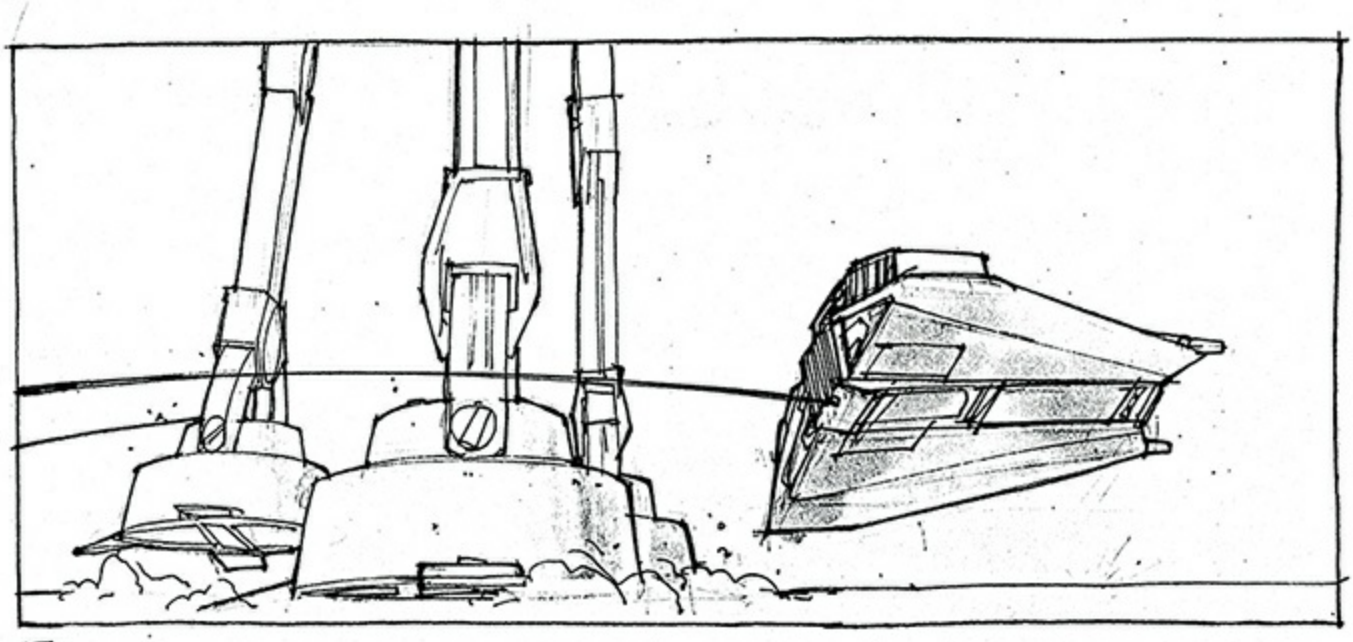
15 MED. FULL SHOT - Two speeders going L to R across ice plain. The one in the foreground explodes in a ball of flames. Camera trucking with ships. (VV) 1-SX 15



16 INT. SPEEDER OVER-SHOULDER - Pilot (Luke) works his controls as he fires at the approaching walkers. The monstrous machines fire back, shaking the speeder in a hail of flak. (VV) 1-LB, 3-SX 16

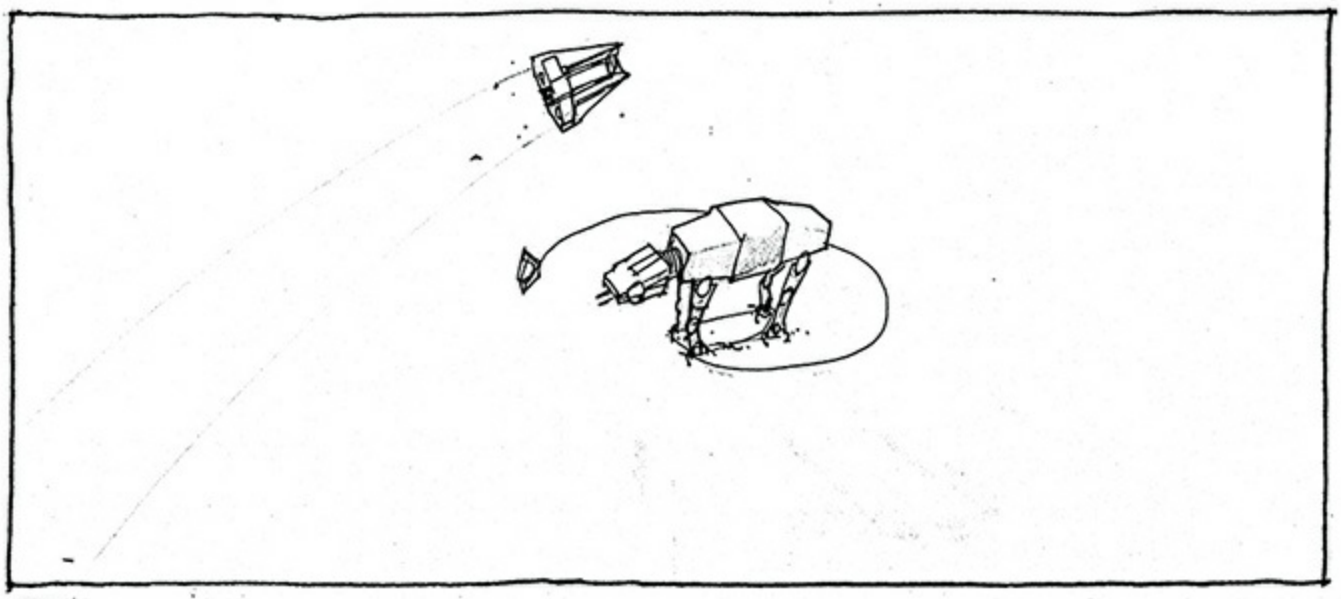


17 MED. SHOT - Side view looking forward along head of walker as three speeders race toward it, split and fly past. One speeder on the far side of the head, the other to camera. A fourth speeder can be seen in the BG. 17
1-SX

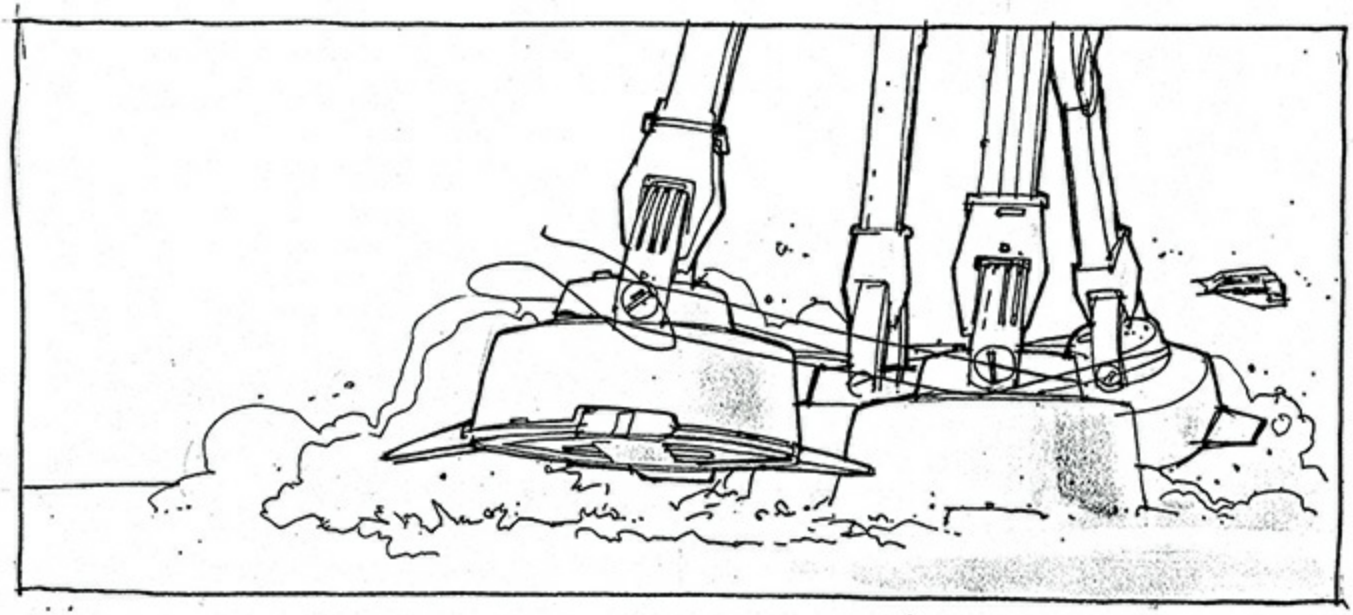


5-

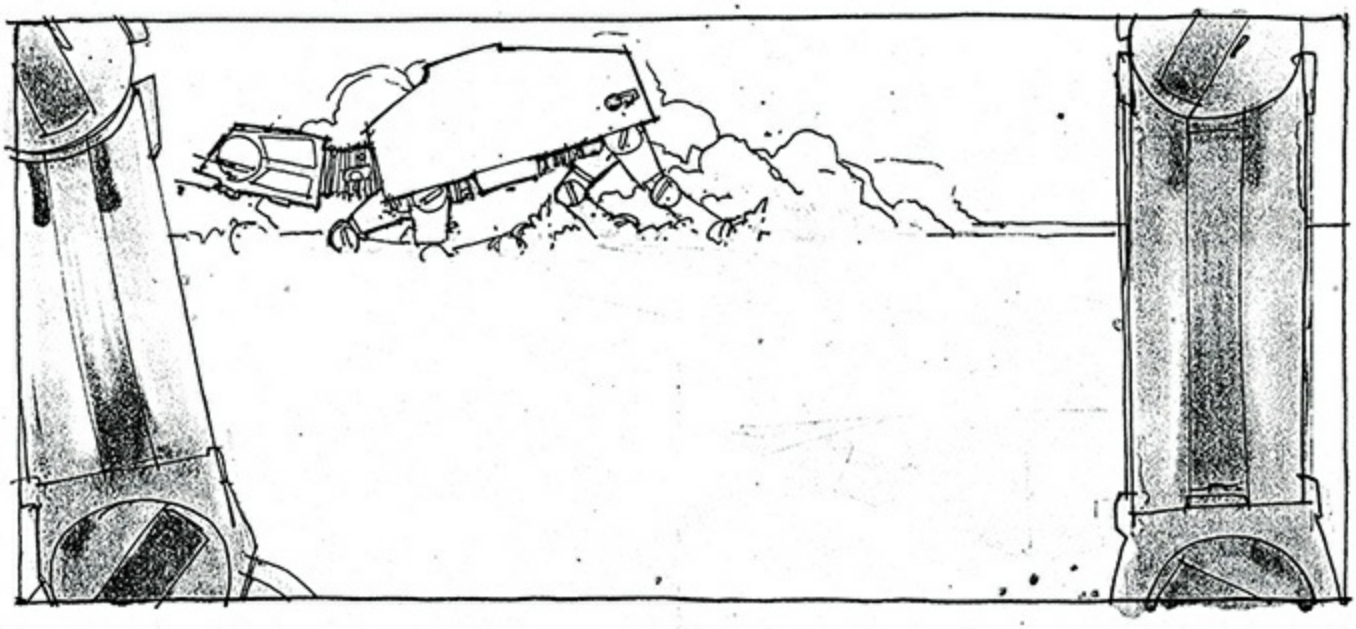
52 FULL SHOT SPEEDER as it races L to R around one of the giant walker feet, trailing the cable behind it. The speeder continues around the back foot going R to L. Truck with the walker. 52
1-SX



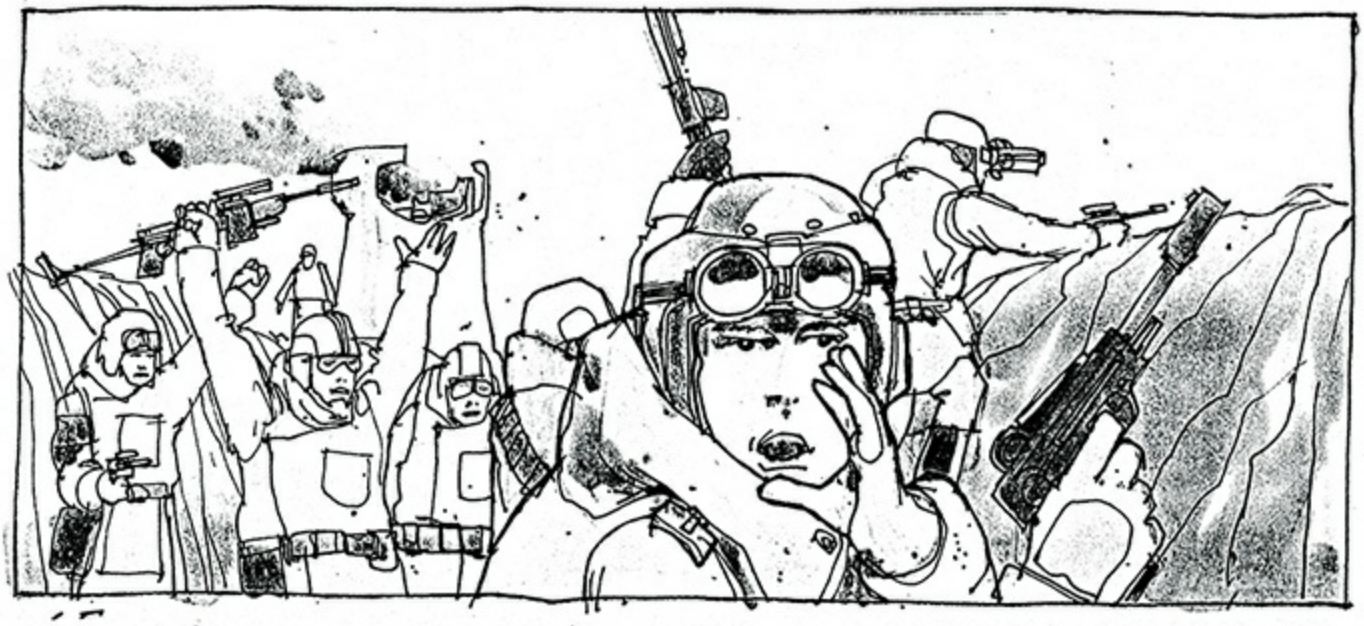
53 HIGH OVERHEAD MOVING SHOT of speeder as it circles the walker moving around the tail end. A second speeder passes in the foreground with the cable in tow. 1-SX 53



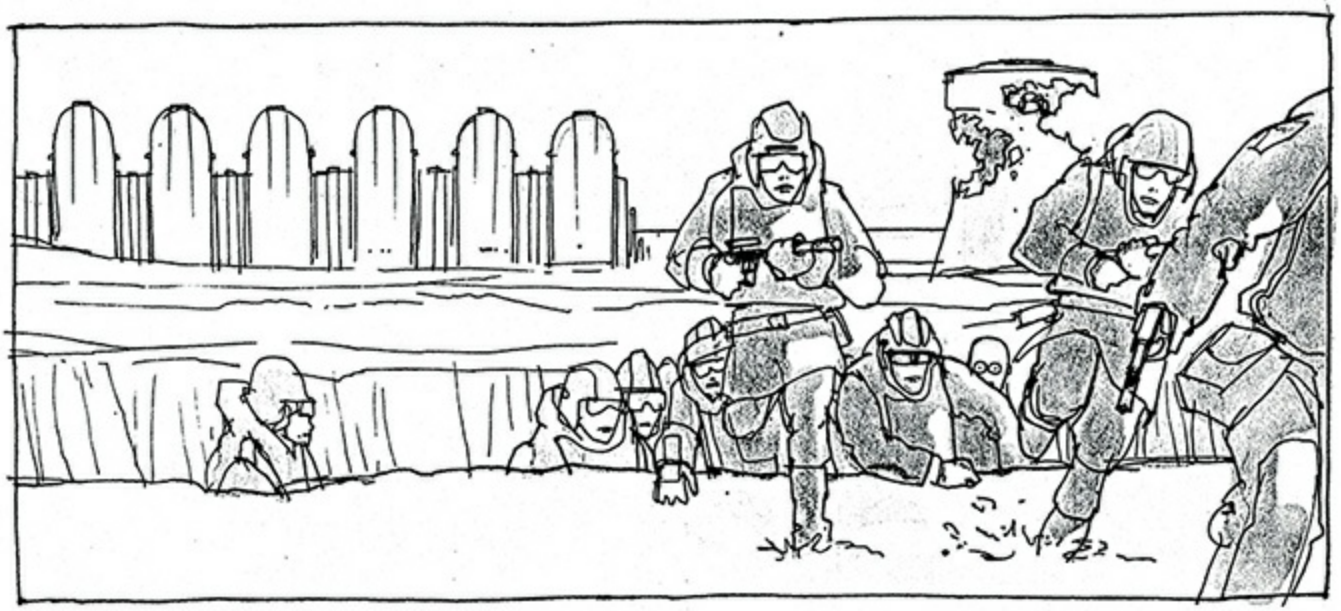
61 MED. SHOT of the tangled walker's legs and feet coming to camera. The monster begins to stumble. 1-SX 61



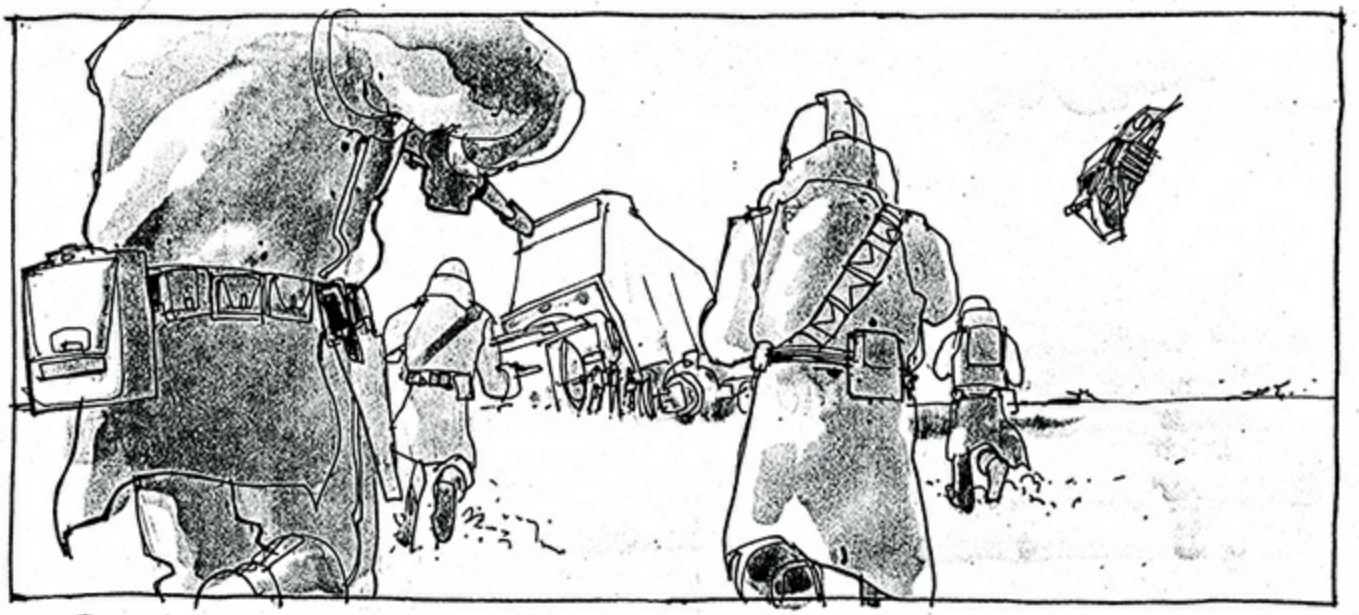
62 EXTREME LONG SHOT OF WALKER thru the legs of a fore- 62
ground walker. The giant Imperial assault machine
stumbles and starts to fall to the ground. Side angle
moving R to L.
1-SX, 3-SX



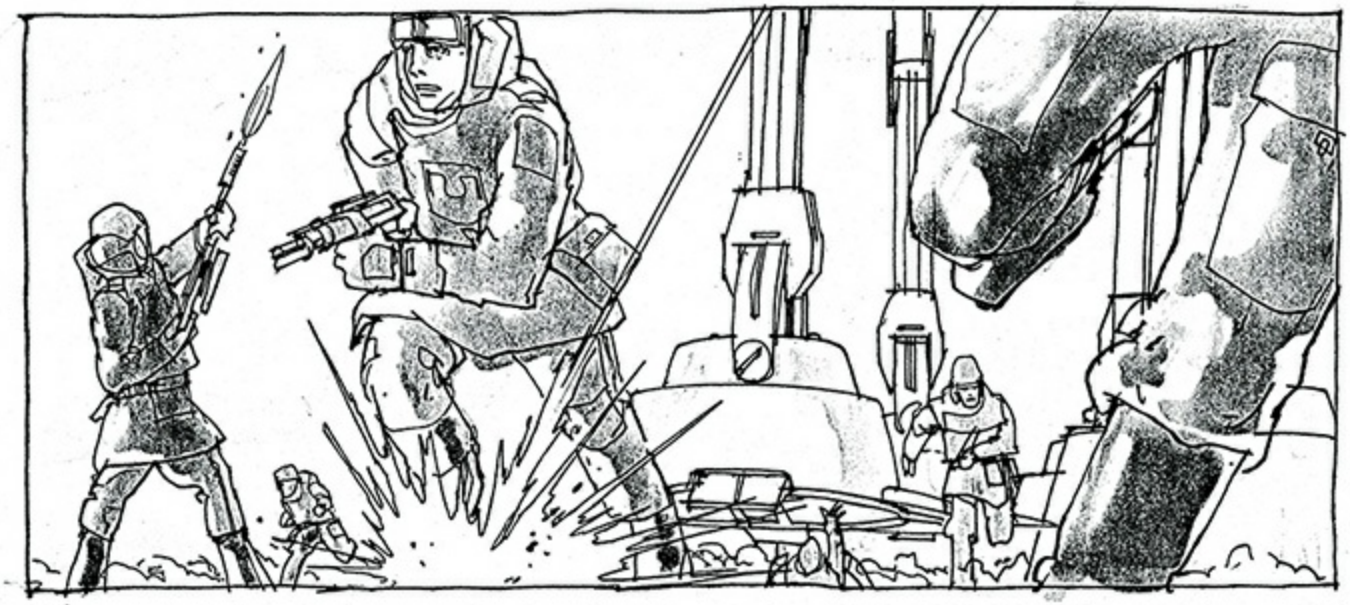
65 MED. SHOT OF TROOPS in the trenches cheering at the 65
fallen walker. A damaged gun turret smolders in the
BG. An officer gives a signal in the foreground and
the rebel troops charge the fallen walker moving L to R.
1-L



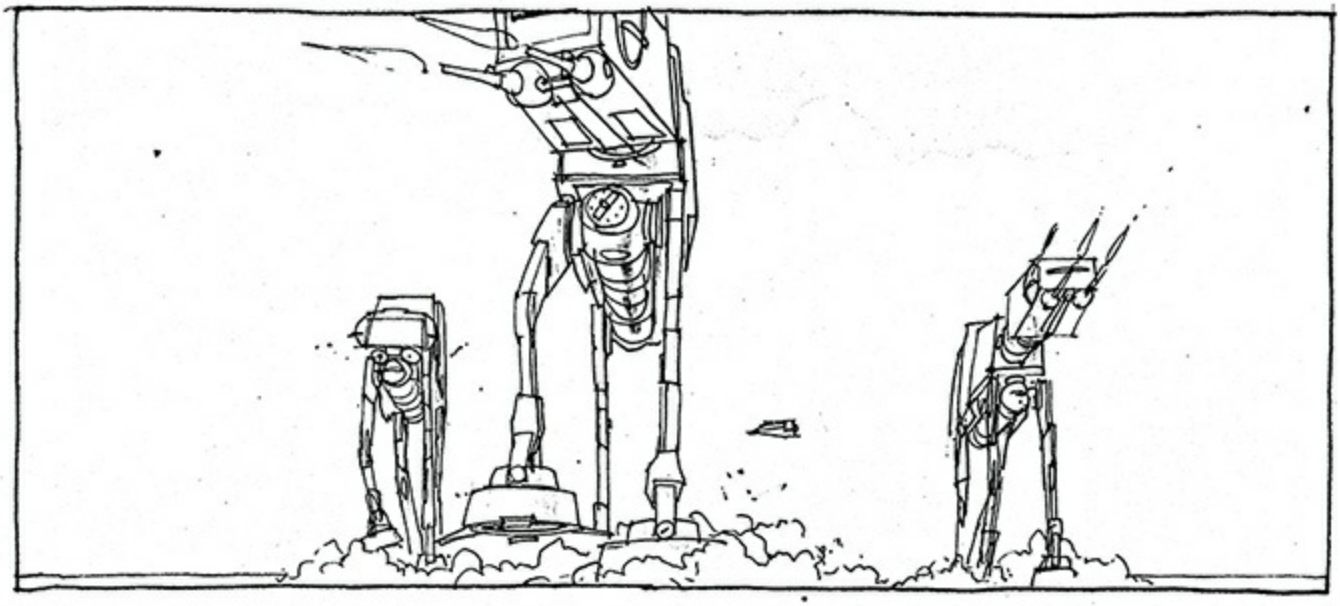
66 FULL SHOT of the troops jumping out of the trenches running to camera. The main power generator can be seen in the distance. 66
1-L, 3-M



68 FULL SHOT of downed walker as Imperial Snow Storm-troopers climb out of the smoldering walker and start firing at the coming rebels. The rebel troops run over the camera toward the Imperial forces, followed by two rebel speeders flying low overhead. 68
1-L, 3-SX



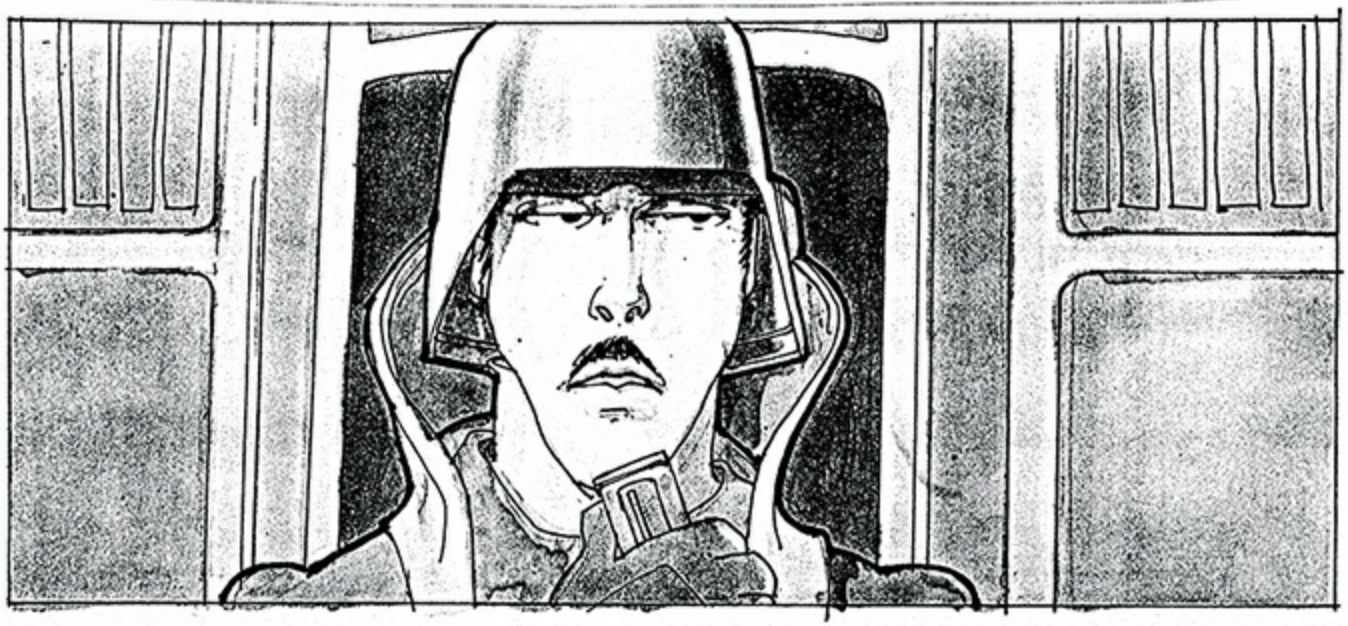
103 LOW ANGLE - Rebel troops retreat as a walker looms in the background. PAN down to troop as an explosion hits. 103
1-L



104 LOW ANGLE FULL SHOT of three of the giant walkers advancing to camera, firing lasers. A lone rebel speeder is in the BG. 104
1-SX

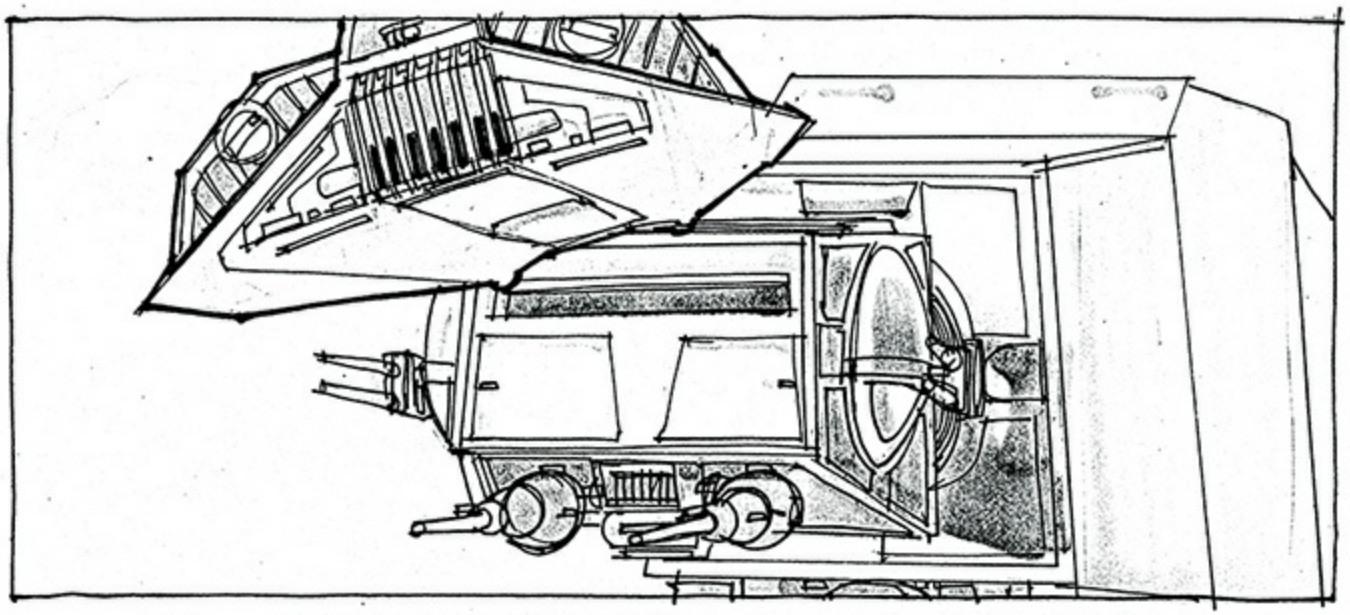
108 CU VEERS inside walker cockpit. He speaks over the com-link as he studies various readouts. 108

VEERS
....yes, Lord Vader. I've reached the main power generator and I'm destroying them now. The shield will be down in moments. You may start your landing....



PILOT
Look out!

Veers looks out the cockpit window.
1-L



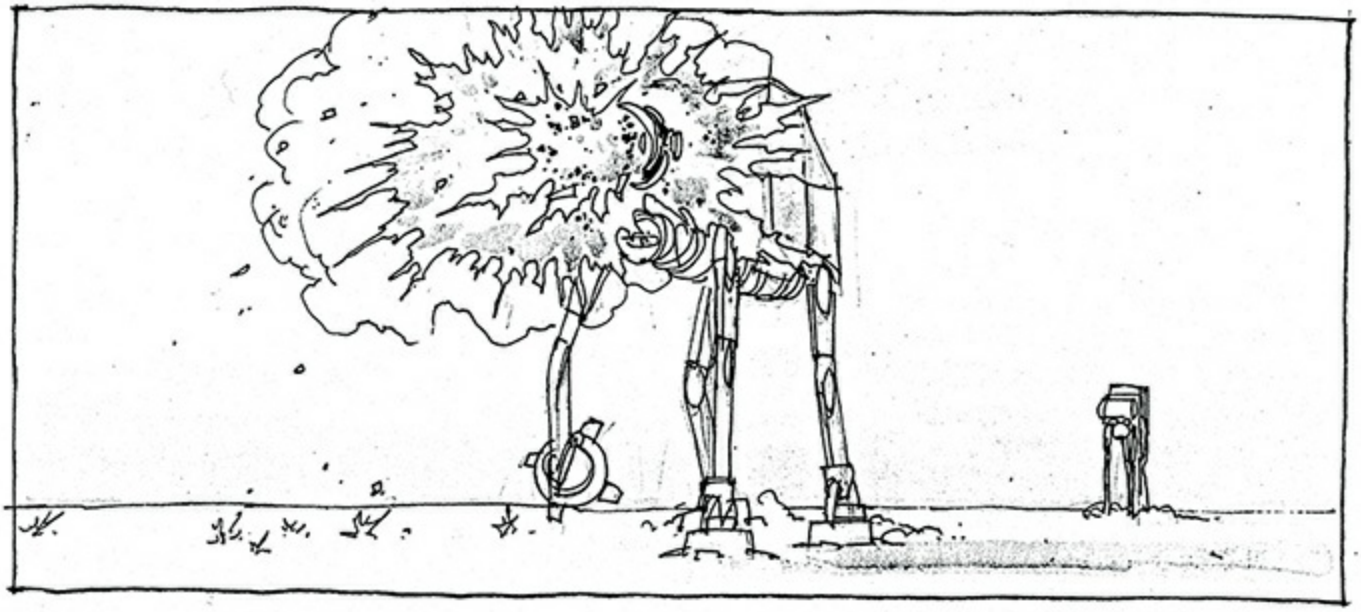
109 FULL SHOT of Rogue Junior's speeder as it races over camera right at the head of the oncoming walker in the BG. 109
1-SX



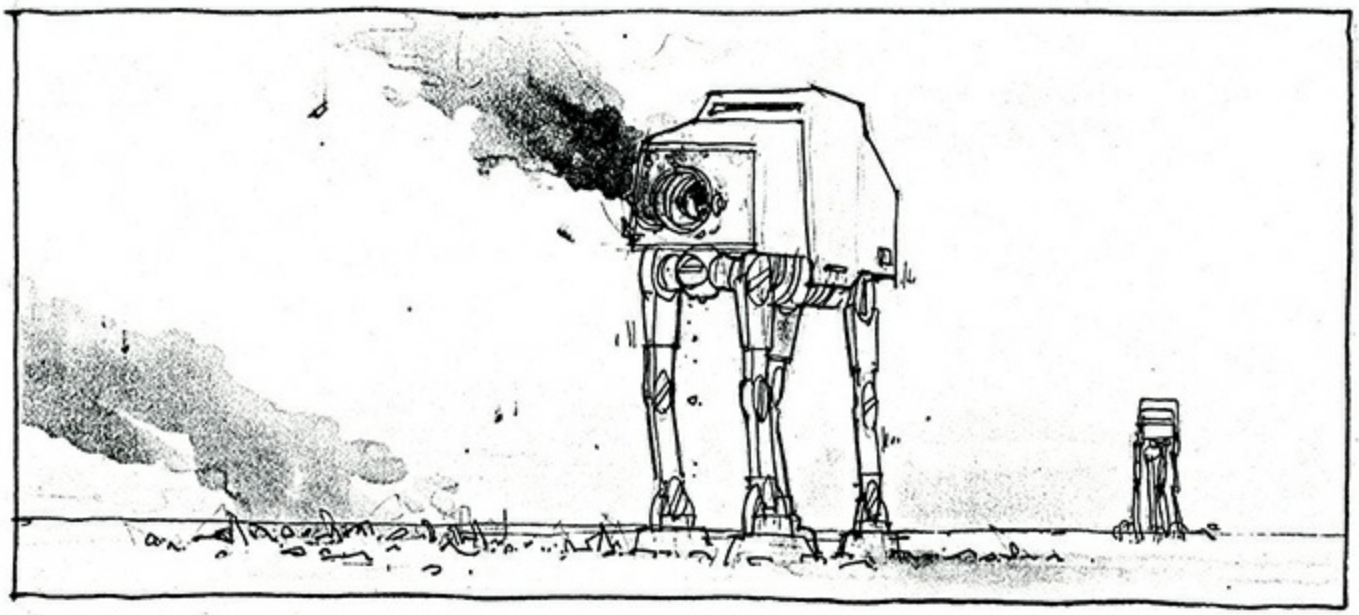
110 INT. OVER THE SHOULDER of Veers and his pilots as the speeder crashes into the front window. 110

PILOT
He's going to....

Impact, huge explosion.
1-LB, 3-SX



111 FULL SHOT of walker with head exploding and flying into a million pieces. After a few moments the headless walker topples over on its side in a cloud of snow. 111
1-SX



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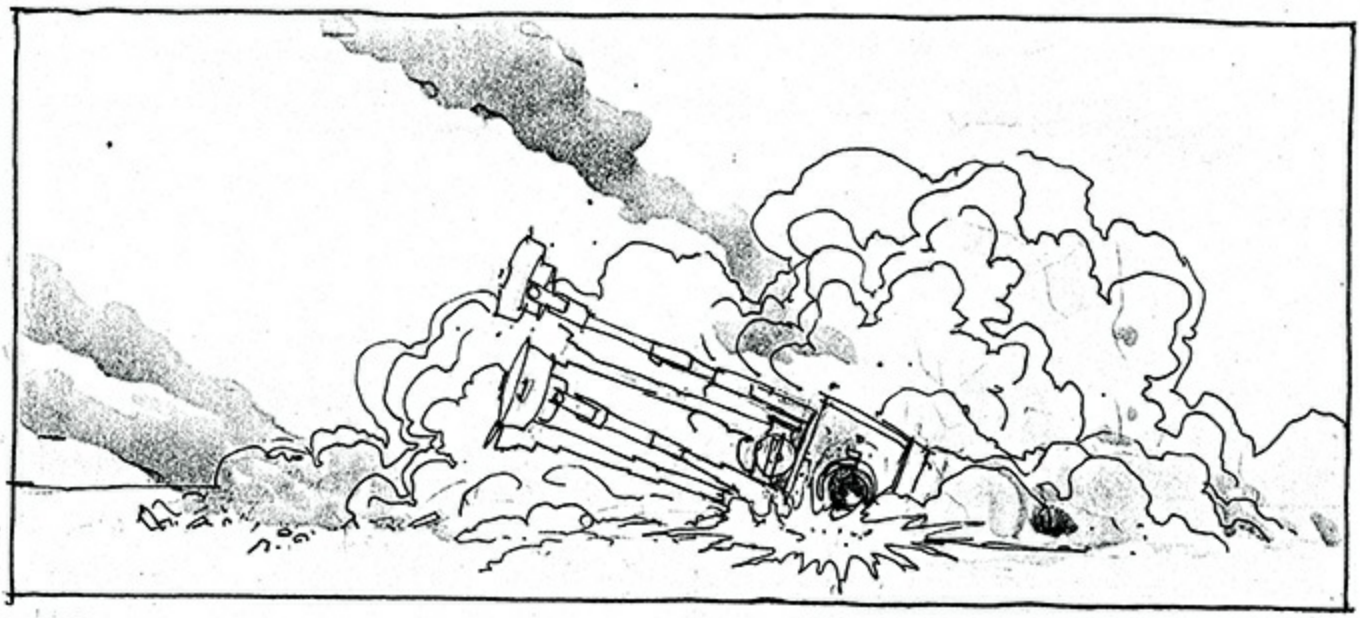


112A

STAR WARS: EPISODE V *THE EMPIRE STRIKES BACK* BY LAWRENCE KASDAN, AUGUST 1978—THIRD-DRAFT SUMMARY

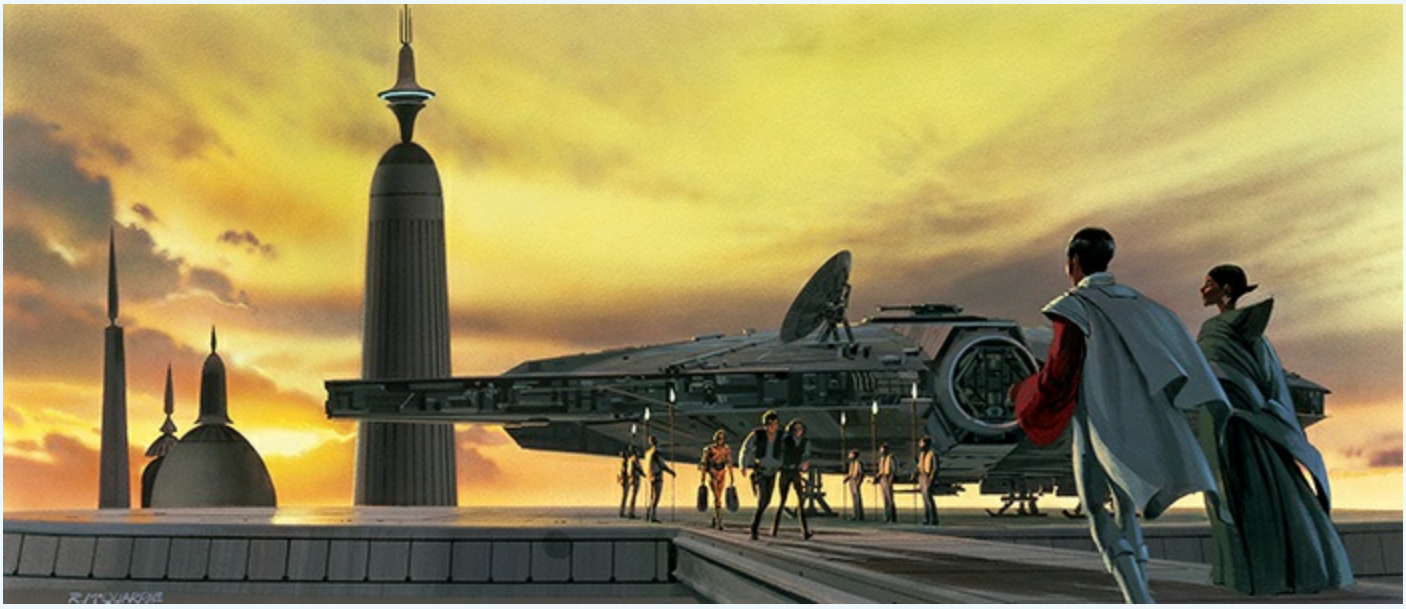
The roll-up and action of the opening are essentially the same as in the second draft (the third draft is 130 typed pages). But now Leia's first words to Han are: "You're leaving?" which immediately establishes their relationship as one in which she is interested in him. When Han responds that he is, but gets no reaction, he becomes angry: "Well, don't get all mushy on me. So long, Princess." After escaping the ice creature, Luke tells Leia that he may be going, too: "That's just great. Why doesn't everyone take off?" Leia remarks. Han enters the medcenter and starts needling both Leia and Luke, prompting the former to kiss the latter. Leia then argues with the captain of the *Falcon* in a modified exchange:



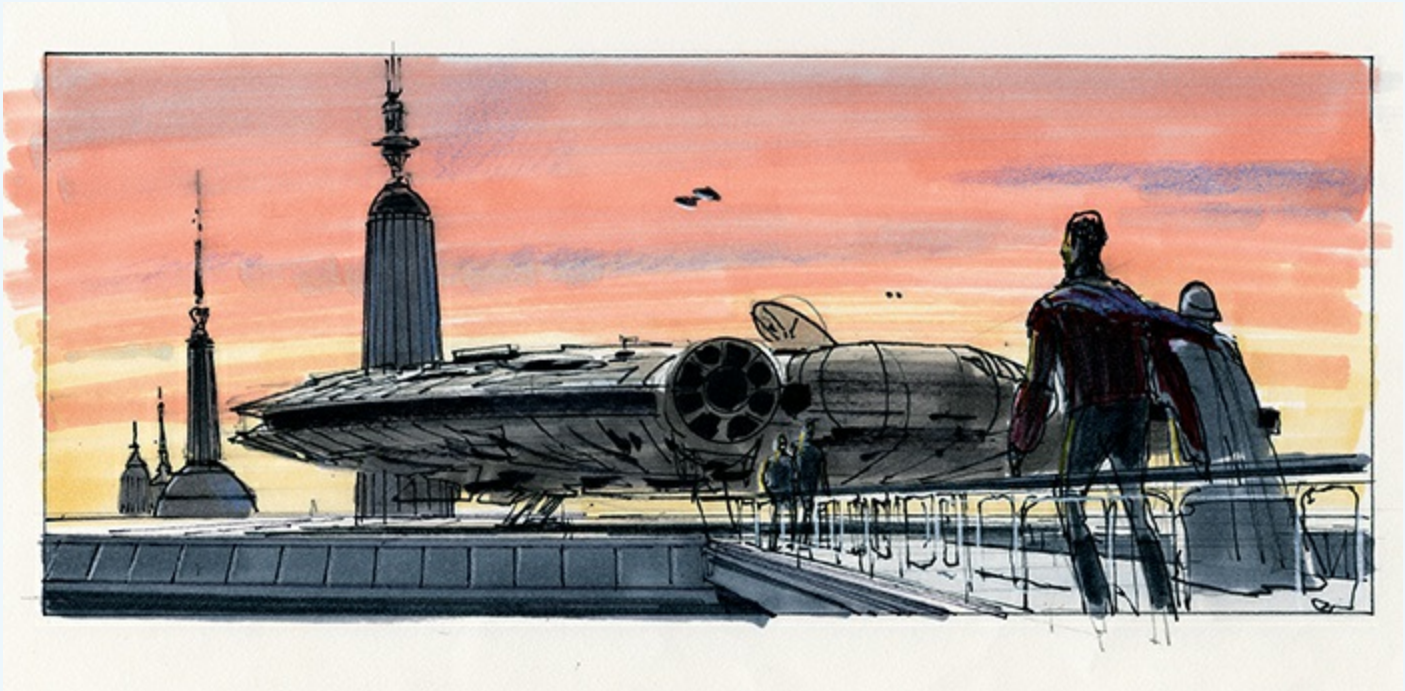
"Second view, Imperial Star Destroyer," by McQuarrie, August 3–4, 7–8, 1978.

After Rieekan's death, Leia (whose character is more developed throughout) now pauses in grief, and C-3PO must urge her to action as their chances of escape diminish. When the *Falcon* stalls, she remarks, "Would it help if I got out and pushed?" And as they head into the asteroid field, Leia says, "You don't have to do this to impress me."

Darth Vader has his own Star Destroyer with a personal chamber, while Luke's meeting with Yoda now reads:



"Dawn greeting" by McQuarrie, July 31-August 1, 1978 (8-plus hours): "That's Lando in the white cloak, though the girl with him is just a figure I made up," says the artist. "I added the girl because I liked the idea—it would be typical of Lando's character—he would never be without a woman."



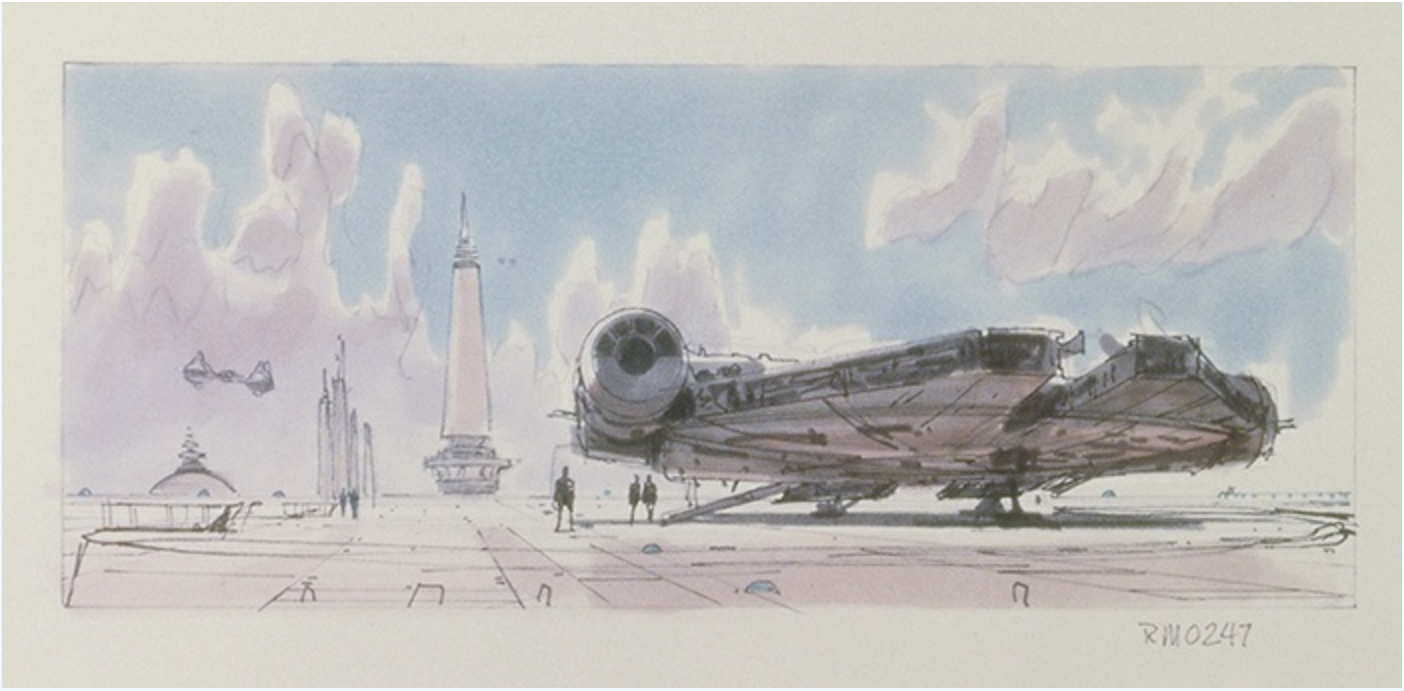
Preparatory color study for “Dawn Greeting,” by McQuarrie.



Preparatory drawing for “Dawn Greeting,” by McQuarrie.



Preparatory drawing for “Dawn Greeting,” by McQuarrie.



Preparatory color studies for "Dawn Greeting," by McQuarrie.

Luke tells the strange creature that he's looking for a "great warrior," and the creature replies, "Wars don't make one great."

Then later, after Yoda has revealed his true identity:

To prove he is worthy, Luke calls Ben with his mind, which impresses Yoda.

A montage follows of Luke in training: meditation, jumping, and so on, most of which efforts end in failure. “Forget you must all your old measures. Unlearn, unlearn,” which Lucas changed to, “You must unlearn all …” When the X-wing sinks, while the second draft had said that size was “no matter,” Yoda now says, “It matters not. Look at me. Judge me by my size do you? […] And well you shouldn’t.”

Whereas Yoda had defined the Force *after* raising the X-wing from the bog, new words preface that act in the third draft:

And new words follow that act:

Luke's lessons continue in a later scene with remotes:

When the *Falcon* drifts away with the garbage debris, "In the foreground, the weird starship of Boba Fett floats into view." And when Yoda brings his student to the sinister tree, Luke now actually enters with his lightsaber—and fights Vader, whose "decapitated head fades away, as in a vision." After landing on Cloud City, Lando says to Han in a new exchange, "Why you slimy, double-crossing no-good swindler … am I glad to see you."

Back on Dagobah, Luke's earlier failures are all revisited as successes in a second montage:

And the argument among Luke, Ben, and Yoda is longer when the former decides to go rescue his friends—with Yoda even saying that it may be wiser to sacrifice Han and Leia for the greater good. On Cloud City, Lando has an aide who councils him after a run-in with Vader:

> Lando gives his aide a look that speaks volumes, then walks a few steps in silence, thinking.

When Lando changes sides and flees with Leia and company, he announces over the public address system to the city's citizens, "Sorry it had to end this way, my people! So long!" (Lucas cut this line out.) Now Luke communicates telepathically directly with Leia, without Ben's intervention. The film ends with Luke saying, "They'll find Han. I know they will … I'd go with them. But I have a promise to keep."



Color study for “Freezing plant,” by McQuarrie, August 1978; these show early ideas for how Darth Vader might trap Luke on Cloud City.



Concept sketch (no. 259) for “Freezing plant,” by McQuarrie.



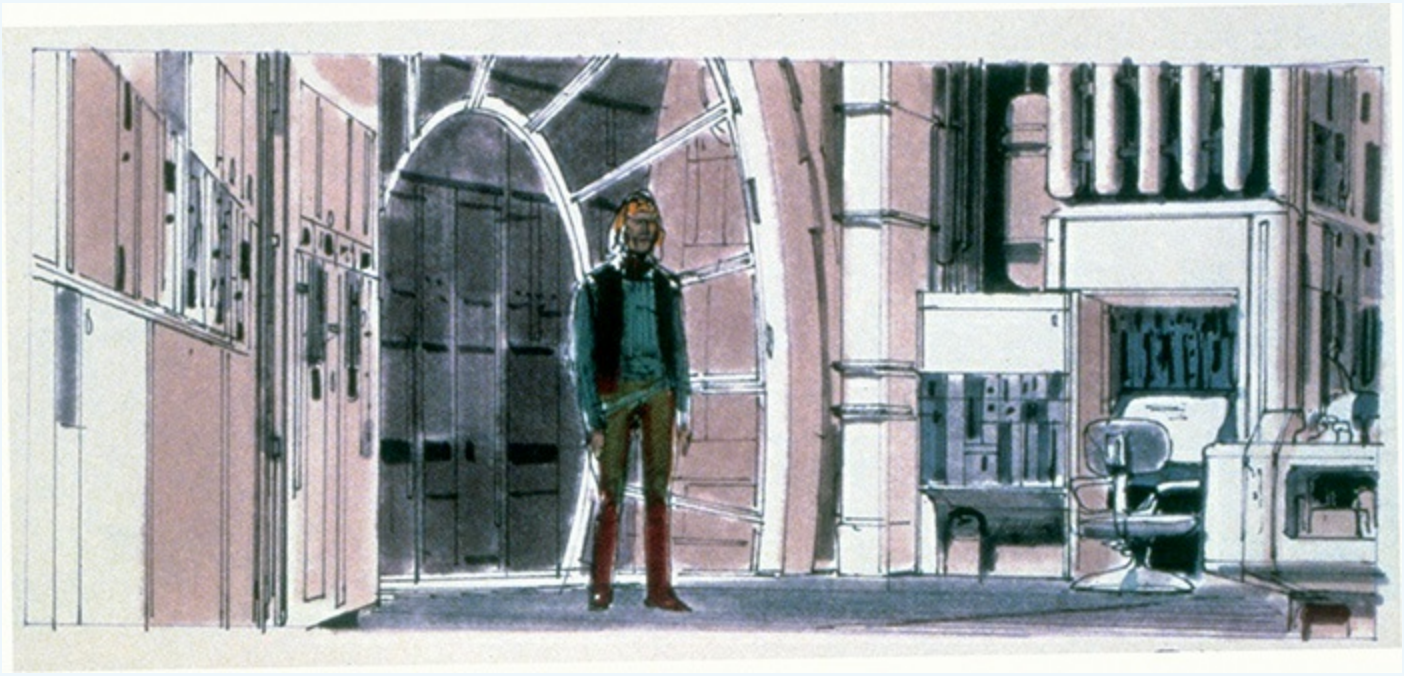
Preparatory sketch of “Freezing Plant,” by McQuarrie.



Final painting of “Freezing Plant,” by McQuarrie.



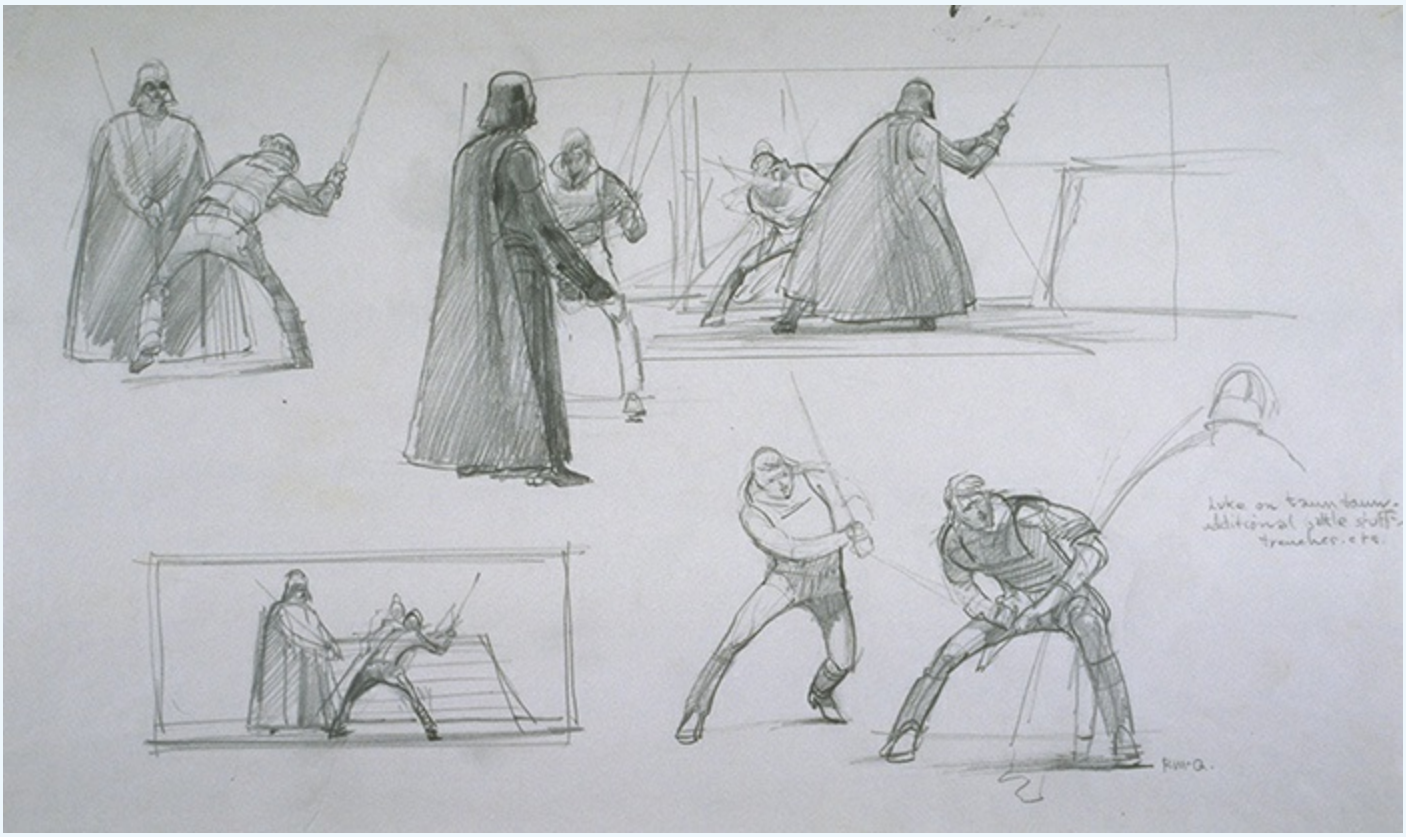
Color sketch (no. 257) by McQuarrie for his “Sword fight, interior work room.”



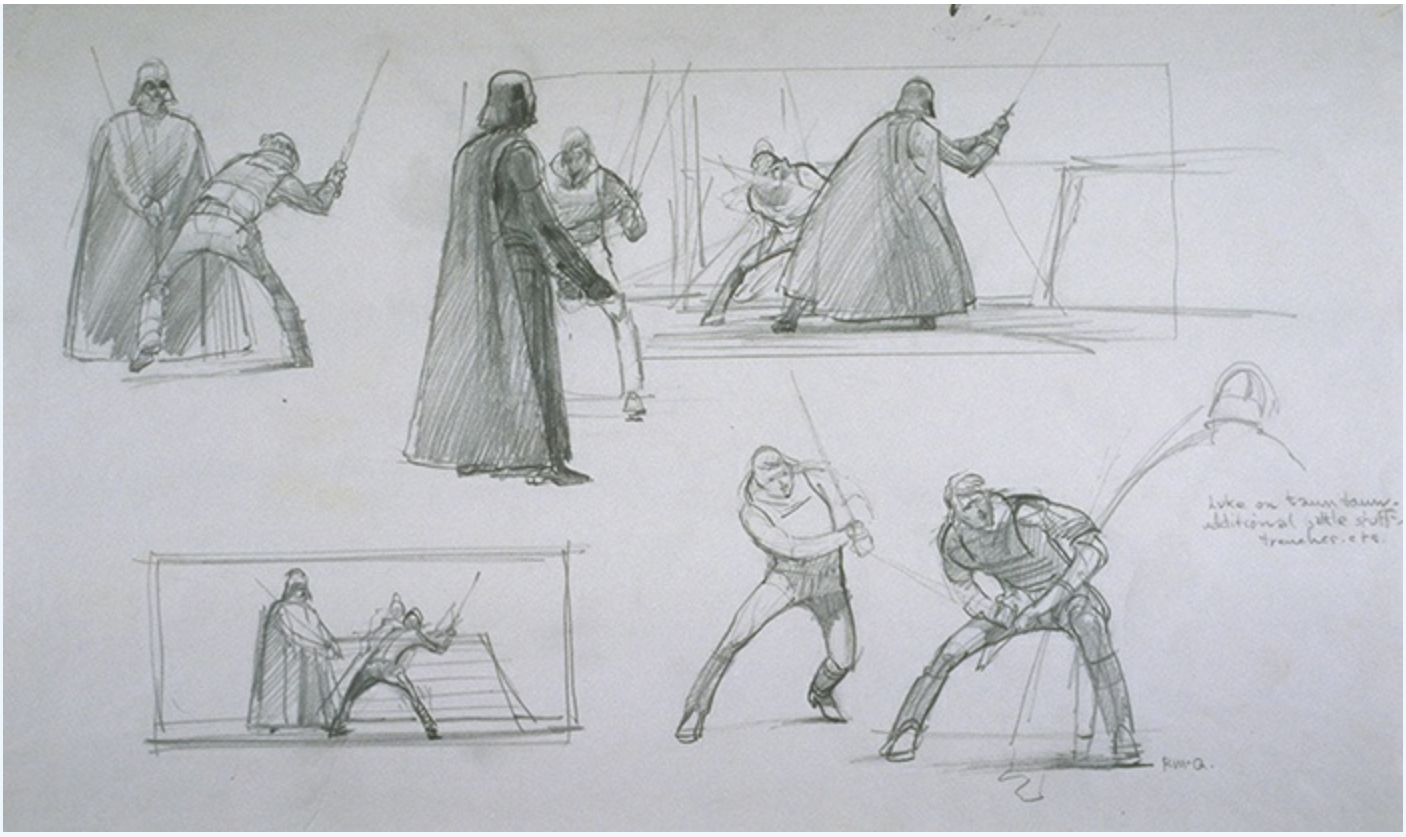
Color sketch (no. 252) by McQuarrie for his “Sword fight, interior work room.”



"Sword fight, interior work room" by McQuarrie August 17–19, 1978.



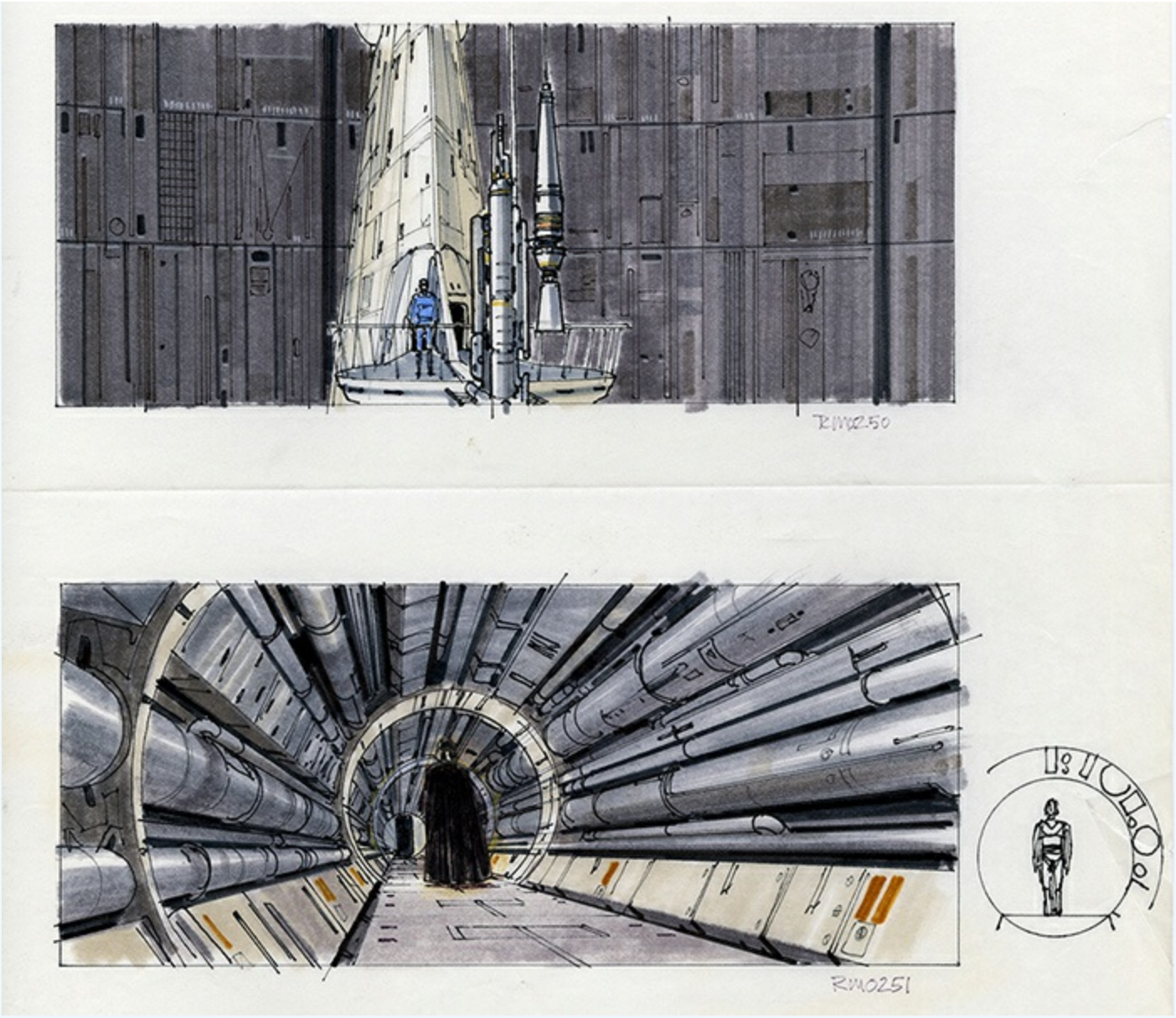
Preparatory drawing of Luke battling Darth Vader on the carbon freeze set, by McQuarrie.



Preparatory drawing of Luke battling Darth Vader on the carbon freeze set, by McQuarrie.



Final painting of Luke battling Darth Vader on the carbon freeze set, by McQuarrie.



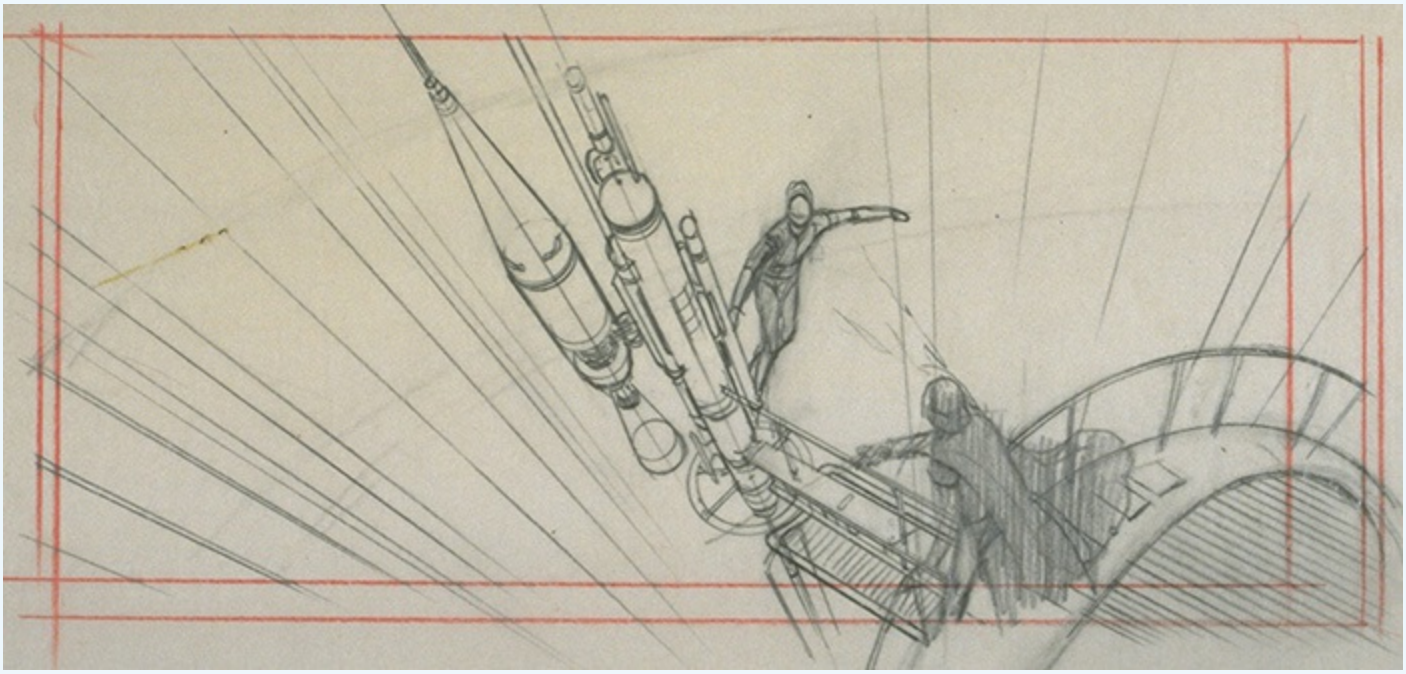
Color studies of sets with Vader and Luke on Cloud City, by McQuarrie.



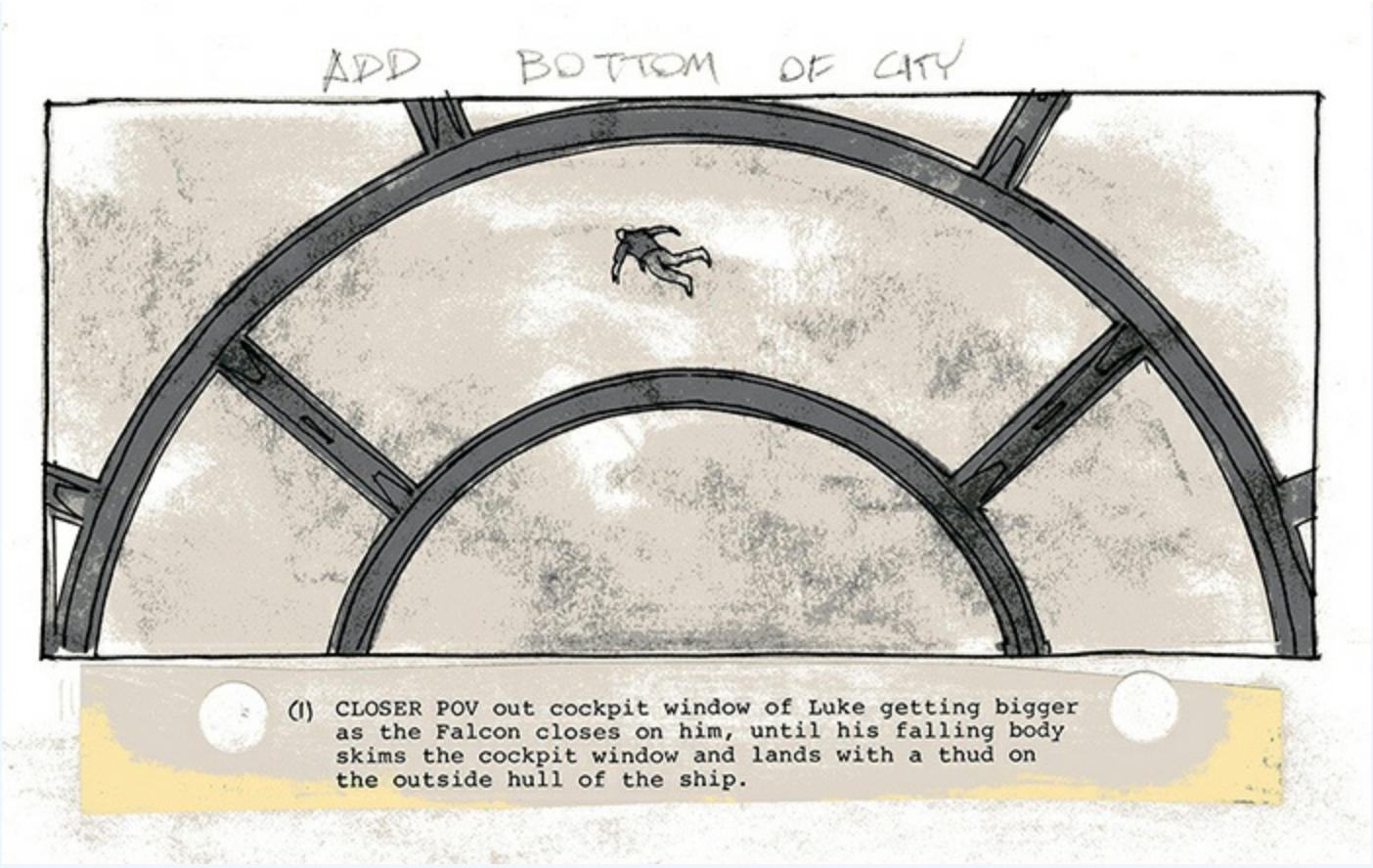
Color sketches for “Sword fight on antenna” by McQuarrie, August 21–22, 1978.



“Sword fight on antenna” by McQuarrie, August 21–22, 1978.



Detailed preparatory pencil sketch for “Sword Fight on Antenna,” by McQuarrie.



Early board of Luke's fall from the exhaust port (onto the *Falcon*), by Johnston, summer 1978.



Early board of the final shot of the film, by Johnston, summer 1978.

BLACK FALCON SOARS

In September 1978, all theatrical runs of *Star Wars* came to an end except one, at the Westgate Theater in Portland, Oregon (where, thanks to a clause in their box-office contract, the film would play until its 76th continuous week in November). That same month, ABC began its broadcast of *Battlestar Galactica*.

Over the summer, the licensing arm of Lucasfilm, Black Falcon, had loaned more than $400,000 to the production arm, Chapter II Company, and over $100,000 to ILM. Black Falcon would soon send another $100,000-plus to finance the visual effects company. Coupled with the development of Skywalker Ranch, its building costs, and founding a sound effects and editing company, Lucas's finances were being stretched very thin—and the sequel was still nearly two years from exhibition. A Chapter II Company Operating Income and Expense Two-Year Monthly Projection for 1979 and 1980 was prepared, and the numbers were iffy. ILM's monthly operating costs averaged around $400,000 and principal photography, which was due to start in half a year, was going to clock in at over $2 million per month—all of which meant that Chapter II would be running a monthly deficit of between $5 million and $25 million by the end of 1979. Only the coffers of Black Falcon, along with Lucas's bonds and real estate investments, would keep Lucasfilm afloat. And one thing was clear: If *Empire* didn't perform at the box office, the company would definitely be ruined.

On October 17, another surreal contract was signed, this time between the American production arm of the Chapter II Corporation and its just-formed English counterpart, Chapter II Productions Limited, so work could begin in earnest in that country.

"This is the first film that George has financed himself," says Kazanjian. "George is taking his own money, building his own company, and putting his money where his mouth is by saying, 'I will finance this $18 million film,' and putting everything into it. So he was building buildings and he was putting many millions of dollars into the ranch at that time. And it was all cash in the ranch. No bank was going to lend him money on that facility. And the reason behind that was he had a great challenge ahead of him in convincing the Marin County Board of Supervisors to allow him to build that facility. If it had gone bankrupt, the only thing the ranch would've been good for would've been a Catholic school or a monastery. You couldn't divide the land."

Echoing Walt Disney's all-consuming creation of Disneyland, Lucas says, "The only reason we're continuing to do commercial films at all is to be able to finance the ranch."

ACTION ON A FROZEN WORLD

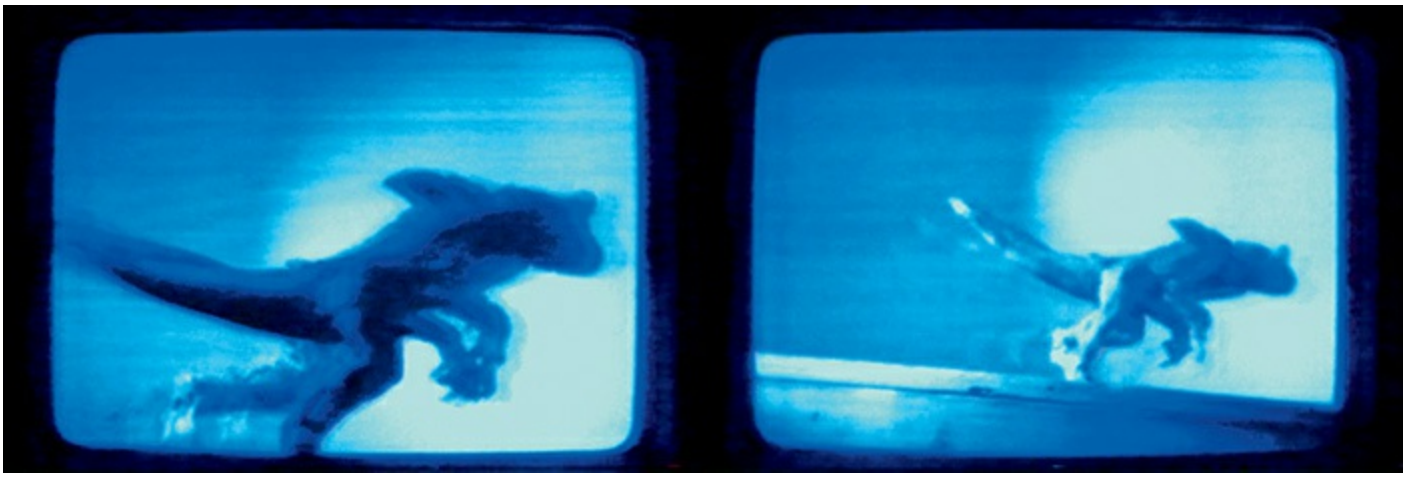
On October 13, 1978, screen tests were held for the "New York City Landos" with actors Howard E. Rollins, Terry Alexander, Robert Christian, and Thurman Scott auditioning.

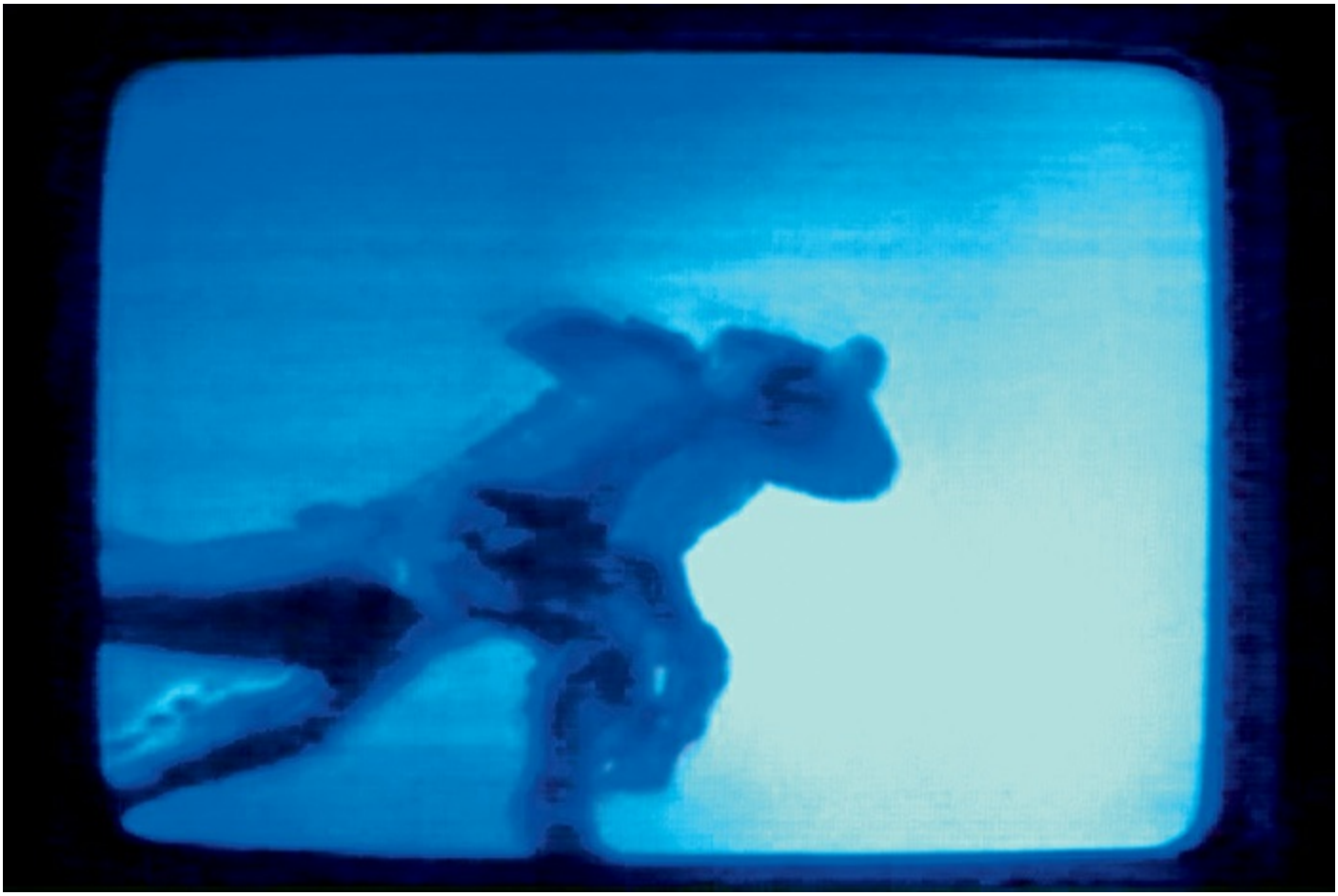
On October 24, Kasdan finished the fourth draft, his second, of *Empire*. "Gradually after months of labor, it all began to come together," says Kershner. "Larry contributed, George contributed, I contributed, but it's a very, very complex thing."

"It was a constant battle between character and action, between speed and any kind of respite, which I believe in and I like to see in a film," says Kasdan. "I like an exciting, fast movie as much as anyone, but I also believe that movies are a better mirror of life when there's some breathing room in them. George has to be dragged toward that moment of respite, but he will do it."

With red coding numbers to prevent unlawful copying, the script ran 163 pages, compared with the third draft's 130, thanks to complicated action scenes that had been storyboarded and then described in

words. Other than that, the longer draft was not significantly changed from the previous except in hundreds of subtle ways (see here).







Tippett animating a creature left over from *Piranha* (1978, a Joe Dante film on which Tippett worked), hooked up to the motion-control camera for an early blur test, circa summer/fall 1978: “Ken Ralston set up the rig and camera, and I animated the creature using the very first single-frame video recording equipment, which Dennis Muren had championed,” says Tippett.



Close-up of Tippett's tauntaun sculpts.

STAR WARS: EPISODE V *THE EMPIRE STRIKES BACK* BY LAWRENCE KASDAN, OCTOBER 24, 1978—FOURTH-DRAFT SUMMARY

After a slightly revised roll-up, scenes are broken down shot by shot in the script's 163 pages, including new aerial "helicopter" plates that are called out in the opening Hoth sequence. Most of the changes are discreet. Now Luke has no dialogue with Han before a wampa belts him (an early name for the snow monster was "penocha"). Inside the hangar, another ice creature terrifies R2-D2:

An ion cannon causes explosions on the attacking Star Destroyers, enabling the Rebel fleet to escape. On Dagobah, whereas Luke gradually became aware that the Creature was Yoda, now the Creature speaks to Ben, triggering Luke's realization. Yoda's prop has changed from a pipe to a "Gimer Stick" on which he chews in several scenes.

In the third draft, when Luke leaves to save his friends, instead of Yoda saying, "We must find another" (Lucas had crossed out "find" and written "search for"), now the small Jedi Master says, "There is another."



Several tauntaun sculpts by Tippet, including the approved one (with rider).

YODA
Told you I did, ~~about this boy.~~
Reckless is he...Now things are
going to worse.

BEN
~~He~~ is our ~~only~~ last hope. ~~I will train~~ the boy.

YODA
No...we must ~~find~~ search for another.

EXT. SPACE - PLANET DAGOBAH

Luke's tiny X-Wing fighter rockets away from the deep green planet and heads into the loneliness of space.

Lucas's revisions to Kasdan's third draft dialogue for Yoda and Ben after Luke leaves Dagobah.



Fans got their first glimpse of Boba Fett on Sunday, September 24, 1978, at the annual San Anselmo Country Fair Parade in San Anselmo. (The man inside the Vader costume would need a saline solution after collapsing in 94-degree heat).













The Boba Fett costume was built by several crew and painted by Johnston (with Bruce Nicholson posing in it).

"I painted Boba Fett's outfit and tried to make it look like it was made of different pieces of armor," says Johnston. "It was a symmetrical design, but I painted it in such a way that it looked like he had scavenged parts and done some personalizing of his costume; he had little trophies hanging from his belt, little braids of hair, almost like a collection of scalps."



Rare footage of Boba Fett's first public appearance, in the company of Darth Vader and a few Lucasfilm handlers, at the San Anselmo Country Fair Parade, on Sunday, September 24, 1978. Duwayne Dunham is in the costume. (No audio)

(1:30)

ELEGANCE AND PLANNING

With the official formation of Chapter II Productions Ltd., *Empire*'s offices were opened at Elstree (EMI) Studios. In late October 1978, costume designer John Mollo, another veteran of *Star Wars*, was equipped "with a script and some clothes left over from the original space fantasy," according to Alan Arnold, who now joined the film as unit publicist (Charles Lippincott had left the company in June).

"Some aspects were to remain constant," says Mollo, who would be aided by costume supervisor Tiny Nicholls, wardrobe mistress Eilleen Sullivan, and their assistants. "The Imperial stormtroopers would be as before, but with some technical refinements to their armor because we are using stronger materials developed in the years between."

Kershner's arrival in London on October 28 was noted by several newspapers and commented on by Peter Noble in his column: "Smoking his inevitable Davidoff Havana cigar, Hollywood director Irvin Kershner flew into Heathrow and was whisked off to EMI Studios."

Ralph McQuarrie flew in the next day. On October 30, he met the staff at EMI and read the fourth draft. In early November, McQuarrie began reworking some of the storyboards with Ivor Beddoes, who, by all accounts, was another remarkable man. Married to a dancer, Beddoes had created the matte paintings for the famous ballet sequence in *Red Shoes* (1948) and, more recently, had worked as a concept illustrator on *Superman* (1978).

"I had another artist in England who did a book of storyboards—Ivor Beddoes," says Kershner. "Wonderful man. He started in the business as a song-and-dance man in early British films."

"Ivor was consulted for scenes that were shot on sets," McQuarrie says. "Ivor's office was next to mine; he was a fantastic person. There was a very little bar not far from the studio, and, one day, Ivor did an acrobatic dance as he entered it. He could compose music, act—he was just a wonder."

"Ralph McQuarrie's conceptual paintings in particular give you the total feeling of what George is after," says Brian Johnson, who began full-time work in November. "The key to all of *Empire* and how it looked was the fantastic outpouring of McQuarrie and his conceptual sketches, which were like photographs taken on a set. It made certain jobs easier. Joe Johnston and Nilo Rodis did the rest."

Johnson had just left the production of *Alien*, where they'd been shooting the miniatures of the spaceship *Nostromo*. "I left my colleague Nick Allder to take over," he says. "Now I'm able to really start setting up *Empire*." Allder would later join Johnson as mechanical effects supervisor, but now it was up to the latter to continue shuttling between England and the United States. "I suppose I've been four or five times this year already. I'm going out again just after Christmas and then I come back for the Norway location."



"Ext. Ice Gorge" (no. 1), set design concept by Norman Reynolds, September 1978.



A visual experiment had a model snowspeeder placed on a background photo plate; “In England, they also tried to make miniature snowspeeders that would actually fly like model airplanes,” says Muren. “But the speeder had no wings to lift it. These were to be taken to Norway and shot there. This didn’t work and I don’t know if one was even finished.”



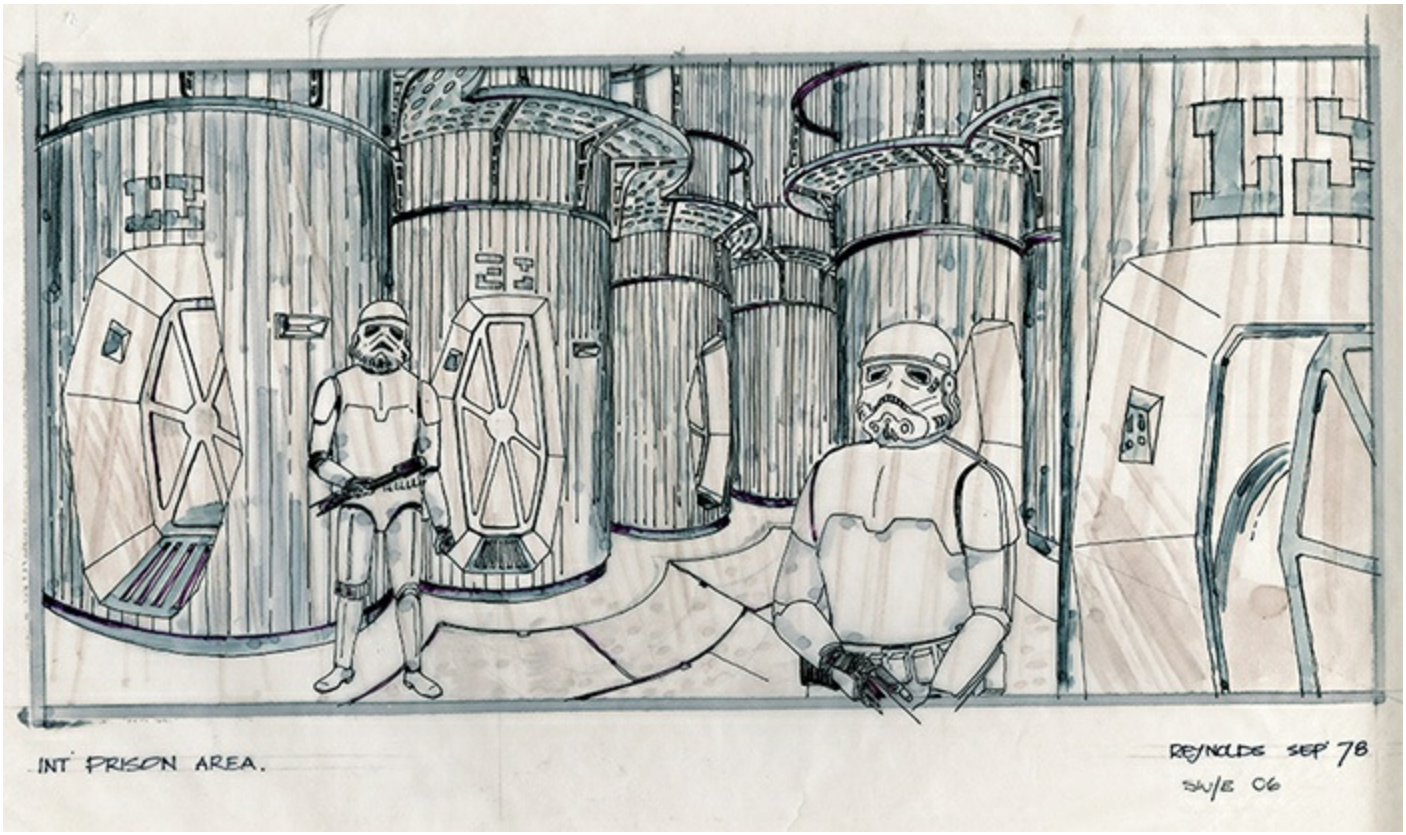
In England, production designer Norman Reynolds also continued research on the man-in-taun concept with this drawing.

While Norman Reynolds oversaw his art and Welch's construction department as they built sets, foundation work on the Star Wars Stage was completed in late 1978. At 250 feet long, 122 feet wide, and 45 feet high, with an overall capacity in excess of one and a quarter million cubic feet, production hoped it would be big enough to house the Rebel hangar and the bog planet.

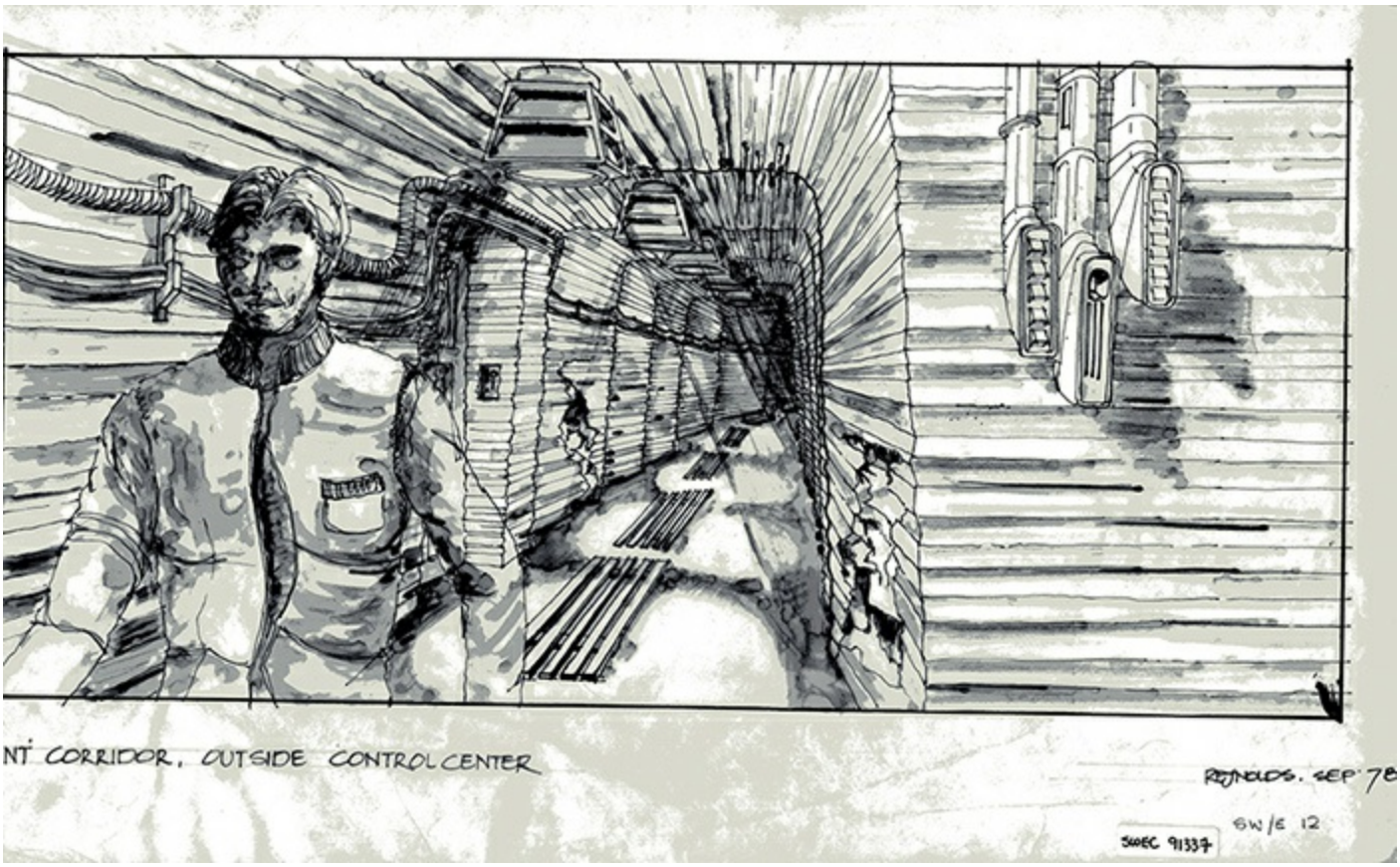
On November 9, the services of Peter Mayhew and David Prowse were legalized. "They told me that if I dawdled any longer, they would simply get someone else to play the role, so I signed," says Prowse. "I had to. Having no real identity in the films gives you a terrible feeling of insecurity. You are always aware that you are dispensable."

Between films, Mayhew had appeared in an episode of a London detective TV show, *Hazell and the Big Sleep* (1978), and in a film called *Terror* (1978). "I'll always remember my one line, 'You want a mechanic?' " he says. "And that was it."

One of the first letters written on the British production company's new stationery was dated November 14, from Gary Kurtz to John Breglio, in reference to the services of editor Paul Hirsch, who was to start in England on March 5, 1979. Lucas hadn't had the funds to hire an American editor in England on *Star Wars*. For the sequel, however, he hired Hirsch with the idea that the editor would create an assembly of footage as they shot and then, after *Empire* wrapped, would rapidly work to a rough and a first cut as soon as he was back in the States.



"Int. Prison Area" (no. 6) by Reynolds, September 1978.



"Int. Corridor, Outside Control Center" (no. 12) by Reynolds, September 1978.



"Yoda's House, Clearing" (no. 15) by Reynolds, August–September 1978.



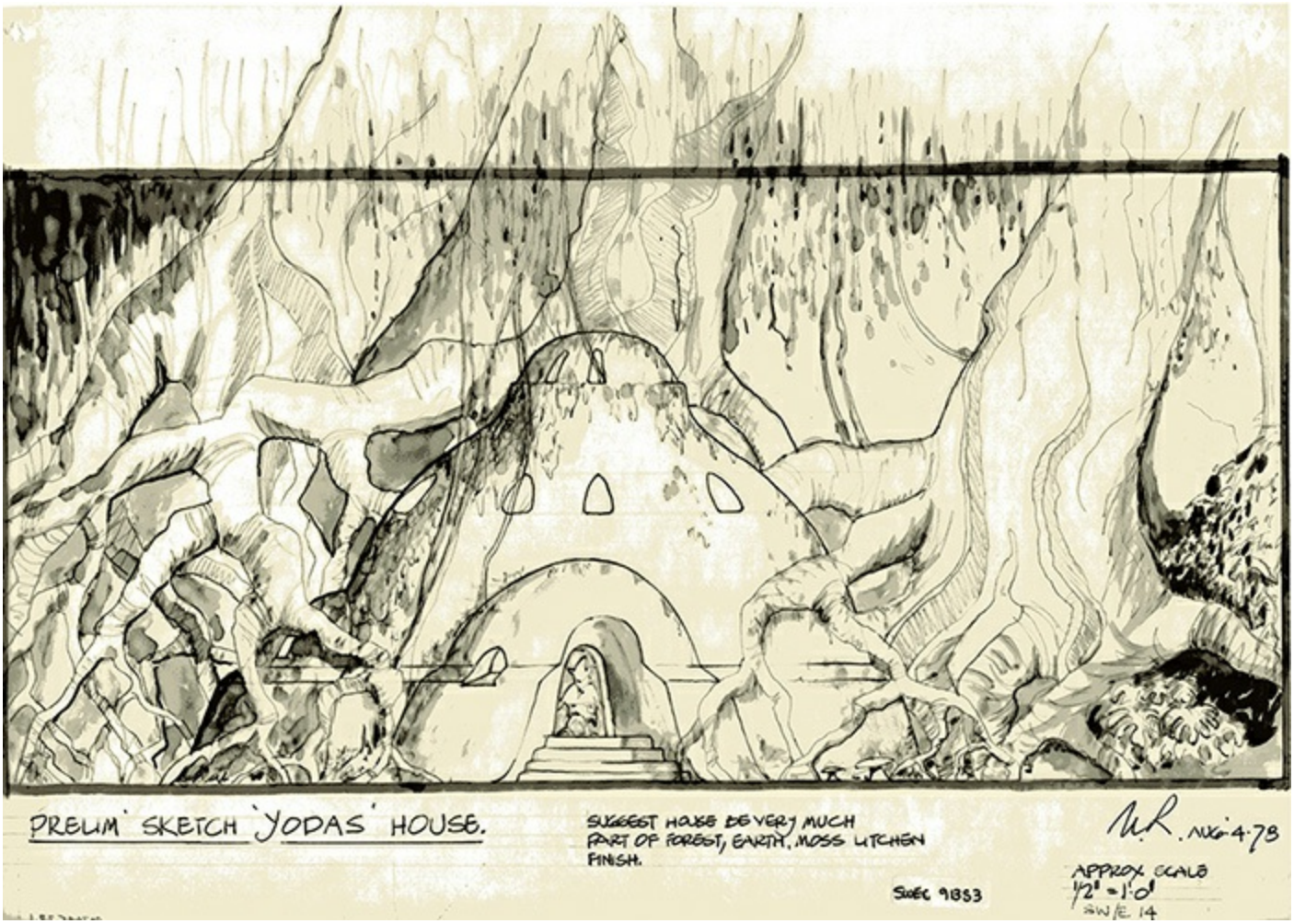
"Alternative Yoda's House" (no. 16) by Reynolds, August–September 1978.



Production concepts by Norman Reynolds of the interior of Yoda's house, August–September 1978.



Production concepts by Norman Reynolds of the exterior of Yoda's house, August–September 1978.



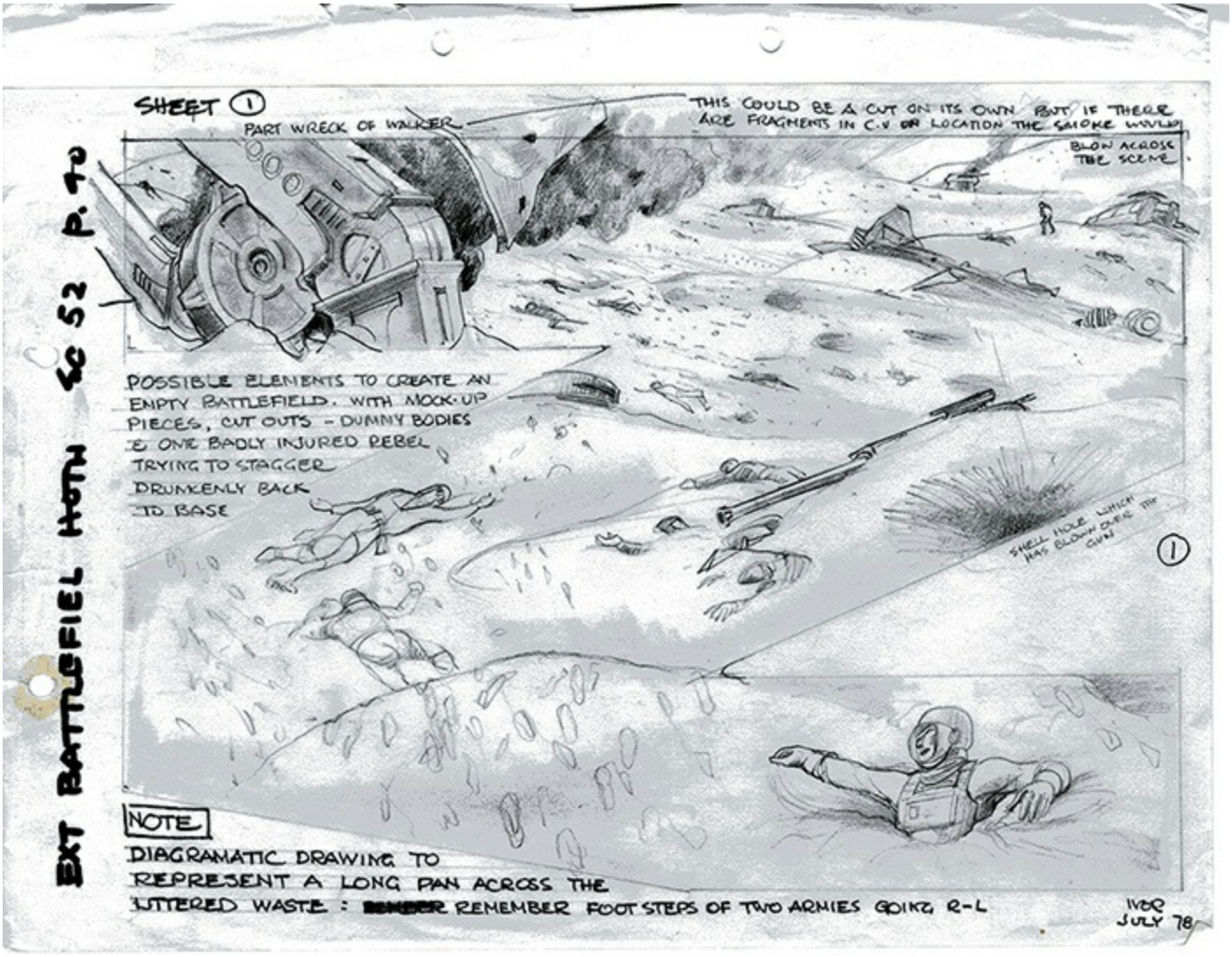
Production concepts by Norman Reynolds of the exterior of Yoda's house, August–September 1978.

While Hirsch was working on Brian De Palma's *The Fury* (1978) he was nominated for an Oscar for *Star Wars*. When Hirsch started working on *King of the Gypsies* (1978), he won the award. Subsequently, he was granted membership in the academy. Hirsch had also been granted membership in the American Cinema Editors.

After looking things over in England, Kershner traveled to Finse as winter began in order to inspect the location. By this time, the lake had partially frozen over, though not enough to ensure safe passage on its surface, so the director was flown to the top of the glacier, 6,000 feet up, by helicopter in 20-degrees-below weather.

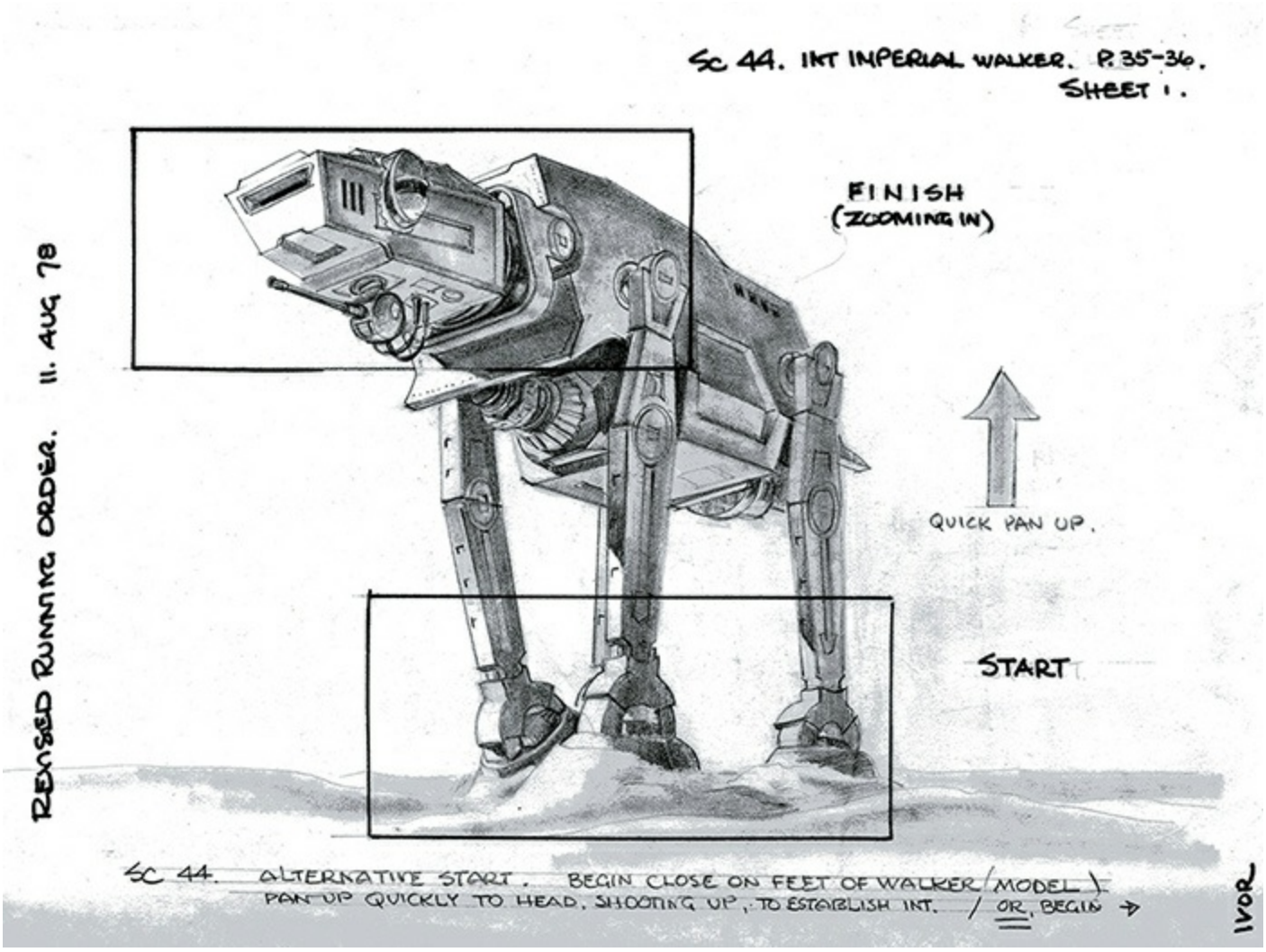
"I went to Finse and it was perfect," he says. "There was even a hotel on the railroad line less then one half hour from the glacier. It would be a difficult logistical job, but much easier than building an entire camp to support the crew in some remote spot in the Arctic."

"We went back in November," says Watts. "We had a Huey [a Bell UH-1B] helicopter that came out of a place called Voss, which was up the line from Finse. The Huey arrived in the morning and deposited us on the glacier. We had a walkie-talkie communication back to the hotel to get them to come pick us up when we were ready, but the helicopter had ignition trouble and couldn't take off. So we were forced to walk from the glacier back to the hotel, which was a somewhat long walk because we had to circle 'round the lake."

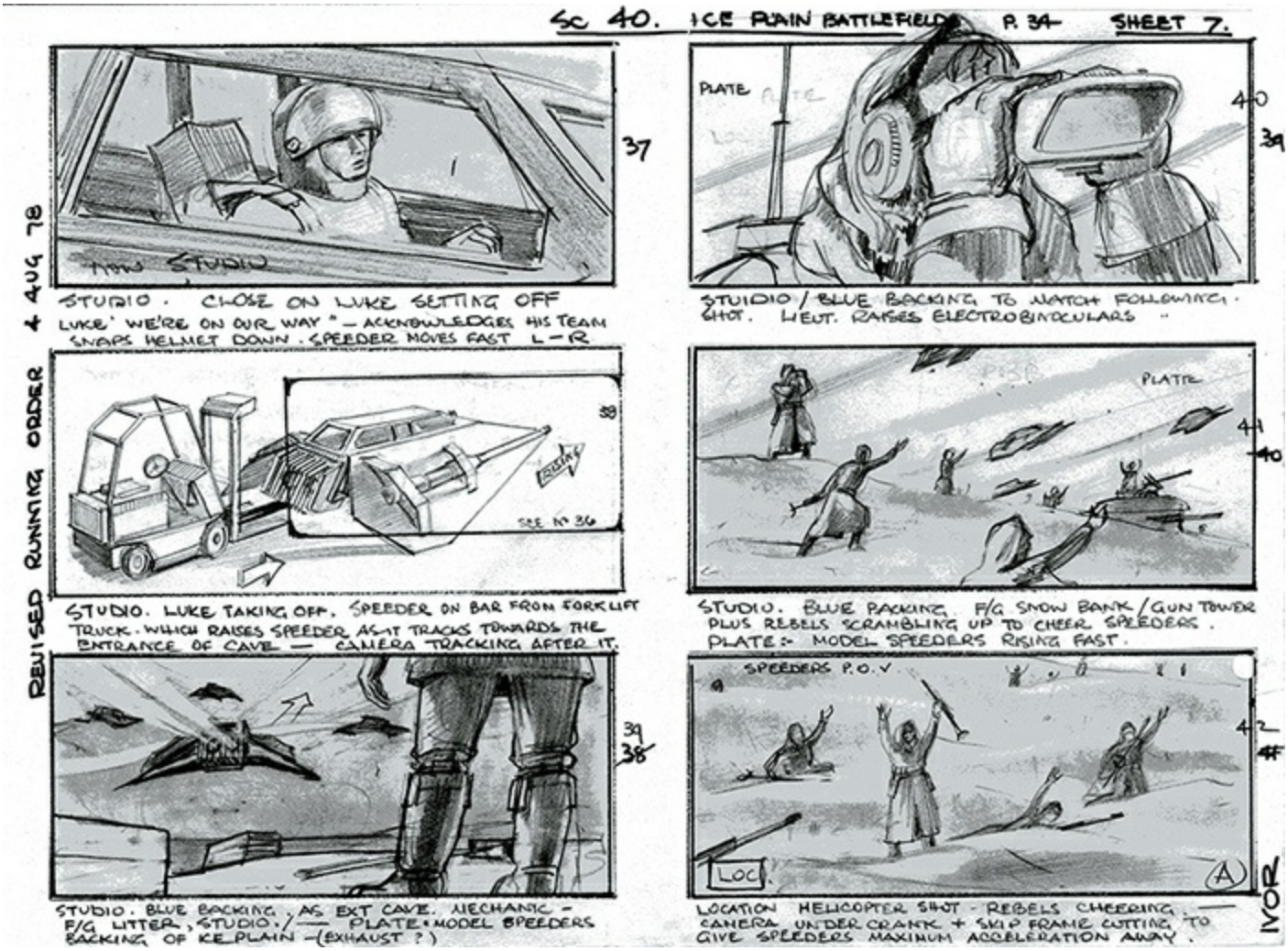


Storyboards circa July–August 1978 by sketch artist Ivor Beddoes (whose start date was July 3), in England, offered variations on some of the same scenes being boarded by Johnston in the United States. Working with Kershner, Beddoes drew boards that broke down shots in terms of methodology and studio shooting vs. location shooting.

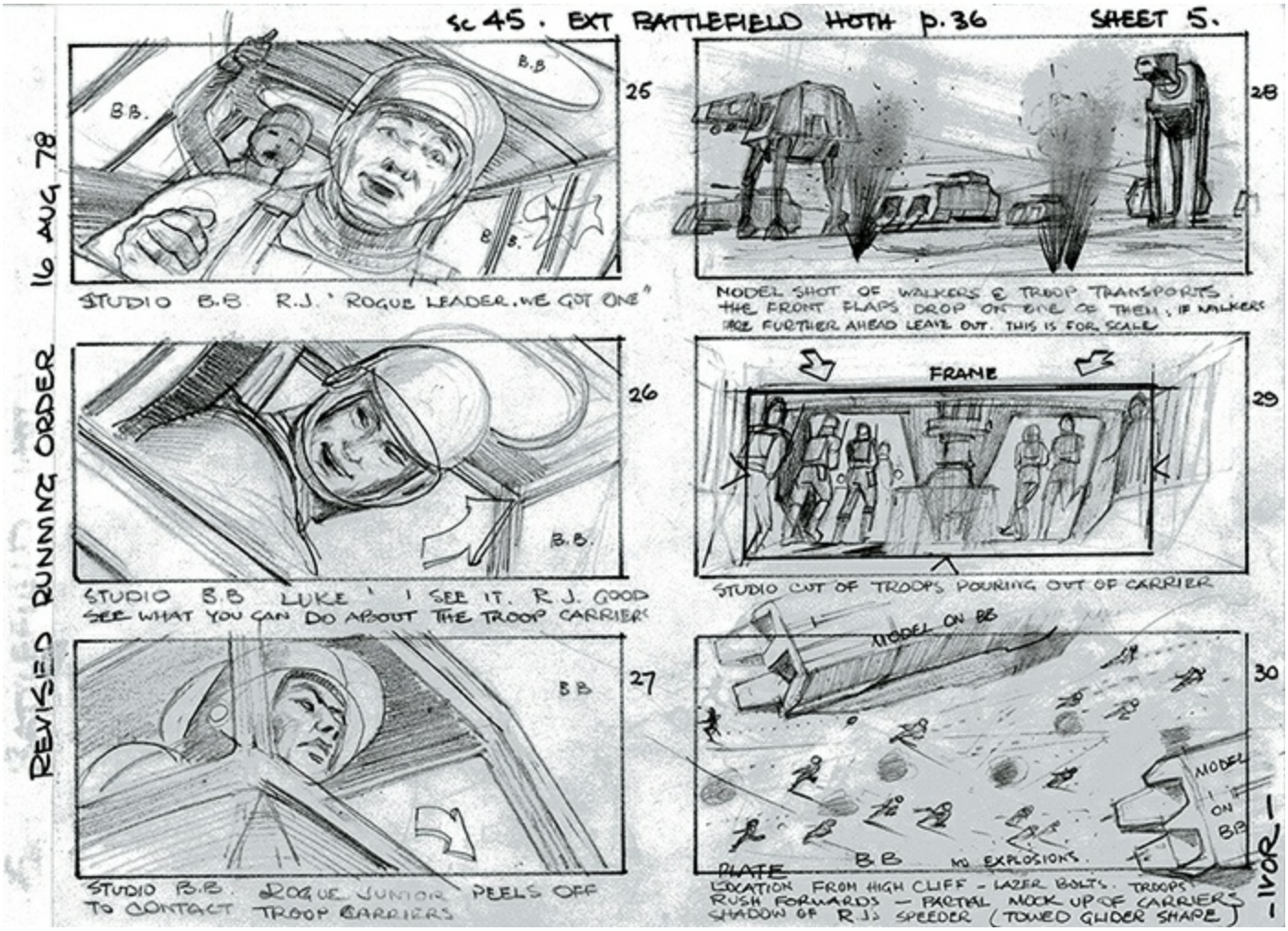
"Ext. Battlefield Hoth."



A pan and zoom in on an Imperial walker.



Storyboards show how a snowspeeder could be elevated by a forklift off-camera.



Boards illustrate the use of troop carriers for Imperial soldiers.

REVENGE OF THE BOOB TUBE

Back in the States, a November 15 letter from ILM production administrator Dick Gallegly to Brian Johnson noted that work was going apace at Kerner: "Richard Edlund is now here full time, having moved up here last weekend, and things are beginning to hum." The construction phase "is finally coming to a conclusion."

As ILM ramped up, more crew had signed on. "Gene Whiteman [October 16] became our machine shop supervisor and was a real lucky find," Edlund says. "I didn't know him before we started, but he became a very good friend and was extremely adaptable to all of the many and varied projects that we wound up getting into. Visual effects editorial supervisor Conrad Buff [November 6] was our editor on *Battlestar Galactica*. He was an incredible find."

In fact, MCA and Universal countersued Fox in November, and *Galactica* was an ongoing sore spot as *Empire* evolved. "They had done a show which was based on a snow planet," says Bruce Nicholson. "So George was upset that they had ripped him off, which they probably did, and there was a lawsuit. I remember him talking about that when we first came up to ILM."

Another television calamity, broadcast by CBS on November 17, was the *Star Wars Holiday Special*. The show featured appearances by most of the cast, except Alec Guinness, and took advantage of early McQuarrie artwork for the Wookiee planet (the story has the principals going to Chewbacca's homeworld to celebrate Life Day). With odd musical numbers; cameos by celebrity TV stars, such as Art Carney, Harvey Korman, and Beatrice Arthur; and a campy, bizarre production décor light-years from

the feeling of the first film, the *Holiday Special* was an example of how Black Falcon and Lucasfilm had yet to hone their approval processes. The one bright spot of the show was an animated segment produced by Nelvana Studios that introduced bounty hunter Boba Fett to the United States. (The Nelvana crew were friends with the show's first director David Acomba, who had been a fraternity brother of Charles Lippincott's.)

On that same day, overshadowed by the *Holiday Special*, the 50th-anniversary Mickey Mouse show was broadcast on *Wonderful World of Disney* and featured cameos by Chewbacca and R2-D2 (the latter wearing a party hat).

What must have been a somewhat difficult month for Lucas came to a more harmonious close. "The first year in '77, I wanted to have a Thanksgiving dinner for our staff," says Jane Bay. "There were about 10 of us, Ben Burtt and a few other people. So I got an organic turkey from a poultry store called Harmony Farms on Polk Street in San Francisco and we cooked this big dinner on the Wednesday before Thanksgiving. We were all sitting around and George said, 'You know, next year, why don't we get a turkey for everybody to take home for their families?' So from '78, we have had this tradition of George giving a Thanksgiving turkey to each of his employees."

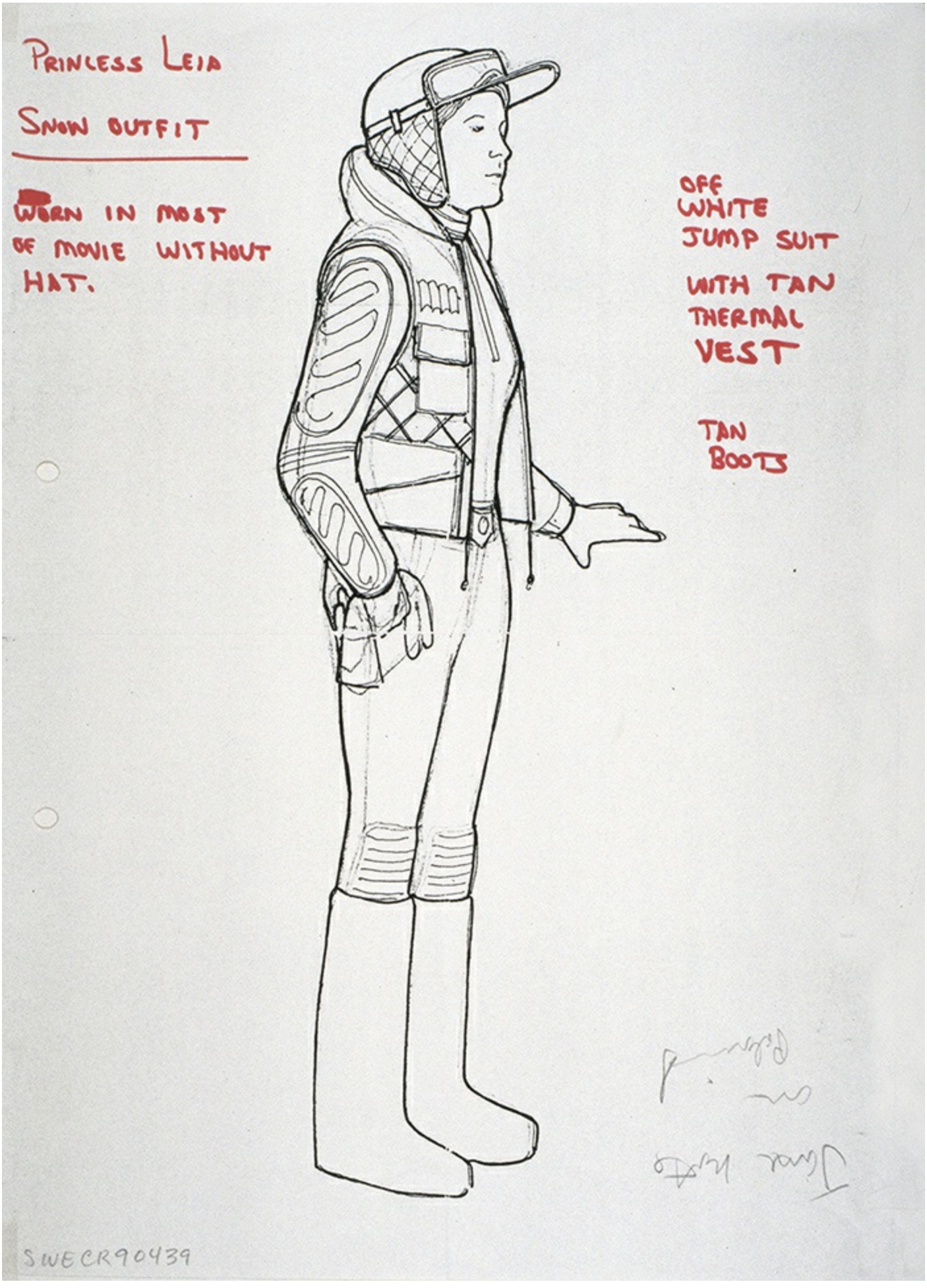
"It was truly a family atmosphere," says Chrissie England. "We would have a dinner the day before Thanksgiving and we all contributed to the meals. And Christmastime, George would give you really wonderful little presents and it was just a great, warm, loving environment."



Concept sketches by costume designer John Mollo, (LEFT to RIGHT) "Field commader Veers," "Rebel starfighter pilot," "Rebel Star Destroyer crew [sic]."

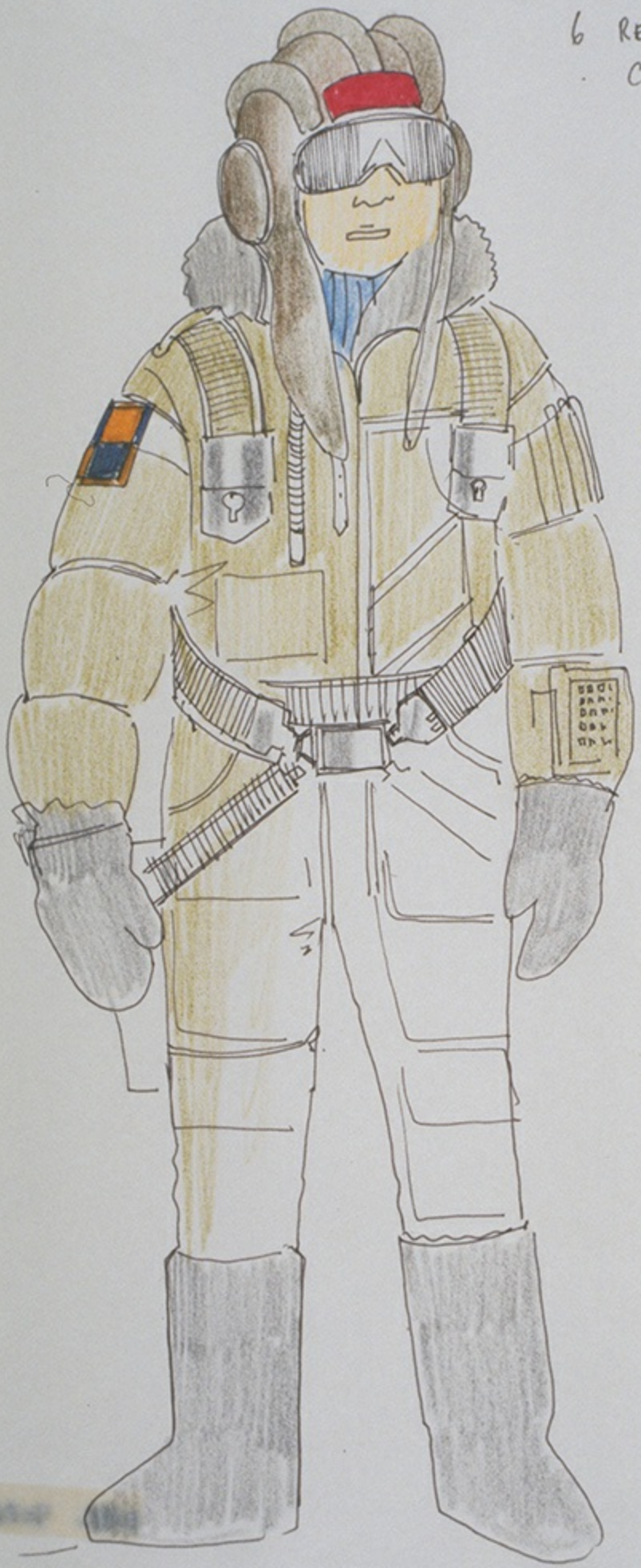

REBEL SNOWTROOPER
10/76.

Concept sketches by costume designer John Mollo, “Rebel snowtrooper.”



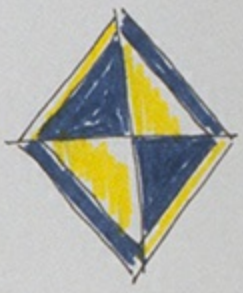
Concept sketches by costume designer John Mollo, “Princess Leia snow outfit,” October 1978.

6 REBEL LAND SPEEDER
CREW











Costume concepts by John Mollo, fall 1978.



Costume concepts by John Mollo, fall 1978.



Costume concepts by John Mollo, fall 1978.



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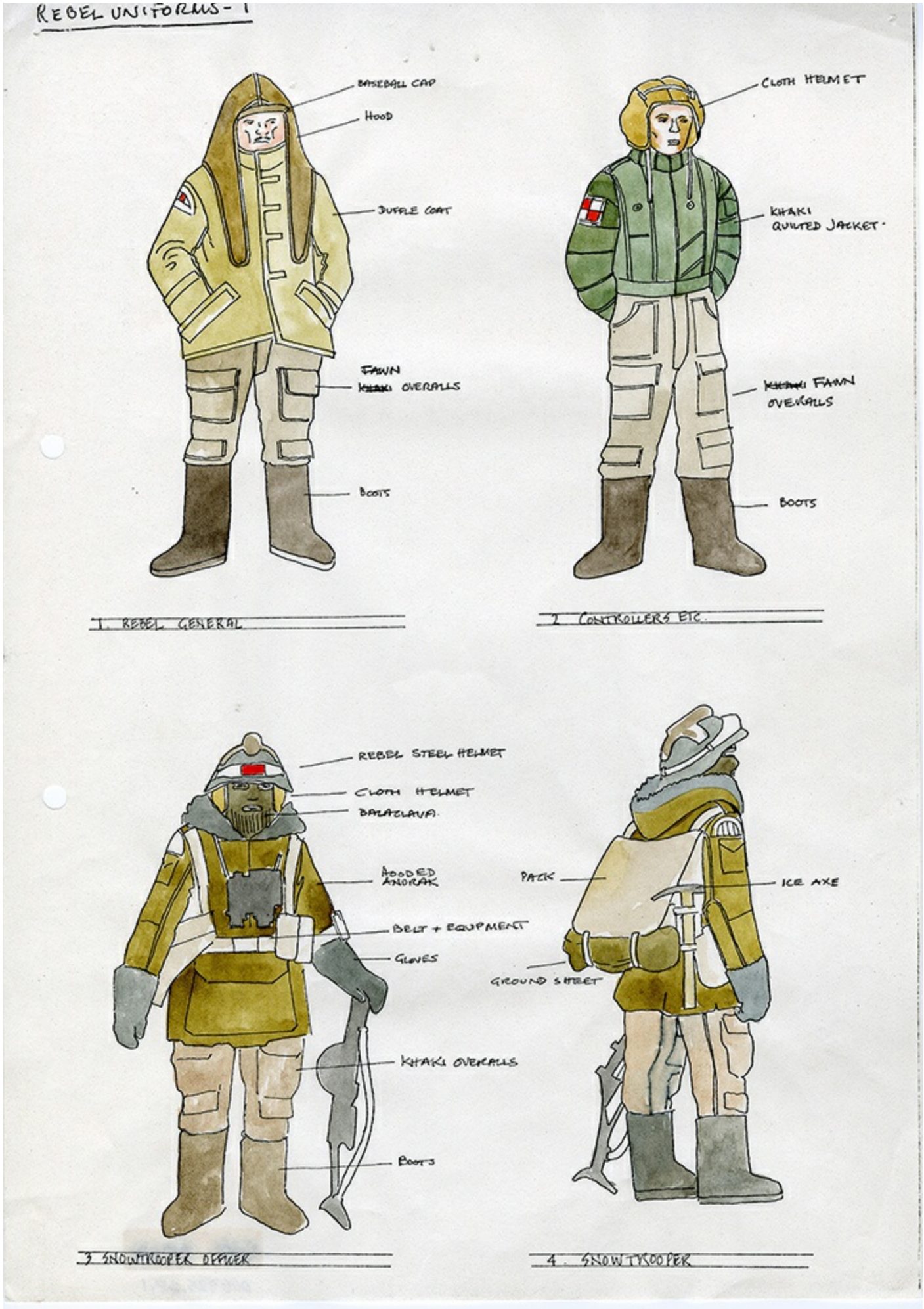
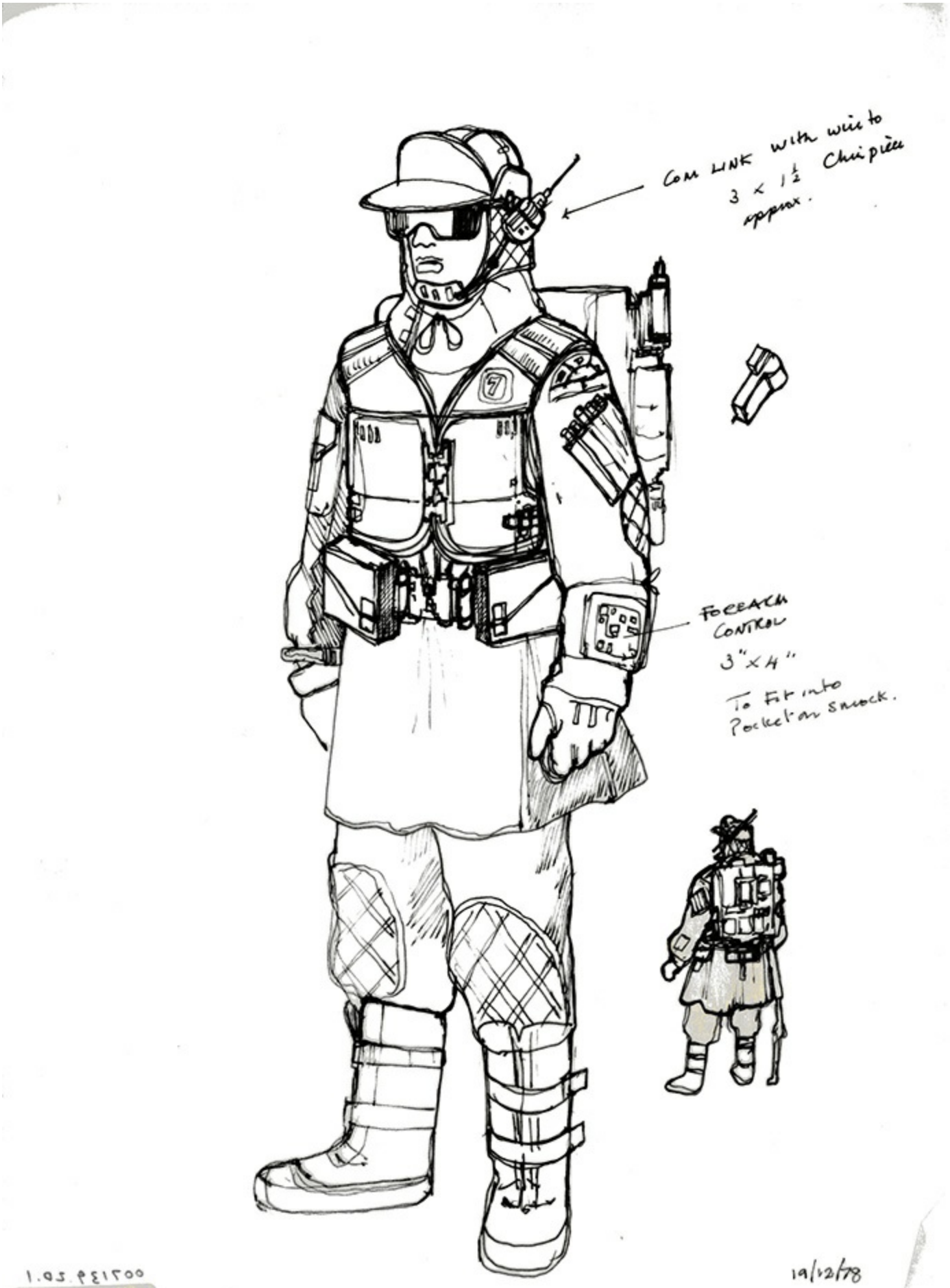


Costume concepts by John Mollo, fall 1978.



Costume concepts by John Mollo, fall 1978.

"One of the wonderful things was that everybody at that time was considered part of the filmmaking community of Lucasfilm," says Steve Starkey. "No one was left out. If there was a screening of a film, I could go, even if it was a rough cut. Discussions about the movies were had and you could be there listening. I was too intimidated to speak, but you didn't have to leave the room. They'd have a Thanksgiving dinner each year. All the Bay Area filmmakers were a very tight-knit family."

ESOTERIC MODELS

Production coordinator Miki Herman began to take notes at ILM's meeting in November, as the facility began weekly updates. Her records of the next month reveal that on December 8, Dennis Muren decided, with others' input, to shoot the asteroid explosions live and then rephotograph the film in roto. (This technique, "which allowed the complex actions and camera moves that George wanted," according to Muren, soon became a staple at ILM.) The roto shop, supervised by Peter Kuran, would open its doors on January 1 (Kuran had been assistant to Adam Beckett on *Star Wars*, but Beckett had died in a fire in the interim). Another bullet point was figuring out how many cameras ILM possessed and estimating how many shots they would be able to do per day.

Lorne Peterson and his two-person model shop had started on a cloud car—but down the road they were going to have to build a new "Star Destroyer 11,000 feet long; Darth's [new] ship is 16 miles." Not surprisingly, Peterson felt he would need more people, because even a miniature of that ship was going to be pretty big.

"We were probably understaffed back then," Peterson says. "There was a bit of a mandate for keeping the company small. The feeling was that George really didn't want a company that had hundreds of people in it."

"There was a shortage of people who were experienced," says Paul Huston. "It was like a start-up company and *Empire* was going to be a big jump from *Star Wars* in terms of the complexity and number of the models. So you gotta get people, you gotta get equipment, you gotta get materials, you gotta make contacts with all your suppliers. There was one period when we were even making furniture for some of the other departments."

"You have to remember," Peterson adds, "that one of the ways that Gary Kurtz talked to me about *Empire* was, 'From the model point of view, it'll actually be easier than the first show because we already have all the models; they've been packaged, sent up north, and are sitting in a warehouse. So in some ways, it'll be just operating those models again.' Well, it didn't work out that way at all!"

Peterson had hired Tom Rudduck on October 2 and Mike Fulmer on November 27, and would hire Sam Zolltheis on December 18 and Charles Bailey on January 15—but his talent pool was small. "It was hard to find model makers of a certain caliber in the Bay Area," he says. "They'd either had full-on art experience or full-on industrial experience. But I needed a combination of the two."

"It's important that this film have the quality of the first one so it doesn't look as though we are skimping, which is what a good many sequels have done," Lucas says. "I want people to realize we put the highest quality in every picture, that the quality's not going to drop. That's the challenge."

"The 'challenge' George gave us was to make the work better for the same price or less as the first film," Muren explains.

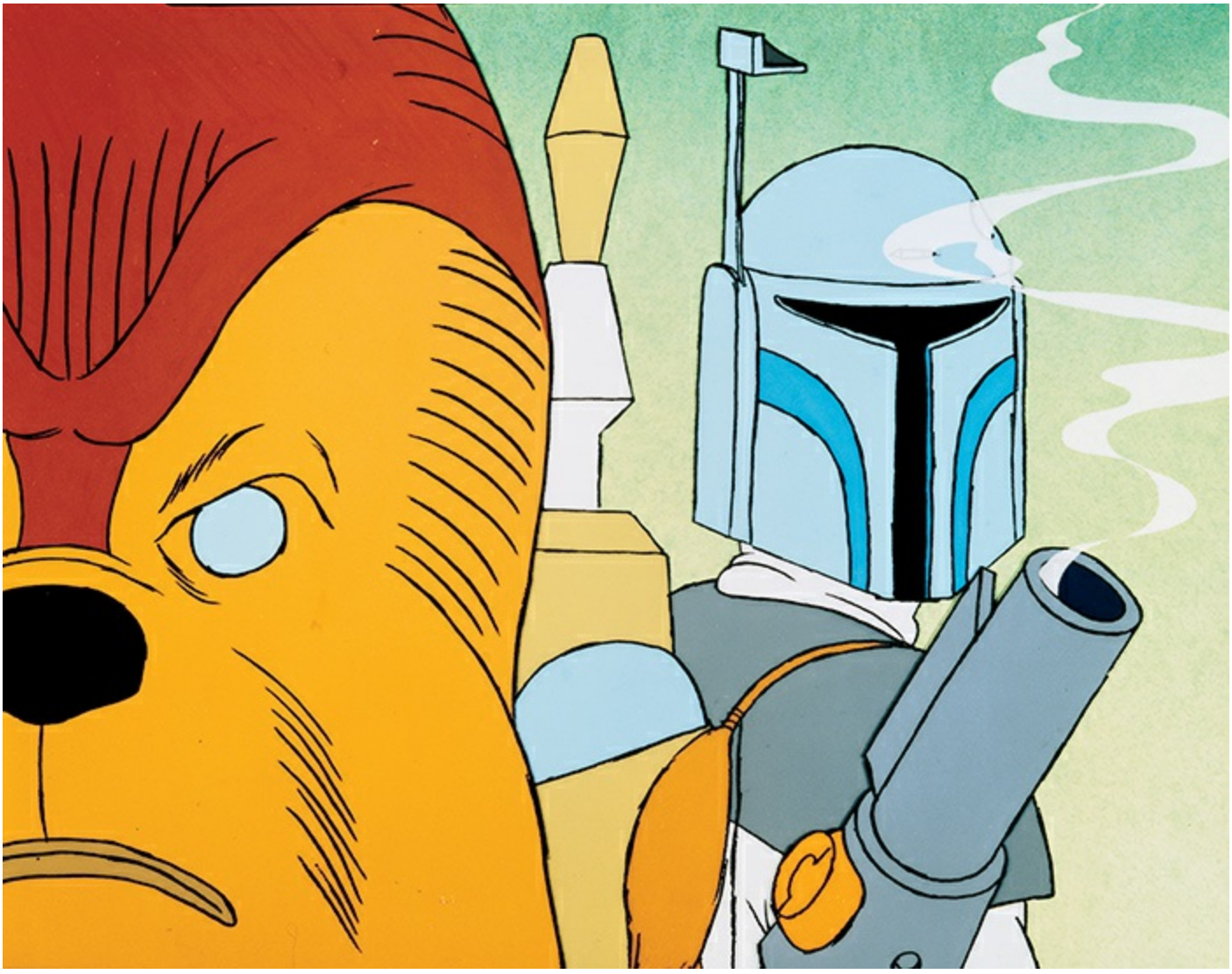
"George was here more often, because he lived close by," says Steve Gawley. "He seemed pretty darn

happy and it just seemed like a pretty neat thing to start in a new place."

As for the tauntaun model, Phil Tippett had completed a sculpture back in September 1978, after discovering that young calves have very fine and small-napped hair, which was perfect for his miniature. Joe Johnston sent those hair samples to Norman Reynolds in December. "Phil and I went to fairly great lengths to try and find the right kind of hair," says Jon Berg. "[These] were calves that were mistakenly in the womb of the mother cow when she was slaughtered; then that skin was tanned and the nap of it was extremely small and a real fine texture. Phil has a really old way of getting that fur off the leather and onto a rubber backing. It involves gluing the fur nap into a water-soluble glue and then taking away the leather and replacing it with a rubber so that you can get a stretchy skin still with the hair."

"I sculpted a 12-inch-high mock-up of this tauntaun and sent it to the art department in England," says Tippett. "There they constructed the full-sized, eight-foot-tall model that was going to be used for the close-ups filmed in Norway and at Elstree Studios."

By this time the final look of the Imperial walker had also been fixed. "It was more or less left up to me," Johnston says. "It amounted to a few sketches. Ralph was in England to do some paintings, so he wasn't too involved in the end of the design phase."



Boba Fett made an animated cameo in November 1978's *Star Wars Holiday Special*.



The cast of *Star Wars* was also reunited to celebrate the show's Life Day on the Wookiee planet.



R2-D2 wore a party hat for the 50th anniversary of Mickey Mouse on Disney's TV special, November 1978.



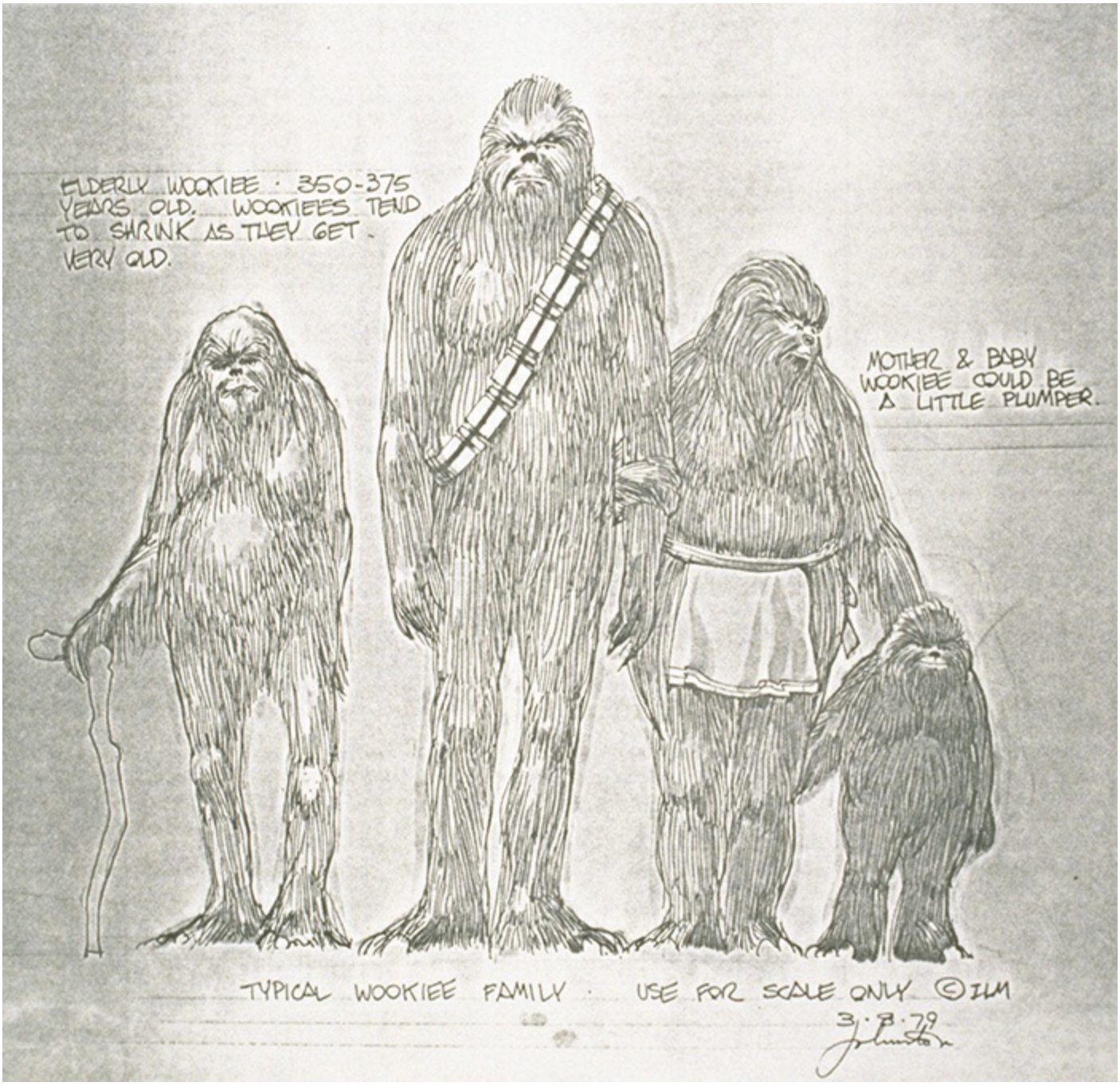
Wookiee home concept by McQuarrie.



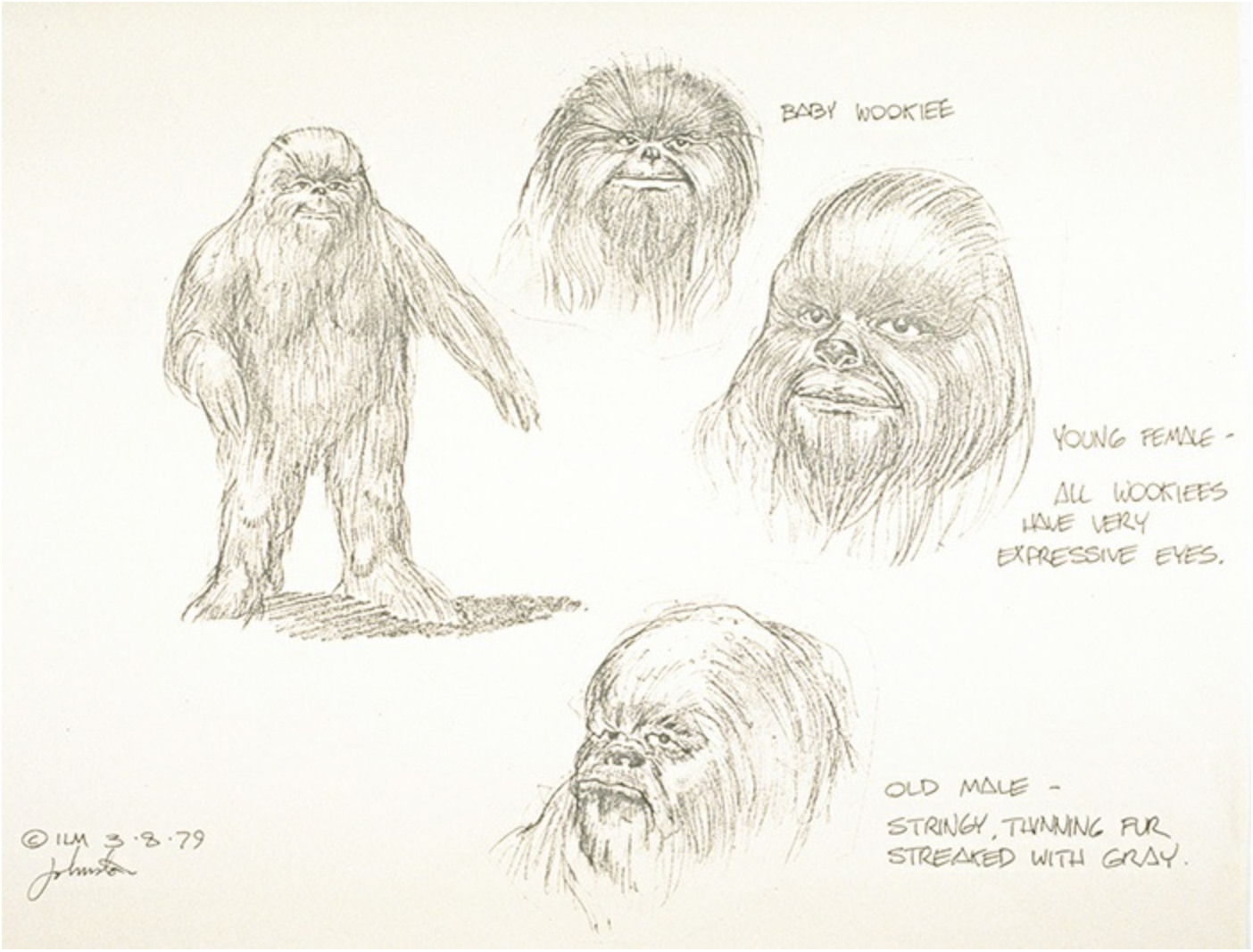
Wookiee home concept by McQuarrie.



“Wookiee house” by McQuarrie, May 8–10, 1978. “George said he’d like me to work on Wookiee material for a TV show,” says McQuarrie. “I think I just got some bare notes, so I started making drawings of what I thought a Wookiee house would be like. I had a lot of fun doing that.”



Wookiee style sheets by Johnston, copyright dated March 1979 (though perhaps drawn earlier for the TV special).



Wookiee style sheets by Johnston, copyright dated March 1979 (though perhaps drawn earlier for the TV special).

ROGUE LEADER

While additional employees joined ILM, a new principal actor was also hired—Billy Dee Williams—whose contract was dated December 15. Although many artists had auditioned, one of Lucas's early story notes reads, "Actor—Billy Dee Williams—Cloud City leader."

"I spent most of my early years in Harlem and had an interesting childhood," Williams says. "My mother aspired to be an opera singer. She was working as an elevator operator at the Lyceum Theatre in New York City and knew that Kurt Weill was looking for a cute little boy for a walk-on part in a musical. That was my first experience in the theater, but the bug bit me."

His romantic onscreen image is what got Williams the part, according to Kershner, who says he "really looks like a Mississippi riverboat hustler. Billy can do that charm fantastically."

Williams had recently been in a slew of successful films, including *Lady Sings the Blues* (1972) and *The Bingo Long Traveling All-Stars & Motor Kings* (1976, whose screenplay was written by Lucas's friends Hal Barwood and Matthew Robbins). According to *Jet* magazine, Williams jumped at the chance. "I mean, how do you turn down *Star Wars*?" But *The Oakland Post* reported that Williams had "qualms" about the film and was not eager to play what might be considered a token role. Fortunately, Lucasfilm had another new employee in Sid Ganis, who headed up its nascent marketing department. "Ganis vehemently denied charges of tokenism claiming that they were merely looking for a romantic

hero," reported the newspaper. "Williams accepted that and said he was attracted to the role primarily because it wasn't written for a black actor."

"Kershner and I sat down at my house in California and we talked about Eastern philosophy," Williams says. "He's into Zen and I've been into Zen since I was about 26; now I'm 40. Kershner said, 'I wanna introduce some Zen here, because I don't want the kids to walk away just feeling that everything is shoot-'em-up, but that there's also a little something to think about in terms of yourself and your surroundings.' "



A patch of tauntaun "skin," like the one Tippett sent to England for reference.

5/30

LUCASFILM Ltd

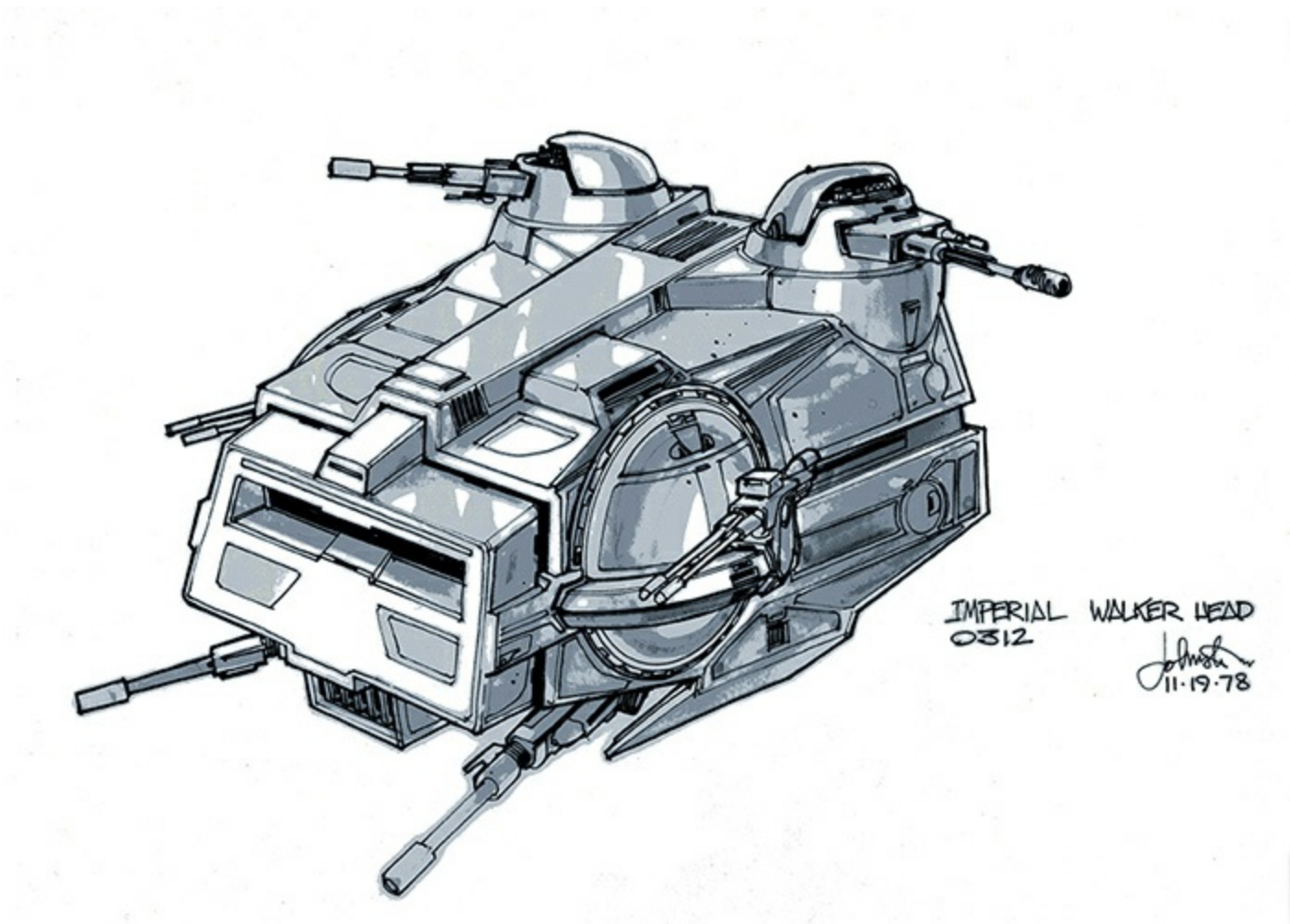
Wampa Hair



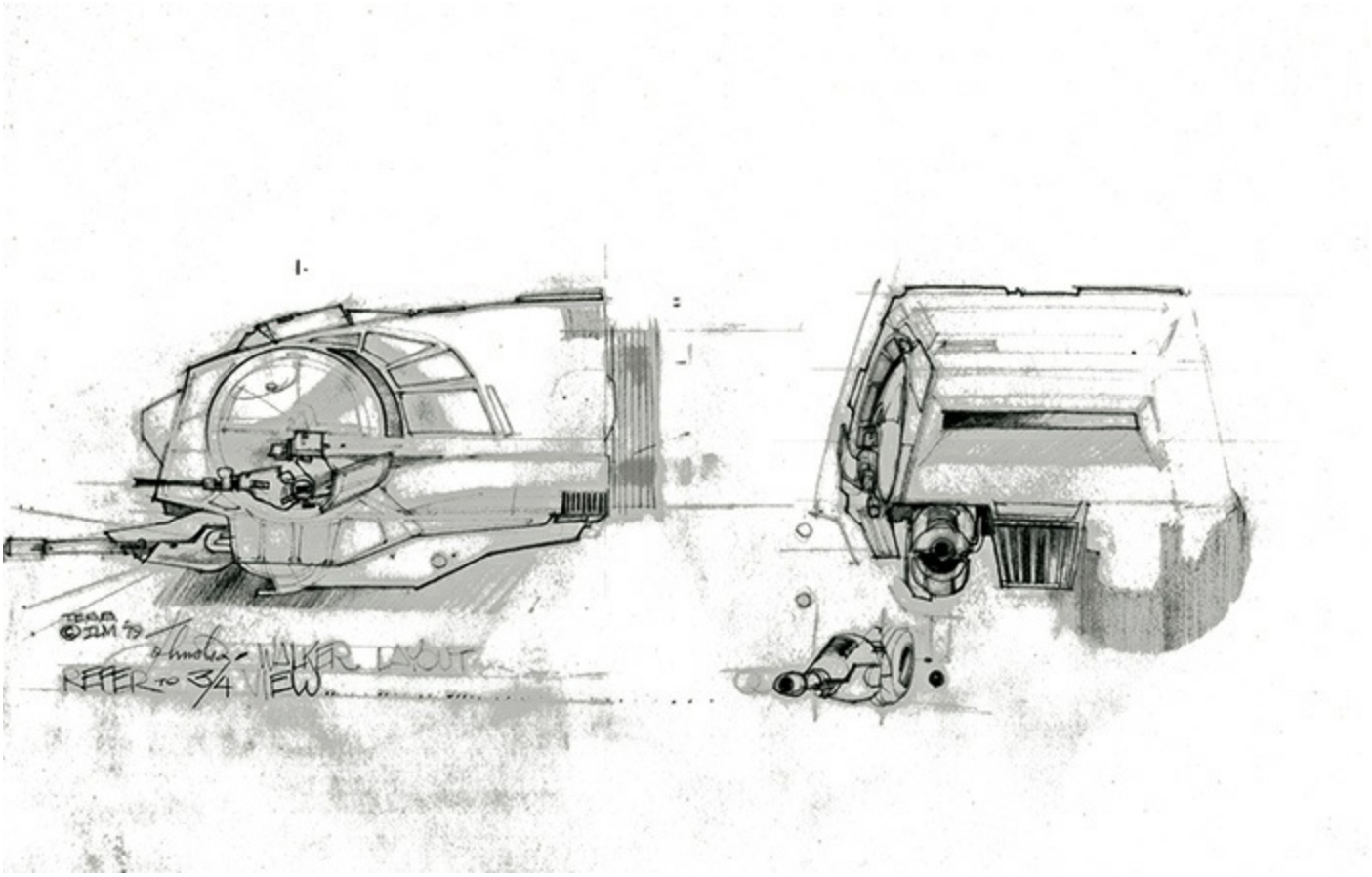
Terry is duping 35mm Color slides for Wampa reference

MIKI HERMAN

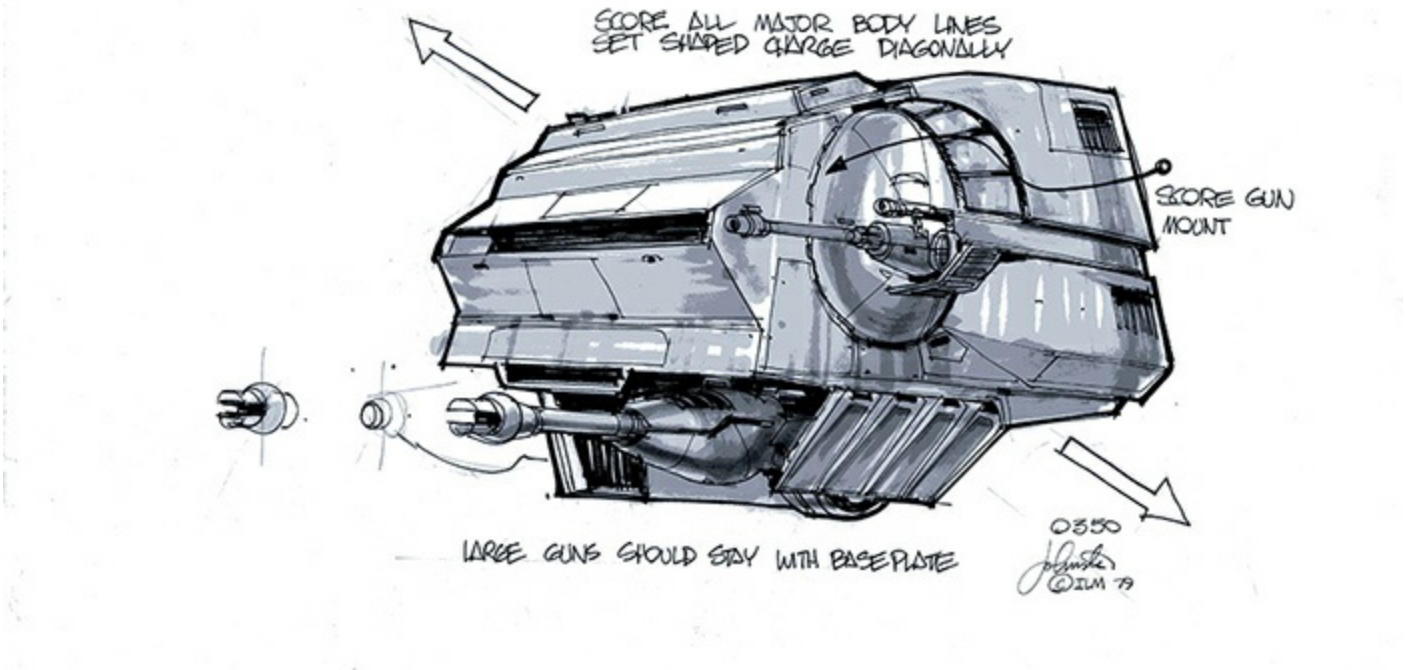
“Wampa Hair” reference attached to production coordinator Miki Herman’s stationery.



Walker head concepts by Johnston: (no. 312, November 19, 1978).



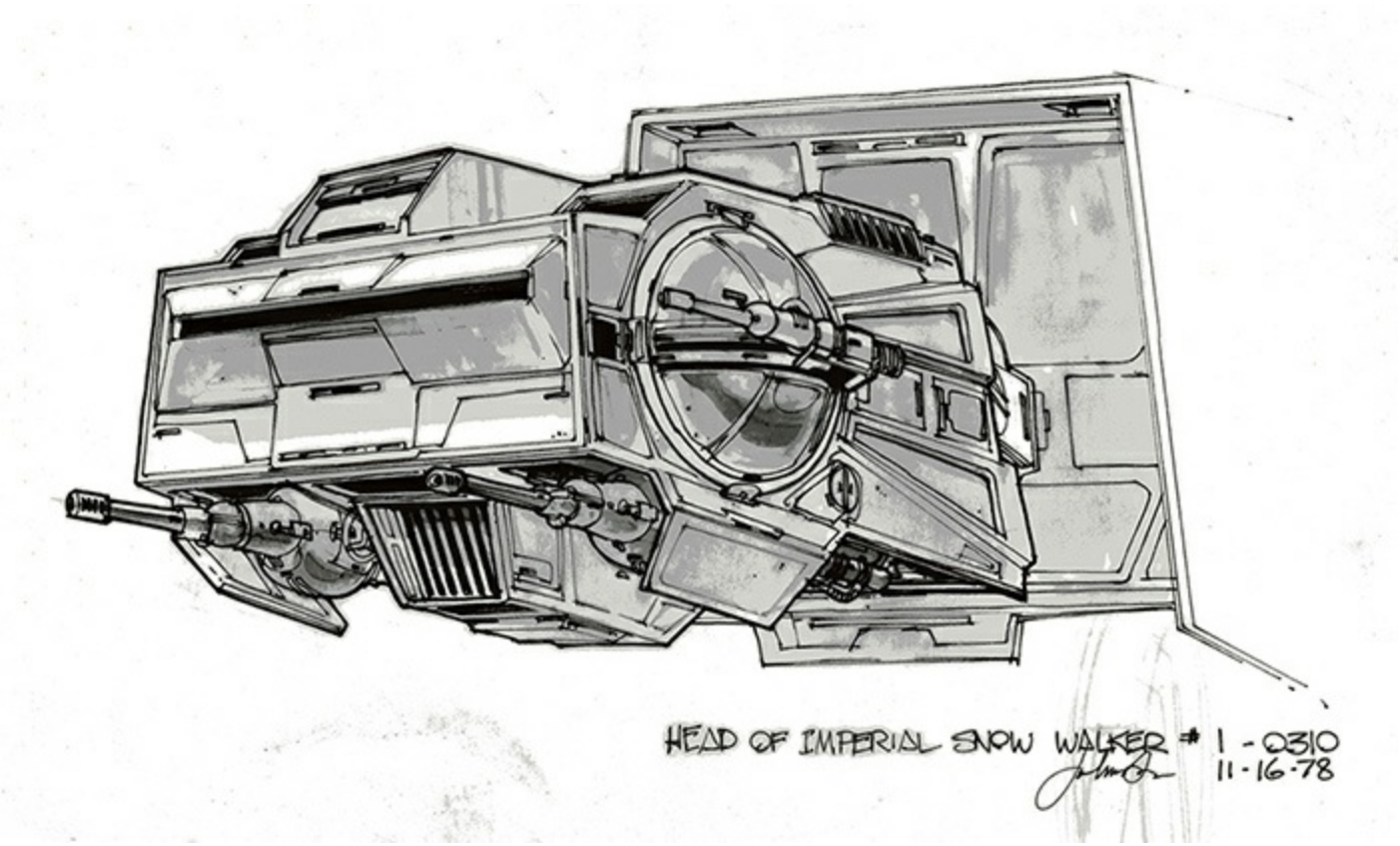
Walker head concepts by Johnston: (rough sketch, early 1979).



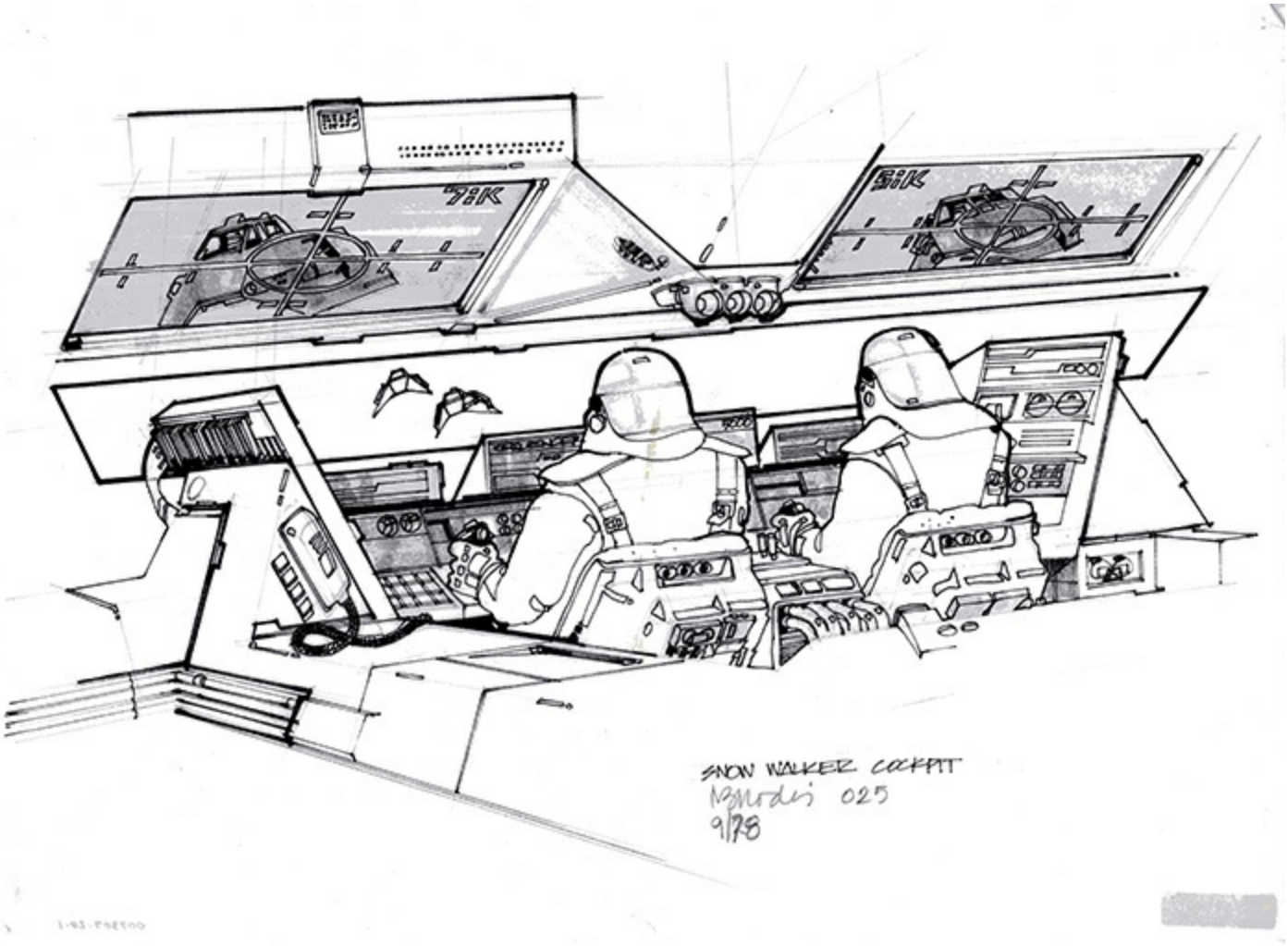
Walker head concepts by Johnston: (no. 350, early 1979).



Walker concept drawings, Johnston, November–December 1978.



Walker concept drawings, Johnston, November–December 1978.



"Snow Walker Cockpit" concept by Rodis-Jamero, September 1978.

HIDDEN BONANZA

Lucasfilm kept expanding. On December 22, 1978, an internal budget report put total US and UK direct costs for *Empire* at $21,473,328, up from $18 million and now doubling the original $10 million projection, with the biggest single expense being set construction, at more than $3.5 million. By January 1979, the Lucasfilm payroll numbered 350 and its North Bay headquarters had moved entirely from Park House to Ancho Vista, with Lucas converting the former address into his home.

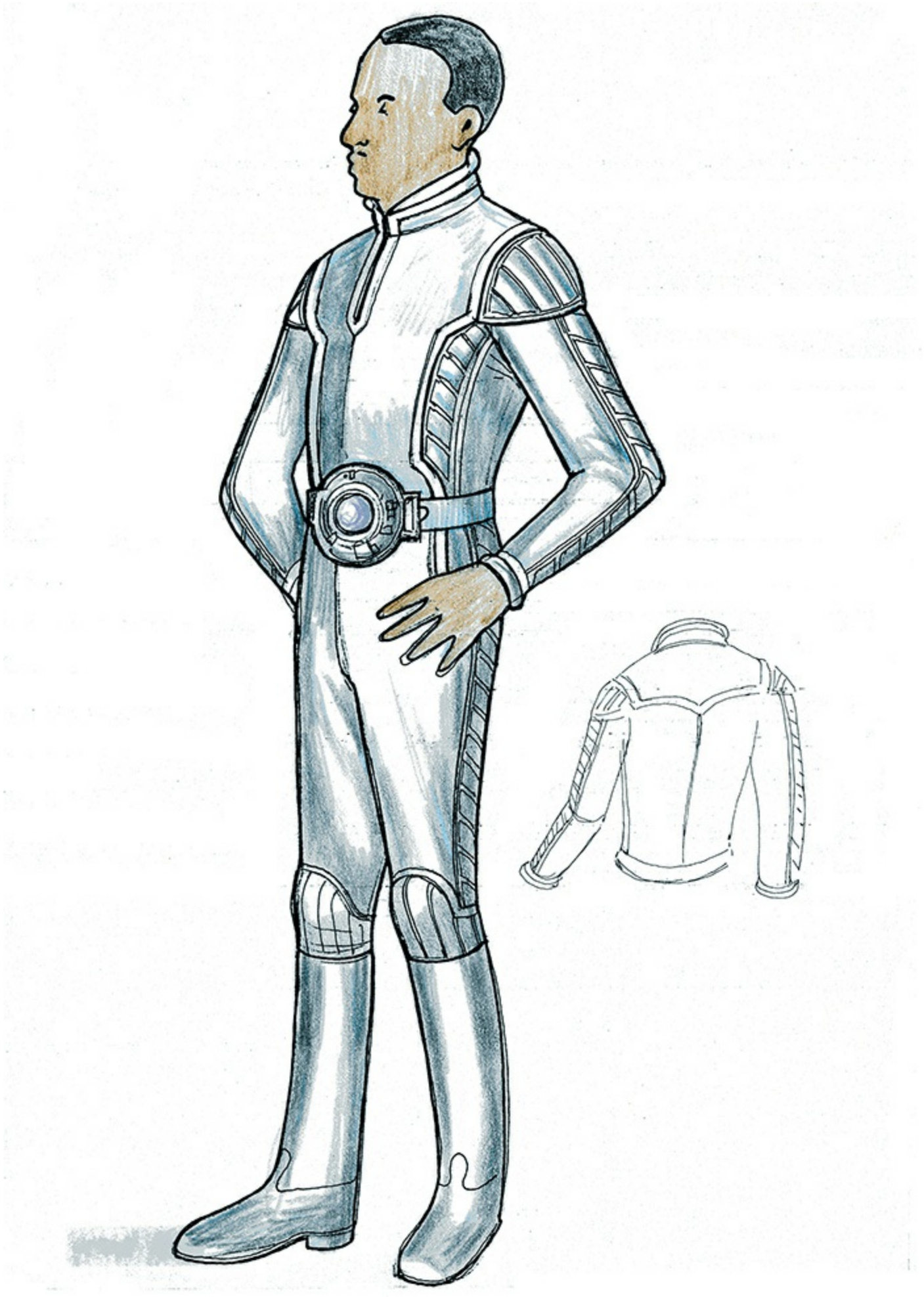
The good news was that merchandise had done extremely well the previous year, with Kenner making around $100 million. Of course, Black Falcon collected its percentage from the toymaker and other myriad licensees. There was a cuddly Chewbacca; a remote-controlled R2-D2; Darth Vader piggy banks and pencil sharpeners; do-it-yourself construction kits, molding kits, painting kits, play kits, poster kits, and jigsaw puzzles; a projector for showing slides from the movie; rulers, pens, digital watches, erasers, jewelry, and more.



Costume concept for Lando by John Mollo, late 1978–early 1979.



Costume concept for Lando by John Mollo, late 1978–early 1979.



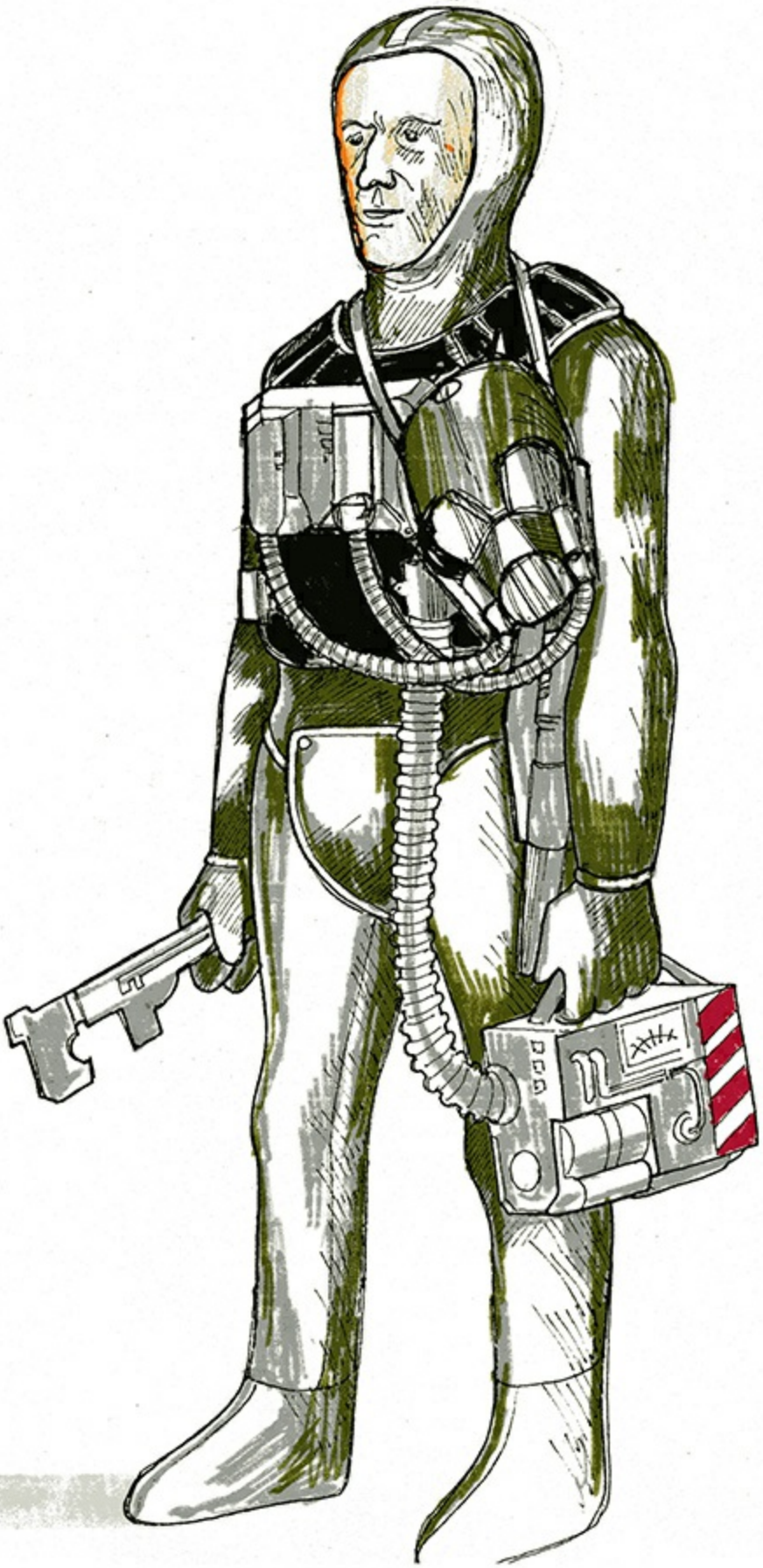
Costume concept for Lando by John Mollo, late 1978–early 1979.



Costume concepts by John Mollo.

CLOUD CITY MINERS

3



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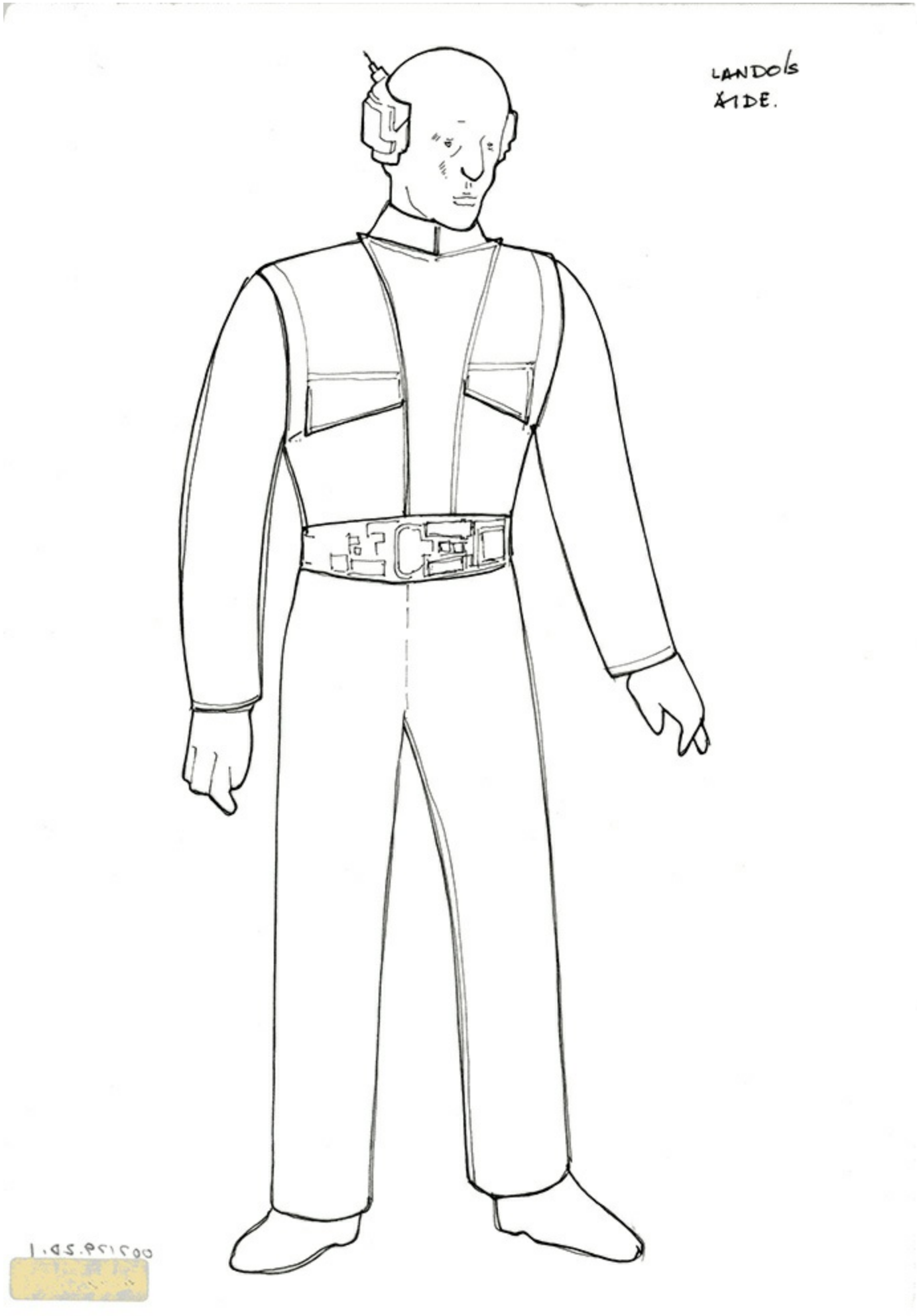
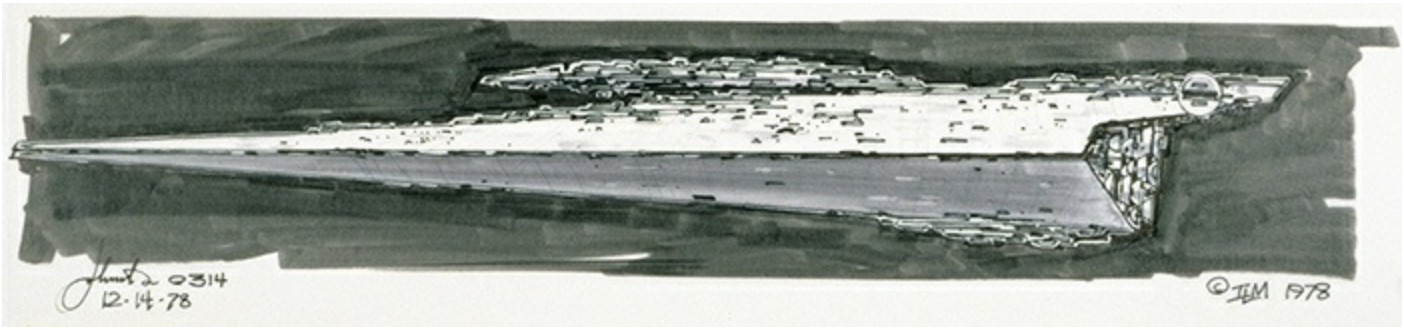
Costume concepts by John Mollo.



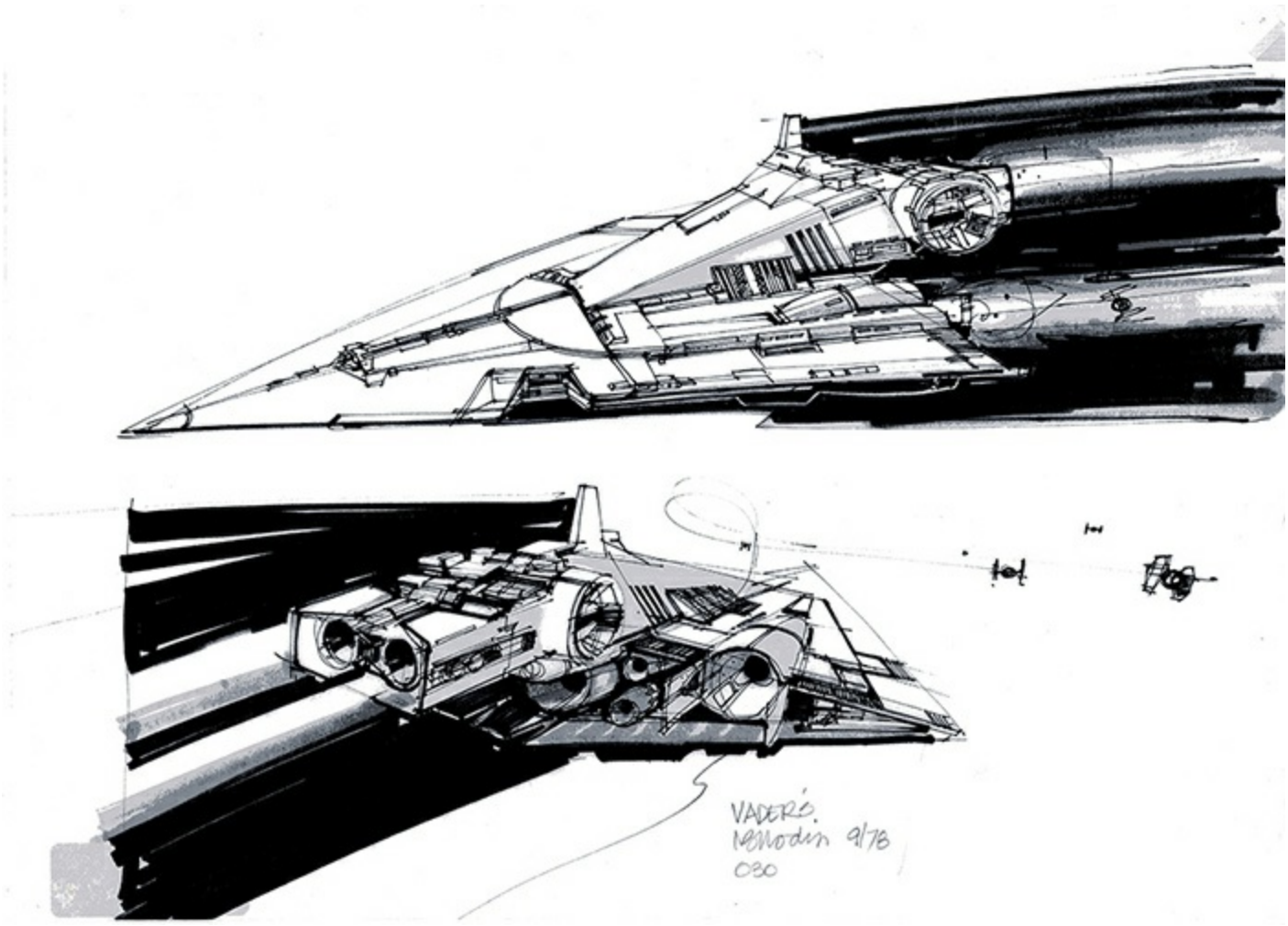
Costume concepts by John Mollo.



Costume concept by Mollo.



Darth Vader Star Destroyer concept by Nilo Rodis-Jamero, September 1978.



Darth Vader Star Destroyer final concept by Johnston (no. 314), December 14, 1978.

"The size of the market floored all of us," says Kurtz.

"We had no clue how big this business would become," Doug Ferguson says. "I'd said, 'A few license agreements? Heck, we can handle that in my office.' But soon we had three or four lawyers in my office, working essentially full-time on *Star Wars* licensing, which was a bit of a nuisance. That's when I started to establish a legal department within Lucasfilm, so the licensing could be internally handled. If I were to go back and comb through the files at that time, I'm sure I'd find that we all made a lot of silly mistakes. But the franchise was so strong that we negotiated many deals from a position of strength, so the mistakes we made weren't that harmful."

"When I brought in Sid Ganis to be head of marketing, part of his role, in addition to the marketing of the films, was to coordinate the marketing of the merchandising and publishing," says Weber. "Some of the items, like cookie jars, were George's inspiration, but we had every licensee in the world coming to us with an idea. There were some basic rules: We had nothing to do with alcohol, even though we were offered huge cash advances by the liquor companies to do a robot bottle, and we didn't do any vitamins. We didn't want to do anything that promoted pill taking."

"I was happily working at Warner Bros.," says Ganis. "And one day I got a call from a guy I didn't know named Charlie Weber, who said, 'Hey, can I meet you sometime? I'd like to talk to you about the possibility of coming to work for George Lucas.' A couple of days later, he told me that George had asked Francis Ford Coppola if he knew anybody who could head up marketing and not be beholden to the studios. And Francis said, 'Yeah, why don't you try Sid Ganis?'

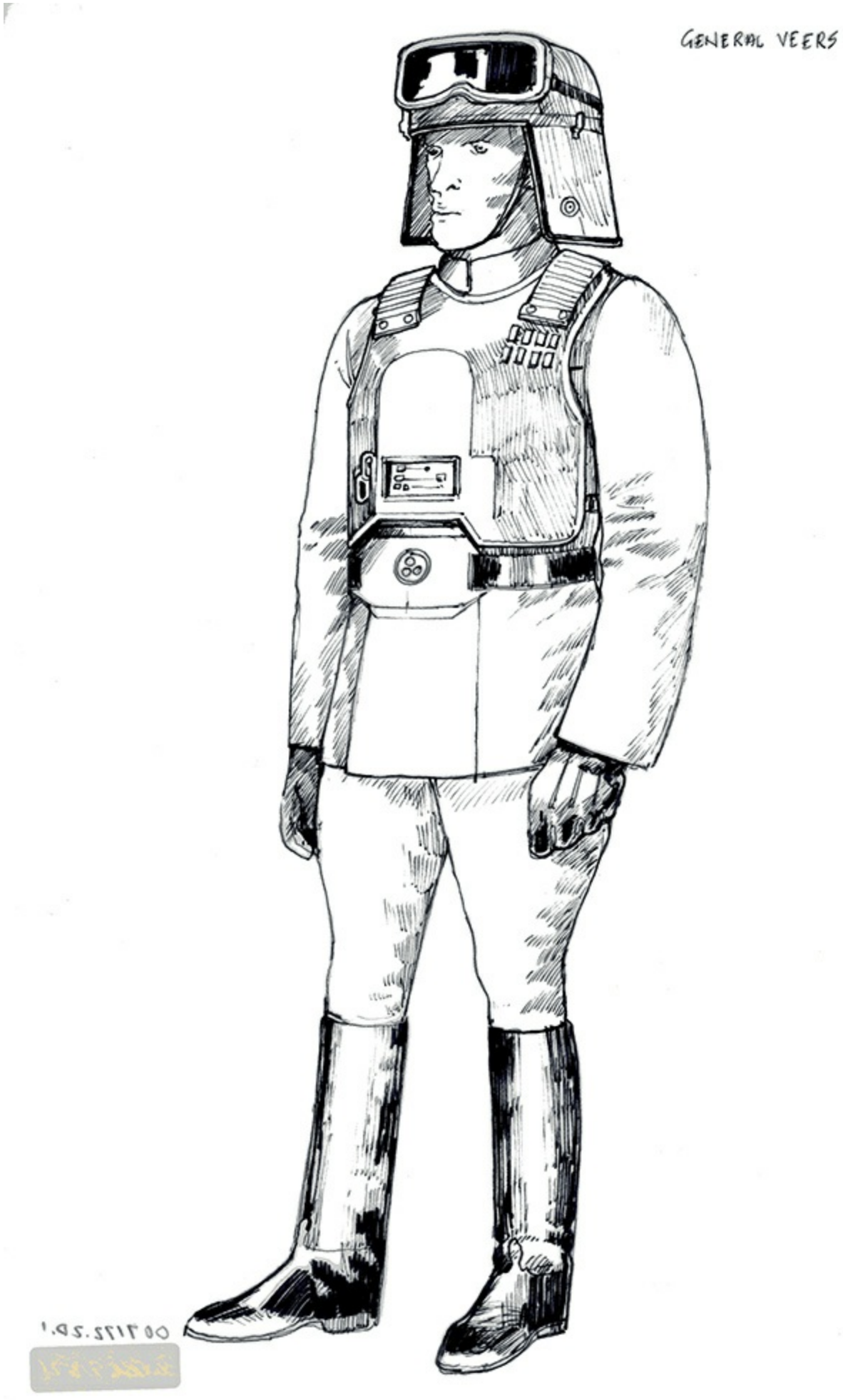
"So Charlie hired me and I formally met George in Los Angeles at a place called the Egg Company, across the street from Universal. It was being redesigned to be an office building for us. Things were cooking, so George actually needed a marketing dude to help him communicate with the distributors and the producers of *Empire* and *More American Graffiti*."

Sid Ganis officially started on January 3. "Charlie Weber, John Moohr, Sid Ganis, and all these guys down in LA were like Lucasfilm Corporate," says Jim Bloom. "I remember all the *Star Wars* toys used to come in and were stored up in George's attic. Jane Bay used to guard that attic, but every once in a while George would say, 'C'mon, I got a new toy. Let me show you.' And he'd take you up to the attic and say, 'You see anything you like?' And I went, 'Yeah, I like …'—and I still have at home to this day my Artoo-Detoo cookie jar."

"A tremendous amount of merchandising was generated, to the point where George had a personal collection of merchandise that was growing daily," says Starkey. "Closets and floors were full of this stuff, so Jane said, 'Get a warehouse. Organize it all.' So I got this warehouse and an inventory book, and I had an entire warehouse of George's merchandise. As a reward, I got a few toys that I stupidly gave away. I think I kept my Artoo-Detoo cookie jar."

Not only did the merchandise exceed expectations, but *Star Wars* spinoff books also became a fixture on the science-fiction lists; indeed, it was estimated that the film gave a huge boost to the genre, with the number of sci-fi books published doubling between 1977 and the end of 1978. By March 1979, toy sales had passed $200 million, with Lucasfilm receiving tens of millions, and plans were eagerly made for the *Empire* generation.

"We started designing in advance with Kenner," says Weber, "so the release of the toys would coincide with the release of the movie, whereas, up to then, there was always like a year delay. With publishing, too, we did a big children's book deal with Random House. Those were the two big ones that were set in stone."



Costume design by John Mollo, late 1978–1979.

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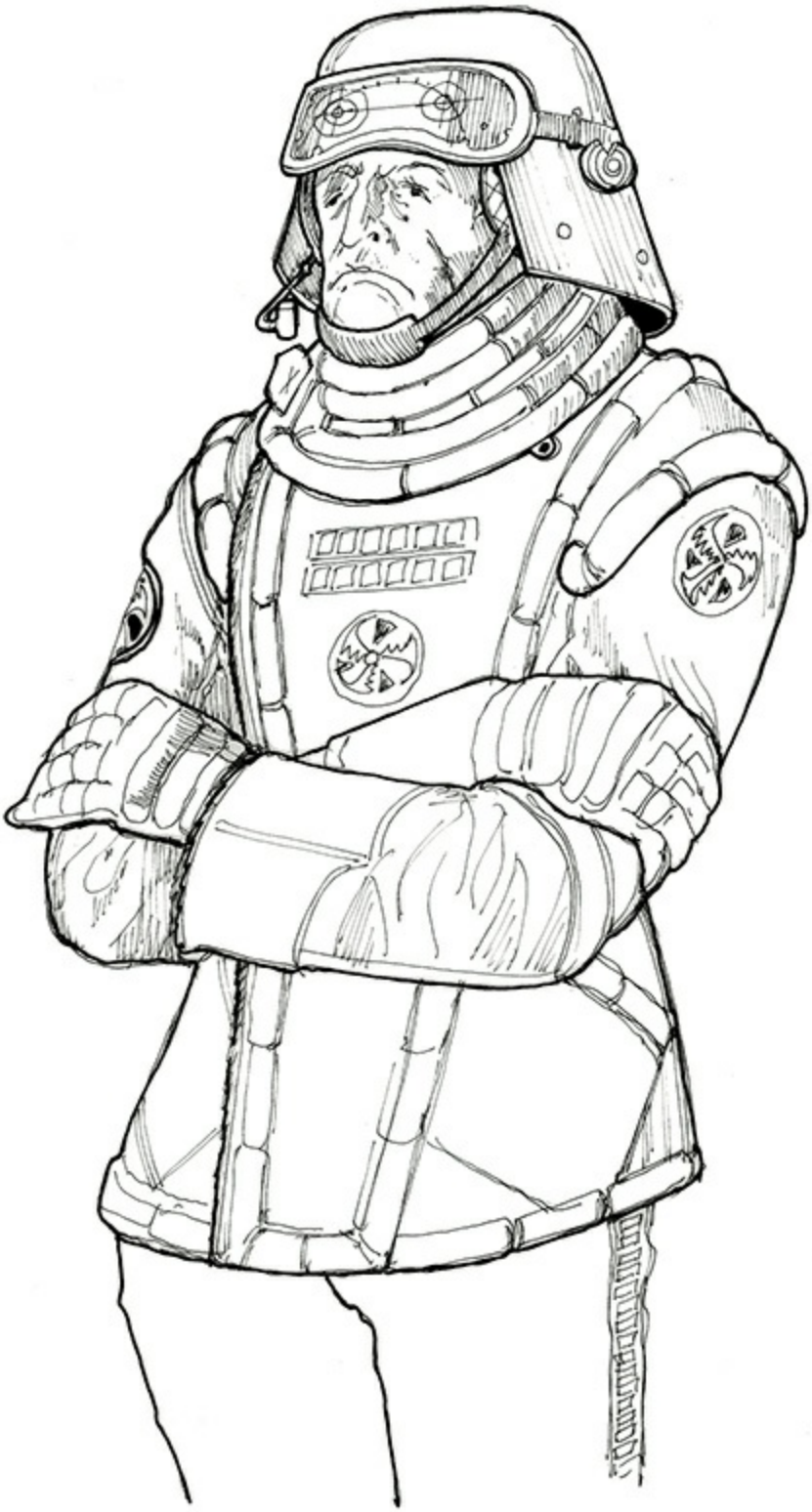
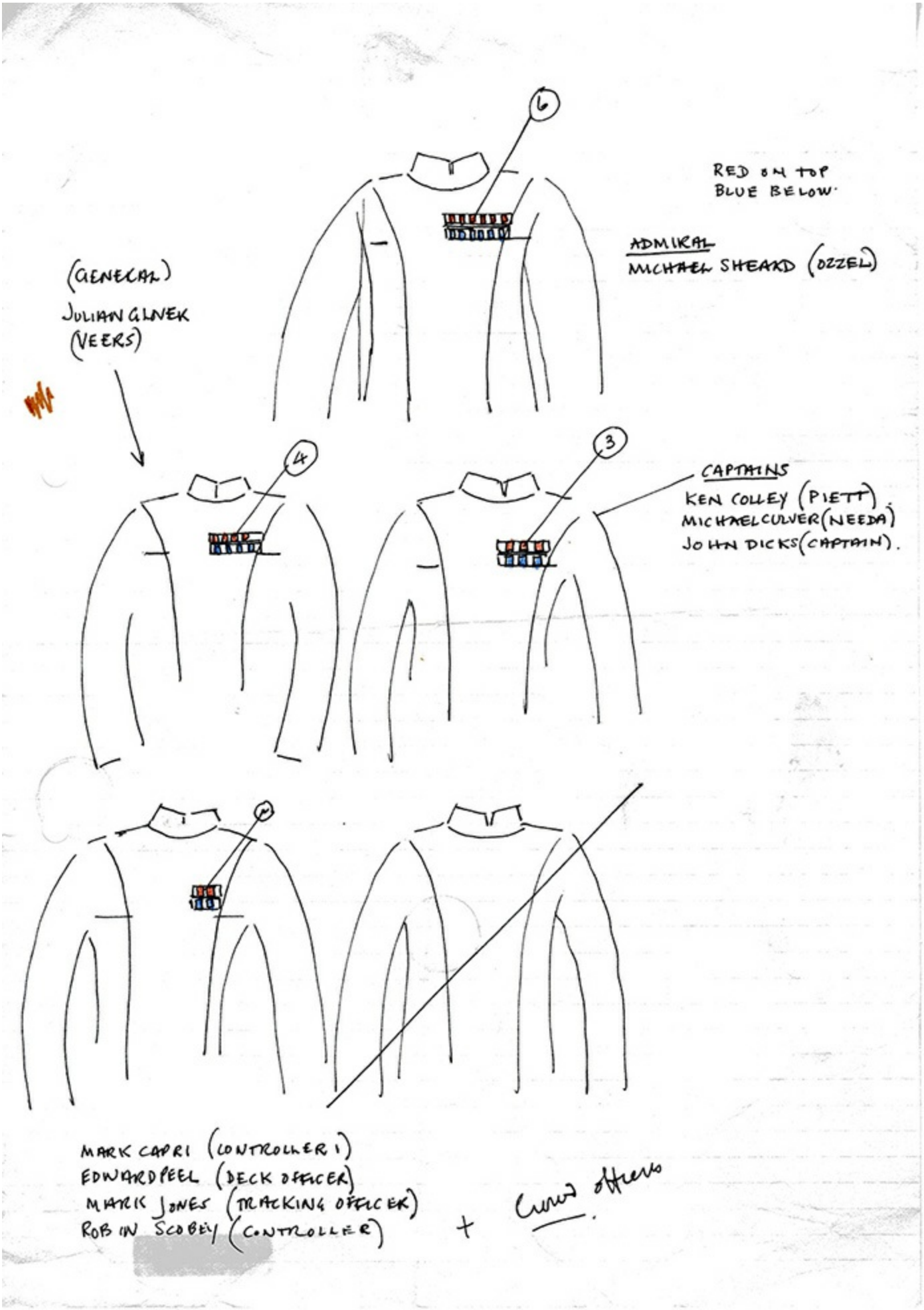
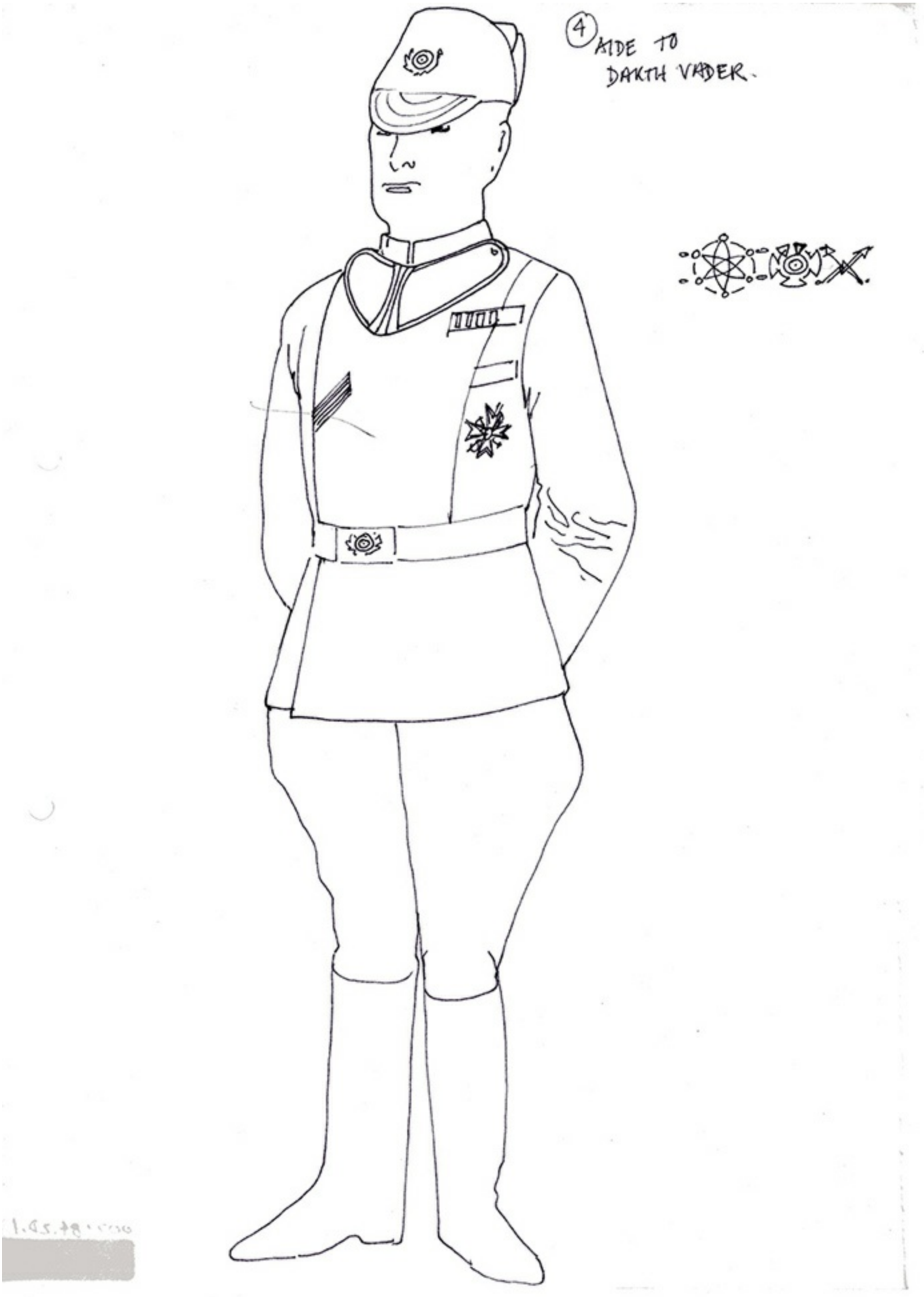


Costume design by John Mollo, late 1978–1979.



Costume concepts by Mollo.



Costume concepts by Mollo.

MODERN LIGHTS

ILM grew as well, with 33 people on staff by January 1979. Notable new hires included Ken Ralston in the camera department and Tom St. Amand in stop-motion, both of whom started midmonth (they'd been working on *The Primevals* when that production ran out of cash). Production meeting notes indicate that trios of model makers had each been assigned to the "huge" Star Destroyer and "Vader ship," while armatures were being finished for the walker and snowspeeders.

"I remember how much it was raining when we first got up there," Ralston says, "and trying to get used to the facility, which was just an empty warehouse. The space was very small; it was like one-third of an industrial building with an automotive repair facility next door. George was doing *More American Graffiti* at the time, so it was cool to see the old cars."

"Joe moved over to ILM and I used to be the go-between," says Chrissie England. "I'd take stuff to them and I really liked the atmosphere over there." (England would later be president of ILM.)

"Jim Bloom was saying, 'This is great. We'll never fill up this space,' " says Johnston. "And within about six weeks we were trying to get permits to add a second floor. So the building was never designed for what it really needed to be. It was evolving constantly; we were always ripping out walls and moving things. It was a mess—plus it had outside entrances. You could go to work in the morning through your own door and work all day, get in your car, and drive home without ever seeing anybody else."



A party in ILM's screening room welcomed Brian Johnson: (FROM LEFT) Steve Starkey, Lucy Wilson, Chrissie England, Jane Bay, Lucas, Edlund, Bill Neil, Gene Whiteman.



(FROM LEFT) England, Johnson, Lucas, Peterson, Samuel Zolltheis, Edlund, Johnson's wife, Ray Scalice, Marcia Lucas, Steve Gawley (in beret; Muren is behind him), Paul Huston, and Chris Anderson.

"Dick Gallegly had just fired two women who were running the front office," says Patricia Blau, who started on January 8. "He was a fairly senior producer and production manager from television and he would sign stacks of purchase orders without necessarily inspecting every one of them. So, as a joke, they submitted a purchase order in his stack that included, I believe, furs, jewelry, drugs, things like that, and he signed it along with everything else. Then they came back in and said, 'Ha, ha, ha! Look what you've done!' And he said, 'Ha, ha, ha. You're fired!' So he needed somebody fast and I took over the front office."

"I was working very closely with Gary, who broke the movie up into two groups," says Bloom. "Robert Watts was in charge of the UK group and I was in charge of the American group. So I brought in a man named Dick Gallegly, who I'd worked with years earlier on *The Streets of San Francisco* TV show [1972], to be the production supervisor of ILM when I went off to England to work with Gary and Robert."

While internally ILM had its challenges, Lucas kept a positive face toward the public, saying, "The problem is that pictures of this kind are very difficult to make. The number of people involved, the amount of materials involved, the decision making that costs money every day—all these are horrendous compared with a normal movie. You can get into deep trouble very quickly. Fortunately, on the special effects side, we're very secure. I feel confident that we're not going to be in trouble there."

"We were just scrambling constantly, trying to figure out how to be prepared for this thing and saying amongst ourselves, 'How do we do these sequences?!' " says Ralston. "The great thing was George

was there a lot and gave us a lot of inspiration."

"It was a small enough company that we were celebrating every birthday individually," says Blau. "Probably the second or third day that I was there, I had to get cake and champagne for one of the engineers and during the little birthday celebration, he started carving his cake into the Devil's Tower from *Close Encounters*—which just spoke to the spirit of the place: very much movie fans and sci-fi fans who were really turning it into something interesting."

"I got a pretty damn good group of people together," says Edlund. "Because everything we had was like a hot rod. Every machine required a different kind of black art to make it work."

Indeed, with a visual effects photography start date of February 12, ILM began work on several essential magic boxes. "We only had two cameras to shoot with, the Dykstraflex and the old Technirama," Muren recalls.

"We had only two basic motion-control cameras, both of which worked very well almost from the outset," says Edlund. "One other camera I rented from Linwood Dunn for a while, and one high-speed camera I rented from Paramount, which was capable of somewhere between 96 and 100 frames per second."

"Here comes the Dykstraflex out of mothballs," says Ralston. " 'Does anyone remember how to use this thing? I don't.' We spent a lot of time trying to figure out that stuff and put it together. For some reason, I was in charge of creating a new camera form for listing the elements in each shot. We weren't like seasoned pros—we were flailing away, which was part of the excitement."

"That was a wonderful time," says Blau. "There were only about 33 people when I started and we were literally building the cameras to shoot the opticals and the background footage of the snow in Norway. You had a lot of people who were very literally building the facility and we were hiring a lot of people at the same time, so the excitement level was very high."

"I started on the building of a new high-speed movement in the VistaVision format with the Mitchell Camera Corporation," Edlund says. "Only two of these had been made in the 1950s, when the company was in full production—they had to drag the blueprints out of their files—so I knew it would take them several months to complete the two movements [innercamera mechanisms] I'd ordered. Meanwhile, we began design on a reflex VistaVision camera, which didn't exist at that time. We had a movement that we could use for that one and we immediately began building the housing, which we wanted to get finished in time for Norway. It had to have built-in heaters and be able to work at 30 degrees below zero. That was a real challenge."

"I think we brought up one optical printer, one matte camera, and some animation stands," says Bruce Nicholson. "All of the basics."

"All the studios had basically closed up their effects shops around the late 1950s," Edlund says. "I thought, *I wanna go and interview all the masters*. So I went and found Faricot Edouart, the great guy who did all those fancy rear projection pictures at Paramount [in the 1940s, Edouart had won or was nominated for several Academy Awards, including one for the engineering and development of a double-frame triple-head background projector]. I talked to Petro Vlahos, who designed this incredibly complicated matting process [winning an Academy Award in 1964 for Blue Screen Compositing Technology], which we all learned. I've forgotten a lot of the names, but we slowly learned how to cheat our way around a lot of things depending on the shots."

"*Empire* just seemed pretty daunting," says Ralston. "When we found out we had to do snow shots in bright daylight, we were petrified!"



Costume concept by McQuarrie for Lando, January 1979.



Costume concept by McQuarrie for Lando's aide, January 1979.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Costume concept by McQuarrie.



Production meeting at Elstree (FROM LEFT) with production supervisor Bruce Sharman, head painter John Davey, set decorator Michael Ford, assistant production manager Patricia Carr, property manager Frank Bruton, Norman Reynolds (gesturing), visual effects supervisor Brian Johnson, and make-up supervisor Stuart Freeborn.



(FROM LEFT) Jim Bloom, Robert Watts (in brown sweater), Irvin Kershner, Gary Kurtz, Sharman, Davey, unknown.



Director Irvin Kershner and production designer Norman Reynolds discuss a technical drawing of the rebel hangar on Hoth set.

ALBION ADVENTURES

Production hit high gear following the holidays. In their offices at Elstree were Kershner, Kurtz, Watts, Reynolds, McQuarrie, Johnson, and Mollo, with additional staff joining them weekly. Kershner, Kurtz, and Johnson would frequently fly back and forth between California and London as others worked diligently to prepare for photography in Norway and on the sound stages.

"Well, to me it's completely fascinating," says McQuarrie. "I'm a visually oriented type and I'm just enjoying very much seeing the general scene that perhaps becomes almost nonexistent for an Englishman. But a real railway station and the brick structures here are terrific to me, the color and things that I see."

"In early January, we moved location manager Philip Kohler out to Finse so he could start preparations for base camp and the two mountain camps," says Watts.

To coordinate the tremendous inflow of materials and personnel, a production office was set up in Oslo on January 16. The morning after, a tank-treaded snow truck, the Ratrac, arrived in Finse, and fuel was ordered two days later. Camera lenses and raw stock were delivered to Ron C. Goodman of Wesscam for the helicopter shots, on Sunday, January 21.

The previous Monday, back in the States, James Earl Jones had confirmed his return. As she had for *Star Wars*, his agent, Lucy Kroll, stipulated that, "He does not wish to receive billing" (an odd request, given that the actor had already been publicized as Vader's voice during the *Star Wars Holiday Special*). Jones's base salary was doubled from the first film to $15,000 for half a day's work, plus a small percentage of the gross.

That same day in England, director of photography Peter Suschitzky signed his contract, having first been contacted in December. His arrival carried on Lucas's tradition of using versatile cinematographers to shoot his movies, given that Suschitzky had worked on many films, commercials, and a series of documentaries in South America. He'd photographed *It Happened Here* (1965), a very low-budget independent film about what might have happened if the Nazis had won the Battle of Britain and invaded England; more recently, he'd shot *The Rocky Horror Picture Show* (1975).

"I had been approached about photographing the original *Star Wars*," Peter Suschitzky says, "so my contacts with George Lucas date back a few years now."

"Basically, at the beginning of the film, we had a session," says props manager Frank Bruton. "We got all the guns sorted out and we showed them to Kersh. We had a showing of, I suppose, 80 percent of what was known at that time of the essential props."

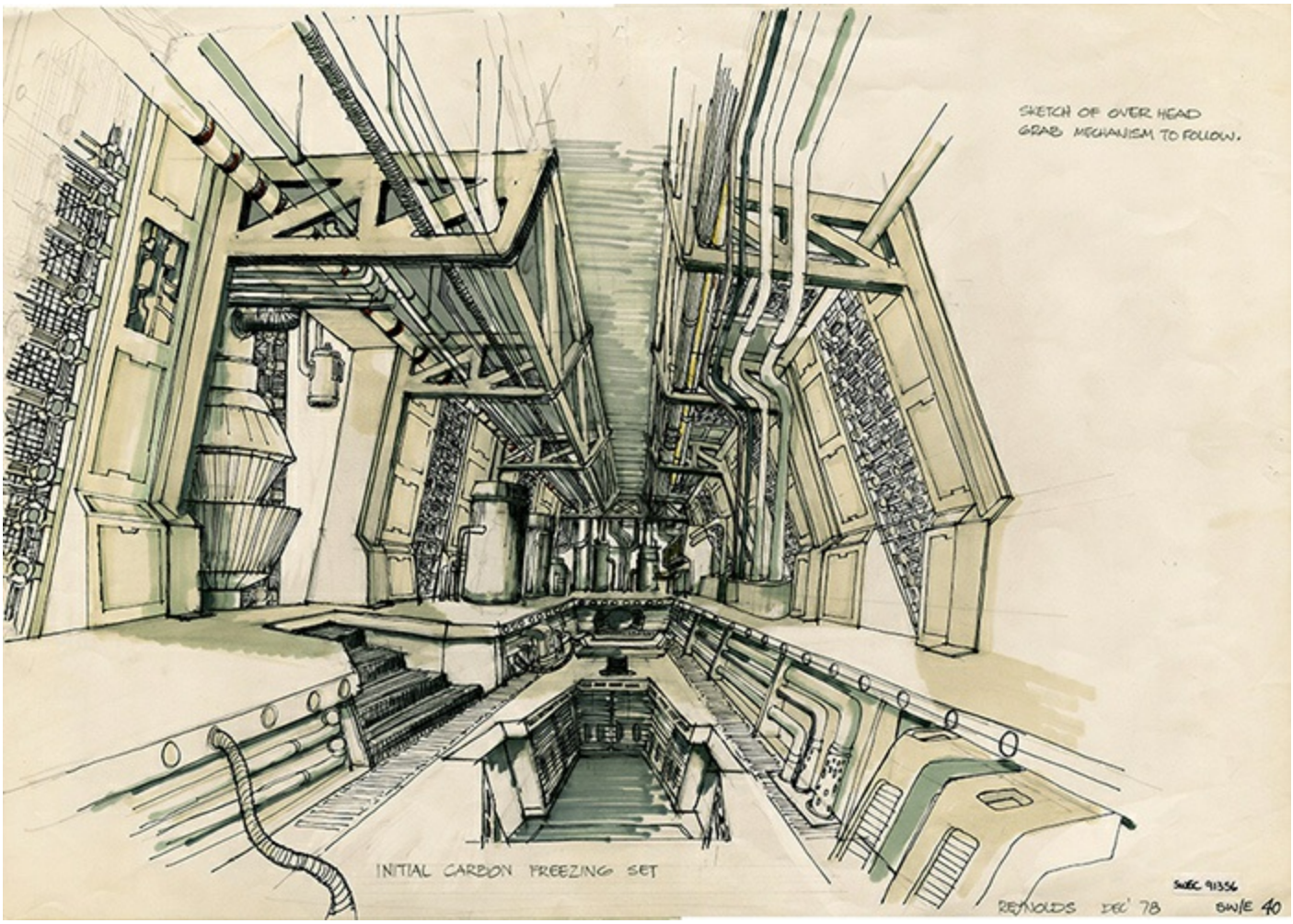
"We did engineer one of the tauntauns," says Brian Johnson. "The large head for the close-ups was partially ours, in conjunction with makeup—Stuart Freeborn and his closely knit family."

"In point of fact, the tauntauns were made outside, but under our supervision," says Bruton. "We had to make two of those. One was a costume version, as you call it, and the other one was mechanical."

"I'm working right now with Norman Reynolds, because Norman is really the designer and wants to contribute some major looks to some of the things," says McQuarrie. "George has left part of it open, as much to say, 'Norman, you don't have to do everything from something Ralph has done. You can originate things.' I'm working on some paintings that will probably serve to show how the matte paintings can look, so that we're all clear. Norman has taken over the interior of Cloud City. The

difficulties of constructing the sort of rounded Jell-O mold forms I was interested in are going to be too great, too expensive to do, so Norman has made them a little more rigid, more crystalline. It's very good and works as well, perhaps better."

"We had extensive models built and we made all kinds of special finders to view them," says Kershner. "I found myself on my knees three or four hours a day looking over the tops of tables into miniature sets. We made a huge book of every major sequence, shot by shot. This accurate previsualizing was the first difficulty."



Reynold's study of the "Initial Carbon Freezing set" (no. 40), December 1978.



A Reynold's study of the "Initial Carbon Freezing set" (no. 40), December 1978, based on the McQuarrie design, led to an early maquette made in England (with Han Solo cutout).



Unknown, Kershner, set decorator Michael Ford, Reynolds (pointing), and Frank Bruton in the props department.



Bruton with the finished full-sized tauntaun.



Creating the life-sized tauntaun prop at Elstree Studios.



Creating the life-sized tauntaun prop at Elstree Studios.



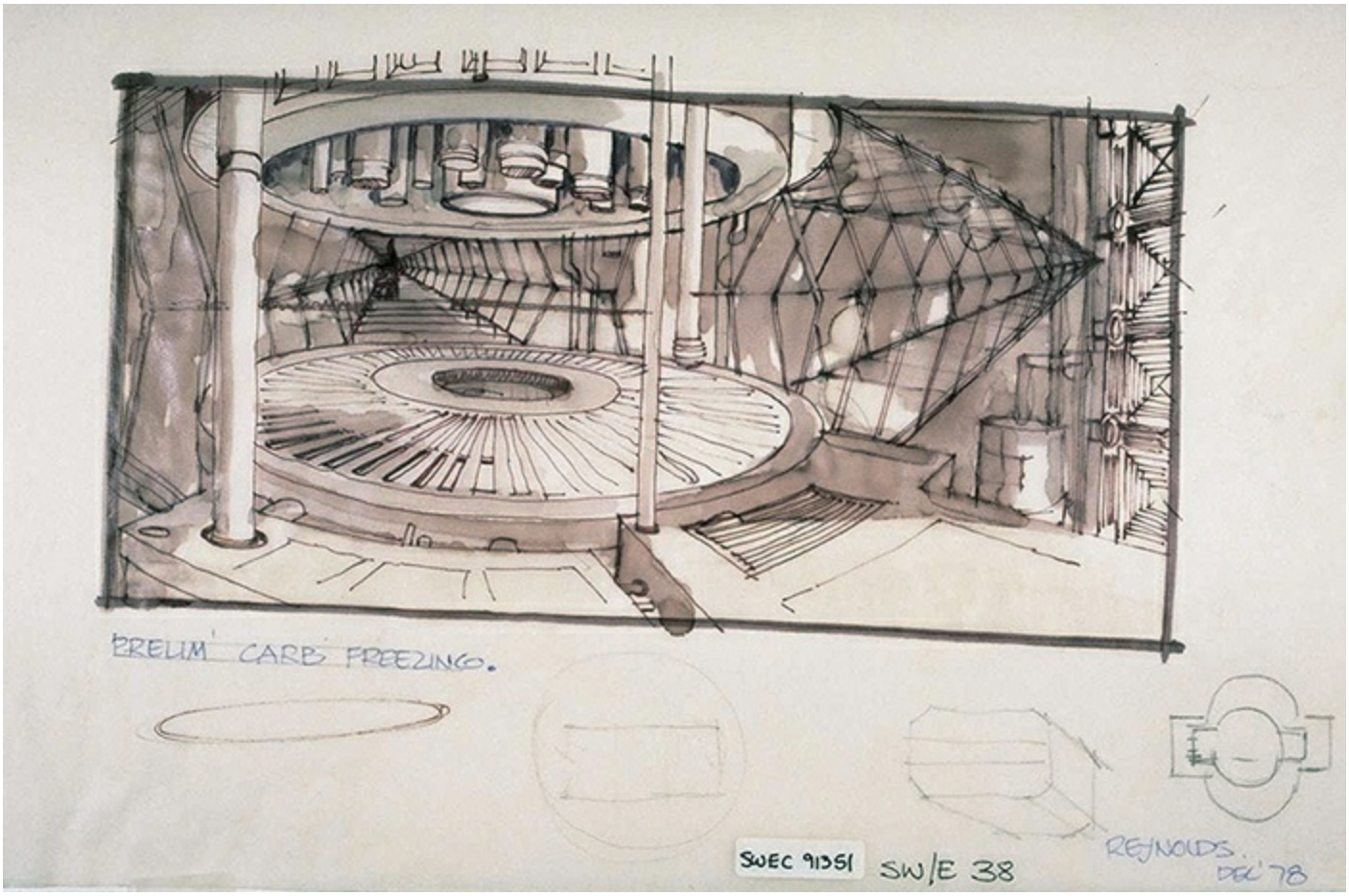
Creating the life-sized tauntaun prop at Elstree Studios.



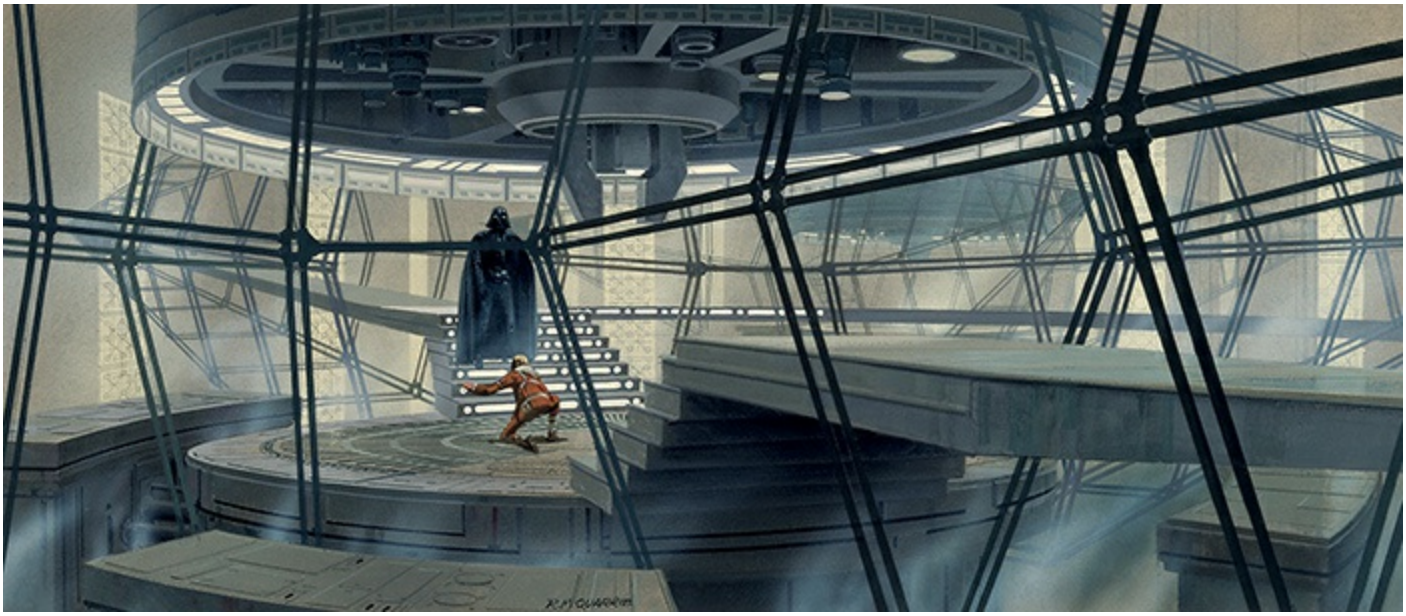
Creating the life-sized tauntaun prop at Elstree Studios.



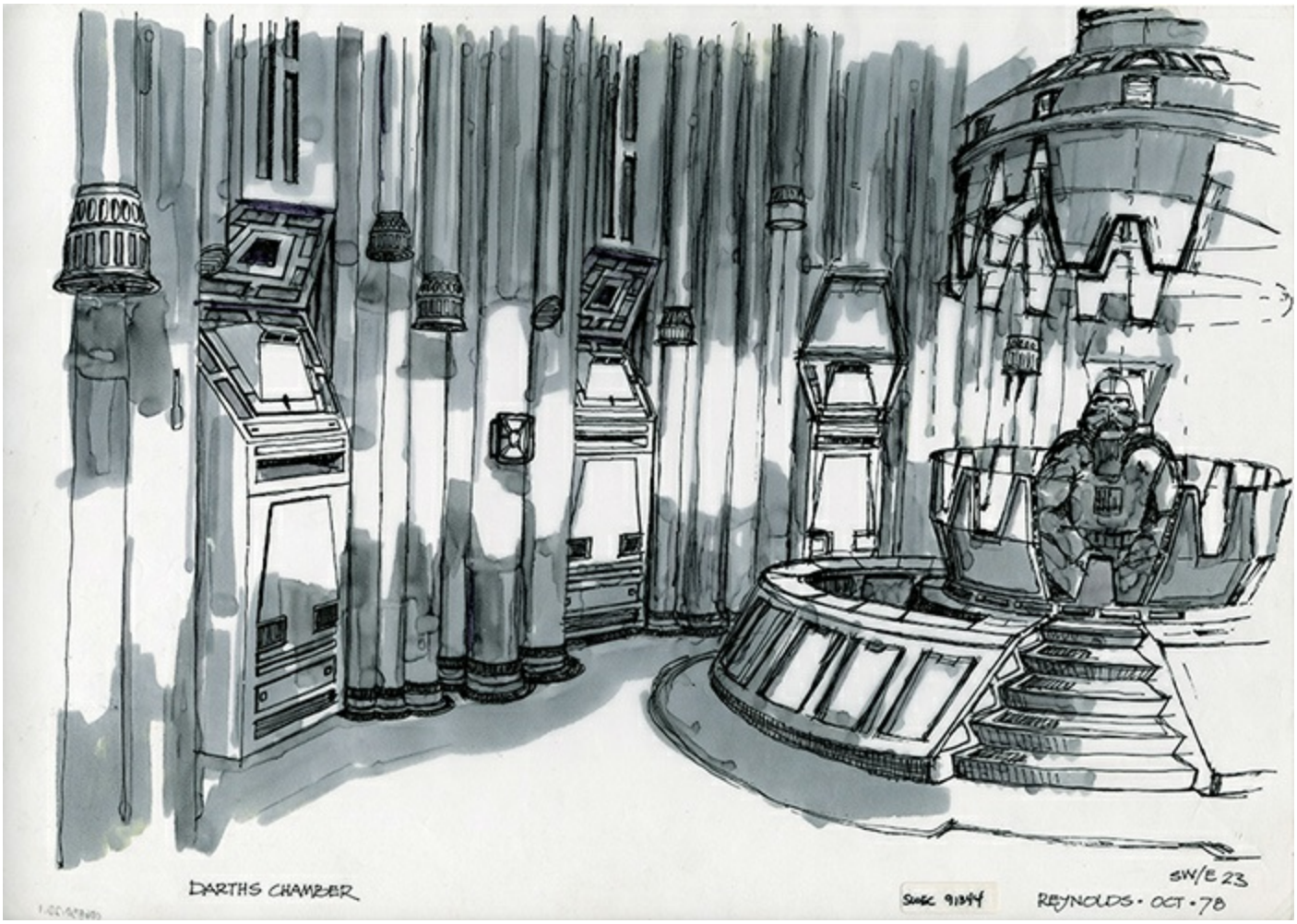
Creating the life-sized tauntaun prop at Elstree Studios.



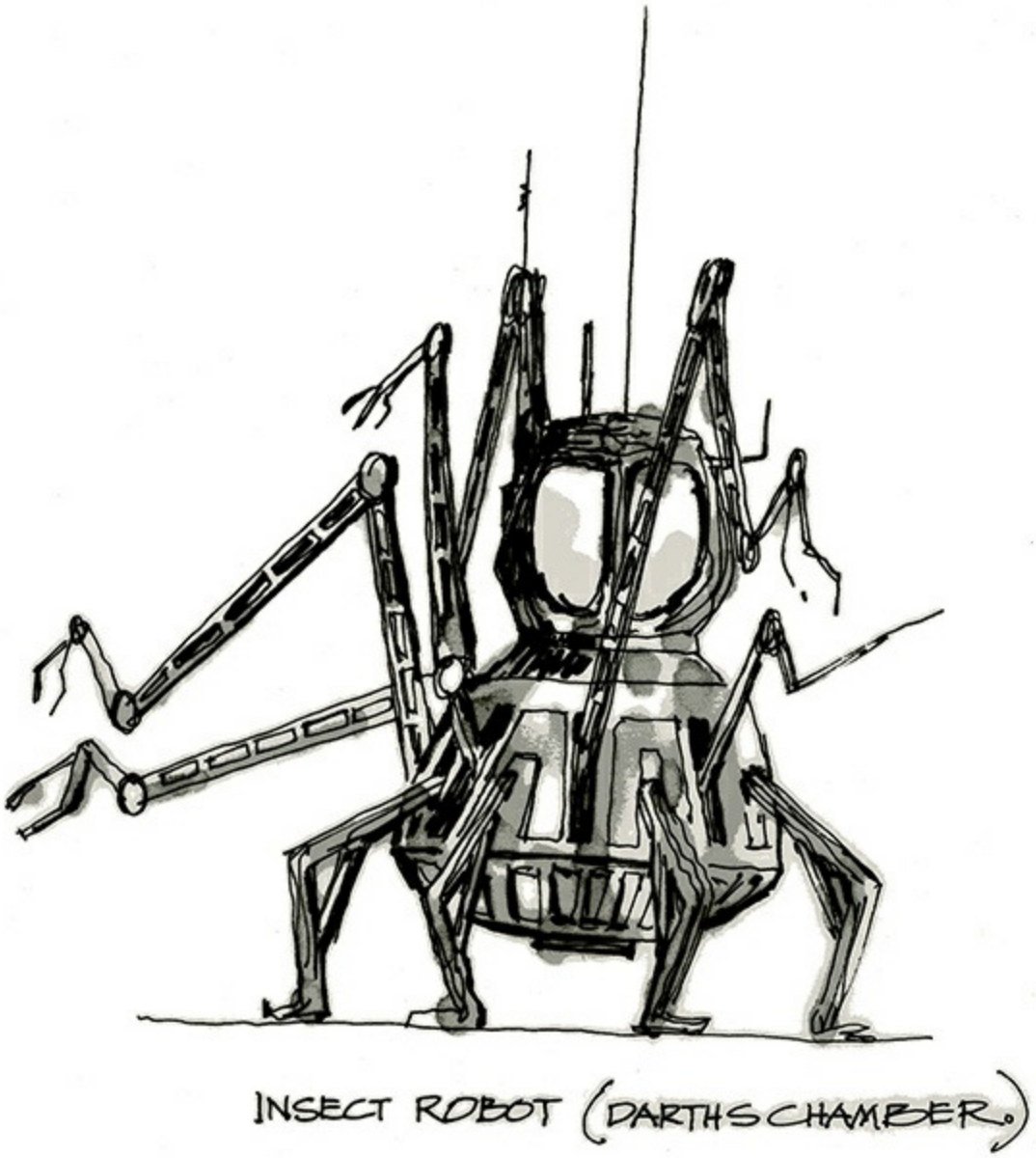
Reynold's "Prelim carb freezing" redesign of the chamber (no. 38, December 1978).



Reynold's "Prelim carb freezing" redesign of the chamber (no. 38, December 1978), led to McQuarrie's painting.



Reynold's "Darth's Chamber" (no. 23).



Reynold's "Insect Robot [for] Darth's chamber" (no. 24, October 1978).



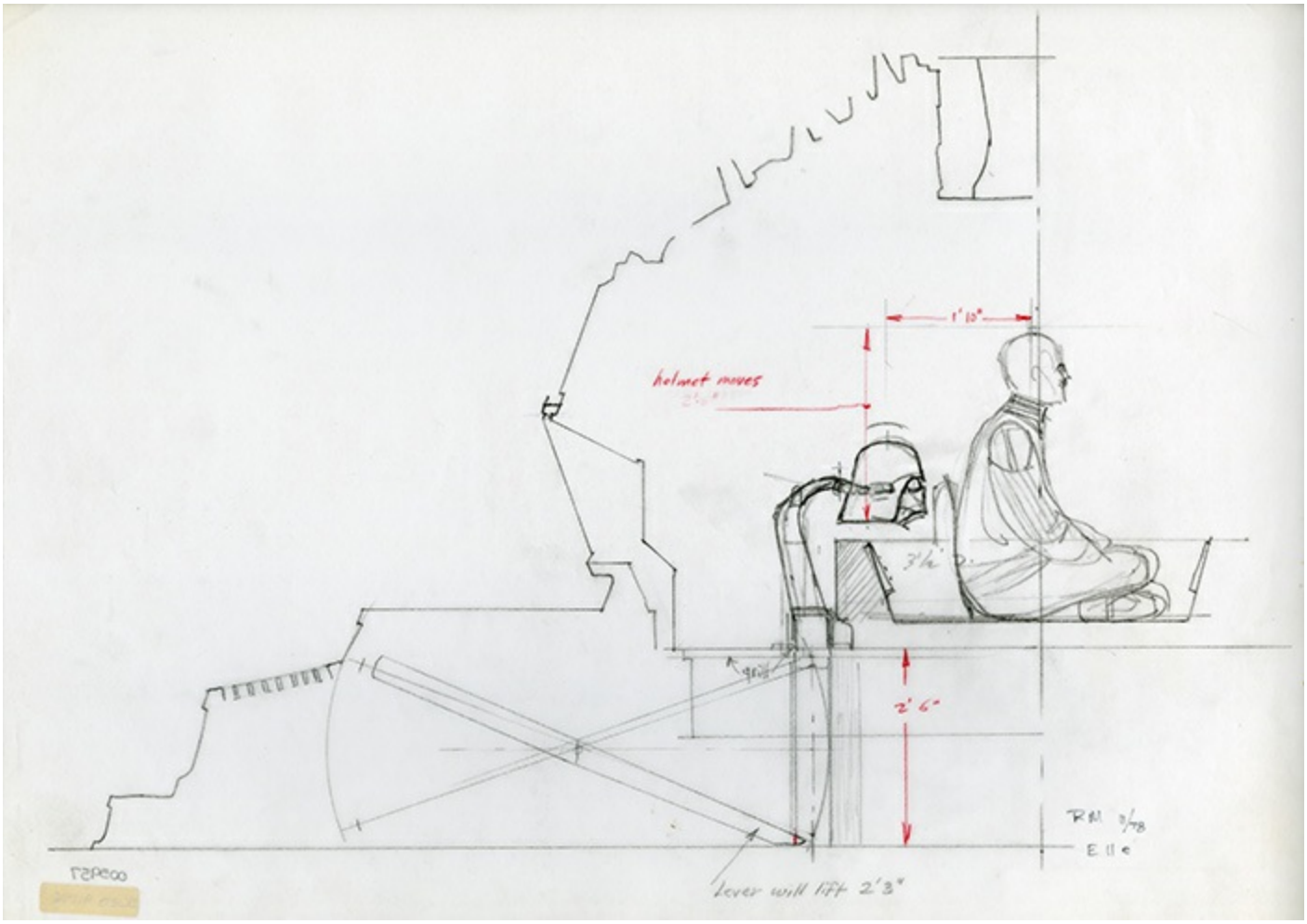




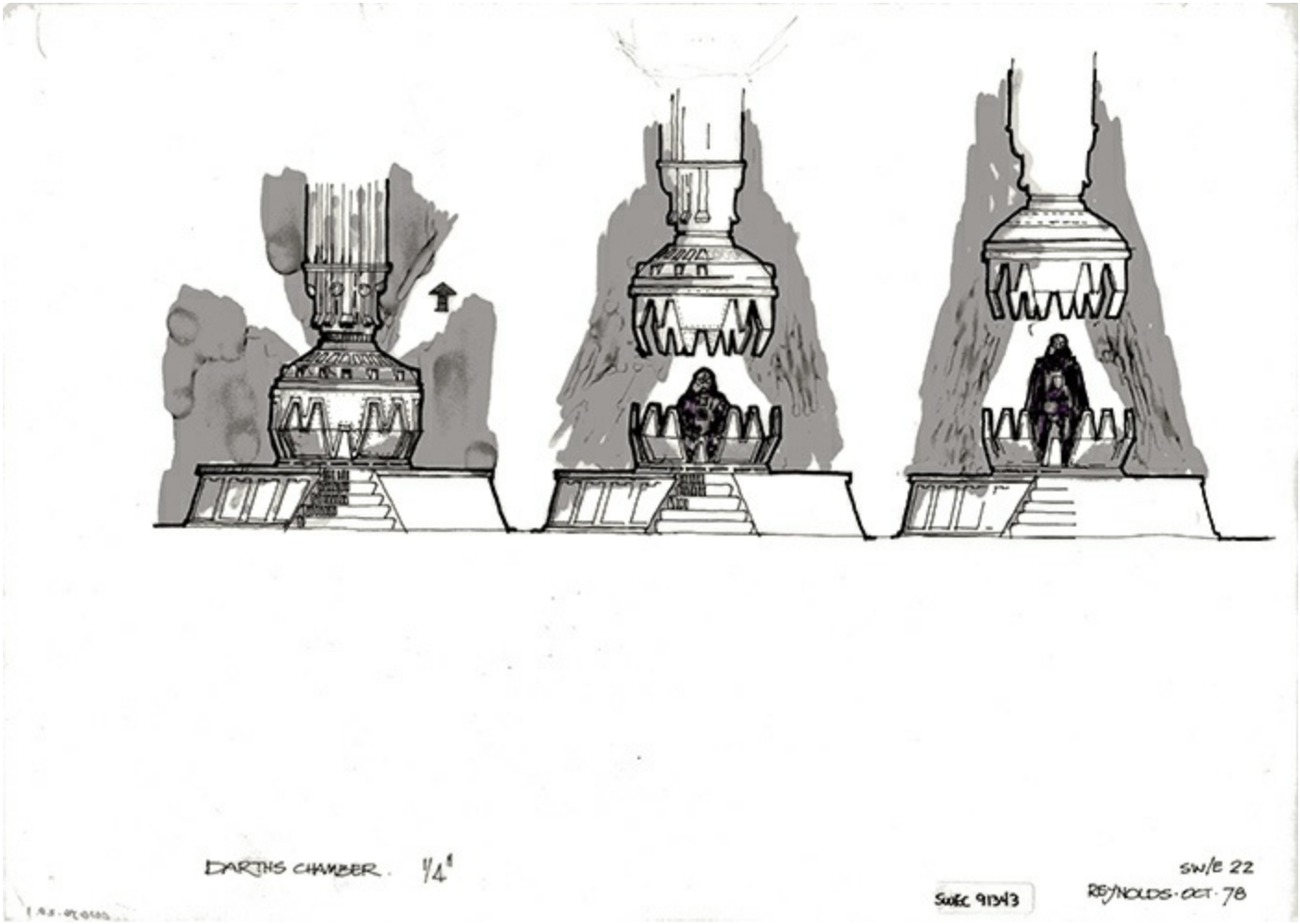
Reynold's "Darth's Chamber" (no. 23) and "Insect Robot [for] Darth's chamber" (no. 24, October 1978), led to McQuarrie's January 1979 musings: "These are thoughts inside Vader's head."



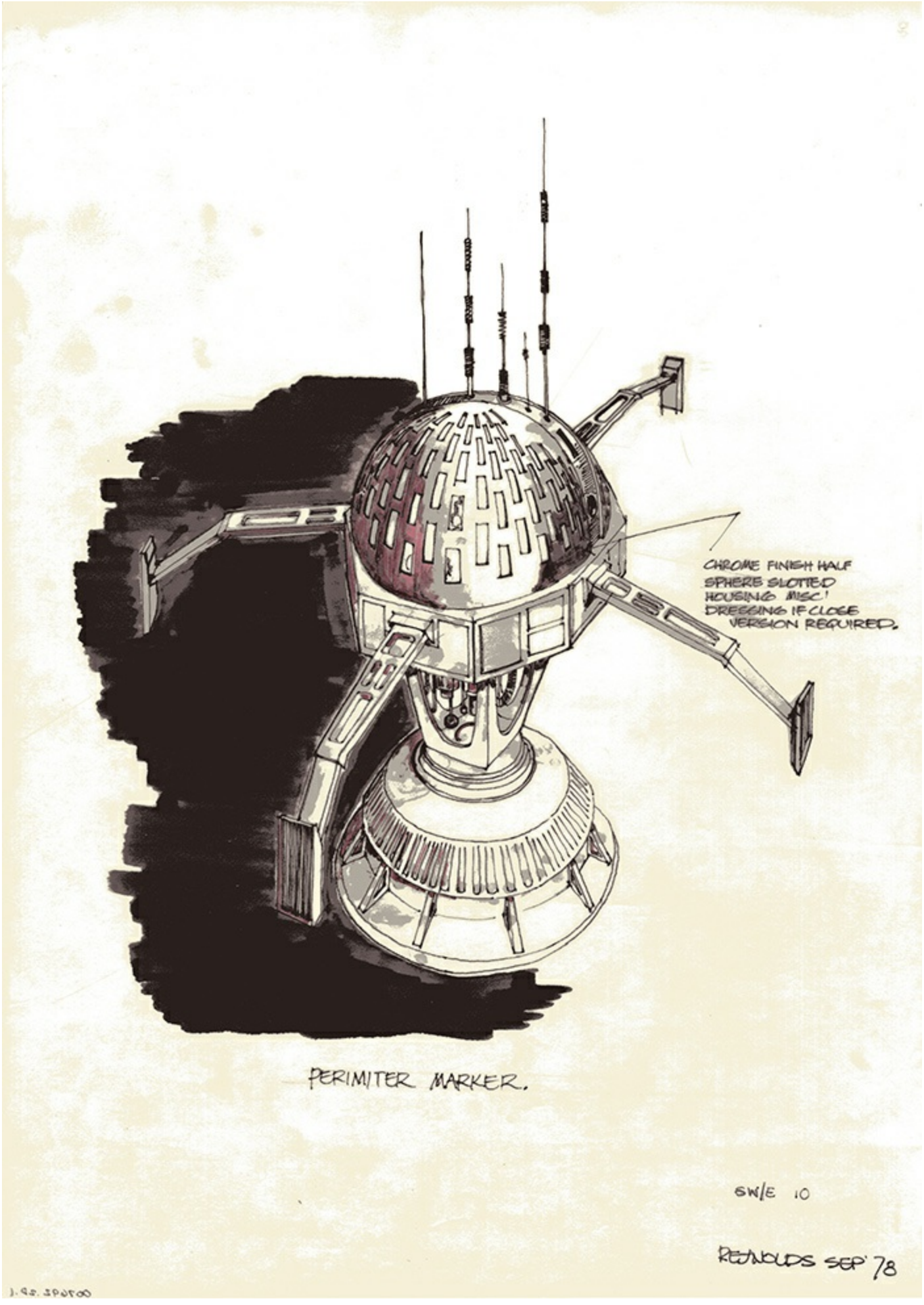
Concept sketch of Darth's chamber, by McQuarrie.



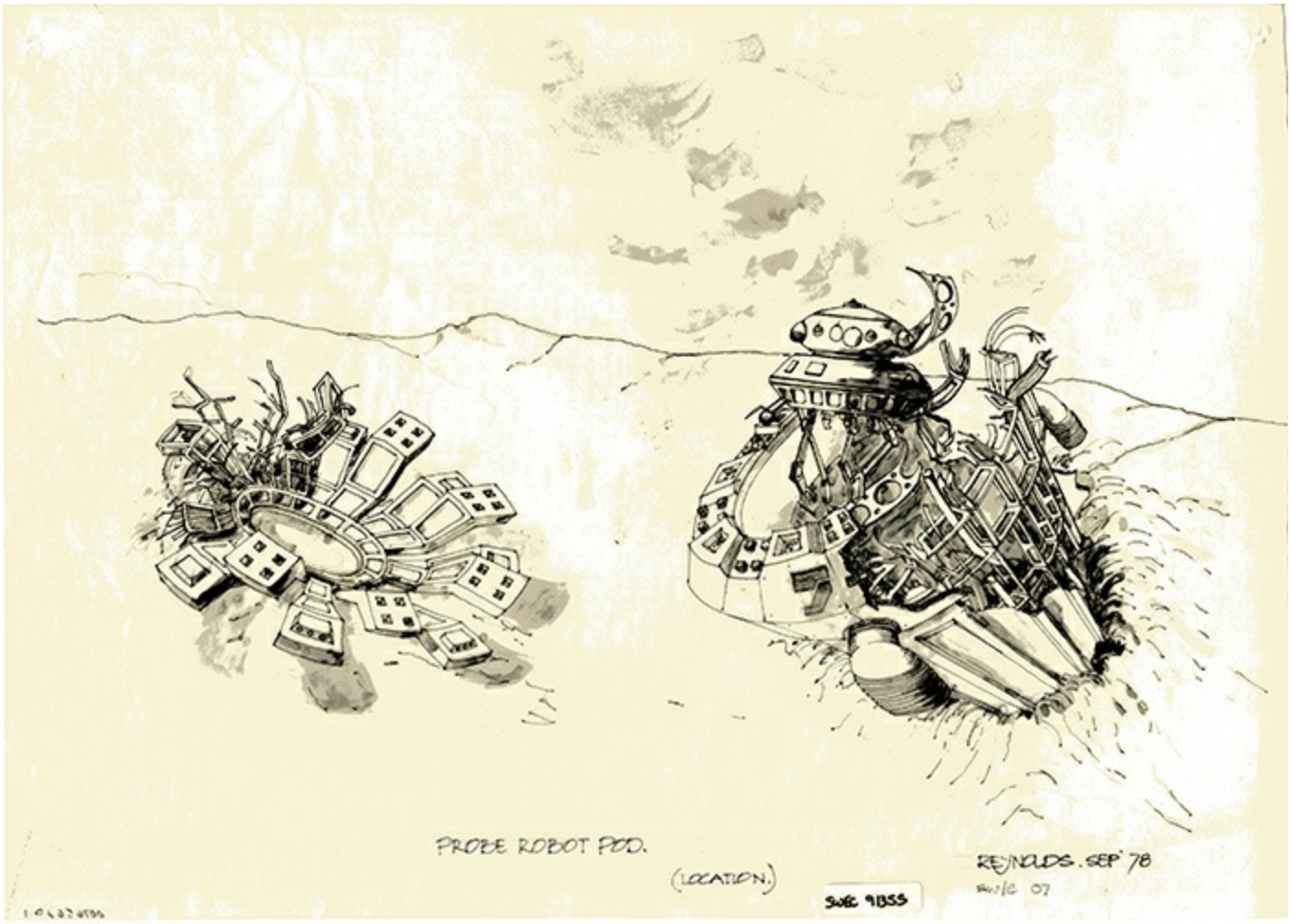
Concept sketch and technical drawing of Darth's chamber, by McQuarrie.



Reynold's "Darth's Chamber" (no. 22).



Mechanical concepts by Reynolds.



Mechanical concepts by Reynolds.



Preparatory sketch of Han as prisoner on Cloud City, by McQuarrie.



Final painting of Han as prisoner on Cloud City, by McQuarrie.

NASCENT CLAY

Stuart Freeborn, who created the masks for many of the first film's aliens, including Chewbacca, now turned his attention to Yoda. "Things were getting very tight, with production due to start very soon," he says. "George Lucas came to my workshop one morning and asked if I could have a go at creating a design for this little fellow. The catch was that he needed to see it that afternoon, as he was flying back to the States. I had a sculpture of my own head that I had been working on and thought about modifying that. I added ridges to the head, as George had described the character as very wise and I felt that might indicate thought."

"In England, Stuart built the clay sculptures and practice models, just to see how it was going to look," Kurtz says. "He did about four or five of those until he hit on what everyone liked in terms of facial characteristics. A lot of people say Yoda looks like Stuart Freeborn. If you see them side by side, there are some similarities."

"When George came back that afternoon I had covered the sculpt under a large wet rag," Freeborn continues. "He asked to see the piece, so I took the rag off and covered my eyes, convinced that he would hate it! He looked at it very carefully and, as he did with Chewbacca, said, 'Yes! That's it.' I also gave the little fellow Einstein's eyes to really drive home the sense of intelligence. I wanted to give him a little mustache, but it didn't seem right somehow, so I compromised by creating the shape of a mustache on his bottom lip. It's very subtle, but it's there."

"After a while, we had a sculpture," says Kershner, "a piece of clay, and it looked pretty good."

"Jim Henson's group provided us with Wendy Midener," says Kurtz, "who then helped Stuart in terms of developing the physical puppet from the sculpting designs that Stuart had made from the original drawings."

"We had some meetings on storyboards in England and meetings with Stuart Freeborn," says Frank Oz. "Eventually, Stuart and his staff, with Wendy Midener, Kathy Mullen, and I, we all worked on Yoda. I didn't work on the puppet itself—Stuart took a cast of my hand and arm, and I just talked about my needs for acting with the character and they took care of the rest."

"We started putting in the cables, hydraulics, electronics, springs," says Kershner. "We had to send to

India for the fabric. It was all handmade silk, because otherwise the textures looked all wrong."

While the Yoda puppet was developed, his swamp was also further conceptualized. "I'm creating this bog area for the film now with heavy growth," says McQuarrie. "It's like a jungle or a thicket. I opted to do giant petrified trees, so what we're seeing are the roots that have been exposed through the ages of whatever's going on there. [laughs] I didn't completely think it out, but I've got really fantastic trees. They tend to look like big insect legs, so I gave them a musculature and yet they are sinuous and tree-like, too."

"I worked in Los Angeles on preproduction for a full year before going to London to begin work on the film," says Kershner. "Yet it would have been nice to have had *two* years. There was no time to do it all, but somehow we're getting it all done."



Frank Oz, Kershner, and Jim Henson discuss the Yoda puppet.



Henson with the Yoda puppet.



Photo test of the early Yoda puppet.



Henson exhibits a new puppet design (a Skesis for what would become *Dark Crystal*), with colleagues Wendy Midener and Oz, to Kershner, Freeborn, Watts, and Reynolds.



Puppet fabricator (and puppeteer) Kathy Mullen shows how Yoda might be manipulated to Kershner, Freeborn, first assistant director David Tomblin, Reynolds, and Oz.

00:00 / 00:00

Frank Oz (Yoda) talks about the creation of the Yoda puppet. (Interview by Arnold, 1979) (1:00)

BUILDING A UFO

Production hired several freelance firms to build specific vehicles. "Ogle Design Limited are quite famous car designers that did the Reliant *Scimitar* and things like that," says Bill Welch, construction manager. A local firm in Letchworth, Hertfordshire, Ogle did experimental work for car phones, toys, and "very secret" projects. They had in fact made "an absolutely super job" of Luke's landspeeder for *Star Wars*. "With *Empire*, with the amount of work we had, we just couldn't cope," Welch explains. "So we contacted them to see if they would do the snowspeeder, which they did. They also made the gun turrets for us and then I got them involved in the rocket unit at the end of the pinnacle, the gantry control. Basically, that's about all we've sent out at this time, other than the *Falcon* done in Wales."

"We needed a full-sized *Falcon*," says Kurtz. "We never had one in the first film. That one was a half-size prop built into a wall and supported by hidden wires and things, but we needed more activity around the *Falcon* this time. So Norman Reynolds designed a way to build a full-sized *Falcon*, which was about 65 feet in diameter and 80 feet long when you count the mandible."

"The original *Falcon* got put out behind the studio, in various parts, and then it got rained and snowed on," says Lorne Peterson. "It deteriorated, and eventually it was no longer usable. I think for this show, they probably realized that it could be used again and again, so that's when they decided to do a really good bang-up job of it and actually make it out of metal and plywood, so they could store it in pie-shaped sections."

Marcon Fabrications Ltd. had contacted Chapter II Productions and pointed out that its fabrication facility included hangar doors with 160-foot-wide and 60-odd feet of clearance to the eaves—big enough for the *Falcon*. Consequently, a year after work had begun, Norman Reynolds, Bill Welch, and Alan Arnold, "on a bitterly cold January morning," according to the latter, "boarded a tiny Cherokee plane at the Elstree airfield to fly to Pembrokeshire to see the *Falcon* being constructed" by a firm of maritime engineers in Wales, 260 miles southwest of London. Upon arriving at Pembroke Docks, they examined the 23-ton prop "where in the 1930s great flying boats were made. The building of the *Falcon* had brought a taste of the space age to this remote community, and there was much gossip in the pubs as to what exactly was being built in the hangar on the shoreline."

"Yes, the local opinion is that Marcon is constructing a spaceship," says a man identified only as Mr. Wilson in the archive tapes. "It's variously described as starships to rocket ships to flying saucers. Oddly enough, the local population here has been exceedingly good about it."

"They fabricated the steel into 16 sections, very much like a pie, which would be bolted together so that when the picture was over, we could take it apart and store it," says Kurtz. "The five feet that touch the ground have built-in compressed-air hoverpad units so that we could move it even though it weighed 23 tons. We would move it around by pumping enough compressed air into it and pulling it with a

forklift."

"Each of the 16 segments is designed to be taken apart and transported from location to location," says Mr. Wilson. "But prior to taking it apart, we will place on the steel frame a timber skin and make the basic structure that the people at Elstree can then adorn with the various technicalities they require."

Arnold's talk with Mr. Wilson ends with the latter estimating that it will take about three months for his firm to complete work on the *Falcon* and that UFOs are "generally about."

"I suppose it's possible that eventually spaceships really might be made here," Arnold says.

"Yes, we look forward to that day, of course," Wilson sums up.





Several R2-D2s, whose new materials made life much easier for the man inside: Kenny Baker.





Full-sized constructions in-progess for the *Millennium Falcon* and X-wings and snowspeeders.

UP IN FLAMES

Arnold made another visit to an outside company: the White Horse Toy Company, in Oxfordshire, which had started in the film business by creating a 35-foot-long crocodile for the James Bond film *Live*

and Let Die (1973). Founder Tony Dyson, "who had built up a successful export business in rocking horses, was being assisted by *Star Wars* special effects and art department specialists in building improved R2-D2 robot units for the new picture. No fewer than five versions of R2-D2 were being made, including one that can be submerged in water."

"There were certain areas of the first show that required some rethinking," Brian Johnson says. "One of them was the actual design of the Artoo-Detoos. I changed how the things operated and built eight new ones. We molded the radio-controlled units in a double sandwich of epoxy and polyurethane foam in a core, much like a honeycomb structure, very strong but very light. I have one here that weighs 32 pounds complete."

"Brian's forte is in getting the organization together to produce all the physical effects that are done during principal photography: fog and explosions and rigs to cause weird things to happen," says Edlund. "He is also in charge of Artoo-Detoo and getting it to respond properly to radio control signals."

"The whole thing is much lighter, the springing slightly more flexible," says Kenny Baker, who had his second "fitting" in January. "I've got slightly more movement in both feet, legs, forward and backward, so that I can cover more ground quickly. They'll make the seat harness more to my body and less of an encumbrance. I can move the head around without grabbing hold of electric cables and electric motors, which are hot."

"I did do the first robot, but we're improving the robots now in fiberglass instead of aluminum," says Tony Dyson. "The advantages obviously are that they are slicker, lighter, and I think Kenny Baker is the one that really saw how good they are. Andrew Kelly, who is making them into robots, obviously has advantages because of the weight and other factors."

"I'm responsible for the finished article coming onto the stage and gelling with all the different elements, which they wouldn't do unless one person was overseeing everything," says robot supervisor Andrew Kelly. "I'm having the mechanisms made for the feet to match up with everything else. It's a total job. Here they're simply making the shell. It's beautifully made, but they're just making the shells and the head. All the mechanisms have to be made by outside contract firms who have got virtually no experience in films; therefore, they tend to make things that look very good, sound very good, work very well, but, on the day, they don't. So it's sound floor experience that you've got to have."

"We took the radio-controlled robot and modified it to go from two to three legs, so we could actually drive it along the set," Johnson says. "Then the third leg would kick out by radio control. Gary Kurtz came into our workshop in England and I showed him the whole movement, but he was still very skeptical. 'I'll bet it doesn't go back from three legs to two,' he said. But that worked, too. You had to be there to see the surprised look on his face."

Kurtz's expression surely changed to a frown not long afterward. Indeed, as *Star Wars* had been dogged by the film *Lucky Lady* (1975), whose production tribulations had a primarily negative impact on the first film, Stanley Kubrick's *The Shining* (1980) had a long-term crippling effect on *Empire*. Production had calculated that it would have to move 64 sets through Elstree's nine stages, already a big job, but on one unlucky evening its number of available stages was reduced significantly—by either an electrical short or a still-burning cigarette.

"Then came the night of the fire," Arnold writes. "Stanley Kubrick was filming *The Shining* on Stage 3 and, on the night of January 24, that stage burned down … The cluttered driveways of the studio complex prevented the local fire department from getting its trucks in, and by morning the stage was a smoldering ruin. Its total loss meant a complete rescheduling almost on the eve of production, and

because Kubrick had to revamp his set on another stage, virtually two soundstages were denied to the *Star Wars* team. Time-wise, it is doubtful the picture will recover."

Stage 3 had housed the innocuously sinister hotel lobby of Kubrick's horror film, "so he just revamped another stage to make up the difference," says Kershner.

"It was the day before we left on the final recce that we had the tragic occurrence of the burning of Stage 3, which really was a big blow because already we were facing certain problems because of Stanley Kubrick's picture going over schedule," says Watts. "We were already getting very worried about stage space and having enough time to get the sets built. We were also building the Star Wars Stage, which was behind schedule, because we were having the worst winter since 1963. So we had to reassess and reschedule the entire building program and, consequently, the shooting schedule of the picture, to work out a way whereby we could accommodate the sets with one less stage."

"The thing that hurt us the most on this movie was the fact that one of the sound stages at Elstree burned down just before we were ready to shoot," says Kurtz. "Our art department was going to have a very hard time keeping up with our shooting schedule."

"We knew the day it happened that it was going to screw up our schedule," says Lucas. "It was going to screw up everything. We also knew that Stanley would use that as a way of further delaying things so he could think about his film."

"Because of losing Stage 3, we're going to go to Leeds Studios to shoot a particular blizzard condition because we have insufficient space at EMI," says Watts of a Han Solo scene. "Because it's more easy to control, we're going to shoot the blizzard on a stage."

"At no fault of our own, because the big stage wasn't ready when it should have been, we physically can only do so much because of the lack of stage space," says Frank Bruton. "It has meant that construction will be sorely pressed to keep the units going."



The remains of Stage 3, where Stanley Kubrick's set for *The Shining* burned down on January 24, 1979.



Storyboard artist Ivor Beddoes in the art department at Elstree, where McQuarrie joined him.

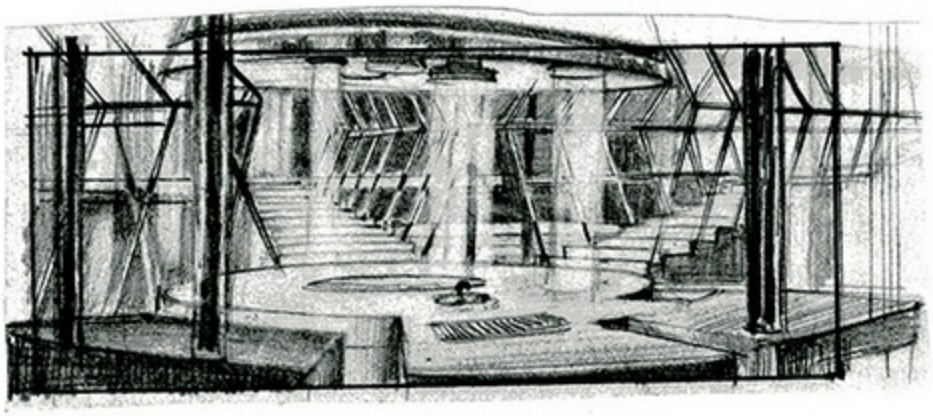


McQuarrie sometimes pitched in on the storyboards.


2M
500 m m
3M
500 m m

McQuarrie at his drawing board at Elstree Studios, where he continued his concept design in conjunction with the UK art department.

Storyboards by Beddoes used approved designs by McQuarrie and Reynolds to show the progession of the Luke vs. Darth Vader duel (originally, the reactor shaft had a noticeable updraft), early 1979



LUKE EMERGES INTO CARBON FREEZING CHAMBER

(38A)

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HE RISES & MOVES OUT CAUCIOUSLY.

↓



"LORD VADER I FEEL YOUR PRESENCE"

HE TURNS & SEES VADER

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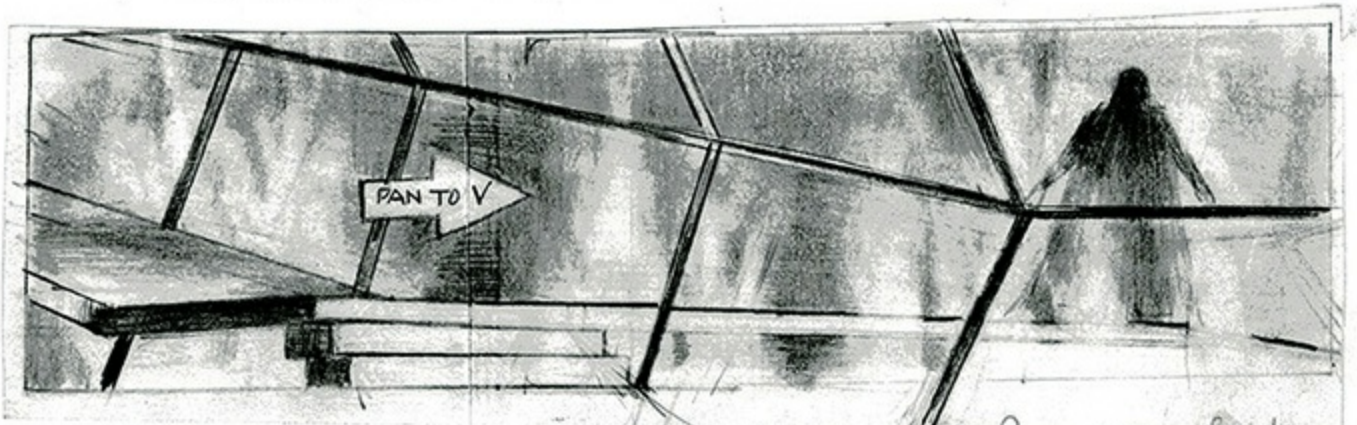
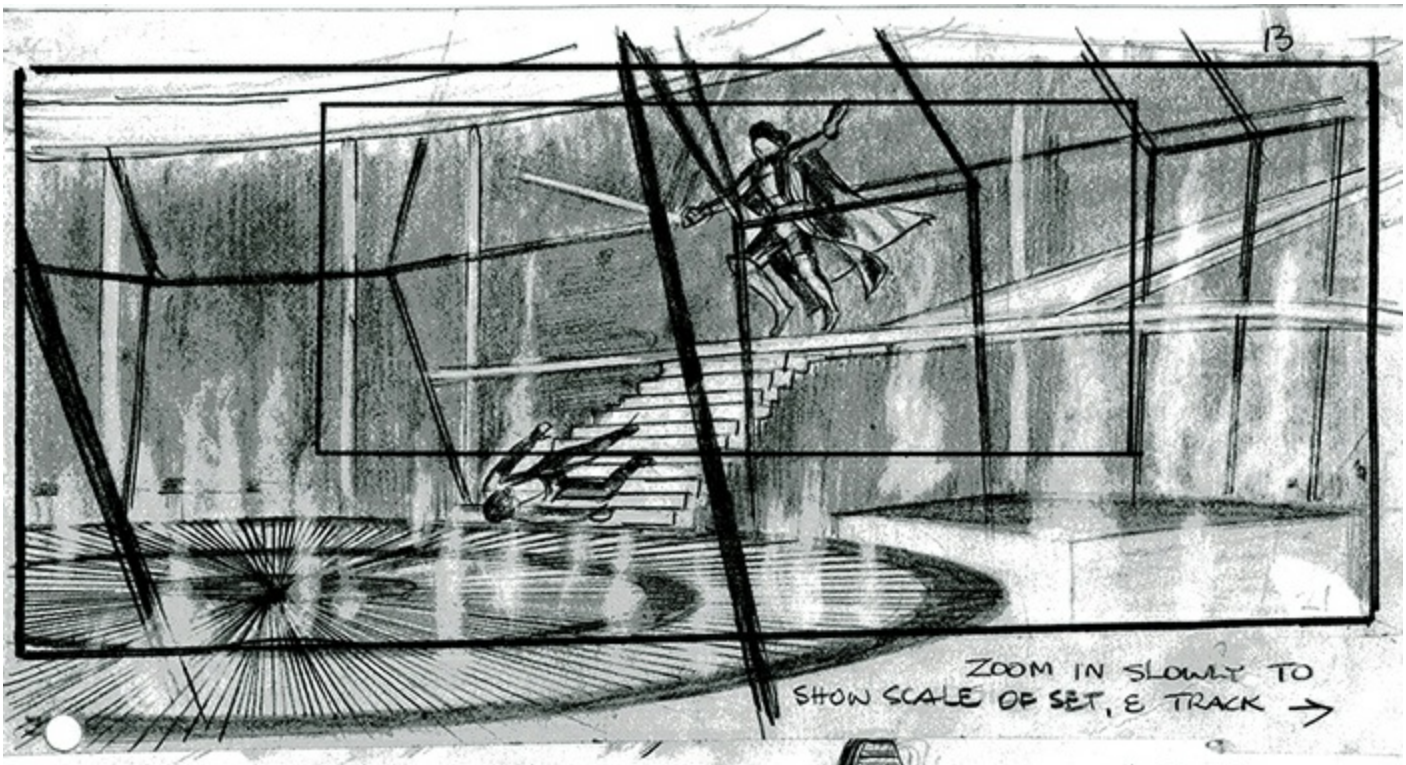


LUKE P.O.V.

Long lens from way back. 100 From corner of 12'0" Platform

IVOR



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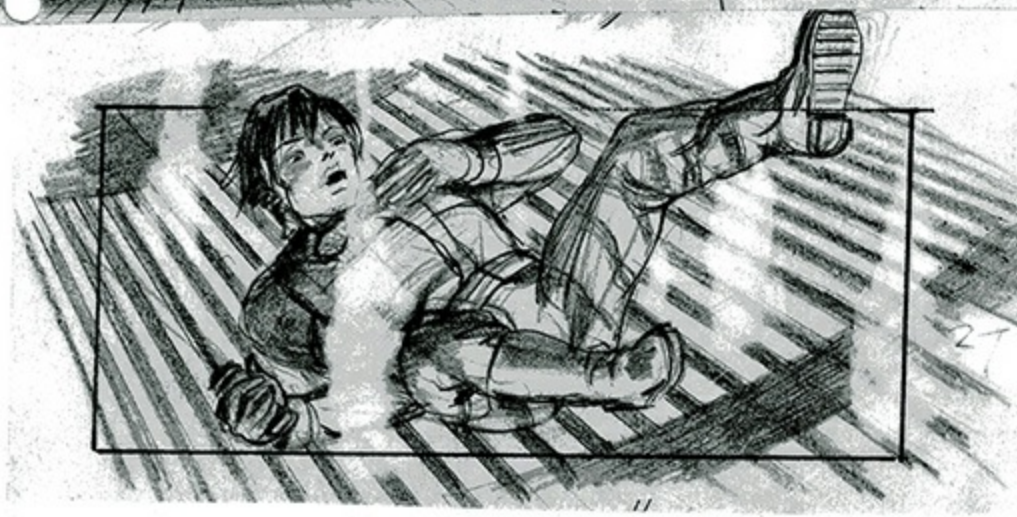
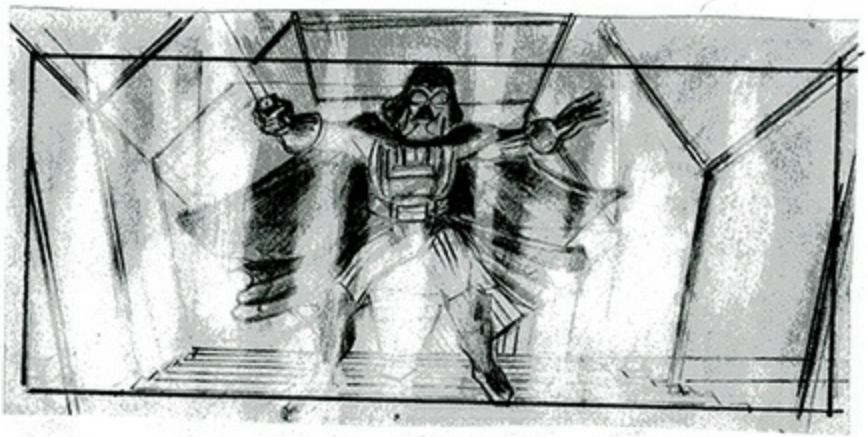
CUT TO LUKE
LANDING
FAST CUT





IMMEDIATELY
VADER TAKES
OFF AS A
HUGE JET OF
STEAM SPURTS
UP — HE
SAILS THROUGH
LIKE SATAN
IN THE CLOUDS

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IVOR

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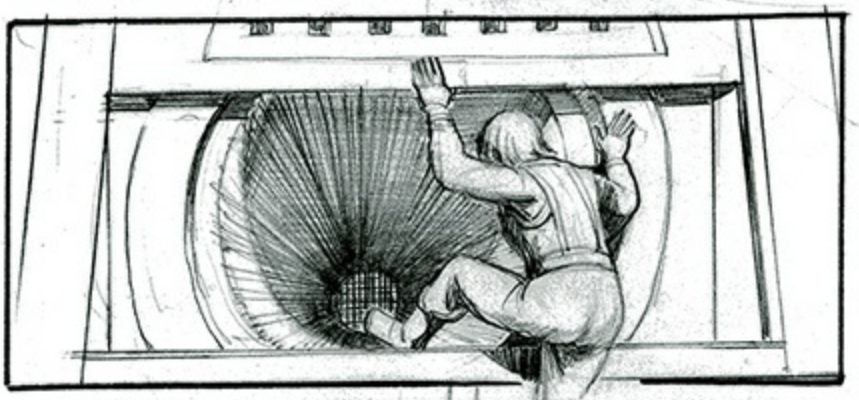
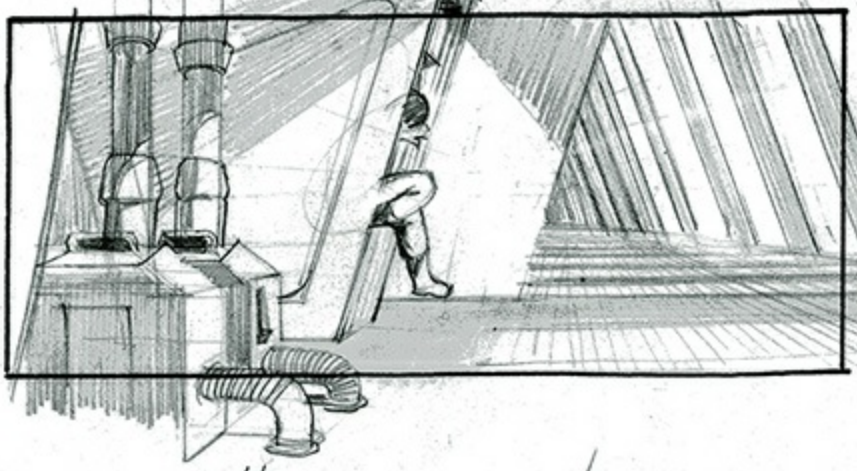


HE DECIDES TO ENTER AND CLIMBS INSIDE



OPENING

INSERT
LUKES P.O.V OF GRILLE



P.O.V OF LUKE STEPPING GINGERLY OUT OF THE SHAFT

U 391



LUKE STOPS DEAD & SEES..

IVOR



VADER IS WAITING MOTIONLESS.

U. 391



LUKE IGNITES HIS ~~SWORD~~



VAYDER STANDS MOTIONLESS.

NOTE. SET IS ONLY IN SKETCH FORM. NO SPFX DESIGNED OR WORKE OUT AS YET TO BASE STORY BOARD ON



LUKE STEPS FORWARD TO RESTART HIS APPARENT EARIER SUPRENACY.

IVOR

35



DIRECT STUDIO

398



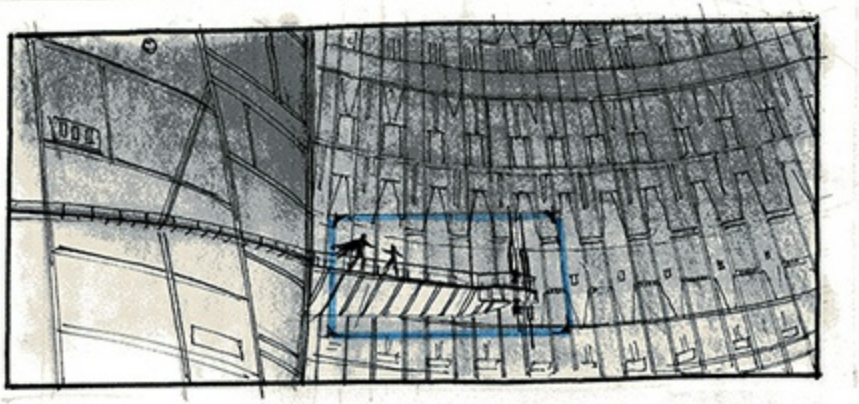
LUKE BACKS AWAY L-R.

398

END DIALOGUE

" IT IS USELESS TO RESIST

398



SPECTACULAR MATTE SHOT TO SHOW THE END OF LUKE ABILITY TO RETREAT

T.M SHOT – SEE MY PROJECTION CAMERA @ 4'6" 30 MM LENS. 18° TILT. — AS FOR STAGE 1.

END SC 398



CUT IN CLOSE STUDIO PAINTED BACKING, BUILT F/G GANTRY WITH BREAK AWAY RAIL AS VADER DESTROY LUKES HAND HOLDS.

DIRECT STUDIO

IVOR

39-40

AFTER 400



LUKE MOVES FORWARD TO RENEW THE FIGHT

400

1



1



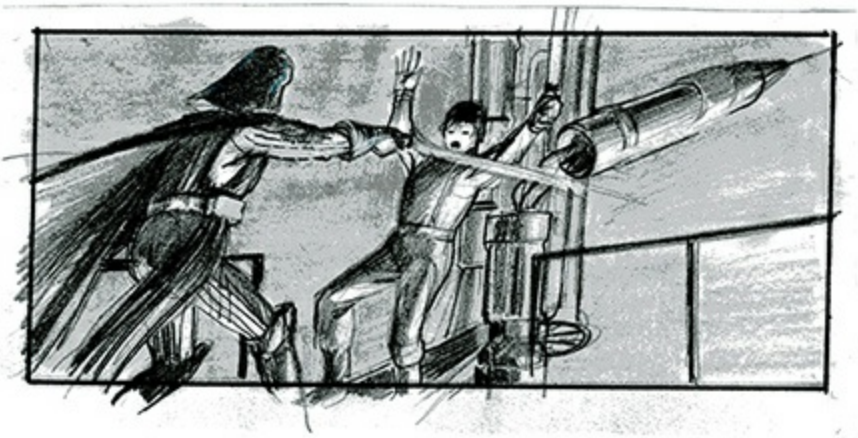
LUKE ATTACKS AGAIN BUT, IS CUT. HE REELS BACK IN SHOCK AND PAIN



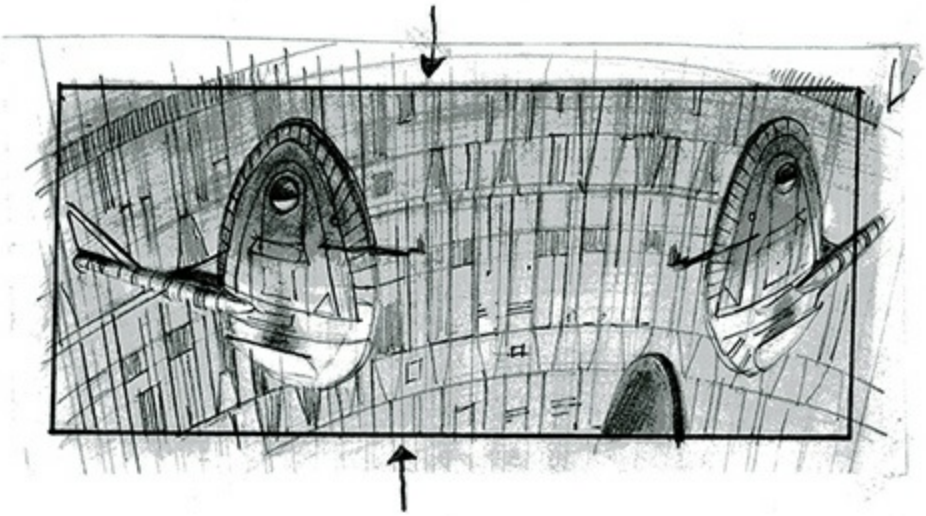
LUKE IN TREMDOUS PAIN

"NO. ——
NO. ——
NO. ——
NO —
NO. "

IVOR



VADERS LAZER SWORD CLEAVES SHEER THROUGH A HUGE PIECE OF EQUIPMENT. IT FALLS DOWN THE SHAFT



MODEL SHOT

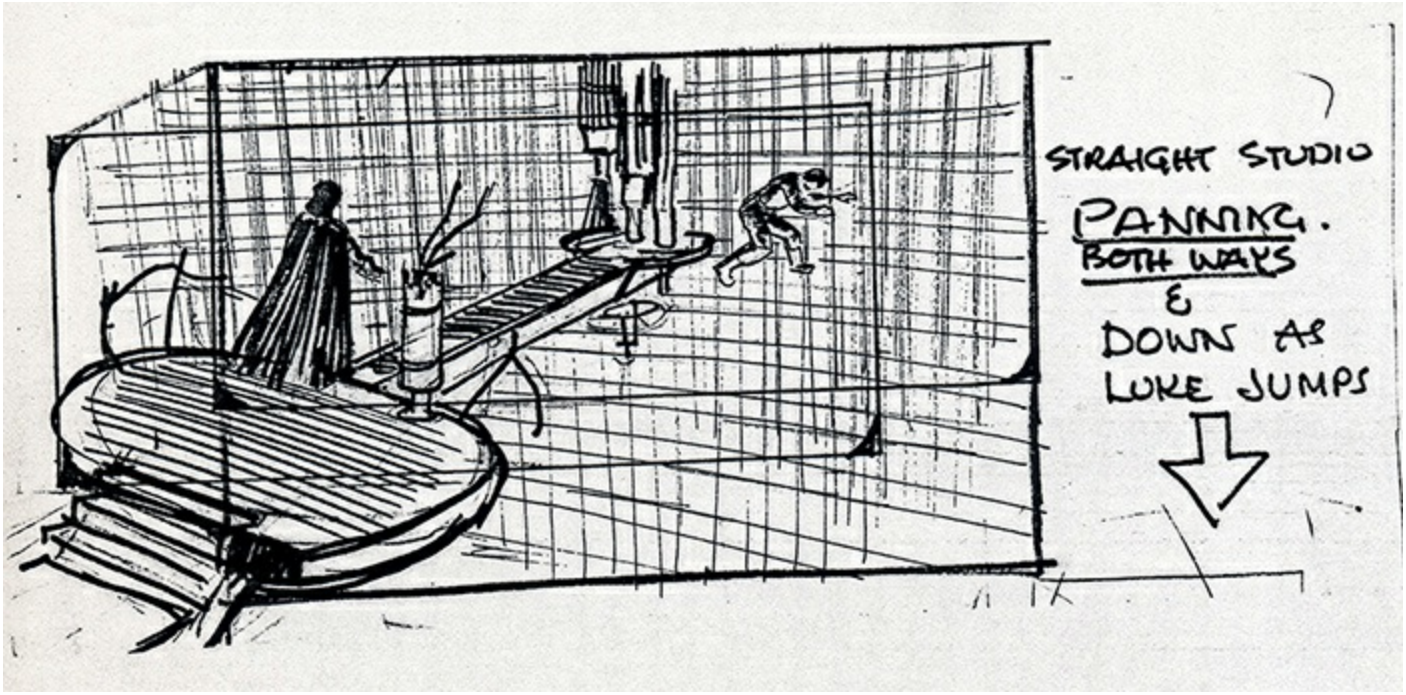
LONG SHOT OF REACTOR SHAFT.

LUKE & VADER ARE NOW AT THE EXTREME TIP OF THE VAST POD... WE CAN JUST CATCH THE TURNING GLINT OF THE SHINING METAL AS IT FALLS —

POSSIBLE EASE IN OF CAMERA.

ANIMATE TWIRLING METAL PIECE

IVOR


STRAIGHT STUDIO
PANNING.
BOTH WAYS
&
DOWN AS
LUKE JUMPS

U. 391



MORE EQUIPMENT FLIES AT LUKE GLANCING OFF HIM UNTIL A LARGE PIECE HITS HIM AND CRASHES THROUGH THE WINDOW - CAUSING A WHIRLWIND SUCTION THAT DRAGS LUKE OUT. WINDOW IS ANGLED TO REDUCE THE COLOUR OF THE TOFFEE GLASS. CUT AS 'GLASS' GOES.



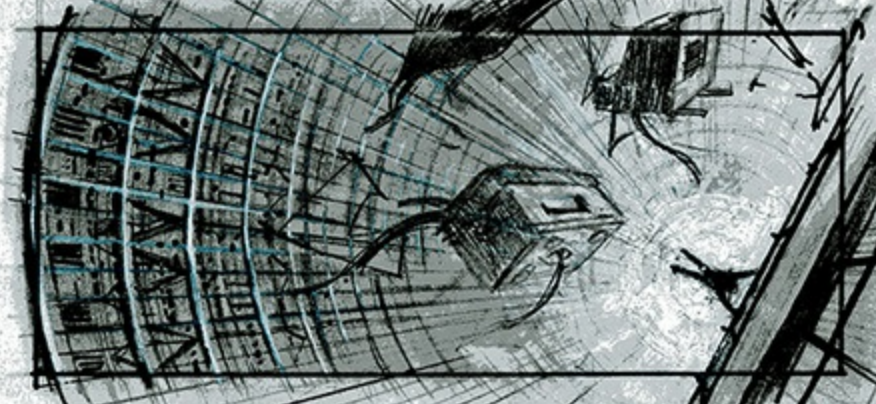
MEN ANGLE WITH TOFFEE GLASS REPLACED BY PRE-CUT CLEAR PLASTIC. STUNT MAN DOUBLE RUNS AT WINDOW & DIVES SIDEWAYS OUT TO BOXES.



CLOSE ON VADER HURRYING TO WINDOW & LOOKING DOW.

WIND BLOWING UP LUKE BOWN HORIZONAL

398. BOXES & DEBRIS BLOWING UP PAST CAMERA

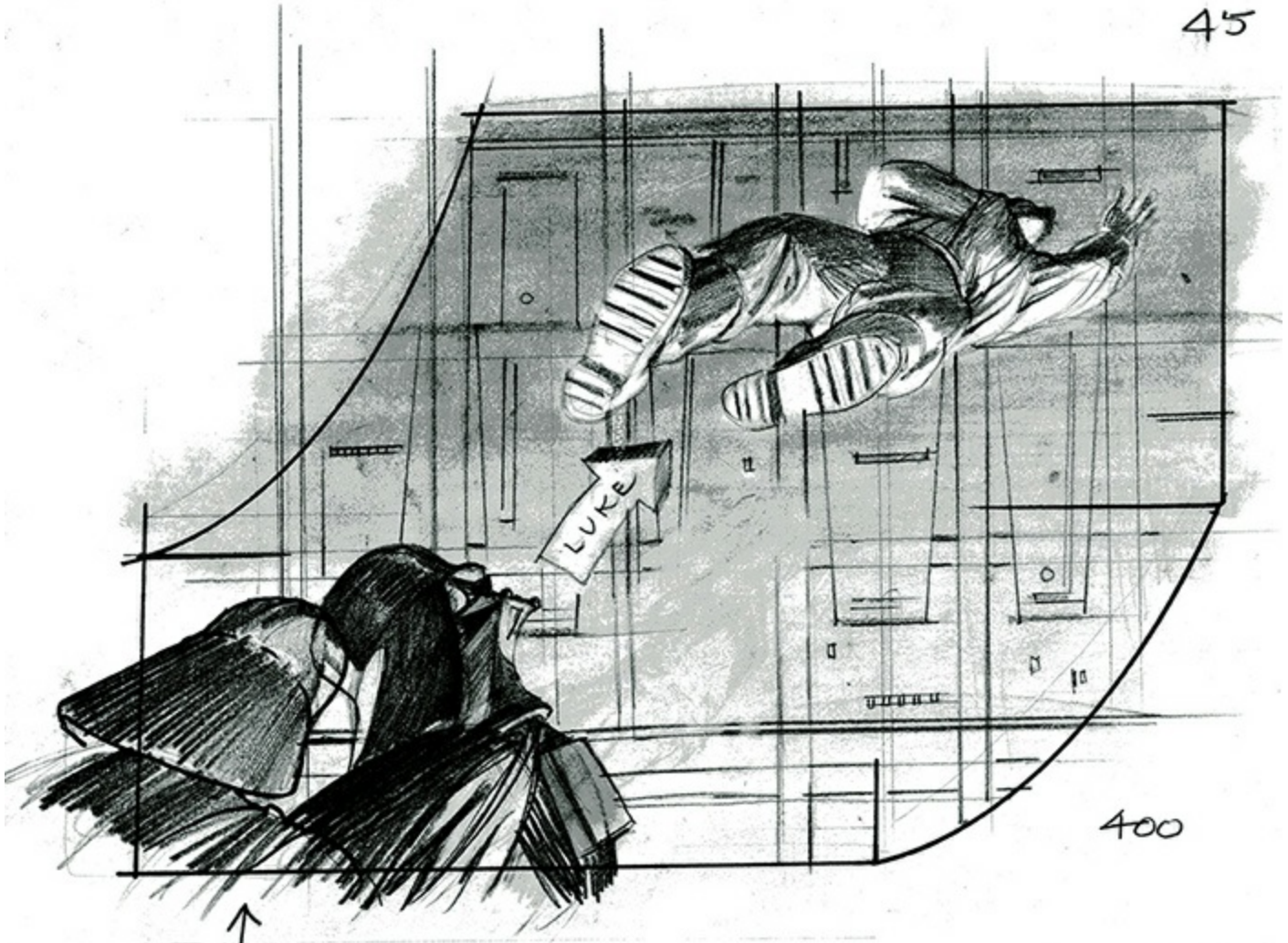


VADERS P.O.V. OF LUKE HANGING FROM THE GANTRY OVER THE NEUCLEAR REACTOR FURNACE A MILE BELOW.

WIND DIES - BOXES ETC FALL BACK DOWN SHAFT.

GO BACK TO PREVIOUS CUT. VADER EXITS L-R.

IYOR.



START ON VADER STARING DOWN AT LUKE BEING BLOWN UP BY THE REACTOR GALE — SUDDENLY LUKE APPEARS + IS SENT OVER VADERS HEAD. VADER SWINGS ROUND TO FOLLOW HIS FLIGHT.

SET UP CAMERA TO TILT SLIGHTLY DOWN OVER VADERS SHOULDER AS FAR FROM BACKING AS POSSIBLE TO ALLOW LUKE TO RISE INTO FRAME FROM AS FAR BACK AS POSSIBLE TO GIVE GOOD SEPARATION FROM THE BACKING & FLOOR LIGHTING — GAUZE? — AND TILT UP TO TOP OF THE BACKING AS HE FLOATS UPWARDS.

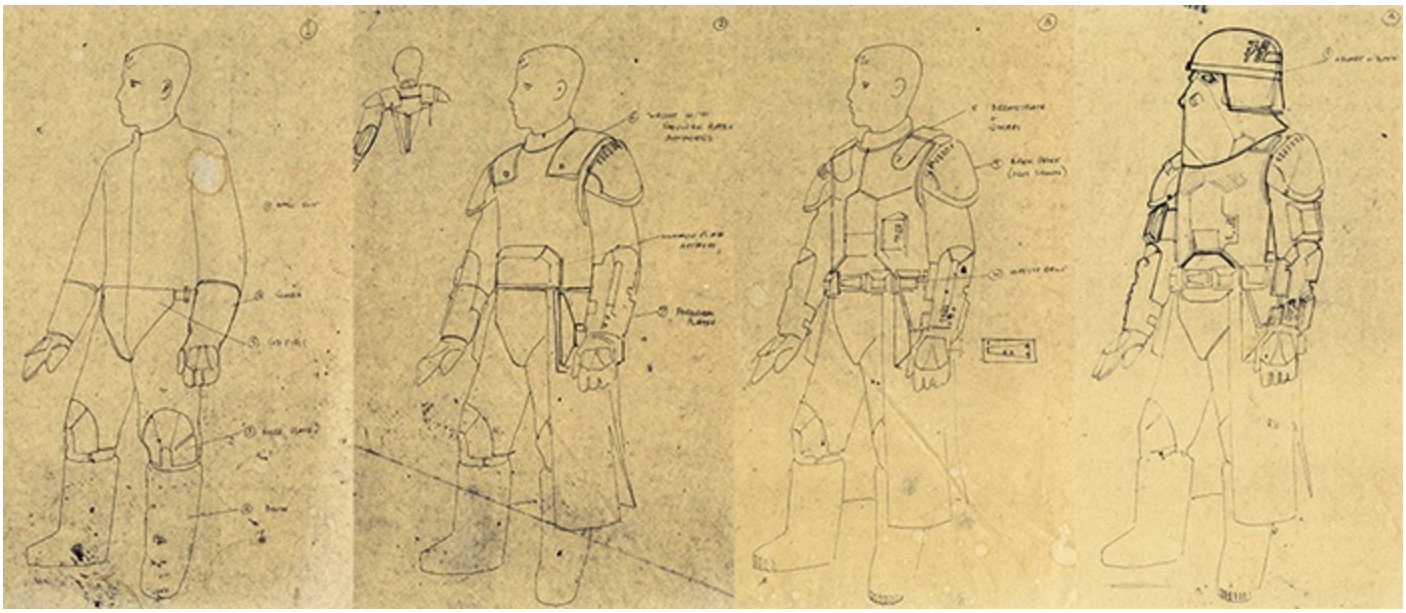
IIOR



A step in the building of the final snowtrooper costume.



The snowtrooper costume is discussed by Kershner and John Mollo.



Mollo's four-step drawing explaining how the snowtrooper costume should be worn.



An early snow monster sculpted in England.



The final snow monster design, based on Johnston's concepts, built by Freeborn and his staff—ready for shipment to Norway.



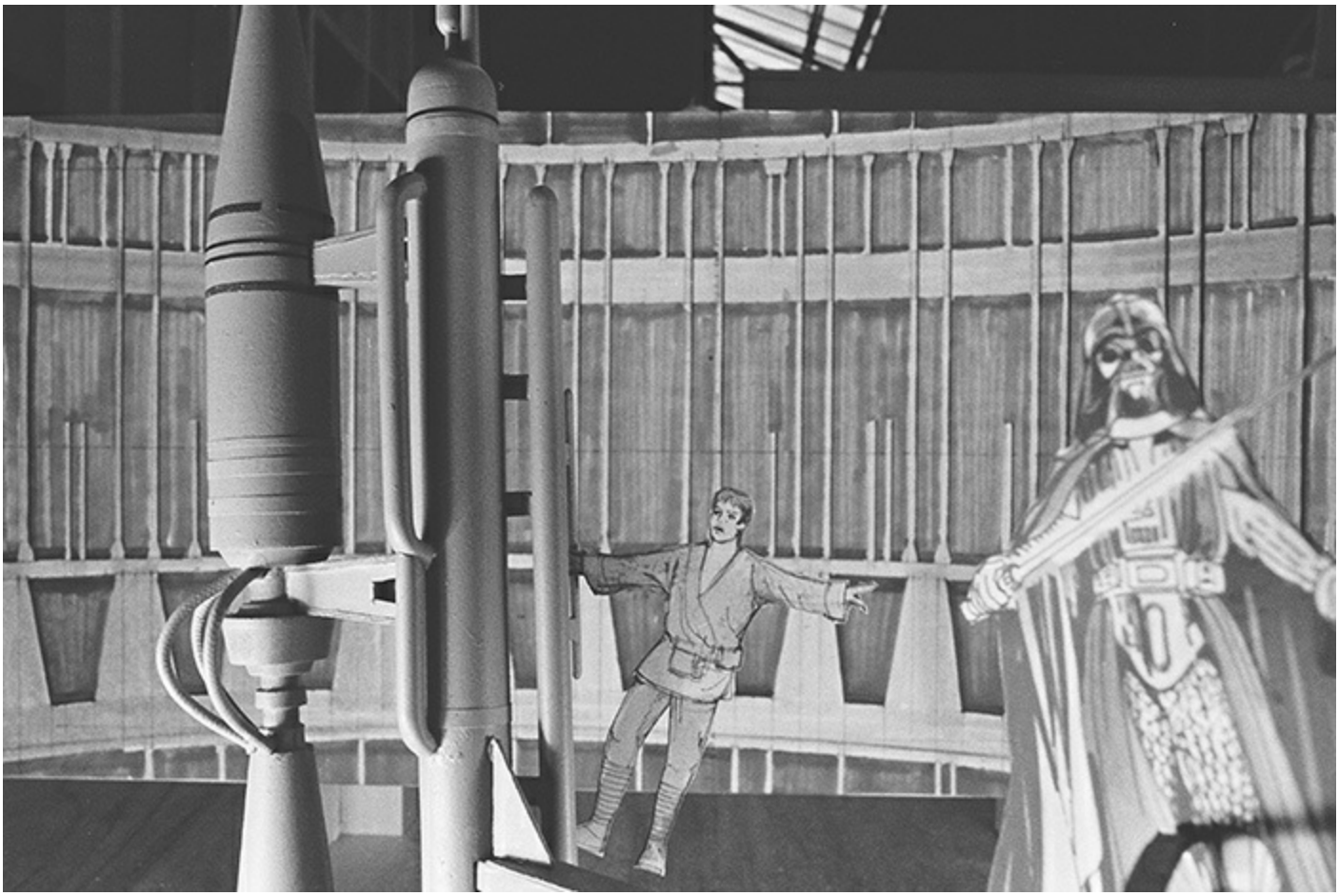
Modeler Jan Stevens, in Freeborn's shop, sculpts a swamp creature designed by McQuarrie.



Kershner discusses shots with Reynolds using a maquette of the Rebel med center.









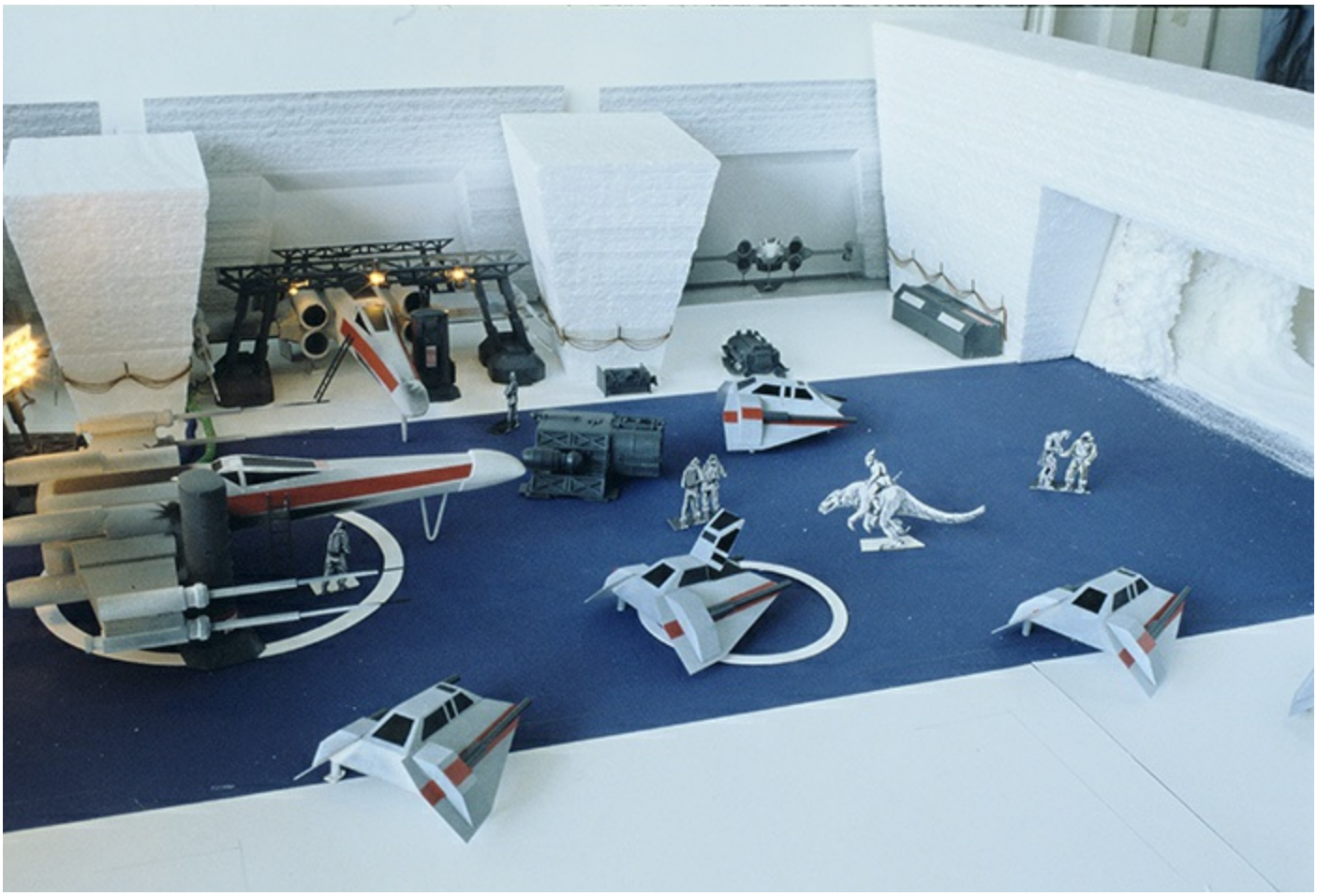
The snow monster head.

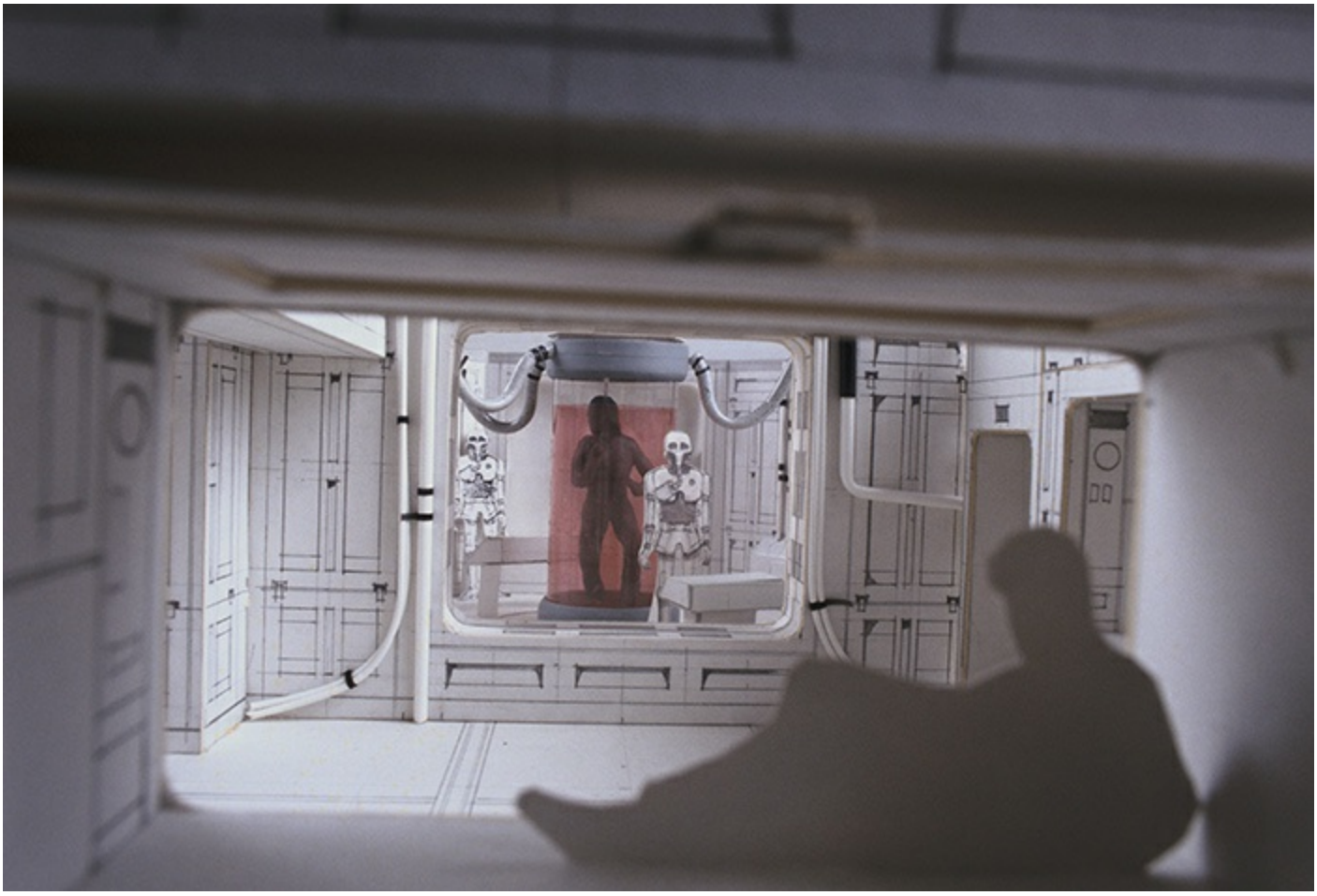






Kershner and Reynolds discuss the sets via maquettes of same. .







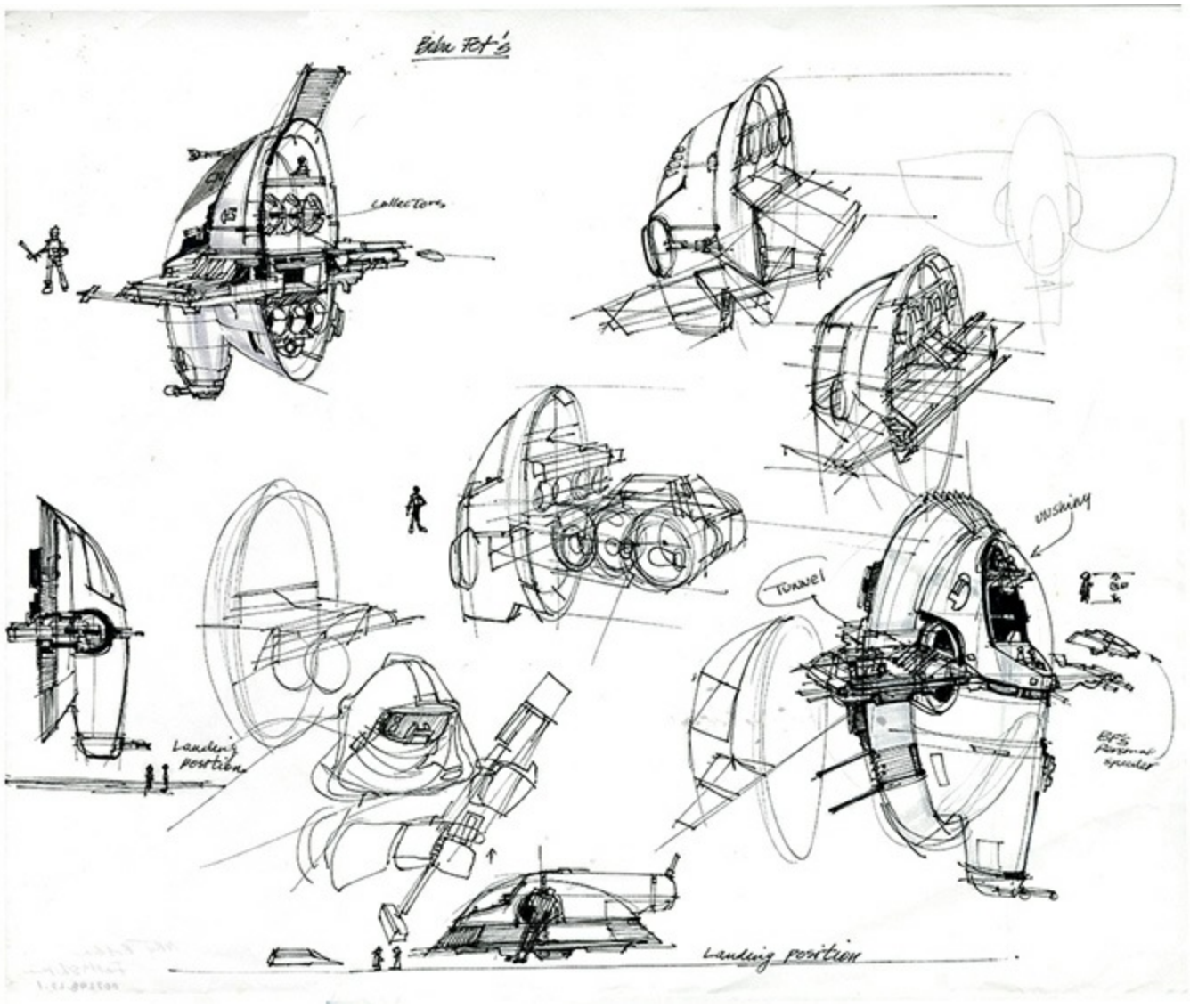
Wearing matching fabric, chief hairdresser Barbara Ritchie attends to Carrie Fisher.



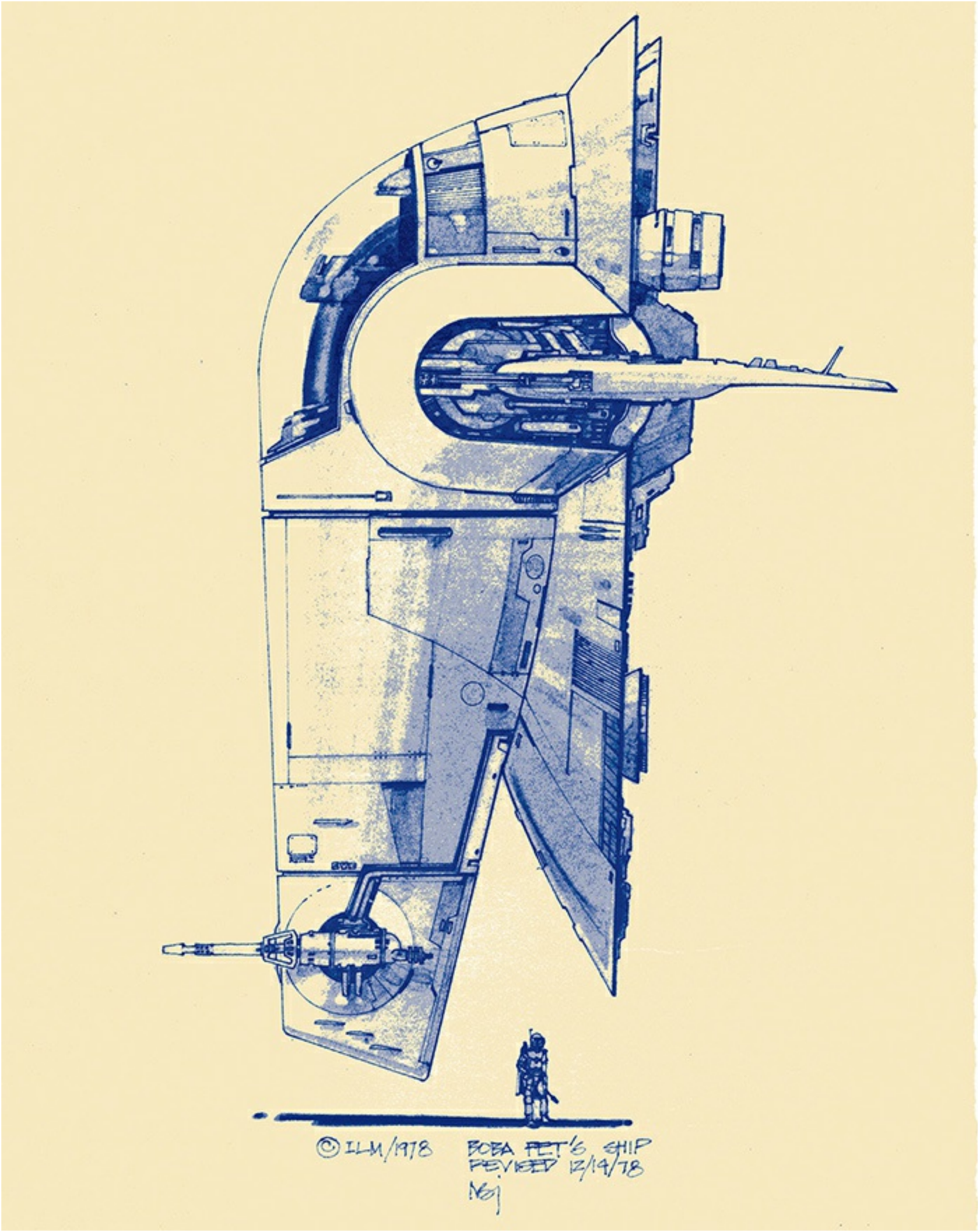
A color study for “East Landing Platform” by McQuarrie, September 25–28, 1978 (with early Boba Fett ship, based on designs by Nilo Rodis-Jamero).



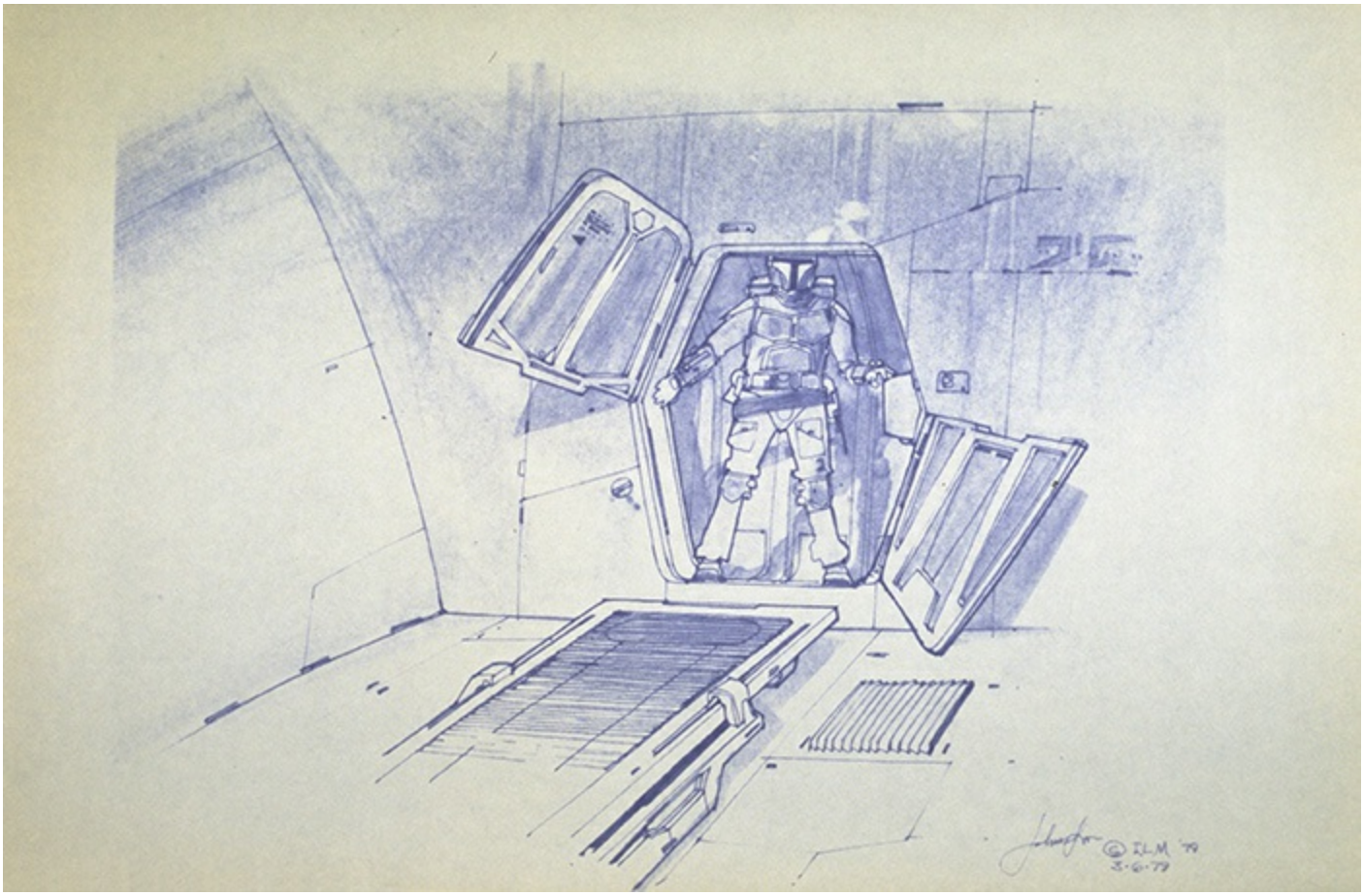
“East Landing Platform” by McQuarrie.



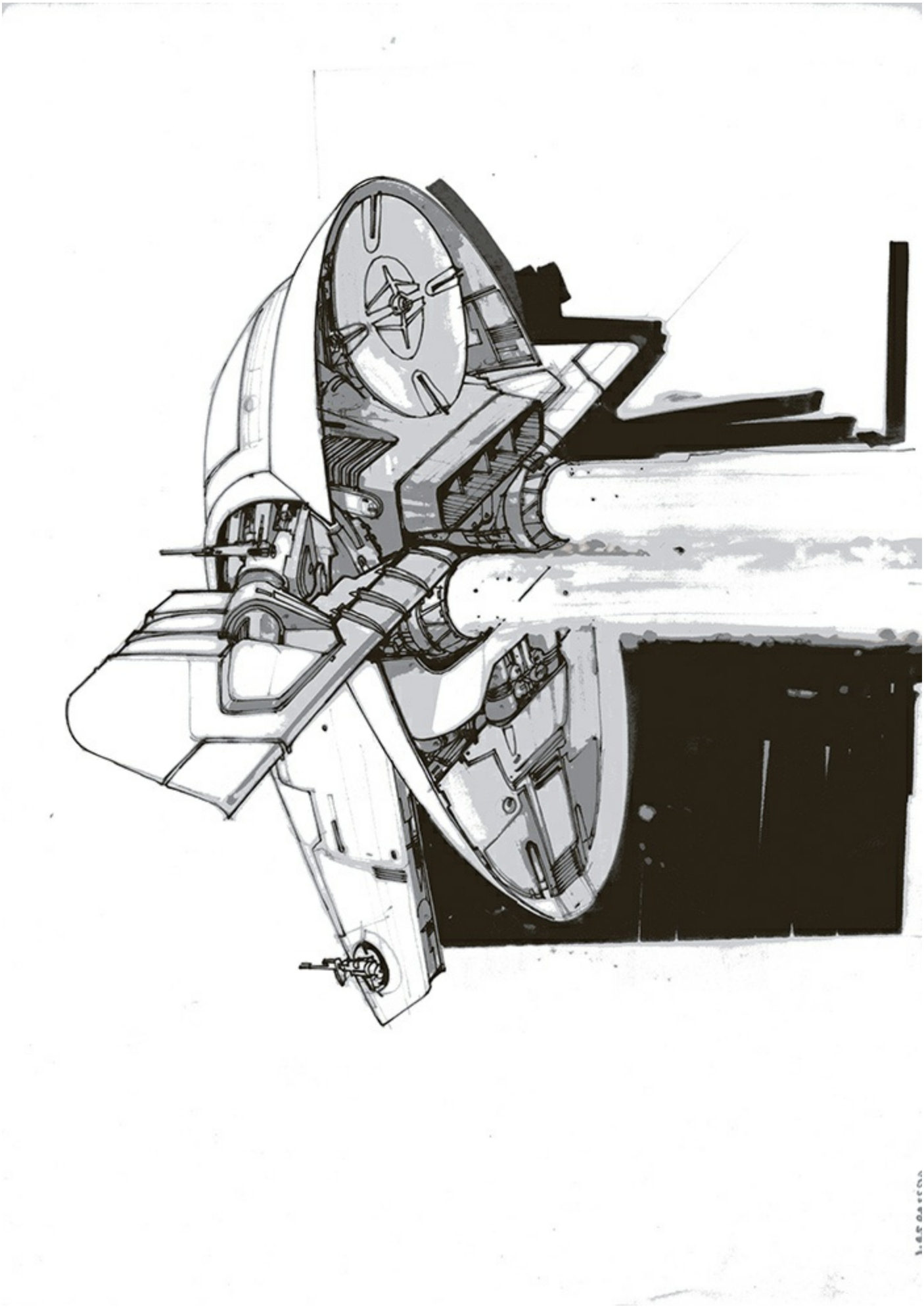
Early concepts for Fett's ship by Rodis-Jamero.



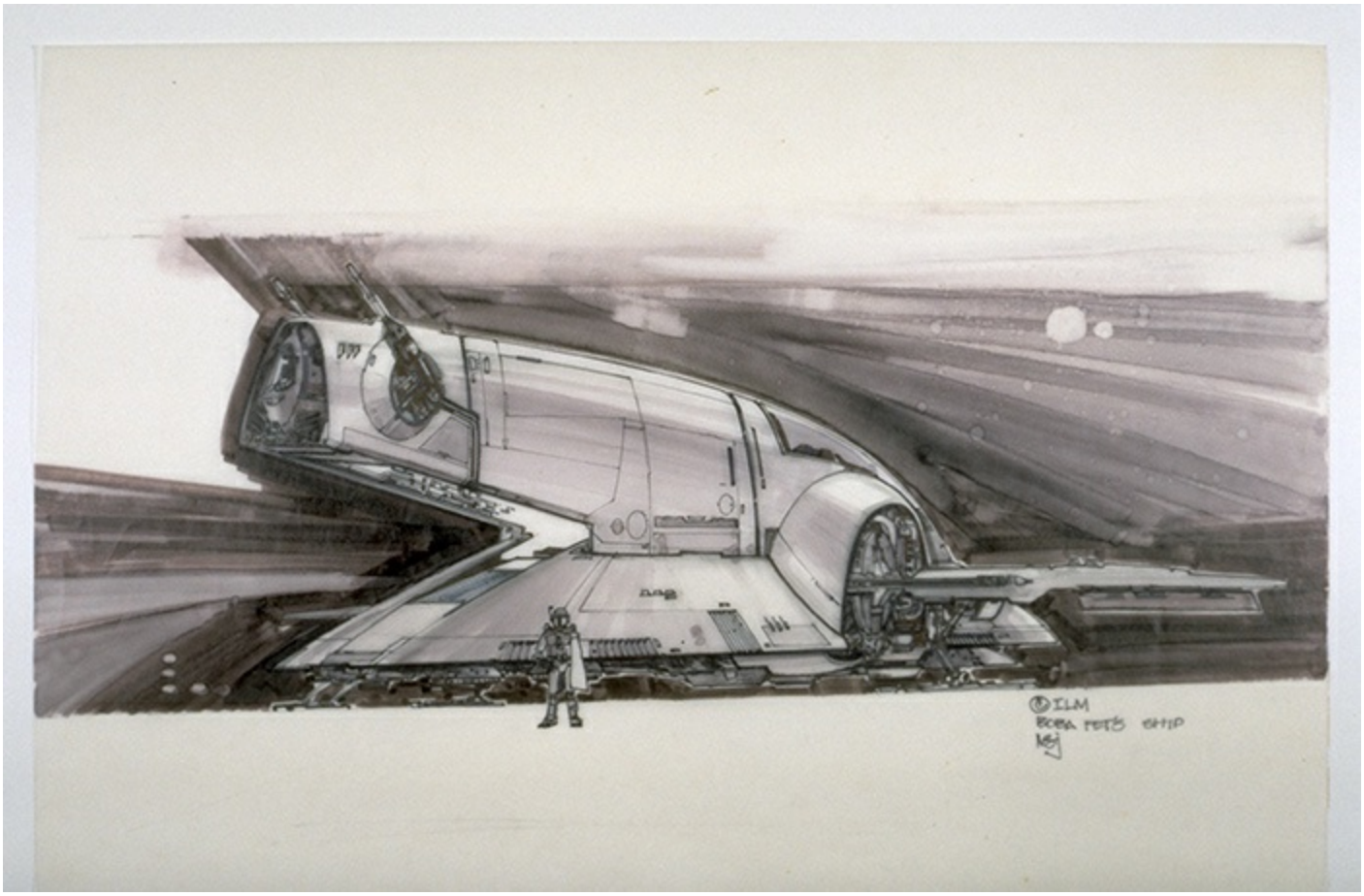
A revised version of Fett's ship by Rodis-Jamero, December 14, 1978. "I remember seeing a radar dish and stopping to sketch it to see if I could get something out of it," he says. "The original design I had was round, but when you looked at it from the side, it became elliptical. For some reason, when I drew it, George thought it was elliptical, so that's what it became."



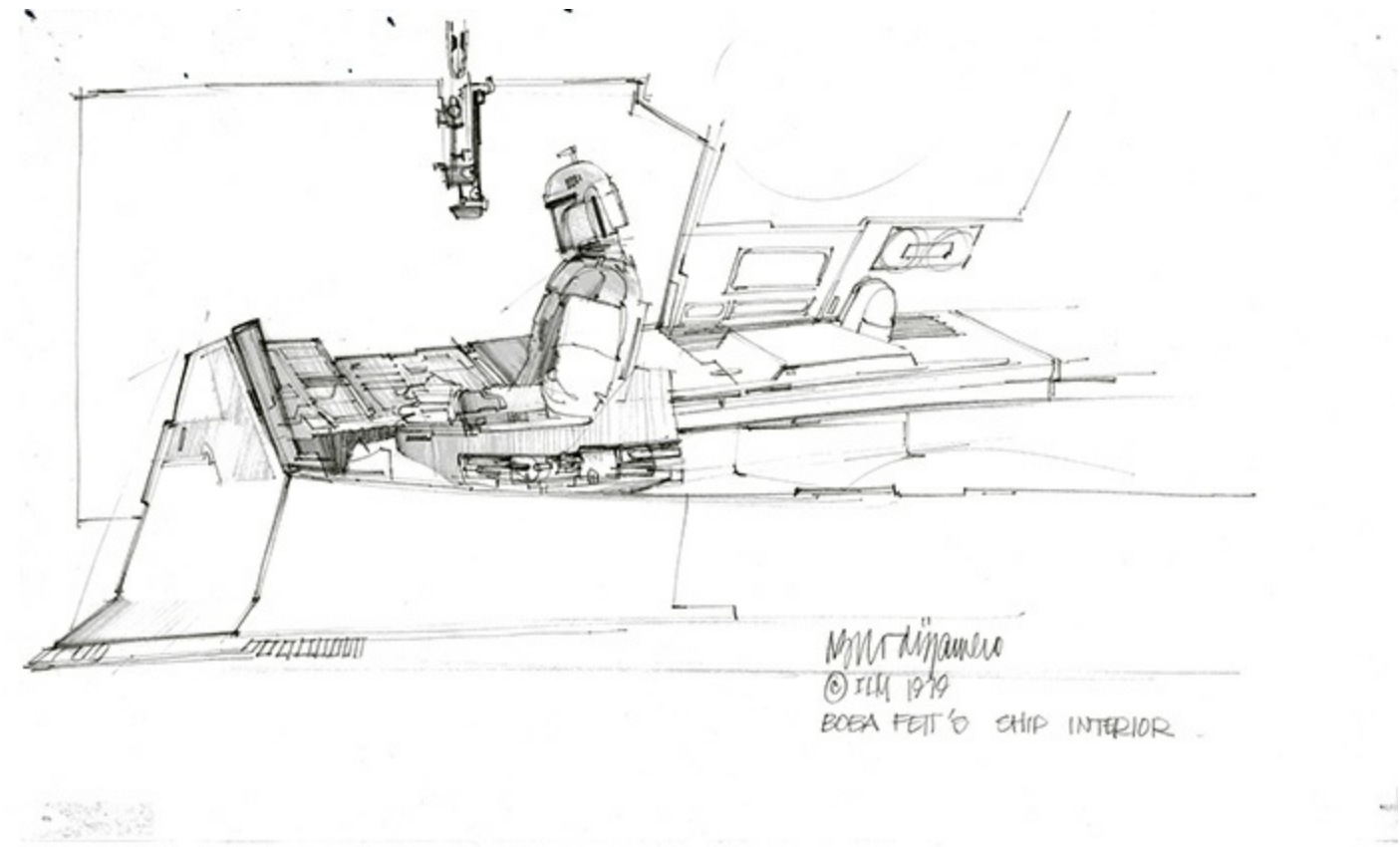
Concept art of Boba Fett by Johnston, March 1979.



Concept art of Fett and his ship by Rodis-Jamero, early 1979.



Concept art of Fett and his ship by Rodis-Jamero, early 1979.



Concept art of Fett and his ship by Rodis-Jamero, early 1979.

TECHNICAL TRIALS

Back in San Rafael, California, ILM felt its way forward. On January 26, production notes indicate that parts of the building still needed heat. "I have to say that was a little bit of a problem," says Steve Gawley. "We actually got sick. The front office was heated, but where we were working, we were pretty cold."

The bigger picture was cause for concern as well. The visual effects for *Star Wars* had, in Lucas's eyes, limped to the finish line. And now, in its wake, several visual effects films were floundering in postproduction: Budgeted at $40 million, *Star Trek: The Motion Picture* had experienced a multimillion-dollar effects disaster, while *Meteor* (1979) was, reportedly, "firing an effects crew a week." The question therefore on everyone's mind was: Could Lucas and ILM pull a rabbit out of their hat—again?

Efforts to do so continued. On February 5, Muren filmed an elephant at Marine World Africa USA (with animal rental and associated costs of $3,467.54). The elephant footage would be a model of locomotion for the walkers. Muren, Ralston, Tippett, and Berg also photographed a horse and rider on Stinson Beach, which would serve as reference for the tauntaun's gait.

"I believe it was the same elephant that was used as a bantha in *Star Wars*," Ralston says of Mardji. "The trainer made it do all sorts of tricks. We also knew this girl who had a horse. We placed markers in appropriate spots and had her run the horse using different paces, which we filmed from every angle."

Model making progressed on Imperial ships and a "half-sized pirate ship," while Berg and Tippett recommended using "photo cutouts for distant walkers." Half-sized meant a two-foot *Falcon*, as the original four-foot model was just "too heavy," according to Muren, "and the limited space at Kerner was too small to make it look distant, in my opinion."

A new animation video system was due at the end of the month and a contract between The Kerner Company and Union Locals 16 and 659 was in the works by February 2.

"We began our photography here in February of 1979," says Edlund. "We'd actually begun setting up our operation in September of 1978, so we had that much more time to get all of the work that needed to be done completed for the picture as planned."

"We were shooting the asteroid sequence, the Vader ship, and other things," Muren says. "The only cameras we had running during that period were the Dykstraflex and the Technirama, for months and months."

While Muren wasn't pleased with the slow start out the gate, he also viewed the facility's distance from England as an ongoing difficulty. "It's been complicated by the fact that we are working here in Marin County and had to set up this facility while the live-action shooting will be going on in Europe over a period of many, many months. We began by having a number of meetings with Peter Suschitzky and discussing what he was going to be doing on his end and what we would be needing from him in order to make our material work."

"I made a visit to California before I started the picture because I happened to be there on another job," Suschitzky says. "I don't pretend to be an expert on miniature photography and so on, but we discussed the general problems which would be arising."

"In some cases, we dictated what the lighting situation was to Peter," Muren says. "In the asteroid sequence, we started shooting our part of it long before he started shooting his. So I said to him, 'In that sequence, it will look best if the key lights, as you are approaching the asteroids, are lighting them from the left.' Fine—no problem with him. He just needed that information."

Electricity was installed for ILM's single stage, and the building passed inspection on February 22. A

telex machine arrived, but it could only send *out* telexes, not receive them, due to a mechanical glitch. The next day, Tippett cast the tauntaun model in a very flexible rubber material.

"Since we were allowed some R-and-D time, we had a real sophisticated armature that Doug Beswick built with Tom St. Amand," says Tippett. "Both those guys were responsible for the internal mechanism that made the thing work with very complex ball-and-socket and hinged skeletons. Tom and Doug were very involved in making the things work properly, which is half the battle in stop-motion stuff."

A "blur test," to simulate real-life movement on the stop-motion tauntaun, resulted in too much blur. "We did build, very quickly, a test armature as a preliminary model," says Tom St. Amand. "I guess Jon Berg and I whipped it up in a week or two. Phil cast it in rubber, covered it with fur, and used it to do tests for a month or so. We were building the walkers at that time."

As St. Amand duplicated all the walker parts, machining the joints, swivel hinges, and so on, the upper portions were cast separately in urethane and painted by Nilo Rodis. That same week, the new VistaVision reflex camera, which Edlund and his team were still working on, was christened the "ILM Empire" and rapidly prepared for testing in order to be ready for principal photography in Norway.

"Jerry Jeffress, Kris Brown, and Lhary Meyer were the three guys trying to get this control system for the Empire camera finished in time for the VistaVision plates," says electronics technician Mike MacKenzie, who started at this time. "They had a lot of cables that had to be made, but it was all spec'd out. It was drudge work, but it was a foot in the door and I jumped right in."



On March 8, 1979, Muren (behind camera), Tippett, and others filmed Suzanne Pasteur (a friend of Lorne Peterson's) on her horse for tauntaun movement reference.



Mardji the elephant, who was also in *Star Wars* as a bantha, is filmed by Muren for walker movement reference, early 1979 (Mardji's trainer stands near her).



Visual effects supervisor Brian Johnson, stop-motion animator Phil Tippett, Jon Berg, and Ken Ralston greet Mardji the elephant.



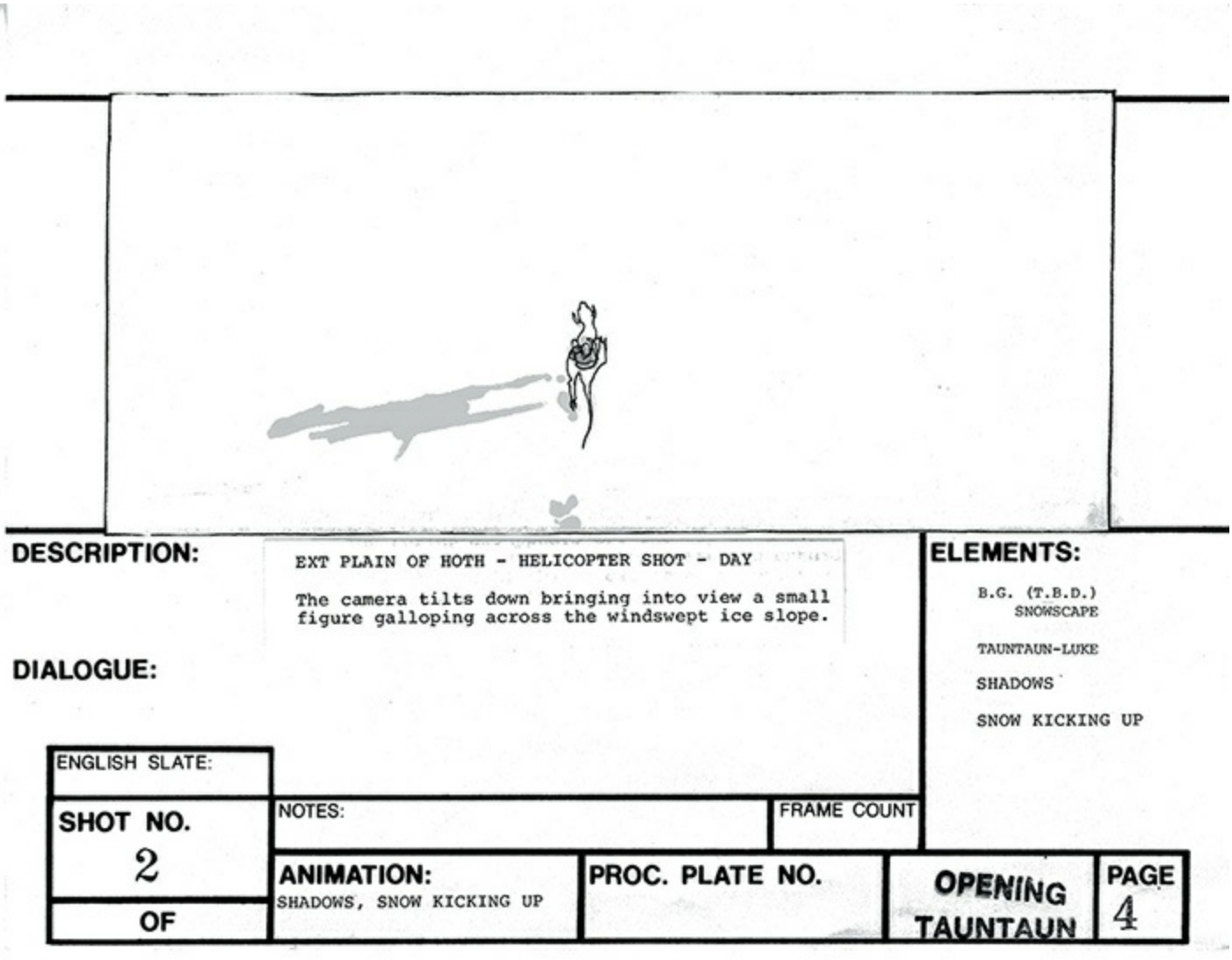
DESCRIPTION:

Episode V
THE EMPIRE STRIKES BACK
After the destruction of, etc....

ELEMENTS:

DIALOGUE:

ENGLISH SLATE:				
SHOT NO. 1	NOTES:	FRAME COUNT		
2 OF 3	**ANIMATION:**	**PROC. PLATE NO.**	OPENING	PAGE 2



Revised storyboards of the opening, now “Chapter V,” by Johnston, early 1979.



Johnston at his drawing board.

FEROCIOUS FINSE

The day after the disastrous fire, Thursday, January 25, the recce crew had left London for Finse, Norway. Kurtz, Reynolds, Watts, Kershner, Welch, art director Les Dilley, first assistant director David Tomblin, and a few others joined the Norwegian crew, which then took two days to tow tents to the mountain site.

"By this time, we had snow vehicles that had arrived from Aktiv in Sweden," says Watts, "and we used those for traveling around."

"Getting equipment meant transporting 10 containers by sea from Felixstowe, on England's east coast, to Oslo and then by train to Finse," Arnold writes. "Three more containers were flown in from London to Bergen. These consignments included two VistaVision cameras (one of them the computer-controlled Empire flex for special-effects work), two Panavision cameras, an Arriflex camera, wind machines, and props."

By early February, the containers had arrived, along with a Red Cross–certified nurse, so wardrobes, pyrotechnics, and other materials were unpacked under the supervision of art director Alan Tomkins and Brian Johnson, who arrived on or about February 12.

"I was in the unfortunate position of having nothing to do with a Norwegian location until I had a phone call on a Sunday to ask me to fly out the next morning because Les Dilley, the other art director, had fallen sick," says Tomkins. "So one day you're in the studio and the next day you're out in Finse, surrounded by all that snow—it suddenly hits you in the face and you think, *Crikey, I never realized this amount of snow existed!*"

"In Norway, we're using laser guns," says Johnson. "We're going to animate the lasers later on, but to give the artists a guide and to produce the initial effect, we're making gas-gun cylinders. They're about a cubic foot in capacity—which is perforated, has lots of holes, and a very high-voltage spark plug in the middle—so we flood the chamber with a mixture of acetylene and oxygen to get a tremendously bright flash that squirts out through all the holes in the gun."

"We had workshops for special effects," says Tomkins. "We had a paint shop; we had a large construction shed and a carpenter's shed. The biggest tent was the one where we housed the snowspeeder and assembled it, which came from England in a container. The problem, of course, was that the temperature inside was very, very low. I mean, a problem. We had very little heating in the huts for a long time and the paint would just freeze before you could actually get it out of the pots. Out there, it became a nightmare to try and get the things to work."

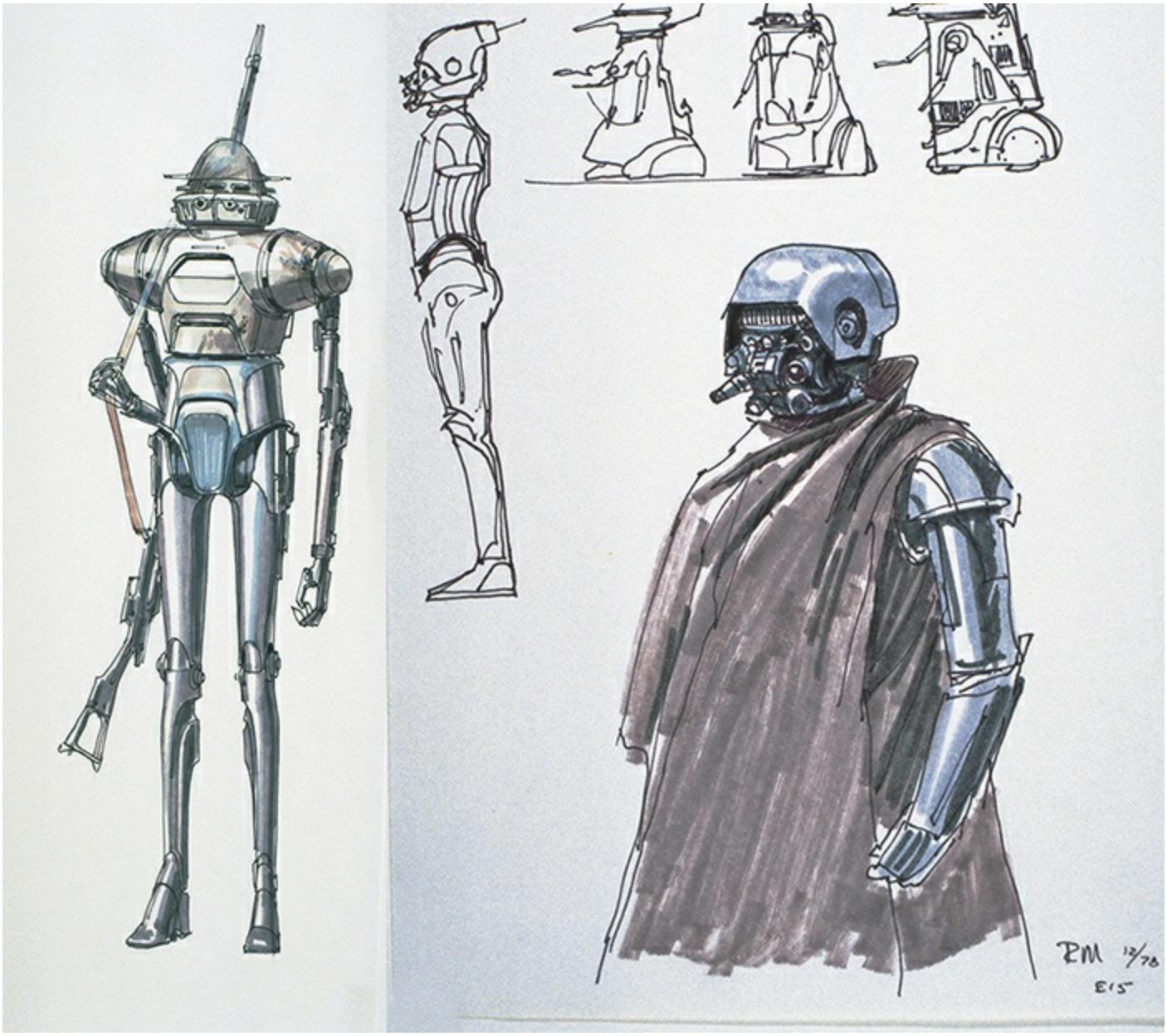
On Tuesday, February 20, written permission was received to shoot with a helicopter. "We will always feel indebted to Ole Jacobsen, flight director of Helitourist, for sitting in offices for a number of days negotiating delicately with Norwegian military officialdom in order to obtain the first aerial filming permission granted by Norway to a foreign registered aircraft," says Ronald C. Goodman, cameraman for the Aerospatiale Lama 315B crew. The Lama was needed to obtain important aerial footage for the Battle of Hoth, and would use a Wesscam to get it. "When properly set up, this remotely controlled gyrostabilized system is capable of stabilizing an entire camera, magazine, lens, and all, to within .5 millimeter (about .045 degree) in both elevation and azimuth (pan and tilt) under just about all helicopter maneuvers encountered in aerial filming and still provide precise control."

Goodman and his crew—camera assistant Margaret Herron, pilot Marc Wolff, and helicopter engineer Michael Vantief—had worked on several films, most recently the flying scenes in *Superman*. Their preparation for *Empire* would take four weeks, as they built a suitable shelter for the helicopter with separate generators, heaters, and so forth.

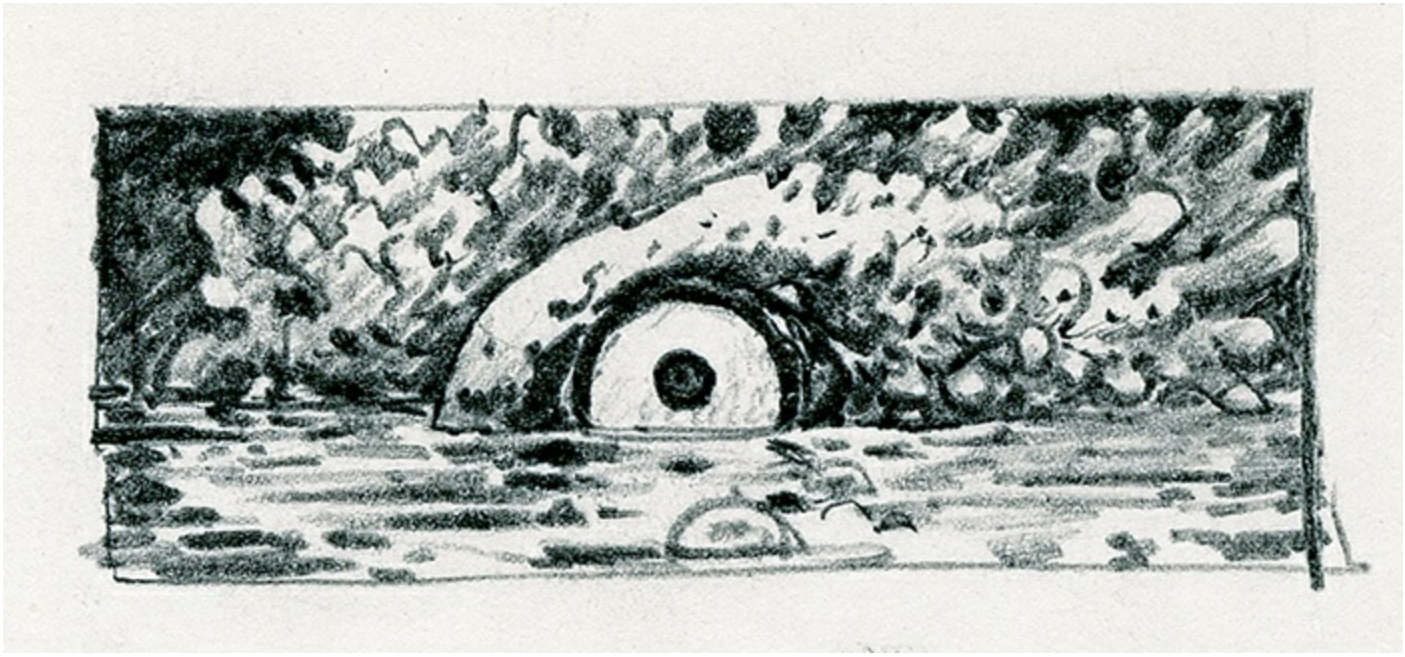
The film's construction crew arrived on Sunday, February 25, and three days later started digging trenches in the freezing snow.



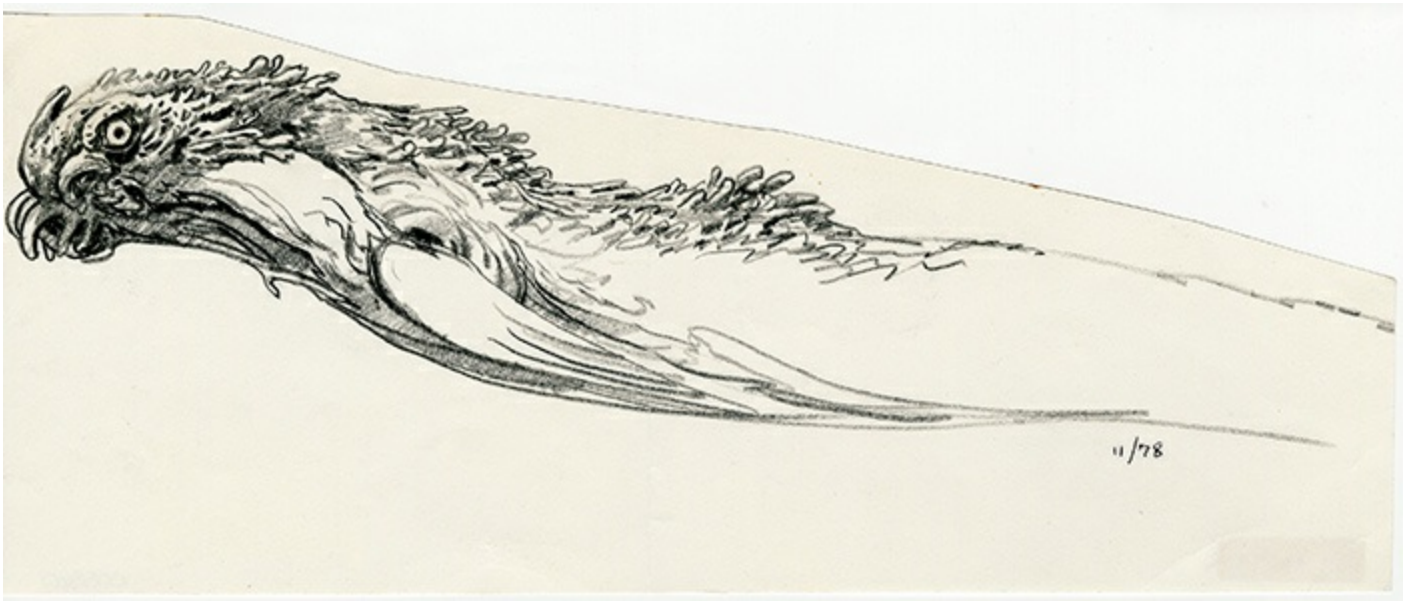
Bounty hunter concepts for “Boba Fett’s Gang” by McQuarrie, December 1978–February 1979.



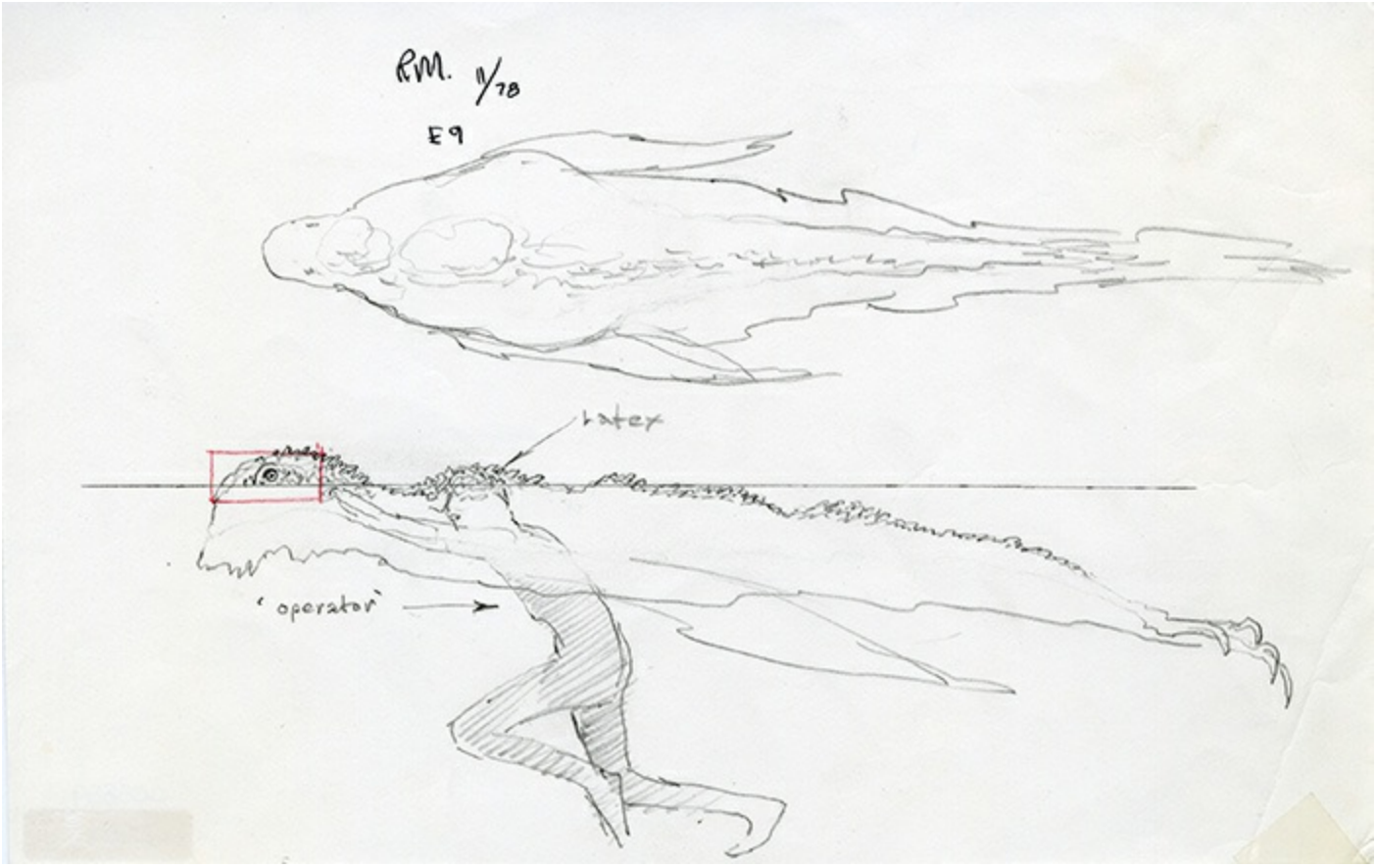
Bounty hunter concepts for “Boba Fett’s Gang” by McQuarrie, December 1978–February 1979.



Swamp creature concept by McQuarrie, November 1978.





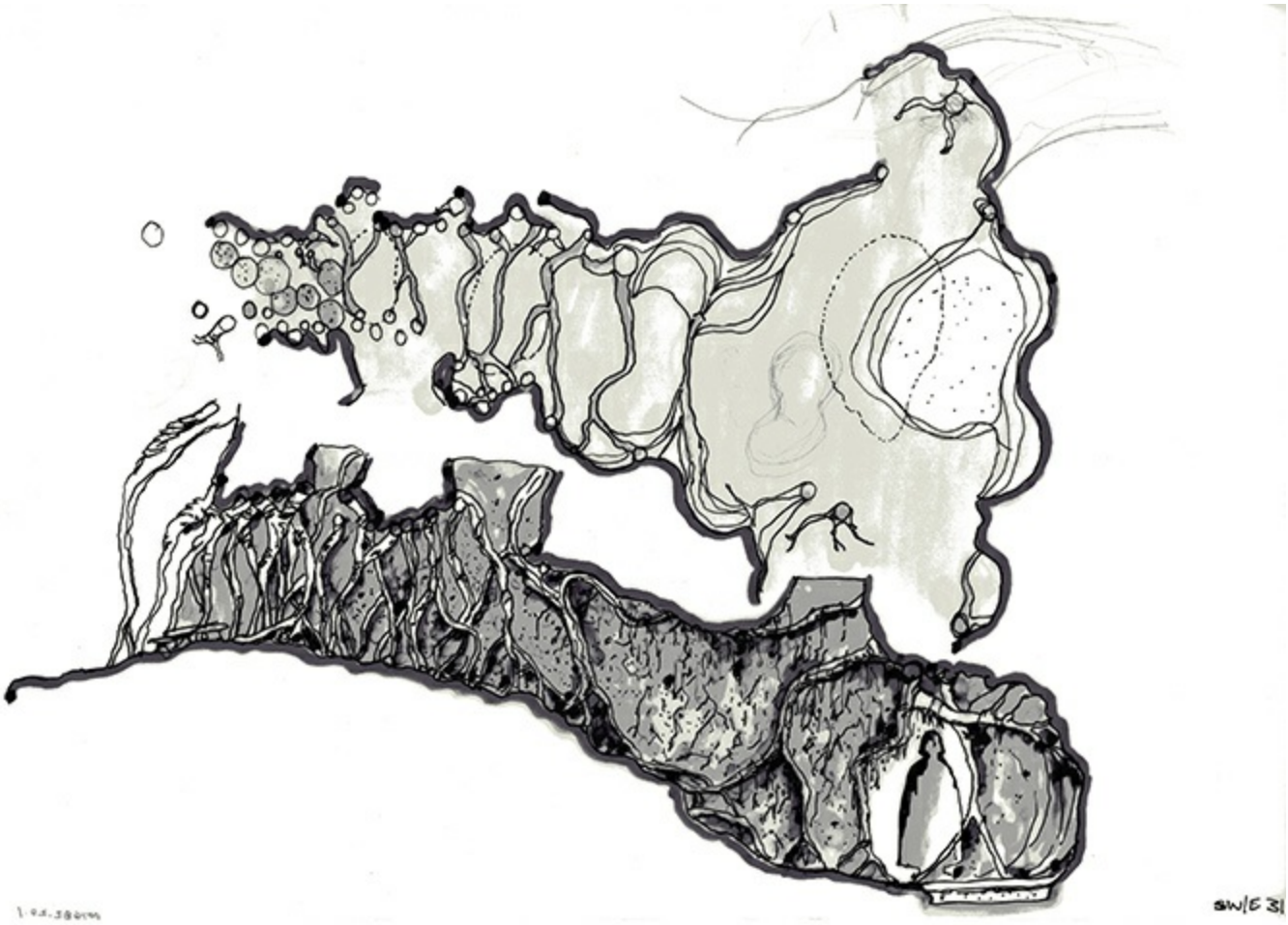


Swamp creature concept (which would be operated by a diver swimming underneath the latex creature) by McQuarrie, November 1978.









Concept drawing of the dark-side cave by Reynolds.



R.M. 26b.

1/79

Tree creature
Bog Planet

Concept drawings for Dagobah by McQuarrie.



Dark side tree concept by McQuarrie, December 1978; Luke's test in the dark side tree went through many iterations, some of which included a guardian, or "Tree creature, bog planet" by McQuarrie, January 1979.









Tree creature
Bog Planet.

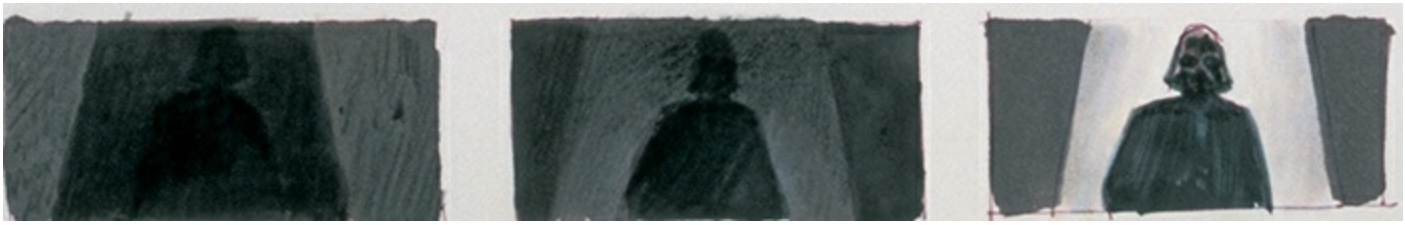
1/79

26b

"Tree creature, bog planet" by McQuarrie, January 1979.



Luke and Yoda among the giant trees on Dagobah, production illustration by McQuarrie, 1979.





Inside the tree, Luke's encounter with dream Vader was conceptualized by McQuarrie in early 1979.

LUKE OF THE TUNDRA

FEBRUARY TO MARCH 1979

CHAPTER FOUR

With just days before filming was to begin, Lucas, Kershner, and Kasdan were still making script changes. Back on December 5, 1978, they had already revised a few scenes—for instance, the *Falcon*, upon leaving Cloud City, no longer blasted its way out through hangar doors—and a fifth draft (see the sidebar on this page), which introduced the "hogmen," was dated February 20.

"I made up those little people," Kershner says. "We had a big argument about it, because George said, 'Gee, maybe it's wrong to have them.' And I said, 'Why?' 'Well, because we're saying that the little people are slaves.' I said, 'They're hogmen. They're not slaves, they're workers.' When Chewbacca finds Threepio in the junk room, I made that scene up, just to have fun with it."

"Basically, I just work here, you know what I mean?" says Harrison Ford. "In fact, I didn't get the script until three weeks before we started shooting."

Ford was now in London, though he would not be traveling to Norway. He'd arrived, along with Hamill and Fisher, on or around February 17. "I actually found the physical training for the role kind of fun," says Hamill. "Before I came over, I spent four months learning karate, fencing, kendo, and bodybuilding, because I do a lot of strenuous stunts on the bog planet."

"Mark has to progressively become a fantastic acrobat and gymnast," says stunt coordinator Peter Diamond. "His character has to be a really superhuman athlete, so we have to teach Mark basic gymnastic moves and how to look good. He has a rather intensive course in all of these things. From a stunt coordinator's point of view, you couldn't have asked for a better actor in his cooperation, in wanting to do everything, in wanting to learn. I have nothing but admiration for him, that's what I would say, and he enjoys it. This is the main thing: He does enjoy it, yes."

After hosting *Saturday Night Live*, Fisher had made plans with some of the crew: writer Michael O'Donoghue for *Mr. Mike's Mondo Video* (1979) and with John Belushi and Dan Aykroyd for *The Blues Brothers* (1980). "I love Michael O'Donoghue," Fisher says. "He calls me the Hollywood Devil Baby."

Unit publicist Alan Arnold first met Hamill and his wife, Marilou, at the London Airport in the departure lounge on their way to Norway. Hamill had met Marilou York in a dentist's chair while she was cleaning his teeth, according to the *Orange County Register*, in late 1977. They were married in December 1978 and were expecting their first child in June. Marilou spoke to Arnold about her pregnancy's "attendant anxieties. Would there be adequate medical facilities on location?"

"The repercussions [of an out-of-wedlock pregnancy] were so strong when we decided to have the child that we married when she was three months' pregnant," says Hamill of fame's downside. "So now it looks like we had to get married and the whole thing is so distasteful to me. I thought, *Fine—if it brings that many people that much unhappiness, I will get married.* I was stupid to think that this wouldn't happen anyway."

On Wednesday, February 28, Kurtz, Hamill, Fisher, and Arnold arrived in Oslo and lodged at the Scandinavia Hotel. "That evening we dined at a restaurant high above the city," Arnold writes, "where the food was as special as the view, but the conversation, I thought, was somewhat strained. I had no doubt I was to blame. I am cast against type as a publicist; I have no special talent for putting new

acquaintances at ease and I think that my presence may have inhibited the conversation of these friends of long standing."

At the press conference the next day at the hotel, Kurtz announced that principal photography would start the following Monday. "Carrie explained that she had come to Norway out of curiosity, not to take part in the filming, because the scenes at Finse do not require her—she just could not bear to miss the location atmosphere."



The press conference at Oslo, Norway, March 1, 1979.



Mark Hamill (Luke Skywalker) and Carrie Fisher (Princess Leia) pose for photographers.

Reporter: What is the budget for the film?

Kurtz: It should be approximately $16 million [sic]. Part of that is just inflation in the three years since the first one was made.

Reporter: A question for the actors: Do you read any science fiction novels?

Hamill: I never thought of *Star Wars* as science fiction, I thought of it more as fantasy-fairytale and I've always been interested in fantasy. How about you, Carrie?

Fisher: I'm the same way. I'd only read *1984* and *Dune*—just a couple of the more popular science fiction books. But then *Star Wars* is very myth-oriented, with the main characters including a Princess and a wise old man, you know.

Reporter: Are you afraid you'll always be connected to Star Wars?

Hamill: I don't really care. I mean, an actor wants to be connected with something in his short career. I'd like to do other things, but I haven't found a great driving force to separate myself from the project. It's fun.

Fisher: And terrifying [laughter from the reporters].

Reporter: Why doesn't George Lucas direct this one?

Kurtz: Well, George has retired, let's put it that way.

Reporter: Aren't you afraid of bad weather in Finse? A snowstorm or . . .?

Kurtz: Well, we want some bad weather. We have several scenes to shoot and we need a variety of weather conditions. Of course, if we have two solid weeks of whiteout, that wouldn't be good.

Reporter: I read that in the sequel that Princess Leia would choose between Han Solo and Luke Skywalker. Will that happen this time?

Kurtz: We're thinking about it. A lot of the story elements are still—

Fisher: I can't decide [laughter].

Reporter: Alec Guinness will not be in this?

Kurtz: His character probably will. I'm not really ready to say yet what happens with his character. We're still working on that aspect.

Reporter: Has he been asked to appear in the film?

Kurtz: Yes.

Reporter: For the actors, what has the success of the first one meant to you? Have you had many other offers that you've had to postpone now that you're doing the sequel?

Fisher: I've had a lot of dating offers from 12-year-old boys. [laughter] Yeah, some offers, but there are a lot more actresses than there are properties for actresses, and a lot of the properties aren't good.

[The press conference is concluded in Norwegian.]

"After the press conference, Fox executives took us on a tour of some of Oslo's sights," Arnold recalls. "Mark appeared to be finding the experience enthralling, although I detected a certain weariness in Carrie."

Going from Oslo to Finse in stages, Kershner, Mayhew, and Tomblin arrived on March 2, while Hamill, Fisher, Arnold, and others left for the glacier the following day. "At five, we assembled in the lobby, Mark sleepily protesting that the hotel had been unable even to provide coffee at that hour," Arnold writes. "Also, it seemed, no one had been available to bring down the Hamills' luggage, but eventually it joined the formidable pile already assembled in the lobby. Marilou seemed to have brought all that might be needed in the event of a premature delivery, including a basinette, medical supplies, and an enormous teddy bear.

"Soon a bus, as big as a Greyhound, appeared, and we climbed in and rode to the station through a city still in the grip of a crisp northern night. On arrival, we discovered there were no porters. Kurtz spotted a handcart, which we piled high with our belongings, but there was too much for one load. The cart was awkward to push, its front wheels repeatedly jackknifing, putting it into reverse. Then we got to the wrong platform and had to turn about, getting to the Oslo–Bergen express with only five minutes to spare."

"There was one railway line which operated between Bergen and Oslo, and we were on the highest point of the line," Johnson says.

"As we drew close to Finse, the countryside became featureless and sullen until it was just undulating snow against a backdrop of mist," Arnold says. "Throughout Europe, spring was overdue and we were going deeper into winter."

The sole occupants of a first-class carriage, the small group arrived after a six-hour ride. "We stayed at this solitary hotel," Johnson says, "which is normally used as shelter for these maniac Laplanders who just ski on horizontal slopes for mile after mile, get lost, and then have to be rescued and brought to safety by search parties."

On Saturday, visibility was already bad as the entire production prepared for shooting on Monday. On Sunday, the weather started to "deteriorate" with snow and high winds, according to the production Progress Reports. "It's just funny," says Jim Bloom, who had been in Finse since mid-February. "Whenever movie companies arrive at a location, people always say, 'Gee, it's never been like this before.' "

"The hotel conditions were Spartan to say the least," Johnson adds. "The place featured typical Scandinavian heating inside, which is to say that it was like living in one huge sauna. You couldn't open the windows for ventilation, either, because they were iced solid."

Lodged two to a room, the 70-people crew had set up a camera room, specially installed telephone lines, telex equipment, and radio links—but there was little they could do about the weather. They had two other vital installations, according to Arnold: a base halfway up the glacier at 3,000 feet (named Camp Sharman after Bruce Sharman, the production supervisor) and Camp Kurtz, on the summit. Both bases comprised four huts heated by their own generators. The encampments were built along the lines of arctic survival camps and equipped with toilets, medical supplies, and emergency food rations in lead-sealed packs the size of paperback books. "Every department is getting ready for tomorrow's shoot despite weather reports from the nearby military base at Voss which forecast worsening conditions," writes Arnold.

"When we arrived on location," Watts says, "the weather conditions were appalling."

"We could have done it at our studios in England, but the movie would have then started off looking artificial," says Kershner. "We decided to go for reality. Unfortunately, it was Norway's coldest winter in 100 years. That's why you prepare for a film as if you were a prizefighter—I ran two miles a day for months before it, because I knew what to expect."



Kershner on the train to Finse.



Production map of the Finse Location, including "shooting areas"—and crevasses (the walkers would attack on the "lake").



The isolated hotel in Finse.

STAR WARS: EPISODE V *THE EMPIRE STRIKES BACK* BY LARRY KASDAN, FEBRUARY 20, 1979—FIFTH-DRAFT SUMMARY

In the multicolored 157-page shooting script, the crawl has changed from "a million worlds have felt the oppressive hand of the Emperor" to "a thousand worlds."

Now Luke talks to Han before being attacked by the wampa. Instead of Rebel troops inspecting the dead tauntaun, a medical droid does that work. Ben no longer tells Luke in the snow that "You are the only hope." When the walker is downed, there is no skirmish between Imperials from the fallen walker and Rebels emerging from the trenches; instead, an airspeeder blows up the Imperial machine. In the ice corridors, the droids move by a door with an *X* painted on it, behind which ice monsters are contained.

THREEPIO

See, your whistles upset [the Ice Monsters]. They're being enticed into the trap by high-pitched sounds. No, I told you they can't get out! Now will you hurry up? I don't know why I bother …

Threepio moves around a corner. Artoo stares at the door another moment, then proceeds to tell the Ice Monsters off in a burst of beeps and whistles. The THUMPING picks up as Artoo moves casually away.



Luke on tauntuan by McQuarrie, 1979. With production in Norway, the artist in England concentrated on hero paintings, utilizing final designs by himself and others, which served to embody the feelings of certain key scenes.

CONTROLLER
Sir, we have a priority signal
from the Star Destroyer ~~Avenger~~. Executor

In his copy of the fifth draft, Lucas changed the name of Vader's ship from *Avenger* to *Executor*.

A scene of R2 alone on Dagobah warming "several of his utility arms in front of the thermal heater" has been cut, as is the scene where Vader talks with Pestage before speaking with the Emperor; a new shot reveals the back of Vader's scarred head.

Luke's anger at the flying remotes has been replaced by a shorter scene of him running and jumping, while conversing with Yoda. A scene of Luke balancing upside down on his thumb is also cut. As Luke enters the tree, after traversing a shallow moat, he encounters another physical guardian:

> Luke reaches up to brush aside some hanging vines and they snap at him like lobster claws … then they move upwards. Luke looks up and sees they are attached to a monstrous creature who stares down at him—Luke enters the tree.

Later, while Luke and Yoda eat, a new shot has R2 rising up on his "toes" to peek into a window in Yoda's house—but when Luke is again tested by "three glow-ball seekers," one of them targets the droid, "who falls out of frame with a shriek and a clunk."

On Cloud City, a new scene has Chewbacca rescuing C-3PO's parts from incineration by hogmen in a junk room. Lando accompanies Han and Leia across a plaza, but their dialogue has changed: Lando flirts with Leia and Han is jealous.

CALAMITOUS COLD

REPORT NO. 1: MONDAY, MARCH 5, 1979; FINSE, NORWAY; EXT. PLAIN OF HOTH, ICE GORGE; SC. 23 [LUKE STAGGERS OUT OF GORGE], 31 [LUKE FALLS UNCONSCIOUS] NOTE: NOT ALL SCENES SHOT ARE LISTED.

With a finishing date of June 22, 1979, principal photography began its 76-day schedule on Monday, March 5. Kershner had chosen to start with scenes in which Luke escapes from the wampa's lair. On hand were Mark Hamill, Dennis Lawson (Wedge Antilles), Peter Mayhew, and Des Webb (snow creature), though the latter three were "CNU," called-not-used. To transport people and props, production used: eight Snocats; two Trac-Masters; four snow scooters; one Ratrac; one passenger sledge that could carry 16 people; and 10 equipment sledges.

Over the weekend, the weather had been awful. "No trains have reached Finse for two days," Arnold writes. "They are being turned back to Oslo or to Bergen at stations along the line, unable to reach this halfway point because the snow tunnels leading to our plateau have collapsed. We are isolated in a wilderness of snow."

"Adding to the hilarity, we had two avalanches occur which sealed us off from the railway line, stranding us for a few days," says Johnson.

"George had told me, 'Don't expect things to work,' " Kershner says. "That was very good advice."

Snow filled the trench dug by the crew a few days before, so its scenes were put on hold. "We had a lot of expensive dressing and pipes which were now buried 10 feet down," says Tomkins. "So we called on the help of a local gentleman who not only ran the local youth hostel, but who actually went out and found people if they were buried in avalanches. He came with something like a water-divining stick and he told us where to start digging. That was the first lesson learned: From that moment on, I was unable to prepare anything more than a few hours in advance of the unit."

"It wasn't the easiest place to make a movie," says Johnson. "Yet there we were, filming a fantasy when the realities of life were becoming all too apparent around us."

"I've filmed in similar conditions, but not on such a large scale," says Suschitzky. "I had filmed in subzero temperatures before, but not with the sort of equipment we were carrying."

"I saw Kersh pawing with gloved hands at his freezing Lenin-style beard while talking intently to the producer," Arnold notes. "Both are tall men and, as they leaned toward one another shouting into the wind, they resembled explorers on some arctic expedition. Around them, the stumbling forms of technicians, anonymous in their protective gear, moved in and out of the whiteness, looking curiously unreal."

"You know what the biggest problem was in working there?" Kershner asks. "Going to the bathroom! We had on seven layers of clothes—we were dying!"

"Even reloading a camera became difficult—and dangerous," says Johnson. "Acetate film becomes brittle in cold weather, and the edges are razor-sharp. Try loading frozen film into a camera during a howling blizzard with ice and snow particles trying to blast their way into the camera!"

"We tried to set up a rotating glass plate in front of the lens, the same thing used by the Coast Guard when they're in a storm, to photograph against the spray and snow," says Kershner. "Except it didn't work with snow. The lens would still ice up."

"Further complicating matters, the camera lenses had to be kept cold, so that ice and snow would not melt on them," Johnson adds, "but the camera bodies had to be kept warm so the film would move

smoothly through the sprockets and the batteries would retain their charge."

"The eyepiece would cloud over," Kershner says. "The cameraman would look through it and then, about a third through the take, it just became white. He couldn't see anything, couldn't tell whether it was in focus, whether he was following the action. And if you touch the camera without gloves on, your skin immediately glues to the metal; it freezes. You have to take a razor blade and slice away the skin to get it off."

"We couldn't take the unit to the top of the glacier because we were in whiteout conditions and it was much too dangerous," says Bloom. "You could not see where you were going. The track was lined with poles every ten feet apart, so the group would have to inch its way by tying ropes to people and tying those ropes to the front of the track vehicles; then they would move forward ten feet and find the next pole along the path and then the whole line would move forward ten feet."

"Trying to look at a script, hold a pencil, and look through a lens were feats in themselves in that snow, battered by a blizzard, wearing so much clothing," Kershner says. "I found that my tape recorder wasn't working because it stuck—it was too cold—so you began to do what primitive peoples do, which is you remember everything. I was amazed at how much you could remember when you had to. It's all there in your mind."

"It was difficult for everyone in Norway just moving about," says Hamill. "Running at full speed, in full gear, in knee-deep snow and so forth."

"We were lugging around equipment, too," Johnson adds. "When you're 5,000 feet up on a mountain with the air very thin, you find that, after a day of this, you are quite dead."

"The intensity of the work takes away self-concern and to get a shot, you work at it and you realize that you've stood in one place for about two hours," says Kershner. "Two hours pass and you realize you just got the shot—and that's when you feel cold for the first time. In fact, we found that you couldn't go inside, because if you went in and out from the buildings, you got cold. The best thing was to just stay outside the whole day. I would go outside at 7:30 and I wouldn't come back until about 5:30 or 6 o'clock for dinner."

"Our sole visitors are the intrepid women who arrive with sleds bearing canisters of greasy soup and messy meatball stew," Arnold writes. "They ladle this onto paper plates while we stand in line, but, by the time the food is served, it is nearly frozen. Even Kersh, I noticed, ate this unappealing mush, which is better than nothing after hours in the cold."



A flare gives off faint light in the severe storms that dominated the weather during the shoot in Finse.



A congregation of snow vehicles outside the hotel on location, March 1979.



Kershner behind the camera. “If you weren’t absolutely in focus on the VistaVision, if it vibrated slightly, then your mattes wouldn’t work,” he says. “The camera was always tied down so it wouldn’t move because of the wind.”

“We always joked about having ‘spaghetti flambé,’ ” says Tomkins, “because by the time it came on your plate, at minus 25 degrees Fahrenheit, ice-cold spaghetti isn’t much fun when you’ve been in the cold all day.”

After the first day’s work, Hamill, Suschitzky, Arnold, and others sat down together:

Arnold: What was it like?

Suschitzky: It was diabolical.

Hamill: You’ve been in nothing like this? You’ve shot in the snow before?

Suschitzky: Yes, in Switzerland and Finland, but nothing like this. It’s just been on the news here, hasn’t it?

Hamill: What?

Suschitzky: It’s come over the Norwegian news how bad it is here, the weather conditions. I mean, if *they* say it’s bad here, it’s got to be. They live here, we don’t [laughs].

Arnold: There are people lost in the mountains tonight, you know.

Hamill: Skiers?

Suschitzky: There are three guys lost in the blizzard …

Arnold: You have to fall about and perform in this snow.

Hamill: But I had a wet suit on, too.

Arnold: What were the feelings that you had?

Hamill: It's real eerie because you're supposed to be lying down and freezing to death and trying to decide whether to go to sleep or get up and struggle a little bit more. You really get into it because you can see how—it's so exhausting. Have you ever run on the beach, not on the wet part of the sand, but on the dry sand? How tired your legs get? Just walking in this stuff is murder.

Suschitzky: And watching you was like a dream. It was like being in a dream, watching you run up that snow. It was like being in a nightmare, where you were running as hard as you could, and you were going practically backward.

Hamill: I was!

Suschitzky: It's really exhausting.

Hamill: Well, it's that you're praying for one take, that's all.

Arnold: You spoke of a burning sensation on the skin.

Hamill: Stinging. It feels like when you put Merthiolate on a cut. You know, it's like having Novocain or something like that. Somebody puts their hands on your face and then slowly you start feeling their hands. It's spooky.



Luke escapes from the ice cave.



Due to the terrible weather conditions, production filmed several scenes only a few steps from the hotel, including the first in which Luke escapes from the ice cave; afterward, a nearly frozen Hamill was helped by crew (behind the middle ground-floor window was the camera room).

CALLING HARRISON FORD

In a decision that might sound like a case of cabin fever, but was actually a case of making lemonade from lemons, production had decided to send for Harrison Ford.

"We were snowed out with nothing that we could shoot, and we didn't know what to do," says Bloom. "So I remember going to the production group, to Robert Watts, Kershner, and Gary, and saying, 'Let's get Harrison in a week early. We'll shoot some of his stuff while we can.' And they went, 'How?' Well, we made all these phone calls and they put Harrison on a plane from London to Oslo."

"Harrison was brought out on a couple of hours' notice when we had this blizzard condition," says Watts. "We thought we could shoot his sequence that, because of losing Stage 3, we were going to shoot at Leeds Studios. If we could get this sequence successfully in Norway, this would obviate us from having to go out to Leeds."

"We called London and told Harrison to get packed and on the plane that afternoon," says Kurtz. "But by the time he got to Oslo, we'd had three avalanches on the railroad line and we were cut off. No one could get in or out."

Ford managed to take a train from Oslo as far as Geilo, a ski resort thirty miles east of Finse. "The filmmakers needed Ford for scenes in the morning," Arnold writes, "so they radioed the train to unload

the actor who by then, by two improbable taxi rides, had reached Ustaoset, just 23 miles from Finse. That was where the snowplow found him."

"The only way that we could get the guy to drive the snowplow train was to send a bottle of vodka with our Australian location manager to the next town where the other train had stopped," says Bloom.

"My snow scenes were supposed to be shot at the sound stage in the studio," says Ford. "I had just arrived in England as they left for Norway, but, in no time at all, I found myself whisked away to join them with no preparation, wearing a costume built for conditions on the stage. Another one of those bizarre experiences in life."

"I remember very vividly at like 11:30 or midnight, the snowplow coming back into Finse," Bloom finishes the story. "The snowplow engine was grinding up the tracks and then Harrison, the snowplow driver, and this Australian location manager all rolled off the train completely drunk from having finished off this big bottle of vodka."

"When Harrison saw me, he said, 'Call my agent,' " Watts says. "He was kidding me, but he knew that what we were doing was not standard practice …"



Kershner, Kurtz, Johnson, Reynolds, mechanical effects supervisor Nick Allder, construction manager Bill Welch, Watts, and two unknowns (on right) confer inside the Finse hotel lobby—one of production's decisions was to call for Harrison Ford (Han Solo) in London; he was later photographed driving one of the snow vehicles.



Ford driving one of the snow vehicles.



In Camp Kurtz, Peter Mayhew (Chewbacca); chief makeup artist Graham Freeborn (one down from Mayhew); props assistant Keith Vowles (right corner); continuity, Kay Rawlings (without hood, on right); and crew share a meal.

RIDE 'EM, TAUNTAUN

NO. 2, TUESDAY, MARCH 6: EXT. PLAIN OF HOTH, DUSK, SCS. 31, 32 [HAN ARRIVES ON TAUNTAUN, FINDS LUKE]; SECOND UNIT, SC. 8 [WAMPA ATTACKS LUKE]

"We have been shooting—in the banked-up snow behind the lodge—scenes of Luke Skywalker on an ill-fated reconnaissance mission across the plain of Hoth," Arnold writes.

Looking a bit "dazed," Ford was in costume and on call at 7:30 AM, despite his adventures the previous evening (after chatting with him, Arnold found the actor "urbane, self-assured, and charming"). But the Progress Report listed the day's conditions as "snow hitting camera lenses, plus unsuitable sun conditions for matching purposes."

"It was so cold that no equipment could be operated outside for more than three or four minutes. It all froze up," Ford says. "I kept asking myself how I got into the whole mess. But I couldn't have left even if I'd wanted to—there was no way out."

"Mark was lying in the snow," Kershner says, "in subzero weather, trying to emote when, within one minute, the chill factor was so great that his body began to shake involuntarily."

"The tauntaun was rushed out to Norway," says Johnson. "It was used briefly and not too successfully. There were various reasons for that; one was the appallingly low temperatures."

The tauntaun was actually the two tauntauns: full body or head, neck, and back only, so that a technician could operate the head from within during close-ups. Tubes holding two different types of gases were fed to the tauntaun's mouth, in order to make its breathing appear as steam in the extreme cold. Its head and eyes were attached to wires manipulated by additional technicians.

"The biggest problem with the tauntaun was the actual weight of the skin and the size of the head," Tomkins says. "For any man to actually have that on his back for any length of time was really tiring, because you are in the prone and bent position by virtue of the design."



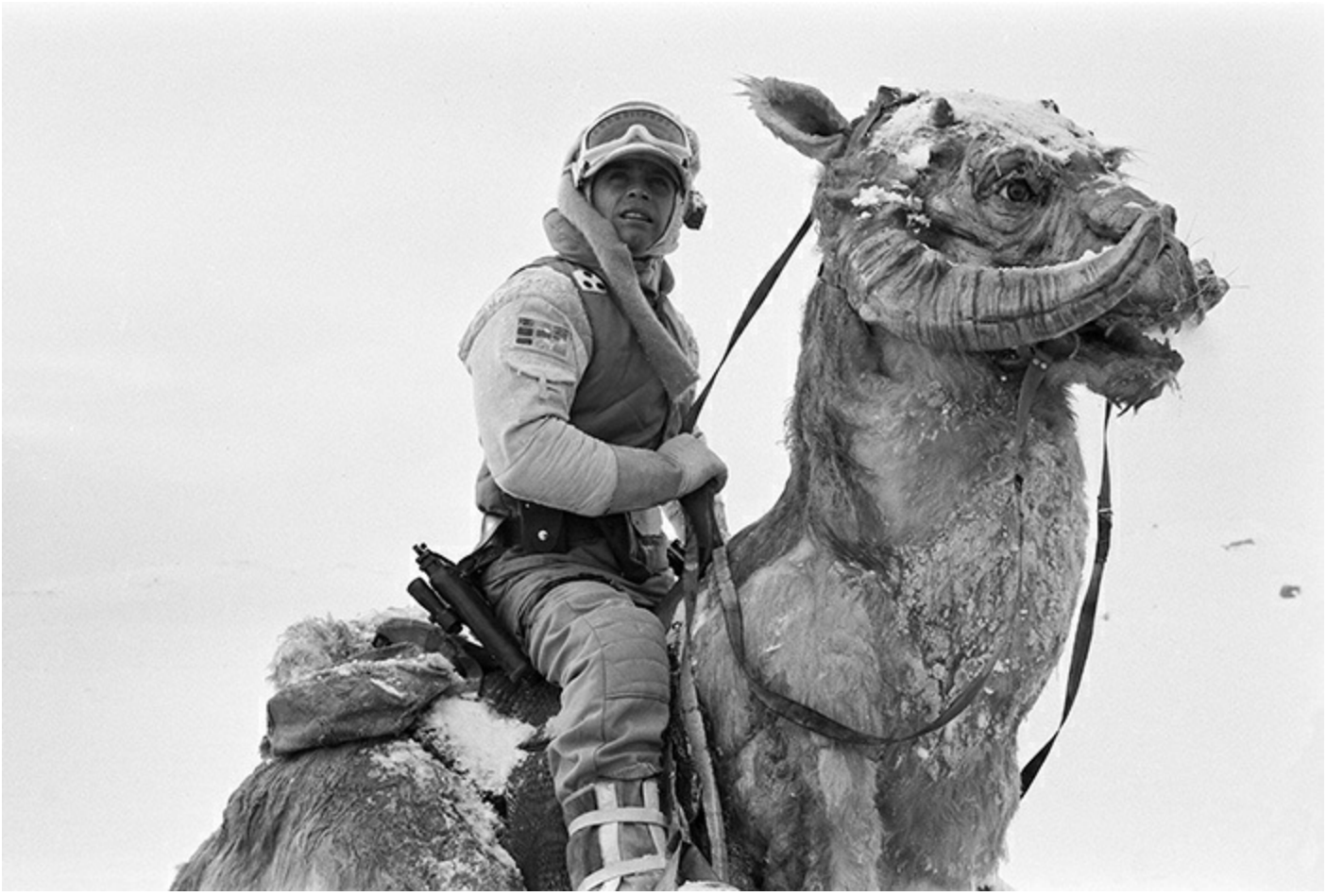


Ford is filmed on the mechanical tauntaun in a storm on March 7.





Hamill on tauntaun.



PSYCHOLOGY

NO. 3, WEDNESDAY, MARCH 7: 10 [WAMPA DRAGS LUKE], 29 [HAN RIDES TAUNTAUN]

Another advantage of bringing out Ford was that the three principals were able to be with the crew on location—in very difficult conditions that created bonds among everyone: director, producer, stars, department heads, and technicians.

"The hours are long, the disciplines strict," writes Arnold. "Under these circumstances, a camaraderie develops among crew and actors alike and barriers of status quickly disappear. 'Watch it, Mark,' I heard a young cockney carpenter say at breakfast this morning after Mark had quite nonchalantly helped himself to a second glass of orange juice, 'or someone else will go short …' Equality is the rule."

"You have to be a leader out there, because everyone was feeling everyone out," says Kershner. "It was a new crew, everyone was starting a new endeavor, and everyone had the natural apprehensiveness of beginning a large project. I've found, based on past experience, that the only way you do your best work is through what I call *relaxed tension*. You can't let go of the tension, but you don't want to feel tension. The tension must be there—it binds everything and everybody together—but the relaxation permits maximum energy to be maintained."

"All you could think of was going back and having a hot bath or going into the sauna and then having a meal," says Tomkins. "So the social life in the hotel was very good inasmuch as we became more of a tighter-knit unit. There was a lot of camaraderie because there was nobody else in the hotel, only the unit."

"I've found that humor helps," Kershner adds, "so I made everybody laugh at the cold. I had icicles dripping from my beard and I would make jokes of it. Because anyone who begins to complain sets off a chain reaction of complaining. How hard they worked, how much they cared, the attitude that

permeated the group had to be set—and I was one of the people that was trying to set it. I feel that Gary was very good at setting it. He has tremendous endurance and he didn't walk away from problems, and this was a very good thing for me because I knew that there was somebody else backing me up—very important."

HOTEL NOWHERE

NOS. 4–5, THURSDAY–FRIDAY, MARCH 8–9: EXT. PLAIN OF HOTH, 5 [LUKE TAKES OFF GOGGLES], 7 [LUKE ON TAUNTAUN], 33 [HAN SAVES LUKE]

Carrie Fisher returned to London. The next day, the weather worsened, and Kershner filmed more tauntaun sequences with Ford and Hamill.

"At least the shape of the snowdrift changed every day," says Tomkins. "Every night the wind and the snow kept changing it. We must have done four or five scenes, actually, right outside the hotel."

"The first unit had to shoot a lot of the scenes not more than 20 or 30 feet away from the hotel," says Bloom. "If the camera would've turned around, you'd have seen a big hotel behind you. But because of the weather, it looked like you were out in the middle of nowhere."

"Some trains are reaching Finse again," Arnold writes. "One from Oslo this morning brought the first of a contingent of 35 mountain-rescue skiers, not to rescue us but to take part as extras in the battle scenes [which were to be filmed second-unit]. These young Norwegians will live here at the ski lodge occupying the rooms we vacate, and in return for their services the company is making a donation to the Norwegian Red Cross."

"The cold for them was ordinary, not extraordinary," says Kershner. "They understand cooperation. They worked very, very hard and there didn't seem to be any resentment of foreigners coming onto their soil. In fact, there was none at all. They were kind of glad to have us there. This made for an interesting liaison with another people."



Ford and Fisher pose with Hamill on the taun. The man-in-suit tauntaun was actually tried out on location in Finse, with hilarious if not film-worthy results.



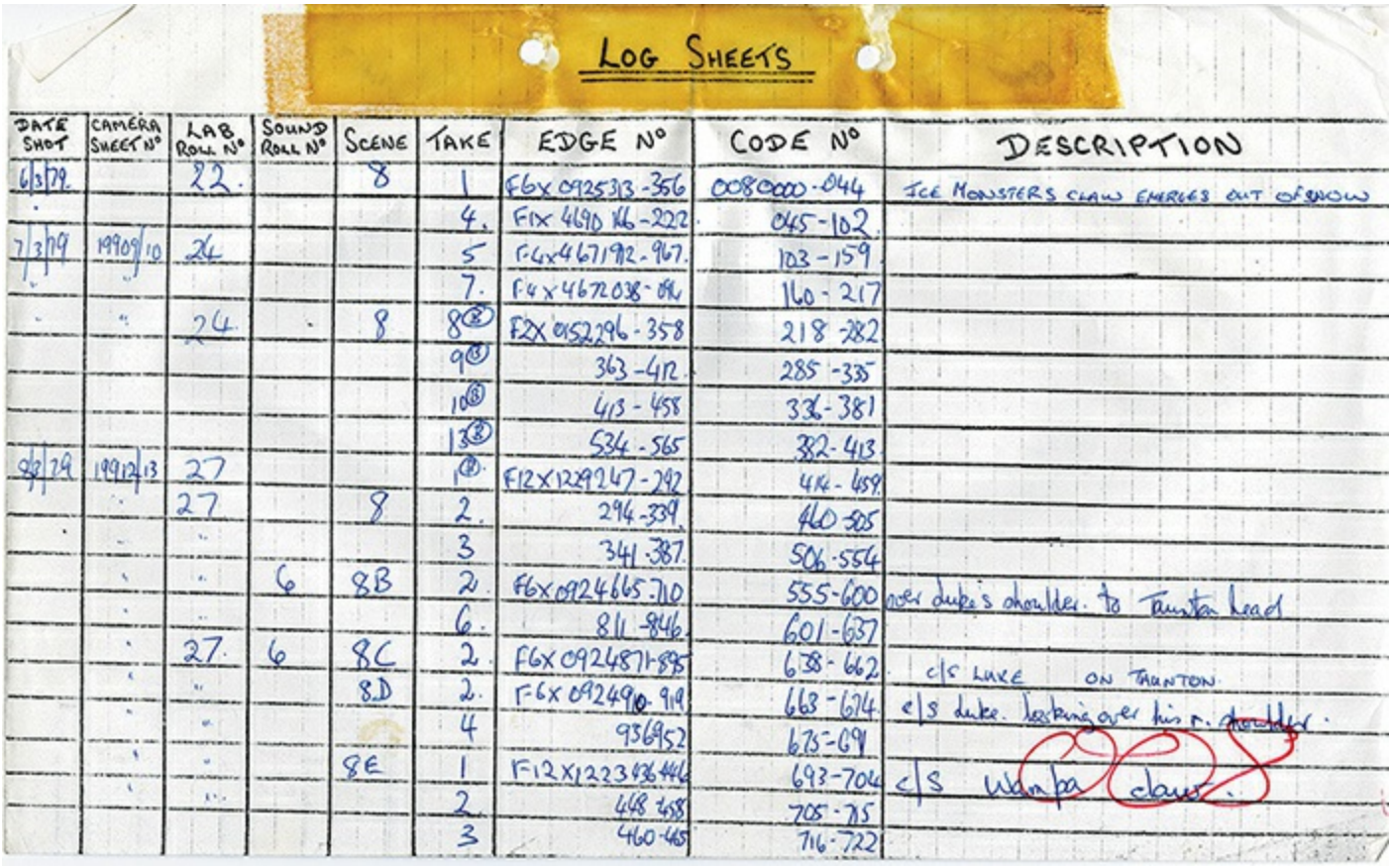
Carrie Fisher (Princess Leia) on location.



Fisher reposes on one of the Aktiv snow vehicles.



Costume continuity Polaroid of Han and Luke for scene 3.



LOG SHEETS

DATE SHOT	CAMERA SHEET Nº	LAB ROLL Nº	SOUND ROLL Nº	SCENE	TAKE	EDGE Nº	CODE Nº	DESCRIPTION
6/3/79		22		8	1	F6x 0925313-356	0080000-044	ICE MONSTERS CLAW EMERGES OUT OF SNOW
					4	F1x 4690 166-222	045-102	
7/3/79	19909/10	24			5	F4x4671912-967	103-159	
					7	F4x4672038-096	160-217	
		24		8	8(B)	F2x 0152296-358	218-282	
					9(B)	363-412	285-335	
					10(B)	413-458	336-381	
					13(B)	534-565	382-413	
8/3/79	19912/13	27			1(B)	F12x1229247-292	414-459	
		27		8	2	294-339	460-505	
					3	341-387	506-554	
			6	8B	2	F6x0924665-710	555-600	over duke's shoulder. to Taunton head
					6	811-846	601-637	
		27	6	8C	2	F6x0924871-895	638-662	c/s LUKE ON TAUNTON
				8D	2	F6x0924910-919	663-674	c/s duke. looking over his r. shoulder.
					4	936952	675-691	
				8E	1	F12x1223436-446	693-704	c/s Wampa claws.
					2	448-458	705-715	
					3	460-465	716-722	

A list of shots from the first few days of March was recorded on "Log Sheets," which were kept thoughout principal photography.

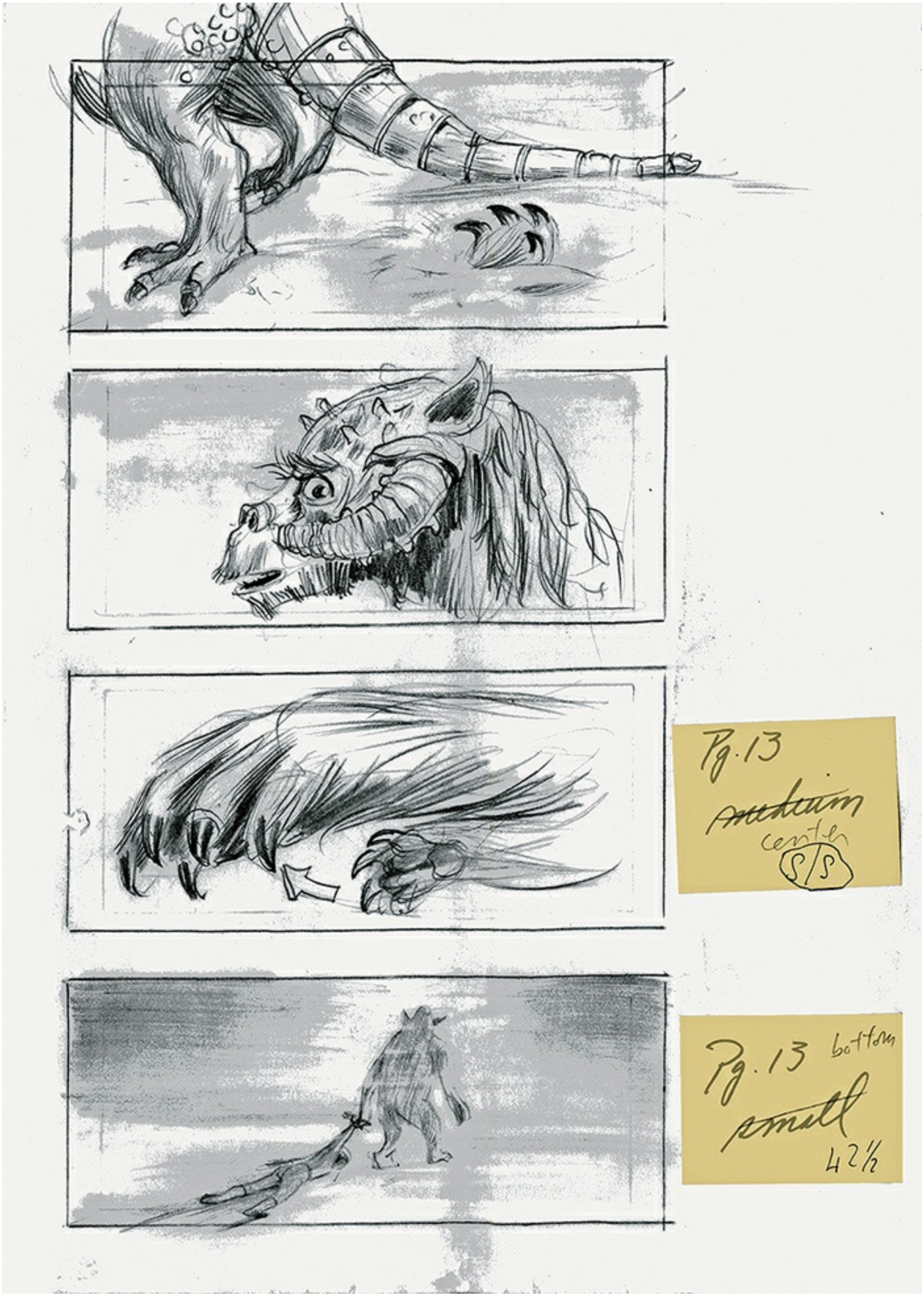


An altered version of that scene was filmed in Finse with Des Webb (snow creature) in the wampa costume, whose hand was observed by Watts.



Watts observers the wampa's hand.





Storyboards show a monster emerging from beneath the snow to attack Luke on his tauntaun, by Ivor Beddoes, summer 1978 (early

on, conceptually, the monster could tunnel through snow).



Webb, in his enormous snow creature costume with gigantic boots on stilts, could walk no more than a few feet without taking what looked like a painful fall. Here he drags a Luke mannequin.



INVADER

NO. 6, SATURDAY, MARCH 10: EXT. PLAIN OF HOTH, ICE SLOPE, 210 [LUKE WITH PILOTS, X-WING], 51 [HAN AND CHEWIE AMBUSH PROBOT]

On Saturday morning, the weather cleared for only the second time, and production moved midway to Camp Sharman. "During that half day, we shot the only location we'd picked on the recce in January that we were able to shoot," says Watts. "It was an ice slope and it was a matte shot for Luke—Mark Hamill—walking toward his X-wing fighter and seeing the *Millennium Falcon* fly out and over his head."

With Ford on location, Kershner was also able to tackle several probe droid shots. "We engineered the guns firing in the probe robot, which is on tracks," says Johnson. "The tracks were disguised in the snow and it appeared in long-shot, so there were always a couple of mounds of snow between us and the probe that appeared to float. The legs moved around, the hands worked on it, and lights flashed on and off. There were two movements of rotation: The body moved and the head moved on the body. We were using radio-controlled gear to actuate all the motors and the switches inside the robot."

Once again, the weather deteriorated badly in the latter part of the day; painter Gordon Wright slipped, breaking two ribs, and was sent to Voss hospital for care.

"The Norwegians had given us the parameters, because there were 1,000-foot drops in the ice," says Kershner. "I've seen men with snowshoes just disappear—*with snowshoes*—just drop away. Fortunately,

no one was really badly hurt."

"If someone gets lost in a snowstorm and they're not versed in any form of survival, they are going to die," says Johnson. "So we had to keep tabs on everyone as well as worrying about getting the right shot."

"Only by following the sticks coming down would we ever find our way back to the hotel," says Kershner. "Otherwise, we'd still be up there with the wild reindeer. Yes, there were these wonderful reindeer watching us in the distance."

Reindeer weren't the only ones interested in *Empire*, in fact. "We were shooting outside the hotel," says Watts. "And suddenly there was a break in the clouds and out of this break came this army helicopter, which buzzed us two or three times. We didn't quite know what it was there for, but we assumed it was something to do with a mountain rescue. After this thing did about its third pass, however, we noticed in the window what looked like one or two photographers with cameras with long lenses."

"While covering some Anglo-Norwegian army exercises based at Voss, a photographer from *The Sun* persuaded an army helicopter pilot to take him to the area of our location," Arnold writes. "It was a dangerous and illegal maneuver and implied that British taxpayers were paying for *The Sun* to come out there in British army equipment."

"Yes, one could only assume that some arrangement had been made with the British army, which I found a little strange," says Watts. "I called the army base in Voss, where the British army do a lot of their winter training, and I did eventually find, I think, the second in command of this particular squadron or whatever they call it. And I expressed my concern about a British army helicopter being used for this kind of activity, particularly in view of the fact that nobody's allowed to land in Finse without a permit. I asked him to investigate."

"The only other press representative to reach us so far has been a little old lady on skis who had trudged several miles to find us," Arnold says. "She represented a local newspaper, and we were so impressed with her enterprise that Kurtz talked to her at length and introduced her to the principals."

At the end of another weird day, Ford departed for London at 8 PM.

THE STOIC

NO. 7, SUNDAY, MARCH 11: 208 [LUKE WATCHES FALCON FLY OFF], 158 [LUKE PULLS SUPPLIES FROM CRASHED SNOWSPEEDER], 156 [LUKE EMERGES FROM SNOWSPEEDER]

After shooting Hoth battle scenes with the last actor standing, the unit wrapped at 5:10 PM and, on Monday, actors and crew took flight SK 513 back to the UK via Bergen—with the exception of Mark Hamill and Des Webb, who were to film with second unit and return on Tuesday. "It is still hoped that the weather will improve sufficiently for the second unit to establish him on the glacier," the Progress Report reads.

"During almost the entire period of the first unit's shooting, we had one break of clear weather for half a day," says Watts. "The rest of it was all a compromise."

"The camera crews were wonderful and everything ran pretty well, considering," says Johnson, "but inevitably the weather forced us over schedule, since there were days at a time during which nothing could be photographed."

"We were standing at the railway station at Finse," adds Watts, "having had this appalling weather,

and, literally as we got on the train, it seemed to me that the snow was stopping and the sun was coming out. [laughs] But that's just the luck of the game."

SETUPS: 52; SCS. COMP: 7; SCREEN TIME: 7M 39S.



On Friday, March 9, Kershner filmed Han warming Luke in the innards of a deceased tauntaun.











On Saturday, March 10, Mayhew and Ford took up positions to fire on the Imperial probe droid, which ran on tracks hidden in the snow (the camera being used is the VistaRama).





Peter Mayhew on location, without his Chewbacca costume head.



Printed daily of a probot moment that won't make the final cut; probably filmed on location in Finse, Norway, March 1979. (0:30)



On the last day of first unit Finse filming, Sunday, March 11, production hauled out the full-sized snowspeeder for shots in which Luke exits his crashed vehicle.





The same day, Hamill climbed a ridge to gaze at the departing *Falcon*, which would be added in postproduction by ILM.

00:00 / 00:00

Mark Hamill (Luke Skywalker) discusses Luke's character arc from film to film. (Interview by Arnold, 1979) (0:49)

STUDIO CLOUDS

MARCH TO MAY 1979

CHAPTER FIVE

"When we got back to Elstree Studios, we'd all been through something together," says Kershner. "So from that point of view, the location was a good way to start the picture."

"On Monday, March 12, Gary saw his family home from the airport and then came back to the studio to catch up on all his correspondence," says his assistant, Bunny Alsup, "and to talk to all the department heads and so on."

"Technically, we started in the studio one day late," says Watts. "But we were still on schedule, because we'd achieved one day of location work with Harrison Ford that had been scheduled for a stage."

Unfortunately, the studio itself was still far from ready for production's full-speed return. "Because of the fire on Stage 3, it was very, very difficult having nowhere to work," says construction supervisor Bill Welch. "So if I could find an area as big as an office anywhere, suddenly you'd find two carpenters in there trying to make something."

"We couldn't get the labor all the way down to Weybridge to try and build another set," Kurtz says. "So Bill Welch and his construction people had to keep moving things about all the time."

"Because of the very bad winter, the Star Wars Stage wasn't ready on time," Welch adds. "We started up there and although we had a roof over our heads, the stage had no doors on it at the time and half the walls were incomplete, so it was bitterly cold. We were putting out bits of old backing to keep the draft down and we had soup twice a day. Then we also had all sorts of labor problems."

Drivers ferried the principals into this simmering chaos for the first day of what was to become a grueling studio shoot. Staying at a nearby hotel, Ford had the shortest ride—30 minutes—but Peter Mayhew had to be picked up at 6:45 AM every day for more than an hour's commute before arriving at 8 AM. Carrie Fisher's initial base was a rented house in St. John's Wood, while the Hamills stayed at "a neat place right in Chelsea," according to the actor. "It's where Margot Kidder [Lois Lane] stayed during *Superman*."

"When production began, I found a beautiful lake by the studio," Kershner says. "I would do my running there, right across the street from Stanley Kubrick's house. I got myself in good physical condition and adjusted my sleep patterns to five hours a day. I'm almost a vegetarian now and I found, as I stopped eating meat, I needed less sleep. And by sleeping less, I discovered I had more energy."

A METAL MENACE

NOS. 8–9, TUESDAY–WEDNESDAY, MARCH 13–14; STAGE 8—INT. MILLENNIUM FALCON, MAIN HOLD; SCS: 205 [ESCAPE FROM HOTH], 236 PT. [ASTEROID FIELD]; 289 PT. [LOVE SCENE] NOTE: "PT." SIGNIFIES THAT ONLY PART OF THE SCENE WAS COMPLETED.

"Kersh arrived at the studios at 7:30 AM, relieved to be out of Norway," Arnold writes. "Like all of us, he has the shadowy marks of frostbite below his eyes."

"A normal-looking day started on Tuesday," says Alsup. "Peter Beale, a Fox executive, dropped in. Then Gary had a meeting about eleven in the morning with George Lucas, who had arrived over the

weekend and was staying at the St. James Club, and with Paul Hirsch, the editor."

"I like to cut on a horizontal table," Hirsch says. "Many feature editors prefer to cut on upright Moviolas. There was a lot of equipment in the room that I don't use, so I had it all taken out."

Scenes in the *Falcon* hold were filmed that day; Tuesday evening, Lucas, Kurtz, Kershner, and "key technicians" viewed all the Norwegian rushes to date in the Administration Theatre. After two hours, they came out looking "pleased" and with a list of additional shots that were duly telexed to the second unit still at Finse. "The reaction was pretty good, I think, considering the appallingly bad weather we had to shoot in," says Watts.

"I arrived late in the afternoon and started shooting the next day," Kershner says. "The first set was a very difficult one, working with all the technical material. I started off the next day with a love scene between Princess Leia and Han Solo in the *Falcon*. It was nice doing a truly dramatic scene that was sweet and had a strong element of conflict along with an interesting texture, because this scene was taking place within a piece of machinery: steam, welding, gears, the shine of the metal. Here are two very vulnerable human beings, each trying to communicate with each other—and they're thwarted at the last second by another piece of machinery that gets in the way."

"We went into the hold of the *Falcon* on Stage 8," says Watts, "and we shot there for the remainder of that week."

"A little thing like steam coming out of a pipe at the right moment or a robot making a turn at the right moment becomes a very, very difficult thing," Kershner adds. "If it happens right, it becomes movie magic; if it happens wrong, the audience says, 'Ah! I see how that's done!' You must never have that; it must be effortless. It must look like, 'Well, doesn't everybody have a tin can for a helper?' "

The tin can was of course C-3PO, whose interruption of the lovers' kiss was ad-libbed on set; in the script, Leia simply moves away from Han. Also improvised was Han's attitude toward the droid's advice about the *Falcon:* feigned non-interest followed by implementation. For Anthony Daniels and Carrie Fisher, it was their first scenes on camera. In the interim between films, Daniels had done "a bit of comedy," as well as a guest appearance on the variety show *Donny and Marie* (1976–1978).

"If it hurts banging your head the first time, you'd have to be insane to bang it a second time," says Daniels, who had delayed signing his contract until the last moment. "I'd felt not particularly a part of the film after it'd opened, as, you know, they preferred to pretend that the robot was not a human. So when *Empire* came up, I didn't rush at it; I really didn't. And then I suppose we talked and they asked me again, and then two things came into my mind: One was that, this time, I would be paid reasonably, and the second thing was that I really like Threepio." (The details of Daniels's contract wouldn't be worked out until July 30.)

Fortunately for Daniels, his return was made in refashioned armor, care of assistant art director Fred Hole and his team, supervised by Johnson: "They did change certain parts to make it more flexible so that Tony Daniels would have more freedom of movement."

"My costume in *Empire* is lighter, with no cutting edges," says Daniels. "The first one had 20 parts and this one only has 11. But it's still most inelegant, I assure you. By the end of the day, I feel quite disgusting. But I get to take it off if there's to be a waiting period of over 20 minutes, which I would never have been permitted to do during the filming of *Star Wars*. If I walk to the set, I'm so tired by the time I get there that I haven't much energy left for the scene—so they put me on a luggage trolley, tilt me back, and push me around."

"I wanted to make Threepio a real pain in the rear," says Kershner. "Threepio, when you get right

down to it, is a real pill. He's a combination of Mary Poppins and Felix in *The Odd Couple* [1968] who's always cleaning up everywhere. Sure, he's a cute robot, but I wanted to get across the idea that if you knew a person like See-Threepio in real life, you'd turn and run in the opposite direction."

"The first film centered on the droids," Lucas says. "So it would've been easy to have the droids disappear in the second. One of the challenges was going to be keeping them front and center."

"I think he's rather disconcerted throughout the film that he's not human," Daniels says. "He doesn't quite understand what kissing is because if there's one thing a robot isn't into it's kissing. So there are times when he is suddenly pulled up short and I think that slightly upsets him. I think, looking at the script, that Threepio's role has become slightly more like talking scenery and he's not been given particularly dynamic things to do. He's not a hero, but he does have functions that are spoken of and which the movie should use."

Also on Wednesday, Kenny Baker participated in R2-D2 tests, while Hamill, returned from Norway, had his hair highlighted at Vidal Sassoon's and practiced fencing with stunt coordinator Peter Diamond. The specially equipped helicopter, the Progress Report notes, made the trip from Coventry, England, to Holland, its first stopover.

Of the final eight R2 units created for *Empire*, Baker occupied two, which were both lighter and more comfortable than before. A couple of others were remote-controlled. A fifth was used for experimentation, and the remaining three were lightweight for lifting, carrying, and being "ejected from the Water Thing's gullet," according to Johnson.

"The Artoo unit is more comfortable and it's more sophisticated," Baker says. "I've got a two-way radio, so I can hear what's going on; I can be directed. Before, I couldn't hear what was going on. I didn't know whether they said, 'Cut!' until somebody hit me on the head with a hammer."

"Actually, Artoo is mostly a robot—more than in the first film," says Hamill. "Only when he waddles is Kenny inside. In fact, Kenny got nervous about them perfecting it so completely that he would be out of a job. But I told him not to worry; he just doesn't understand that it is wonderful for people to read the credits and have that continuity of 'Kenny Baker as Artoo-Detoo.' "

"Revisions are being made to the script, dialogue adjustments and a scene cut here and there," Arnold writes. "A new schedule is needed and there have been meetings between Kurtz and Robert Watts and Norman Reynolds to rework the shooting plan. The live-action filming was originally scheduled for 16 weeks, but nobody I talk to is confident that this is realistic. The actual filming will take considerably longer."

"We added four or five weeks right at the beginning of shooting," says Kurtz. "What I usually do is I break down a picture, go through it scene by scene. One page of dialogue, an entrance and an exit, some special effects, we probably could do in two days. 'Well, that's too much time. I don't want to spend that much time.' So you go back through it and say, 'We could probably do it in four angles, in one day.' Then you go through it with the director, with Kersh. Some of the scenes he agreed with and on other scenes he said, 'No, it would take a little longer.' And I felt, because of the effects, it was best to allow for that."

While Watts made the schedule revisions, he also took care of another item. "I had decided that I was so irritated about the incident in Norway that I was going to write to the Ministry of Defense," he says. "But the day we got back, the article appeared in *The Sun* with two photographs that had been taken by this photographer, but neither of them had been taken from the helicopter. They'd both been taken from the ground. So we let the matter rest."



The exterior of Elstree (EMI) Studios, England.



The Star Wars Stage construction, early 1979.



At Elstree, Lucas, editor Paul Hirsch (in cap), Ford, and Kurtz.



Kershner directs Fisher and Ford, circa March 13, 1978 (with glasses, assistant cameraman Maurice Arnold).

Fisher.



Anthony Daniels (C-3PO) in his new, less painful costume prop.





Contact sheet of the first kiss between Princess Leia and Han Solo (by unit photographer George Whitear).



The kiss in color.



C-3PO interrupts Leia and Solo, in a moment ad libbed by Kershner on the set.

GEAR FOR CHAOS

NO. 10, THURSDAY, MARCH 15; MAIN HOLD; SCS. 289, 297 PT. [LEIA REPORTS MYNOCK], 299 PT. [ESCAPE THROUGH MONSTER'S TEETH]

On Thursday, Hamill was fitted at Berman's, along with "4 pigmen and 2 small men," and did more fencing rehearsals with Diamond and Bob Anderson, who would double as Vader in the duel. Hamill was feeling back at home. "The company has tried to rehire most of the original team that worked on *Star Wars*, and it is great to see their familiar faces," he says. "It takes all these people to put a film together; they are pieces in an intricate, collaborative art. I've learned that it's the technical people who make an actor look good; you have to keep them on your side. So I suppose there's a practical side to my friendly nature, but it's sincere."

"The advantage this film has over the first relates to the fact that the crew knows what kind of film we are making, as well as the fact that a lot of them worked on the first film," says Lucas. "They know

more what to expect, how to do things, whereas on the first film we were experimenting all the time."

"We have close to 700 people working on *Empire*, counting all the construction and everything," says Kurtz.

"We're averaging about 300 staff, whereas on the last *Star Wars* we had about 220," Welch says of the construction department. "Riggers are a big number in this picture because very few things are being built on the ground. They are built up on rostrums up to 40 feet high and they're tubed up so you can get lighting rigs underneath. It's one of the biggest rigging pictures that's been done for a long time."

"From a prop point of view, *Empire* is very, very much larger," says property manager Frank Bruton. "Almost 100 percent more than the first film in quantity; also we've been much more involved, with 28 people. We fabricate the props from weird and wonderful things, pieces of aircraft, Tupperware, plastic throw-outs, if you like, from different manufacturers, old machinery. We've been around junkyards, aircraft breakers [dismantlers]. I made contact at the beginning of the film with about 10 people who deal in plastics; we went 'round and cleared their bins out of stuff."

"In Reynolds' art department," Arnold writes, "there are three art directors, a set dresser and his assistants, five draftsmen, two illustrators, several scenic artists, four production buyers, modelers in clay, and people making fiberglass molds."

"Perhaps some of the people working on the film understood it better having seen the first one," Alsup says. "But in the production world, you still have a budget and you're still living the same old philosophy of being as economical as possible. The environment was pretty much the same, people were pretty much the same."

"There's a lot of office work that has to be done," says Watts. "Gary makes the major decisions, but leaves the normal day-to-day running entirely to myself and, of course, Bruce Sharman, who takes care of all the timesheets, all the petty cash, all those aspects of it, and does a wonderful job. I look after all the scheduling of the thing, the actors."

At noon on Thursday, Lucas had lunch with Kurtz and Hamill at Signor Baffi's, the Italian restaurant across the street from Elstree.



Ford and Kershner.



A script meeting with Kurtz, Fisher, Hamill, Ford, and Kershner.



Watts in his office, with associate producer Jim Bloom.

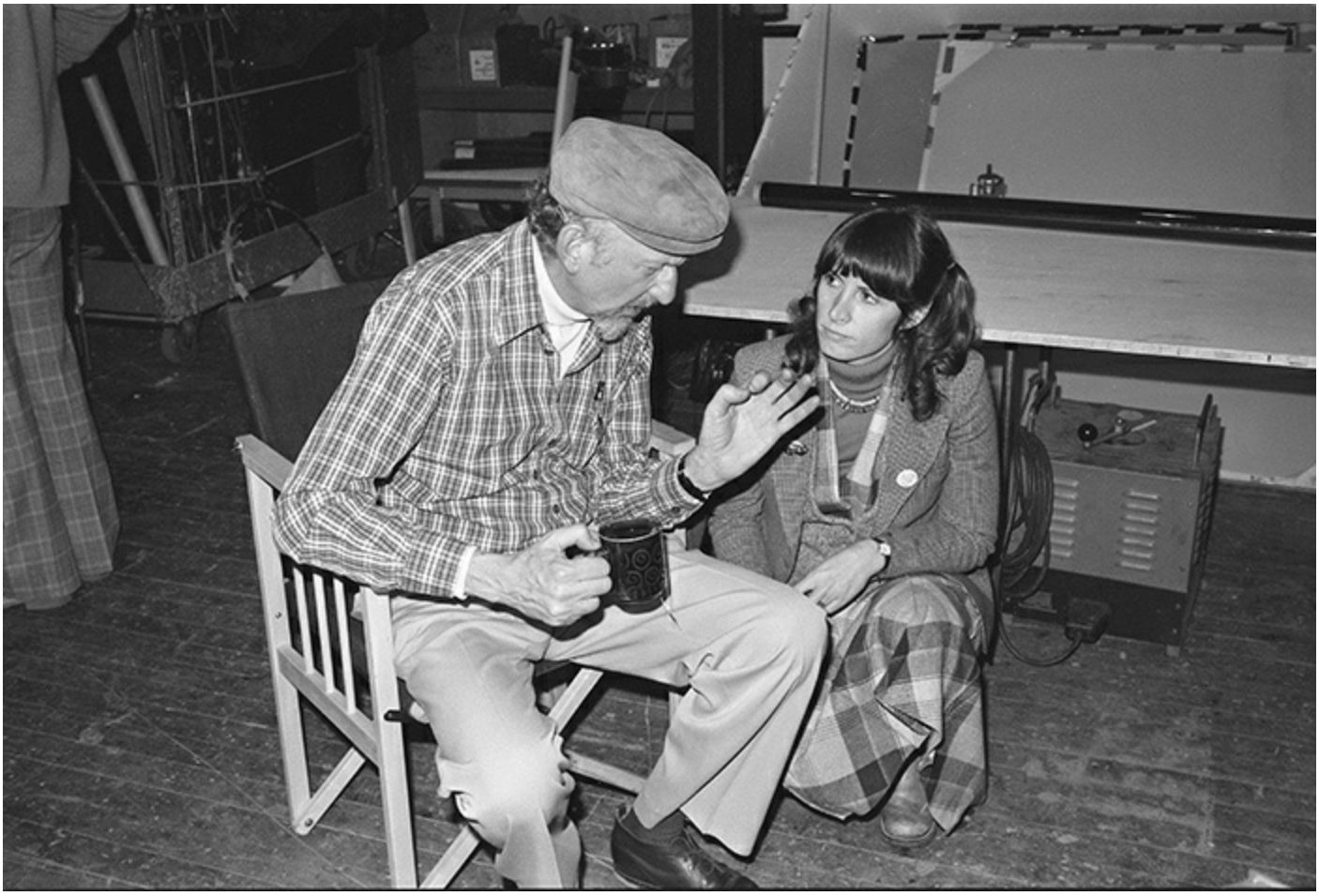


Lucas and Kershner on the *Falcon* hold set.



First assistant director David Tomblin and Kershner on the same intricately built set.

"You've probably heard the word *greeblie*, which was a word coined on *Star Wars*, which meant all kinds of funny objects added on to a thing," says property manager Frank Bruton. "I think in fact George Lucas coined it."



Kershner in conversation with Marcia Lucas.

LAST-MINUTE WORDS

NO. 11: FRIDAY, MARCH 16; MAIN HOLD, SCS: 297, 299, 430 [ESCAPE FROM CLOUD CITY]; S409; T.431 PT [R2 WORKING ON CIRCUIT BOARD]

On another freezing morning in England, Lawrence Kasdan arrived for a visit. During the day, Kurtz met with Stanley Bielecki, Norman Reynolds, and artist Michael Boone regarding the walker cockpit scenes and tying them in with the special effects in California.

"Later, Gary would talk on the phone with Jim Bloom and second-unit director Peter MacDonald," Alsup says, "but most of that came by telex and then he'd follow up in the evening."

After Kershner completed scenes in the *Falcon*'s hold, a "wampa explosion test" was conducted at 5:30 PM. That evening, the helicopter equipped for recording aerial footage flew from Copenhagen to Finse, where it finally linked up with the second unit.

On Saturday, Kershner and Kurtz worked in the studio on next week's planning. The latter also met with Lucas at Spaghetti Ltd. in London, where they were making new costumes under John Mollo's supervision. In particular, they wanted to check out Carrie Fisher's new outfits. On Sunday morning, Lucas and Kershner met with the actors to go over script changes. "Then in the afternoon they had a *very* lengthy meeting, which I think lasted well into the late night, going over the entire script, making mostly dialogue changes, quite extensive," Alsup says. "They brought them to me on Monday to start typing the corrections."



Mayhew as Chewbacca poses with Kershner.



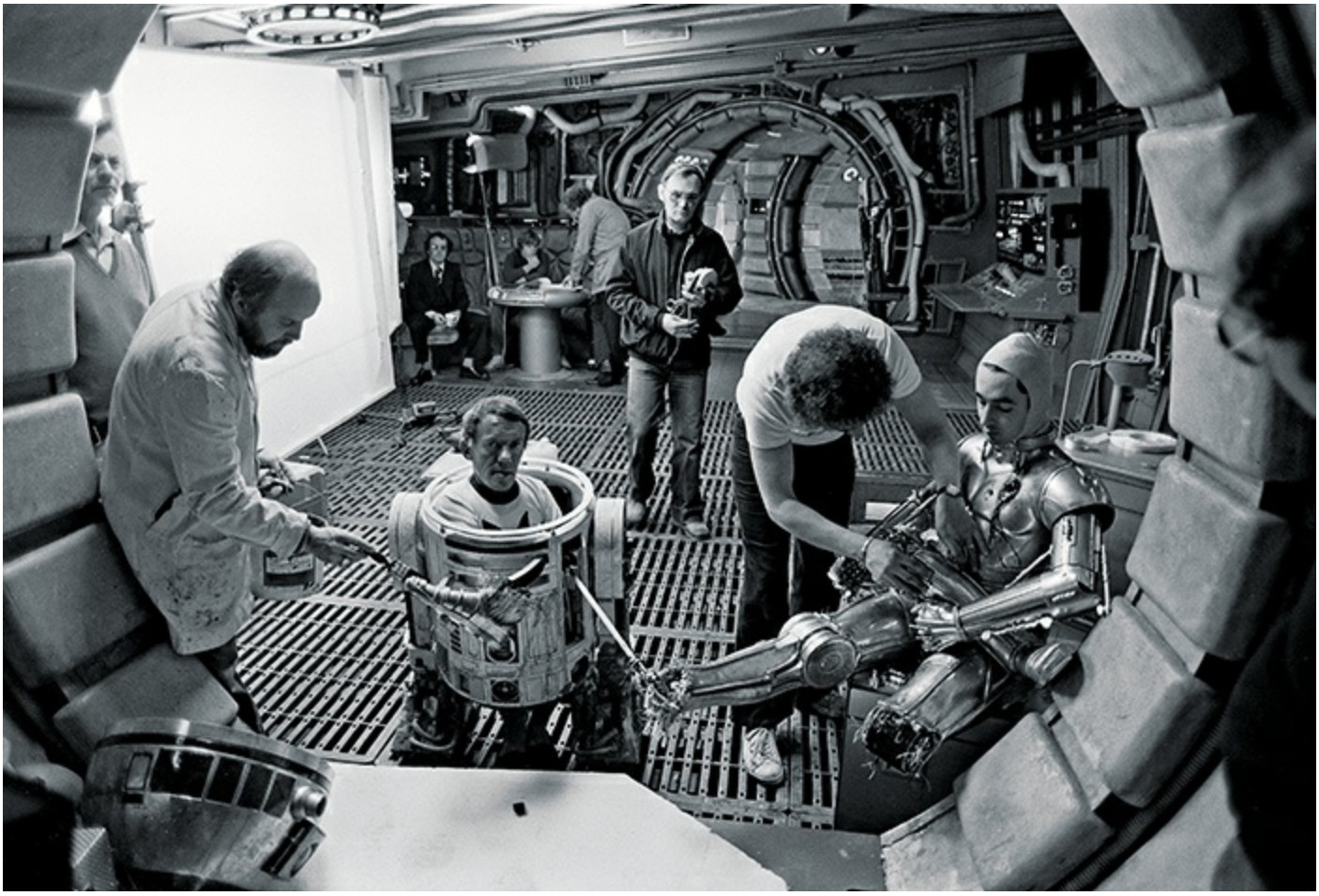
Ford and Kershner in the *Falcon* hold.



Ford in between takes of a scene where Solo tries to repair his ship.



Solo realizes his ship is not parked in a cave.



Kenny Baker and Anthony Daniels in the *Falcon* hold, where R2 fixes the hyperdrive.



Harrison Ford (Han Solo) climbing over pipes in the *Falcon*.

"Right up to the day of shooting, in fact, slightly after shooting, we kept modifying the script," Kurtz says. "And we did add 8 or 10 sets after that time."

Among the changes were several tweaks to the end scenes. Luke, while hanging below Cloud City, first calls for Ben, but Vader, standing on a landing platform says, "Ben cannot help you now, my young Jedi!" So Luke calls for Leia. Aboard his ship, now called the *Executor*, Vader asks Admiral Piett, "And their hyperdrive is deactivated?" When Lando tries to make the jump to hyperspace, the ship doesn't respond. Sitting in the cockpit, Luke despairs:

After R2 enables the ship to make the jump to hyperspace (which had been filmed the previous Friday), Vader leaves the bridge of his ship, "his hands behind his back in a contemplative gesture."

"It was essential to have Artoo be the one who fixes the hyperdrive," Kershner says. "If it had been Lando, for instance, it would have been flat. But the fact that they're all desperate and little Artoo goes over calmly to rig the thing and changes the code makes the scene work."

On the star cruiser, as Lando prepares to leave, Luke's new words make it clear to the audience that, as soon as he recovers, he'll help search for Han: "I'll see you on Tatooine … Take care, my friends. May the Force Be With You."

NDE NO. 1

NO. 12, MONDAY, MARCH 19; STAGE 1—INT. MEDICAL CENTER, SCS. 42 [ROBOT SURGEONS WORK], 43 [LUKE IN BACTA TANK]

In the morning, Kurtz and Lucas were supposed to continue their costume inspection, but they were delayed when they became involved with shooting on the medical center set, where Kasdan joined them. Built on Stage 1, the centerpiece was a tank containing 400 gallons of chlorinated water, which British Aerospace, a company experienced in the manufacturing of Perspex cockpits for pressurized aircraft, had helped design (at 7′ 6″ high and 3′ 8″ in diameter, the tank was the largest of its kind ever made).

"We had a large transparent tube in one of our sets, with a liquid inside it, within which Luke Skywalker was to be suspended," says DP Peter Suschitzky. "My idea was that the tube should be the major source of illumination and the rest of the set should be lit very low-key. Problem: How to get a lot of light into a small tube with liquid in it? I solved this by using an army searchlight on the studio floor with a mirror suspended above the set. This all worked very well, photographically, for a few days until, for some inexplicable reason, the heat from the searchlight shattered the mirror above the set—not once,

but twice!"

"Mark almost got killed," Kershner says. "They had a mirror right over the tank, which was open on top. And just before he went into it, the thing cracked and these huge pieces of glass came tearing down into the water—and if he had been in the tank, I don't know that he would've survived."

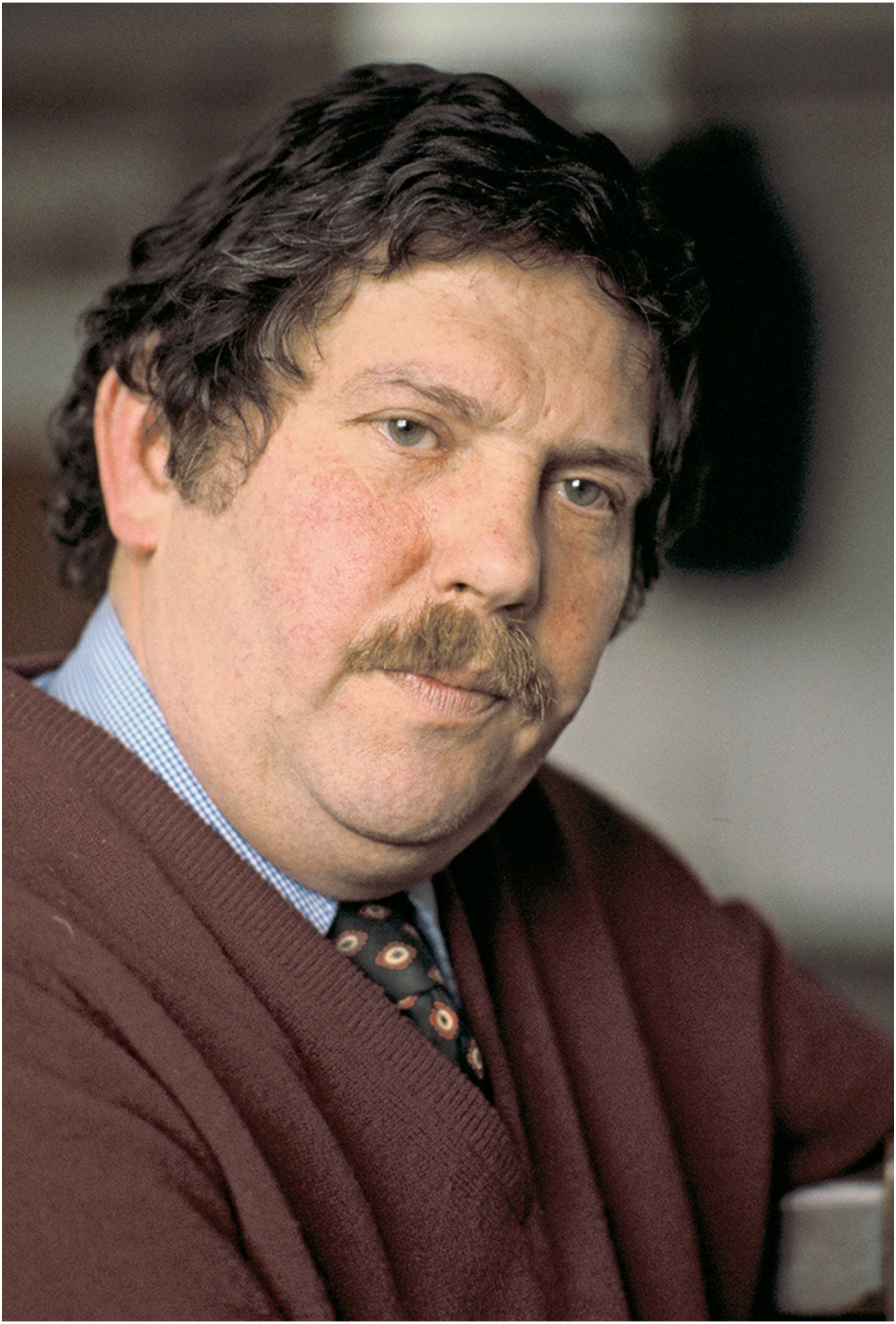
"It had to be Mark in the tank because he was recognizable," Watts says. "But it worked very well and he was on a scuba-diving-type breathing apparatus and on a wire harness to pull him in and out."

"There are incidental things which may not appear to be stunt work that have to be taken into consideration like when Mark is put into this water tank," says Peter Diamond. "Mark had to be rehearsed in breathing apparatus. Of course, he's never done any before, so we had to teach him underwater diving in a very short length of time."

"I was on wires with the scuba gear," Hamill says. "I found that sort of peaceful. It was interesting to be underwater and not be able to hear anything that's going on. I would be lowered into this red bubbling water. My character was delirious and thrashing about in the water, having a nightmare."

"Mark's surgeon is not a human being, but a tin man, a droid," says Kershner. "You say to yourself, 'Well, it's not a bad idea to have a surgeon be a piece of machinery.' He has no feelings; he can't make a slip; he's perfectly attuned, reactive, and diagnostically sound because he's rigged up to the biggest computer they have."

"In the scene where I've been hurt, Harrison comes in and says, 'Hey, you don't look so bad. In fact you look strong enough to pull the ears off a gundark,' " Hamill says. "I reply, 'Thanks to you,' and his line was supposed to be, 'That's two you owe me, Junior.' But he didn't say it … He gave me a little kiss —which had everyone falling on the floor. That's the side of Harrison people don't see—he's a very funny guy."



Costume designer John Mollo.


STAR WARS
THE EMPIRE STRIKES BACK
WARDROBE DEPT.

The entrance to the Wardrobe Dept.



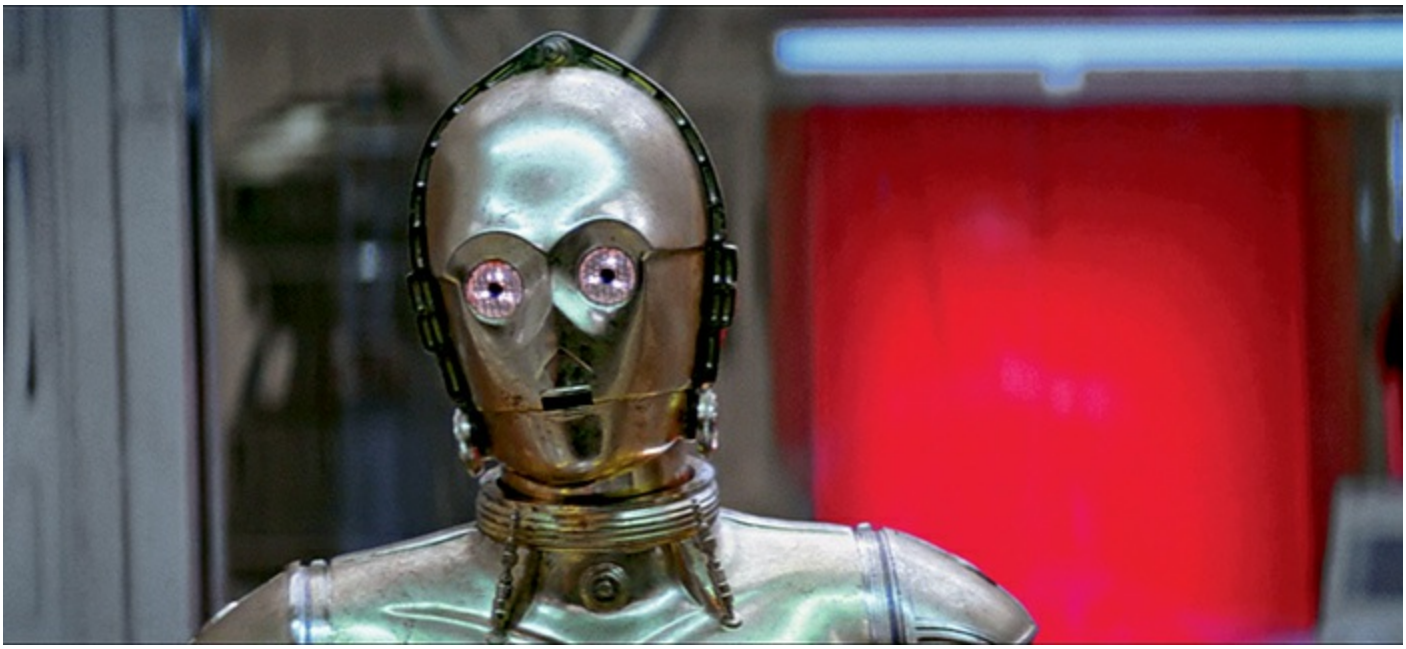
The interior of the Wardrobe Dept.



Several sets seen from their exteriors on Stage 1, including the Hoth medical center (a crew member sits to the left of the bacta tank opening through which Hamill would be lowered).

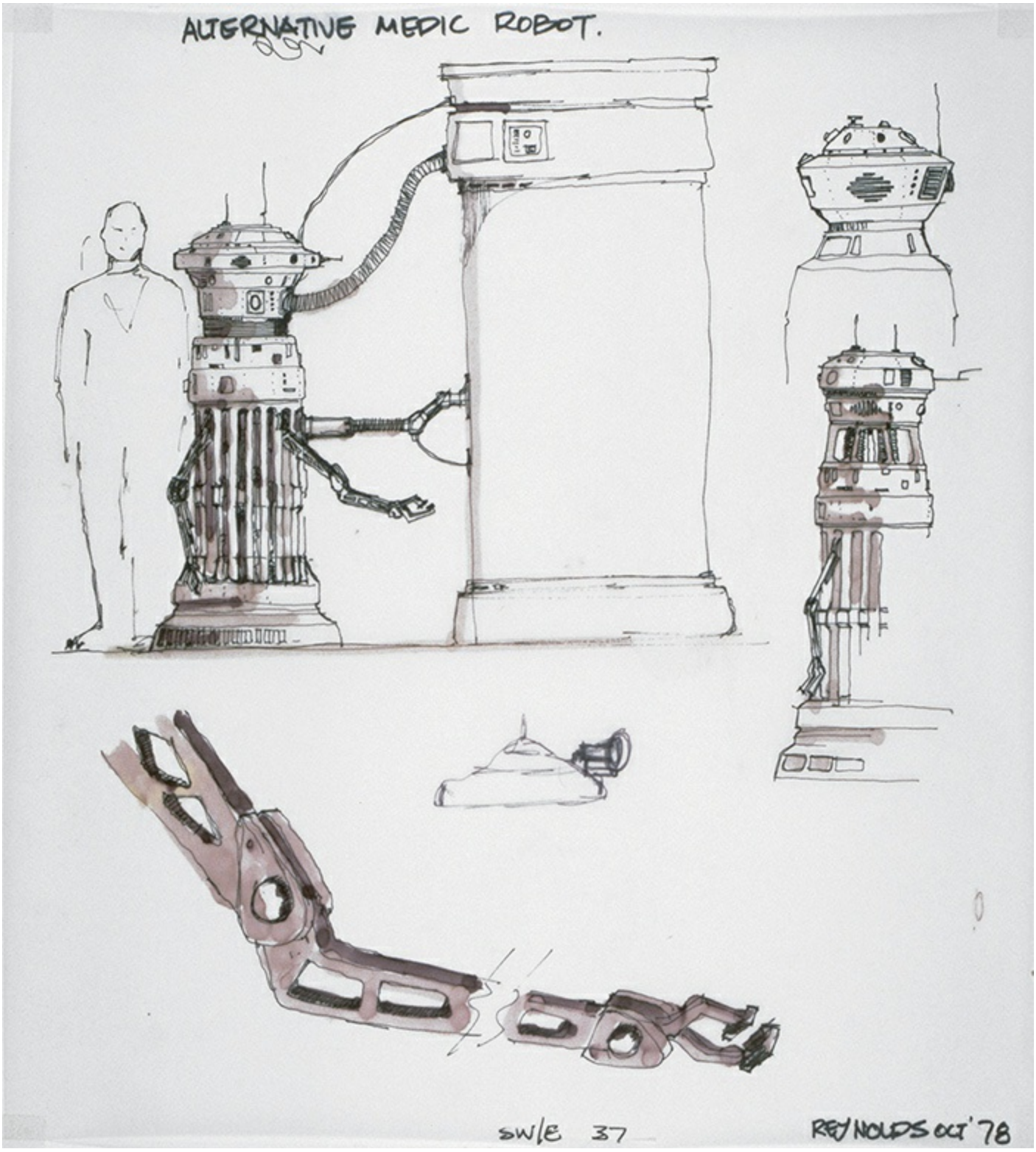


Hamill in scuba gear and a rig is lowered into the bacta tank.

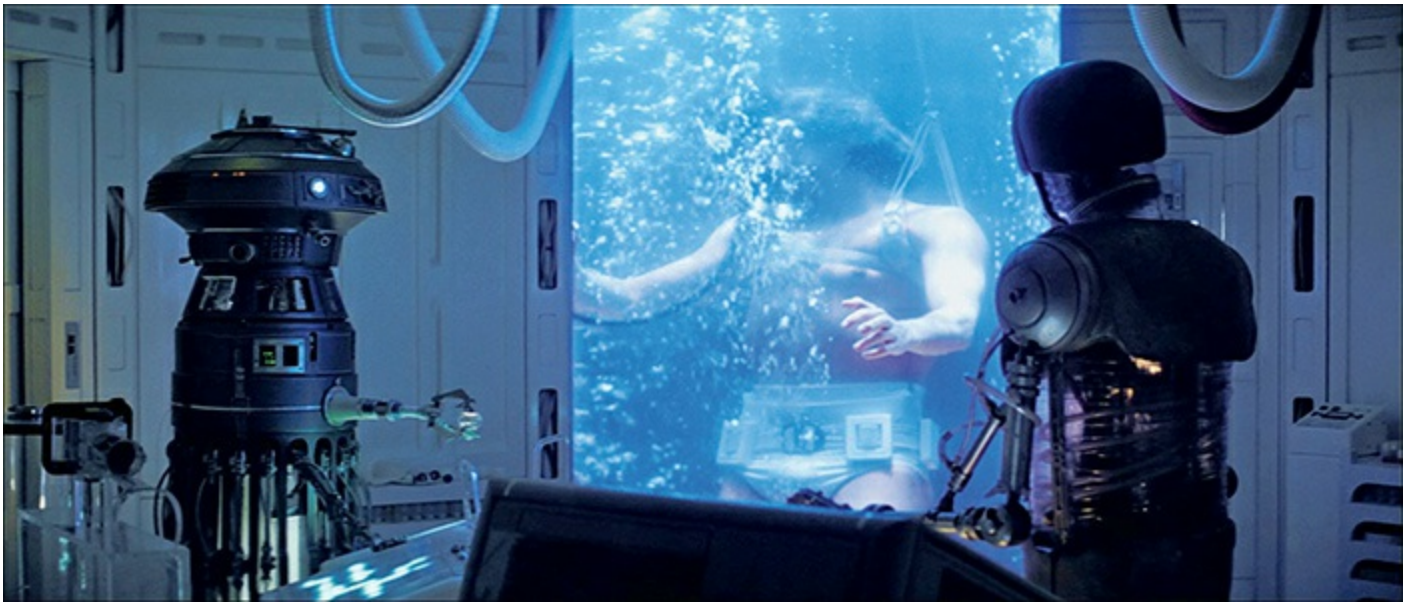


The bacta tank is described in the scripts as containing a red liquid, as seen behind C-3PO in a shot filmed before Hamill was actually in the tank, where the water turned out to be blue.

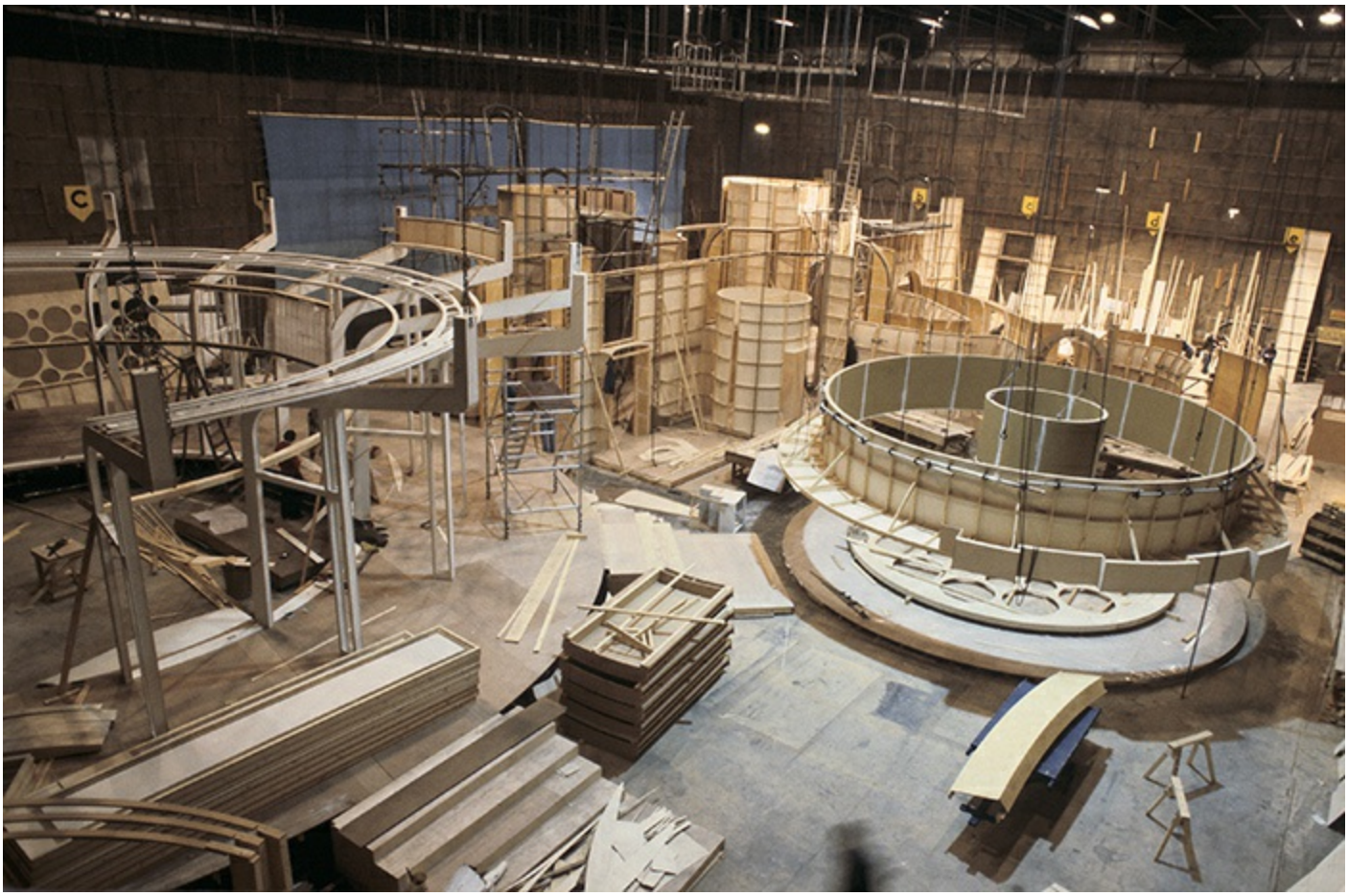


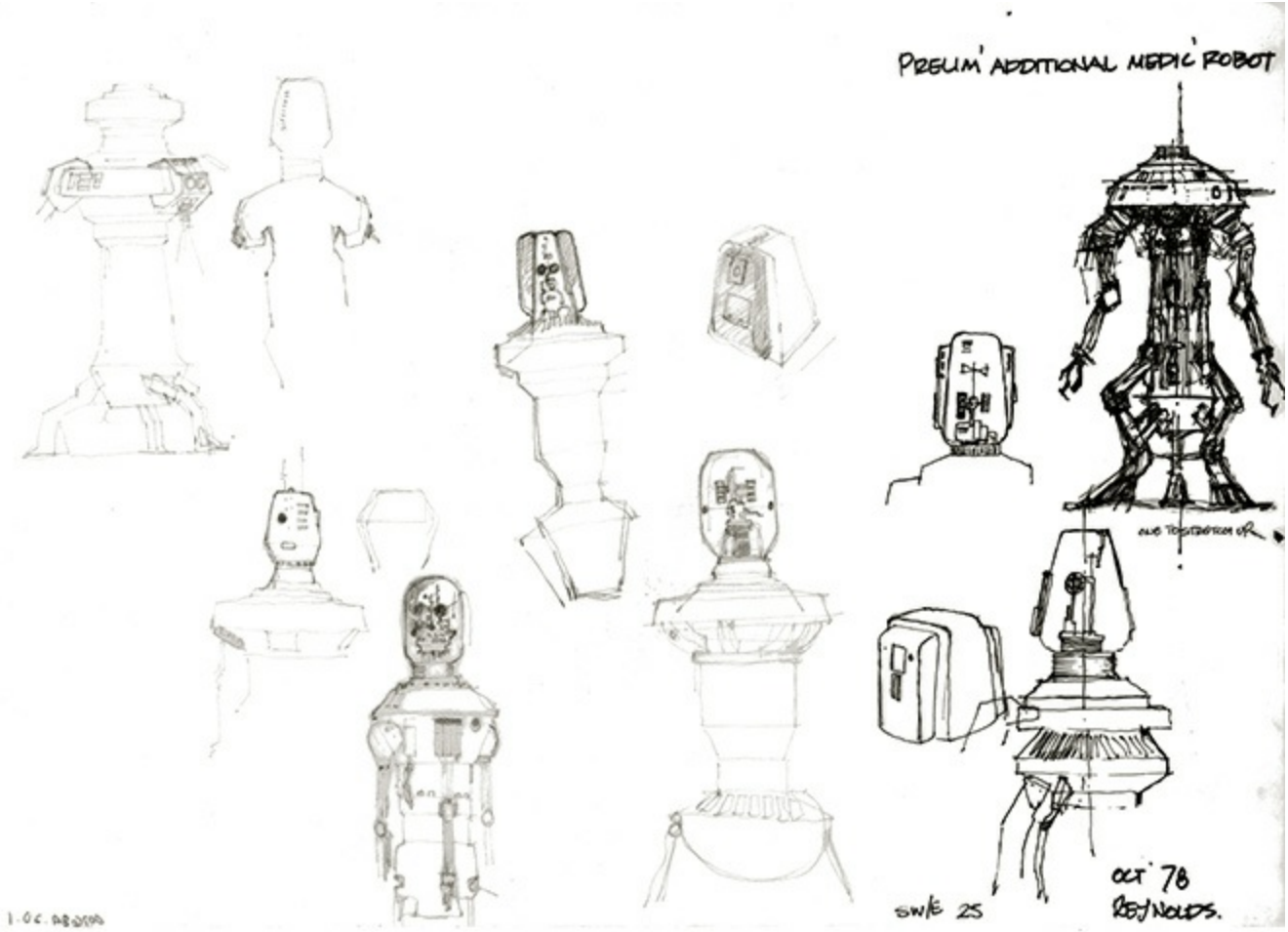


"Alternative medic robot" (no. 37) by Reynolds, October 1978.

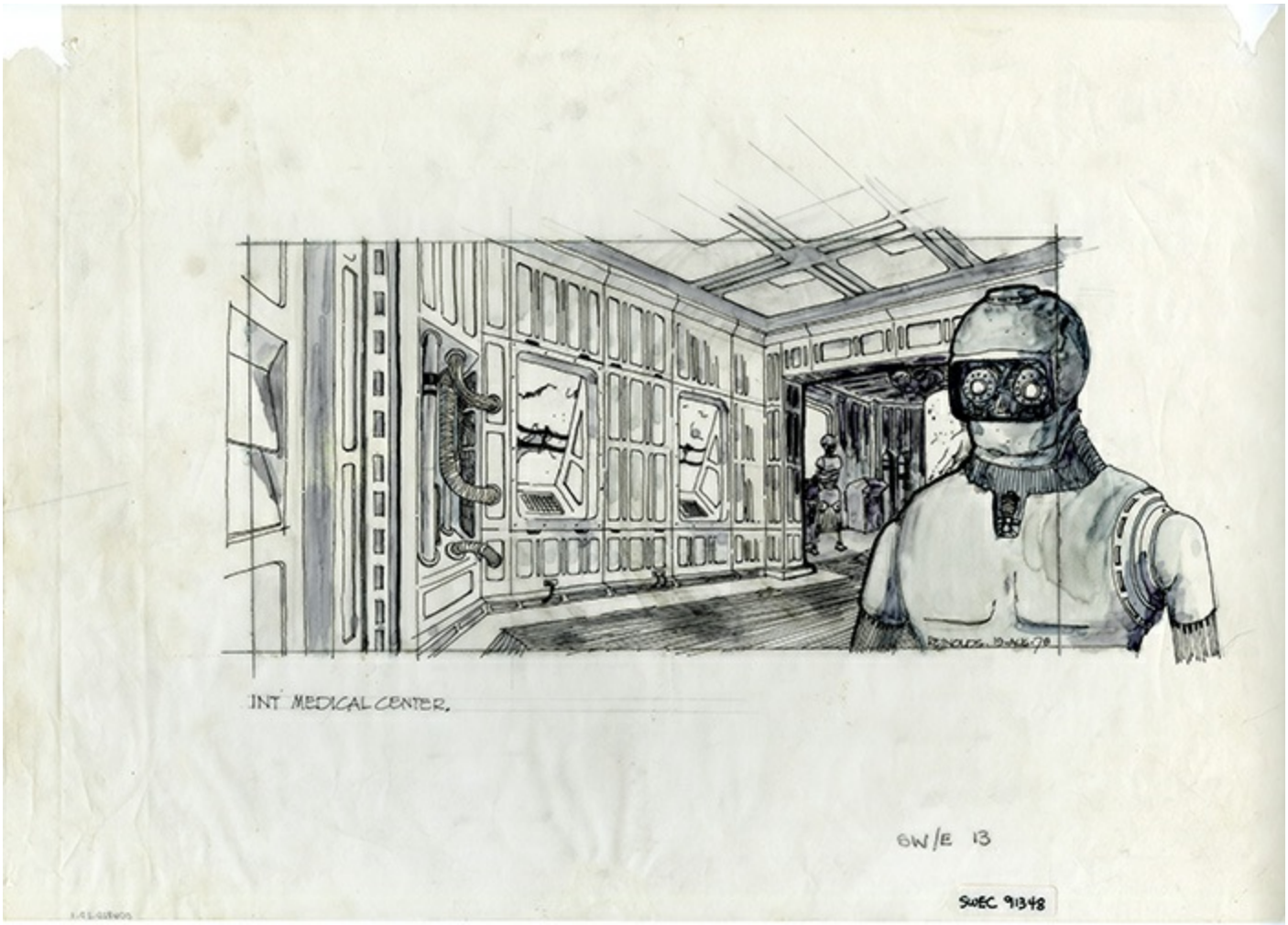


Final frame.





Concept drawing of the medical center by Reynolds.



Concept drawing of the medical center by Reynolds.

THE RELATIONSHIP

NOS. 13–14, TUESDAY–WEDNESDAY, MARCH 20–21: STAGE 1—INT. MEDICAL CENTER, SC. 57 PT. [LUKE RECOVERS]; ICE CORRIDOR, 15 PT. [LEIA PURSUES HAN]

"On March 20, for the first time, I think, we were actually shooting on two sets simultaneously, weren't we?" Arnold asks Alsup. "We were shooting in the ice cavern as well as the medical thing." Alsup replies in the affirmative and, the next day, Progress Report No. 14 lists production as one day behind. That Tuesday, Kershner filmed first unit in the ice tunnels while the second studio unit finished up inserts on the previous set. On Wednesday, Kurtz talked with insurers about the skyrocketing costs incurred as a result of the fire on Stage 3, and bluescreen consultant Stan Sayer arrived.

"The ice cavern is very special," Kershner says. "It has tons of material that appears to be ice and snow and we're using everything in it: CO_2, mist, steam, and compressed air; we use lighting in a certain way; we use glycerine on the walls to make them shine. You sit in an office and you say, 'We'll do it this way.' But you come on the set and none of it really photographs that way. So you begin to make changes, which is part of that creative process of being so loose that you're reacting to what is, not what you expected or anticipated.

"Whenever I could, I would go to the set the night before," the director adds. "I'd take a camera with me—and have the film quickly developed that night—and I'd make drawings."

"Ralph and I did a few things for the ice hangar, very early on," says Johnston. "I think Ralph,

because he worked in England for several months, was able to follow up on a lot of that stuff with his production paintings. So he had more involvement with the interior sets than I did."

"Ralph is incredible," Kershner says. "He's not just a great technician; he has a very lucid mind. There's simply no waste there. He thinks on two levels at once: the dramatic and the specific. But Ralph never really *designed* the film; his paintings were suggestions. Some of the time, they were dead-on; some of the time, they simply led us in one direction or another. He continued to do paintings all the way through production."

"I did quite a few paintings of the ice caves to give us a feeling of how the tunnels might look in terms of actual depth," McQuarrie says. "There was also a large painting down at one end of the set, which made it seem a lot longer with other tunnels branching off the main cave at various angles."

"The interior set for the ice caverns were pretty painful," Kershner notes. "We were living for days in these man-made caverns that were covered with salt for a glistening effect. There was so much salt that it got into our lungs, our pores. We could taste the salt all day and all night. And for scenes with fog or mist, we had to keep shooting heated mineral oil into the air, because the effects folks claimed it was healthier than the vegetable oil used in America. After a while, we couldn't breathe, let alone smell anything. We'd leave the sets exhausted, with no sense of smell and reeking of salt."

To see the action in the cramped tunnel sets, production hired a Hitachi video camera and monitor from Osborne Sound. "I got lost in them, literally, for the first few weeks," Kershner continues. "We built all the corridors fully enclosed until we were ready to shoot in them; then we could move some walls. The set looked so good, looked so *cold*, that it didn't seem right that you could be working up a sweat. But it sometimes reached 100 degrees in there."

Kasdan headed back to the States, but for the rest of the week, Lucas stayed on the set; Arnold asked Kershner if he felt "inhibited or compromised" by his presence. "Not at all," he replied. "It was like having the toymaker present, but he didn't play with the toys."

"Once in a while, when I'm on the set, I get a little restless as if I were directing, wishing I could go in there and get it done," Lucas says. "But I like what Kersh is doing creatively. I don't have a strong feeling of wishing it were being done another way—well, perhaps once in a while, but I much prefer that somebody else do the work."

"I found that there was really no problem except I worried whether he wouldn't get an ulcer standing there," Kershner says. "George said, 'No, no, I'm fine.' I would find it very difficult to stand on someone else's set for a whole day and watch, but he was always complimentary. He would constantly be supportive. He was really staying there because he was interested and he loves being around a film being shot, especially this one. Also, these characters are familiar; they're old friends. They're like parts of his dreams that are manifest. There was no problem having George here and that surprised me: I thought there would be."

"When Kersh was shooting, George would be over his shoulder whispering this and that," Johnson says. "Kersh did not always agree, so two versions were shot."

"I told George I couldn't work if he would be looking over my shoulder all the time. After all, I had done time with Jon Peters," Kerhsner adds, referring to the producer of *The Eyes of Laura Mars*. "George does not stand over me and he's really, as he says, here to help. He's changed the storyboard for me, he's taken care of parts of the script that needed compressing, he's someone to talk to when I have a little problem—and I get an immediate answer, which is good."

"Kersh wanted to give the film a slightly more serious tone from what I'd done in the first film," says

Lucas. “But without taking it completely out of the Saturday matinee feeling. He wanted to get deeper into the characters and make the jokes a little less flippant.”

“George didn’t particularly like telling people what to do,” says Kasdan. “He didn’t like arguing with them. He didn’t like the cajoling that is so much a part of directing. He didn’t want to do that and he had reinvented himself as the producer-mastermind of these movies, which had started for me with the creation of *Raiders*. I saw his dealings with Steven Spielberg and Irvin Kershner as very supportive, and yet, you know, trying to guide them into exactly what George wanted. What a great producer does is he guides everyone without making them feel controlled. George was very good and funny and charming in the George-ian manner.”



Printed daily from March 21, 1979, with the camera on Luke (Hamill), with extended dialogue from the medcenter scene (and a nice ESB intro slug) shot at Elstree Studios. Note that Anthony Daniels and Peter Mayhew speak their dialogue through their masks. Director Irvin Kershner makes a “beep, beep” sound for Han coming through the automatic door. (Colored slugs in the sequence indicate where film has been cut to be used in an actual edit; the slug allows sound to stay in sync with the remaining footage.) (2:02)



Solo looks on as Leia kisses Luke.





Hamill, Lawrence Kasdan, modeler Fred Evans, Lucas, and Kurtz observe a shot that would not make the final cut, in which a medical droid takes off Luke's facial bandage, circa Monday, March 19, 1979.





Fisher, Kershner, Ford, and Hamill discuss the scene.



Kershner directs Hamill.



Daniels is prepared for the scene by the wardrobe department's John Birkinshaw, while director of photography Peter Suschitzky sits

(on right).



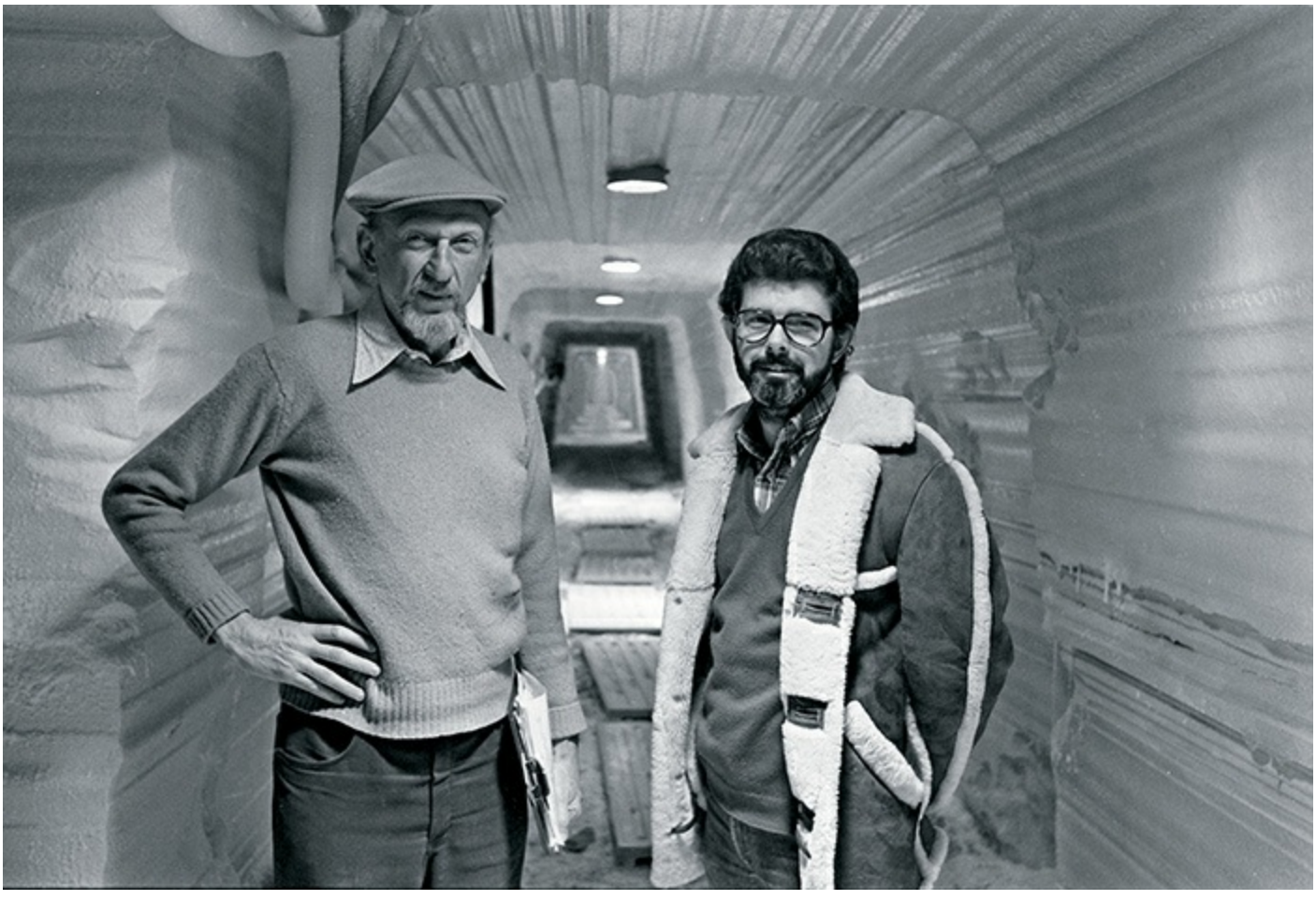
"Ice cave corridor" by McQuarrie, 1979, which served as a direction for production's design of the ice corridor sets.



The *Empire* art department (FRONT ROW): Allan Moss, Michael Ford, Alan Tomkins, Harry Lange, Leslie Dilley, Norman Reynolds, Ralph McQuarrie; (MIDDLE AND BACK ROW): Sharon Cartwright, Brian Archer, Bob Walker, Ian Giladjian, Fred Evans, Michael Lamont, Fred Hole, Michael Boone, Steve Cooper, and Richard Dawking.



In the ice cave corridor, Lucas and Peter Suschitzky.



Kershner and Lucas.



Ford as Han Solo.



Ford as himself.





What has become an iconic photograph of Hamill, Lucas, Fisher, and Ford (in the background are chief hairdresser Barbara Ritchie;

Michael J. Duthie, an editor who happened to be visiting the set that day; and assistant to director Debbie Shaw, daughter of actor Robert Shaw).

ALTERNATING RHYTHMS

NOS. 15–16, THURSDAY–SUNDAY, MARCH 22–25: INT. COMMAND CENTER, ICE CAVE, 14 PT. [HAN HAS TO LEAVE], 45 [WAMPAS DETECTED]; 46 [PROBE DROID SPOTTED BY REBEL, WHO IS KILLED]

On Stage 1's Rebel Command Center set, cast and crew numbered 101. Behind the scenes, Jeremy Bulloch had a fitting as Boba Fett, whose costume took 20 minutes to put on. Bulloch had started acting when he was 10 and had since appeared in Disney films, and British sitcoms and plays. The half brother of Robert Watts, he was 35 when cast as Fett.

"There was talk of this new character—not a big character, but a new one," says Bulloch. "My brother called me and said, 'Go and see Tiny Nicholls, wardrobe supervisor.' I arrived at the studio not knowing what was going to happen and they asked me to put this costume on. I thought, *This is strange*—there was an odd sort of Wookiee scalp hanging from my shoulder, which I originally put under my helmet because I thought it was some kind of hairpiece. It took a long time, but I finally got the costume on and it fit like a glove."

"I'd never managed to give Jeremy a job on a film," Watts says. "So I rang him up and said, 'If the suit fits, the part's yours.' "

"Then I walked onto the set," says Bulloch. "My first meeting with George Lucas was actually in the costume and he said, 'You look fantastic.' I didn't know how to react to everything or what he wanted me to say—even if he wanted me to speak—and everybody was on the set because they were actually in the middle of doing something with the snow creature. Everything seemed to stop and there was this marvelous feeling of a presence, of somebody else. Lucas chatted with me and said, 'As far as I'm concerned, you're fine.' "

Carrie Fisher was far from fine and fainted on set, due to a possible allergic reaction to the steam and spray paint. "At one point I only weighed about 85 pounds, because we were working 12 hours a day," Fisher says. "I'm not crazy about English food; bangers and mash don't make me want to run out to the pub. So I was sort of the crew mascot. I could crawl all over their shoulders and heads, and sit on the camera. I would be carried to the set. 'If they want me, then I get a piggyback ride.' There is something very child-like about being an actor, because you go in and they dress you, they put your makeup on, they do your hair, they bring you something to drink when you want it. They drive you there and they drive you home, and they bring you your food."

Arnold writes that Fisher's friends and acquaintances came to visit her—Penny Marshall, Rob Reiner, Treat Williams, and Harvey Keitel—"people with whom she could talk movies, play records, drink chilled white wine, or just loaf away the sterile hours between performances. Now and again, she and her friends would take off for a fashionable discotheque, but most of the time they stayed in, sending out for dinner to nearby Lester's, the neighborhood bistro, or to a Chinese takeout. Only when Treat Williams visited did they do some indoor cooking. Carrie is a self-confessed night person."

Billy Dee Williams arrived on flight TW 760 from Los Angeles, and on that same Thursday script revisions omitted the elevator scenes on Cloud City.

"When I first came here, George and I had dinner," says Williams. "We sat and talked. I'd been reading about these guys before I even met them—George Lucas, Coppola, William Friedkin. I see all of

the other people who've entered this feeling—I call it a feeling—and it's new, it's different. It's different from the feelings I've experienced about Hollywood. They're a much more quiet people. There's a different kind of commitment, and I think the people who they surround themselves with seem to be people who lend themselves to the same kind of feeling. And it's great for me, because I think the only way you can really know about yourself is by the people that you come in contact with. People, to me, are like mirrors. They tell you greatly about where you are at a particular point."

On Friday, Charlie Weber, Sid Ganis, and Carol Titelman flew in for business meetings; Williams was fitted at the Berman Costume Company and Hamill continued what must have seemed like endless fencing rehearsals.

"It was so arduous and long," Hamill says. "Carrie and Harrison were doing the bulk of their story line, so I wasn't even shooting. I'd wake up and think, *Oh, no.* Usually, I'd fence from something like 9:30 till lunchtime, take a long lunch, then come back about 2:30, fence until 5, and then go home. I got to a point where, just overnight, I would forget the moves. 'It's right flank, parry; left flank, parry; duck …' I was so frustrated one day, I just threw down my sword and said, 'I can't do this!' But Peter Diamond gave me this terrific pep talk, this fatherly pat on the back; he told me that he'd worked with Errol Flynn and all these people, and that it was perfectly natural for me to be going through this."



Hamill rehearses the choreographed duel with stuntman Bob Anderson, as stunt coordinator Peter Diamond supervises.



Hamill rehearses the choreographed duel with David Prowse (Darth Vader).



At Elstree Studios, Hamill rehearses the carbon freeze duel with stuntman Bob Anderson, who will be Darth Vader in that sequence; both are supervised by stunt coordinator Peter Diamond.

(0:28)

The following off-days, Kershner studied the film. "I find that the big problem is to maintain a rhythmic unity—that's where you can often be fooled, so you have to concentrate constantly—weekends I use for that," he says. "Every shot is technical, but more difficult than technique is the rhythm of the film. By doing as many cuts as we have to make, with the number of scenes, if they don't flow together rhythmically, then you'll feel dissatisfaction with it. So I ask myself, *What was the last scene? What was the scene before that? What's the scene I'm going to do afterward?*

"So I will come in on Saturday and I'll walk through the set. I go up to my office and I'll just sit, go through the script, and think in terms of the story. On Sunday, I'll think broadly again. I'll allow my mind to go over the whole story to get the overview—and not lose it."



Ford as Solo seen from an odd vantage point on the Rebel Command Center set.



Lucas is visited by Walter Murch (sound montagist on *THX 1138* and *American Graffiti*) on the Command Center set.



Ford waits for the cameras to roll.



Fisher talks with Kershner.



Kershner directs an extra in a droid costume during prep for a scene on the rebel command center set.



Hamill and Ford are asked what they think are the differences between the respective directing styles of Lucas and Kershner.

(Interview on the set by behind-the-scenes director Michel Parbot)

ENTER: DARTH VADER

NOS. 17–19, MONDAY–WEDNESDAY, MARCH 26–28: INT. COMMAND CENTER & ICE CORRIDOR: 14, 53 [HAN REPORTS PROBE DROID SELF-DESTRUCTED], 15 PT., 115 [SOUND THE EVACUATION], 178 [HAN RETURNS FOR LEIA], T205 [VADER ENTERS BASE]

After an uneventful Monday, Lucas boarded a flight home Tuesday evening and Bruce Boa completed his role as General Rieekan. That day, they'd filmed the Imperial attack on the ice base, "a busy day for special effects because the bombardment causes a cave-in," Arnold writes.

"Boulders of ice fall, steam escapes from the shattered ventilation shafts, and there are a variety of explosions. This set, so carefully devised and so intricately constructed, is being slowly wrecked before the cameras."

On Wednesday, after being on call the two previous days, David Prowse shot his first scene as Darth Vader, who enters the crumbling hideout. "I was interested in a way to introduce the characters so that it was effortless and yet dramatic," says Kershner. "You can't suddenly have a person step out of a door and say, 'Here I am,' like on the stage. I wanted the audience to be propelled into the story, so I designed a special shot to reveal each and every one of the characters."

"The greatest bit was when they shot my big entrance," Prowse says. "We are in this cave on the ice planet. They decided to put two stuntmen dressed as snowtroopers in front of me and six actors behind. So here we are in this tiny set waiting for the action to start. The effects men set off the charges in the wall and we got this enormous explosion. Of course, the cave walls are polystyrene and that went everywhere. The two stuntmen went running through the hole, but, because they couldn't see through their masks, they tripped over the polystyrene blocks and fell. I started to make my dramatic entrance at about the same time, but I couldn't move—one of the actors behind me had stepped onto my cape. I tried to get away and my cape came off and I fell on top of the two stuntmen."

"If you've got to get all the emotions and dialogue right in a scene with a lot of effects, all those variables have to work," says Fisher. "If one goes wrong, you go into take after take, so there is a lot of pressure. At one time, we did a huge scene where the whole ice thing is collapsing and I had to turn and say directly into camera, 'Evacuate the rest of the ground patrol.' This is the first take, and all these things were happening, and all I could say was, '… mumble, mumble …' and then I walked off exactly as though I'd said it correctly."







Circa March 28 1979, snowtroopers accompanied Darth Vader (Prowse) as he entered the Rebel base.



Kurtz watches as Ford rehearses with Kershner a scene in which Solo gives orders to a Rebel soldier (Ray Hassett was the deck officer; Norwich Duff played the second officer). In the foreground, a medical droid examines a dead tauntaun, killed by invading snow creatures (a plot point that would not make the final cut).



Sculptor Roy Rodgers works on the practical model of the medical droid, based on earlier approved concepts.

NOS. 20–24, THURSDAY, MARCH 29–WEDNESDAY, APRIL 4: INT. MAIN ICE TUNNEL, 25 [HAN AND DEAD TAUNTAUN], 180 [C-3PO OUTSIDE WAMPA ROOM], 182 [HAN AND LEIA CUT OFF], 44 [R2 ENCOUNTERS WAMPA, WHICH IS FELLED BY A BAZOOKA BLAST]

March 29 and 30, the first unit stayed in the Main Ice Tunnel; the latter day, Jack Purvis, listed as "Chief Hogman," participated in a dress rehearsal.

"As I've got the main part in the film and my partner hasn't, it's been a little bit dicey as regards our double act, the Mini Tones," says Baker. "Jack and I try to keep the peace, as it were, and we've come to arrangements. We're still the best of friends and we've worked things out money-wise, but it's a bit of a touchy situation. Really, our forte is cabaret and our act in the club, but he's in the picture. He's a pig man, I think. And there are other parts and bits where he'll eventually crop up."

Also on Friday, a scene in which a wampa "thrusts its hideous claws through a cavern wall took a very long time to set up," Arnold writes. "We knew that if it were not achieved in one take the whole thing would have to be mounted again for another try and consume costly time."

"It's very difficult to give the illusion and suggest more than you see, which is what we're trying to do," says Kershner. "Everybody is having lunch now, thinking about one thing: *Is it going to work?* Because we're going to try it right after lunch. We have a confrontation between a tiny Artoo and a giant ice creature, who's about 11 feet tall, and it's proving difficult. We're going to have one attempt. We've got four cameras on it, including VistaVision—and if we don't get it the first time, it will be disastrous."

The endeavor failed. "The major problem was the snow creature being 9 or 10 feet tall," Johnson says. "The operative's arms are only half the length of the snow creature's, so, in effect, he's trying to propel force from the elbows; he couldn't actually push the wall himself. In the end, we pulled the bottom of the wall out, but you're just at the mercy of how the wall breaks up."

"The man inside the monster suit has been there three hours and is suffering from stomach cramps," the Progress Report reads. Fortunately for Des Webb, a planned "bazooka hit fx on wampa" was delayed.

A more sinister note was sounded that day when a group from Bank of America visited the set, no doubt alarmed by rising costs and revised schedules. Last but not least, a postal strike meant that salary checks were handed out to crew and not sent to their respective banks.

On Monday, April 2, Weber and Titelman returned to the States; Fisher stayed home with a cold; Hamill suffered a wrist injury; and second unit conducted several lighting tests for Cloud City, on Stage 2. Another group visited the set, this time executives from the General Mills conglomerate and its British subsidiaries.

"The toys became more prominent," says Alsup. "Now Kenner was pretty keen to get everything rolling way before the film was even made. And that interfered with Gary and Robert Watts, who were under the gun for getting this movie in on budget and on time—but they kept having to meet deadlines for the toys. Robert would say, 'Are we making a movie or are we making toys?' [laughs] It was just added pressure is all, which would affect certain crew members who were designing models and things."

That evening, Kurtz hosted a dinner for Kershner and the four principals. According to Arnold, a Japanese restaurant was chosen "because the quiet atmosphere and private rooms there encourage conversation. On a picture as difficult as this one, it is important that the professional relationships between the cast and the filmmakers be as casual."

"Harrison and I would tend to go to Carrie's house," says Hamill. "I once had a Mexican food dinner and Carrie and Harrison came over. I make a mean guacamole."

Tuesday, an entire day was spent on more wampa shots. On Wednesday, the Norway second unit wrapped and returned to England (see the sidebar on this page).



In what would become a deleted scene, a wampa breaks through a wall in the Rebel base.





In other shots that would not make the final cut, a snow creature attacks a Rebel (Alister Cameron, a sergeant in scene 44).



A snow creature attacks a snowtrooper.



In another deleted scene, a wampa is blasted by a Rebel bazooka, and then falls to reveal its innards.



Between shots, Des Webb in the snow creature costume gets air through a tube.

SETUPS: 156; SCS. COMP: 28/445; SCREEN TIME: 18M 55S/130M.

MARCH ILM: HILARITY AND INNOVATION

On March 12, ILM had shipped the newly christened Empireflex camera to Norway, where production's second unit would try to make use of it. On March 17, plans were submitted to Lucas that would expand the cramped Kerner facility. The next week, Miki Herman's notes explain that they had a new camera—a "hi-speed 4-perf Mitchell Mark II," which Jim Beaumont was "making steady"—but "production cannot be continuously disrupted by construction … Need more room!"

On March 26, a new optical printer was "top priority" and, four days later, a general meeting was planned "for Kerner Co. employees to discuss building security and to introduce new employees."

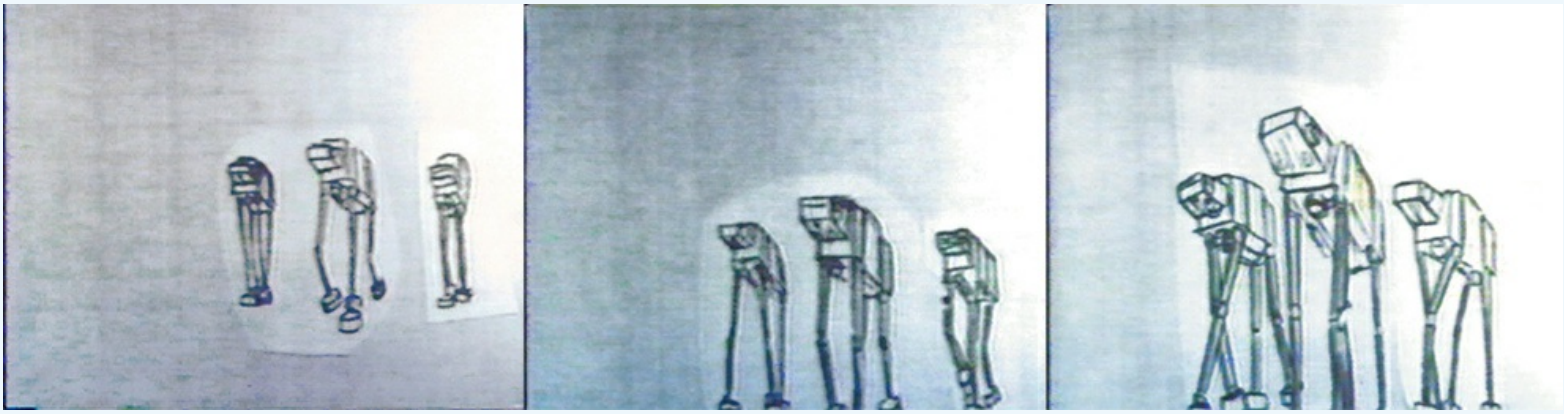
Further tests were also conducted with the tauntaun, walkers, artificial snow, and asteroid sequences. ILM's workload increased when the plan to shoot an 18-foot-long mechanical foot crushing a snowspeeder in England was scrapped and that sequence assigned to the effects facility—which meant that building their new optical printer became all the more essential.

"I had to stick my neck out a long way, because the printer was a prototype and was going to cost a half million dollars or more," says Edlund, who worked with George Randle on procuring the cameras and movements. "The electronics equipment was Jerry Jeffress's forte. It is a beam-splitter printer with four projector heads. With four heads, you can put together a shot in one pass."

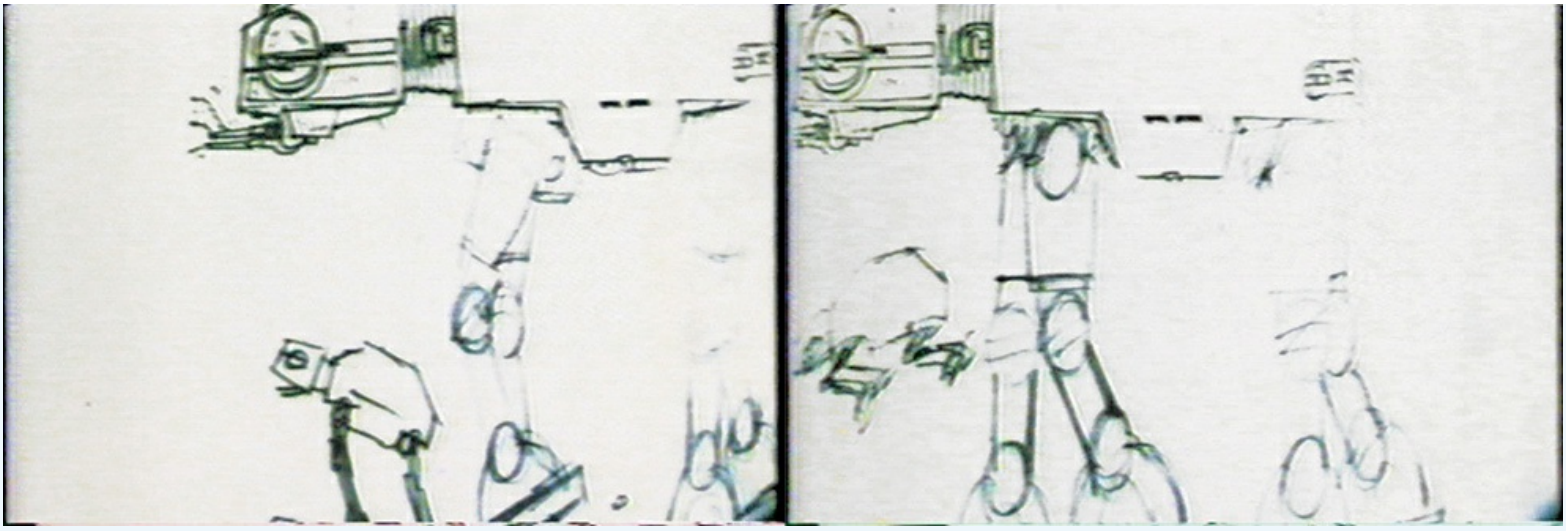
"In fact, some of us tried to stop this project, mainly optical supervisor Bruce Nicholson and myself," says Muren, who was dubious of the printer's utility and feasibility.

"We were shooting on a snow planet, which was basically light-gray ships against a white background, so it was like *the* nightmare of nightmares for a compositing artist," Edlund adds. "But I had this five-volume set of optical ideas, about 1,000 pages of applied optics, and I noticed there was a system called telecentric optics that were used in tank periscopes in the Second World War. And I thought, *This is the principle that will make it possible for us to do peerless mattes for* Empire."

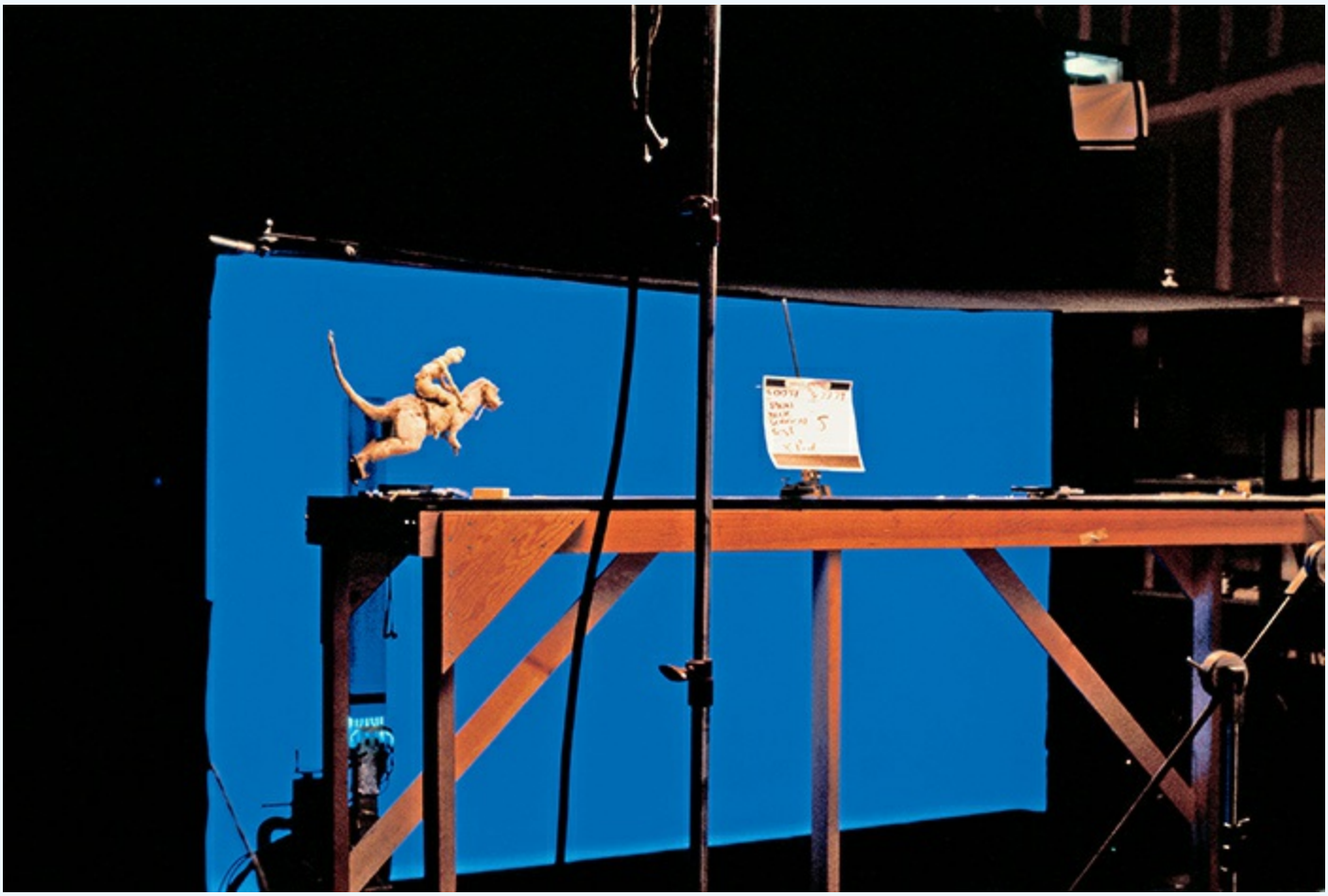
The question was: Would the new optical printer be ready in time—and if it was, would it work?



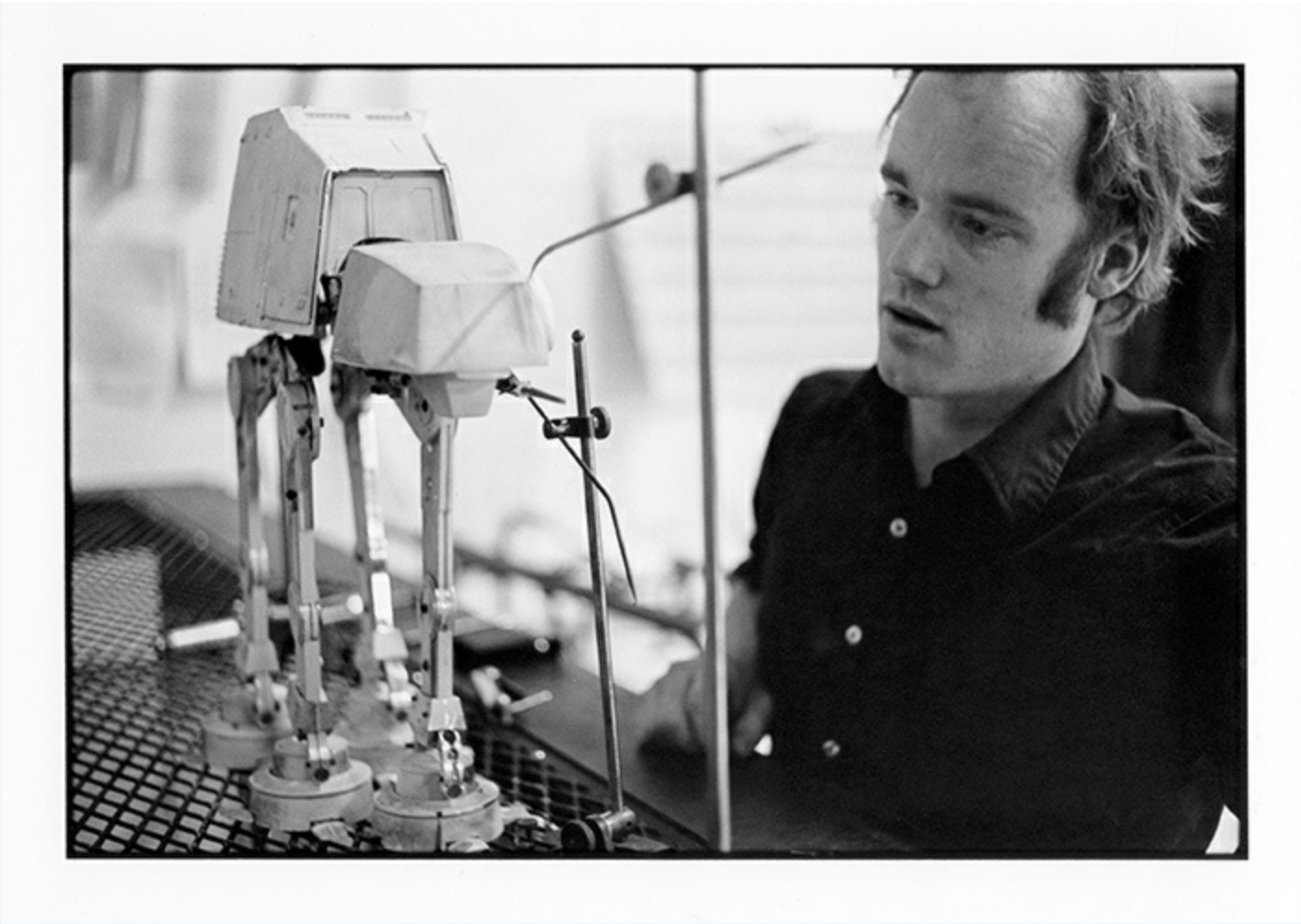
Walker animatics by John Van Vliet.



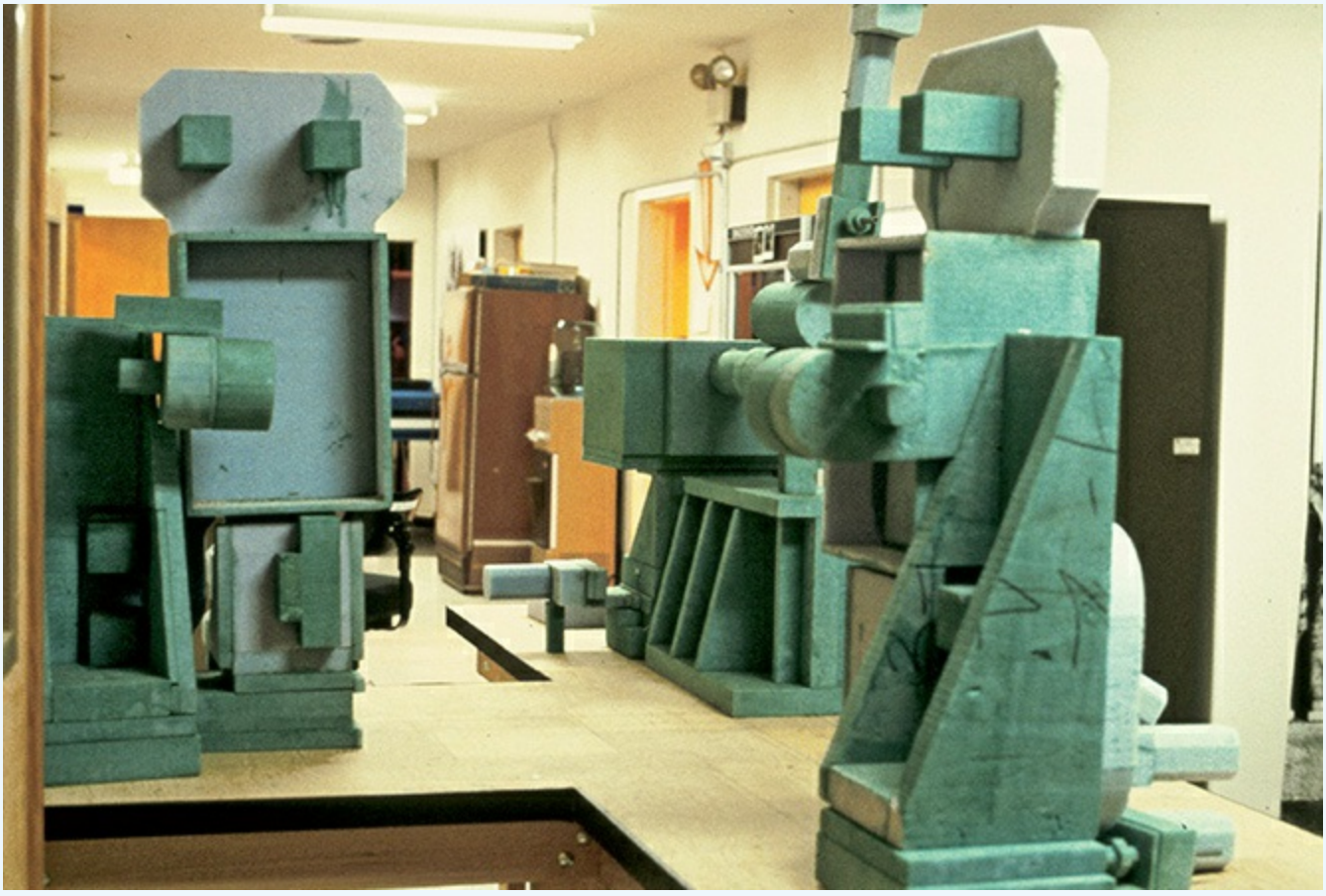
Early animatics of the walkers included a very spry machine that jumped.



A “taun bluescreen test” conducted on March 27, 1979.



Tippett and an early walker test.



A mock-up of the proposed new optical printer. “With the three lenses, the lamphouse, the first projector, the relay lens, the telecentric relay lens, the next projector, the beam-splitter cube for the other pair of projectors, and then the camera with an anamorphic lens, it was really one hell of an optical project,” says Edlund. “Luckily, I’d met David Grafton, who was a lens designer for Xerox. He was great because he not only could design lenses with a sense of optical glass, but he also knew how to make a lens that wouldn’t be so overdesigned that the tolerances would be too great.”

SECOND SNOW UNIT

REPORT NOS. 8–29: MONDAY, MARCH 12–TUESDAY, APRIL 3, 1979. FINSE, NORWAY; EXT. PLAIN OF HOTH [BATTLE FIELD AND TRENCHES, ETC.]

After Hamill departed from Finse, second unit continued to shoot Battle of Hoth scenes at Camp Sharman, with "explosions, guns firing," about 43 extras, and two stuntmen: Colin Skeaping and Bob Anderson. The Empireflex camera arrived that week, and, under the direction of Peter MacDonald, much work was completed over 21 days in extraordinary circumstances.

"One of the roles I had was to be responsible for the special effects shooting of the whole Norwegian second unit," says Jim Bloom, "when they were off doing all the battle scenes."

In addition to inserts and work with stuntmen doubling for Harrison Ford and Mark Hamill, the primary task of the second unit was blowing things up. "Plastic cables go stiff in extreme cold or snap when taut," says special effects technician Allan Bryce. "They become as brittle as glass. So we've had to devise new types of cable for our explosive firings. Batteries lose their efficiency, too; their electrolyte freezes. That's a big problem for us. We get a lot of advice from NATO, some of whose personnel have had a lot of experience at 40 degrees below."

"We had to do a lot of explosions, blowing up gun towers, and so on," says Johnson. "And stunt work which under the best of conditions is difficult. But here, 6,000 feet up the side of a glacier in what turned out to be Norway's worst weather in 150 years, even the simplest tasks became extremely difficult."

On Friday, March 16, the "dish-gun" explosion was filmed. Later on, a key piece of destruction was planned. "We discovered that every day, between 12 and 1 o'clock, you'd get this patch of sunlight moving across the top of the glacier," says Bloom. "So we went out and we set up four or five cameras just to capture this one big explosion. But there's an old story in the movie business called, 'Ready when you are, C. B.,' which has to do with the parting of the Red Sea in the Cecil B. DeMille film; they do the whole complicated setup and shot, and afterward the cameraman just says, 'Ready when you are, C. B.' The joke is he missed it completely."



Second unit assistant director Bill Westley tries to explain to Norwegian extras, despite the language barrier, how to act during a shot, with limited success, on location in Finse, Norway, late March/early April 1979.

(1:24)

"There was one interesting incident, which at the time was absolute hell for me, but now I can look back and it's a good after-dinner story," says art director Alan Tomkins. "We were shooting the space probe coming down and hitting the mountainside, and we had to have an explosion where it hit. So we had three or even four cameras stationed about half a mile away on telephoto lenses. I went up there with the special effects man to lay the charges and he put eight sticks of dynamite into the hole, which had to be three meters deep. I then went back to the bottom, where we waited and waited for the weather to be right. There was quite a tension."

"We'd anticipated a lot more explosives needed than we would normally use because the snow damps the explosive force," Johnson says. "The thing we hadn't really taken into account was just how cold it was going to get."

"We got the whole unit up there," Bloom continues. "The English special effects man was all ready with the big explosion and he had a walkie-talkie and everything was timed so at the right moment in the sequence we would cue him for explosion. And at 11:30, we say, 'Here comes the sun!' So I said, "Roll the cameras.' 'Rolling!' 'Action!' And I finally said, 'Explosion!' And … nothing."

"The big moment arrives at about 11:30, and my eyes are now glued to the spot where eight sticks of dynamite are going to explode," says Tomkins. "Absolutely nothing. Just the wind blowing gently. And Peter MacDonald is getting on the radio, very irate, saying, 'What the hell is going on up there?' No reply. Well now, the whole of the unit is relying on me to keep the thing running. I knew we had to get this little bit of sun, so I started to run. But the air up there is quite thin. I had only been going up the hill two or three minutes when they came on the radio again, 'Have you got there yet?' But

I'm completely breathless and I can't actually speak."

"The sun left, the fog came in, and we missed the shot," Bloom says. "And we finally got the guy on the radio and we asked, 'What happened?' And he went, 'Ready!' He's ready for the explosion. It was such a classic DeMille moment. But we blew it up anyway."

"Eventually, I make it to the top and I crawl, exhausted, over the top of the mountain to see the special effects man behind the rock with the plunger," Tomkins concludes. "And he says, 'Why haven't they shot?' So I signal, 'Your radio! Your radio!!' Because when he'd bent down to press the plunger, he'd knocked the battery box off his radio, but I didn't have enough breath to explain it all. So he put it right, got on the radio, and said, 'I'm ready when you are.' Well, you can imagine, they'd been ready for like 15 minutes! So the airways were blue for a long time …"

After that debacle, the retreat from the trenches was shot on Saturday, and several extras suffered from minor cases of frostbite. On Monday, second unit filmed the Rebel base entrance in heavy winds and snow.

"We shot quite a few scenes on the blue glacier [Hardangerjøkulen]," says Tomkins. "On one occasion we took these big gun emplacements and the blue ice became the exterior entrance to the ice cave, where the X-fighters and snowspeeders were going to be housed. We went back the next day to finish the sequence only to find five igloos. Some local students had camped out on one of the coldest nights of the year, when temperatures were down to 30 below Fahrenheit, and they'd actually built their own igloos alongside our guns."

During this time, the helicopter crew, having flown from England in stages, was using the Wesscam to make aerial plates, one of which was designed for the opening of the film. "This shot," Goodman says, "involved climbing to 15,000 feet altitude and falling in 'auto rotation,' with no power from the engine going to the rotors of the helicopter. In such a state, the machine can fall at 2,500 feet a minute or approximately 30 mph, and when this is multiplied by 4 and combined with a forward effective speed of 400 mph as the camera levels out over the snow, at between 3 and 6 feet, the result can be quite effective."

Often their footage was captured at speeds of 100 mph only four feet above the ground, so they had to be sure the terrain was completely flat before filming. If they stopped for any reason, they would never shut off the turbine due to the extreme cold, "for fear that it may not start again."

On March 22, the weather turned bad once more. "They were lucky with the weather and had a very good week or eight days," Watts says. "They managed to achieve most or all of the trench battle. But unfortunately, it clouded in again, so they've been picking up whatever they can and praying for good weather to be able to complete what they have to do on the location."

"On one occasion, we'd had a very miserable day without shooting, so the construction crew and the electricians, just to let off steam, decided to have an impromptu fancy dress party," says Tomkins. "They all came down to dinner wearing their long johns and goggles, and we had some very good singsongs after the meal. It took the edge off everyone being so down after two days of bad weather, you know. The next day was fine. We went out and we caught up."

As weather conditions varied, production filmed a double for Han Solo ambushing the probe droid along with additional battle inserts. More injuries and frostbite occurred, and one crew member was sent to Oslo on "compassionate leave." Equipment also suffered with burned-out clutches, bursting camera boxes, and so on.

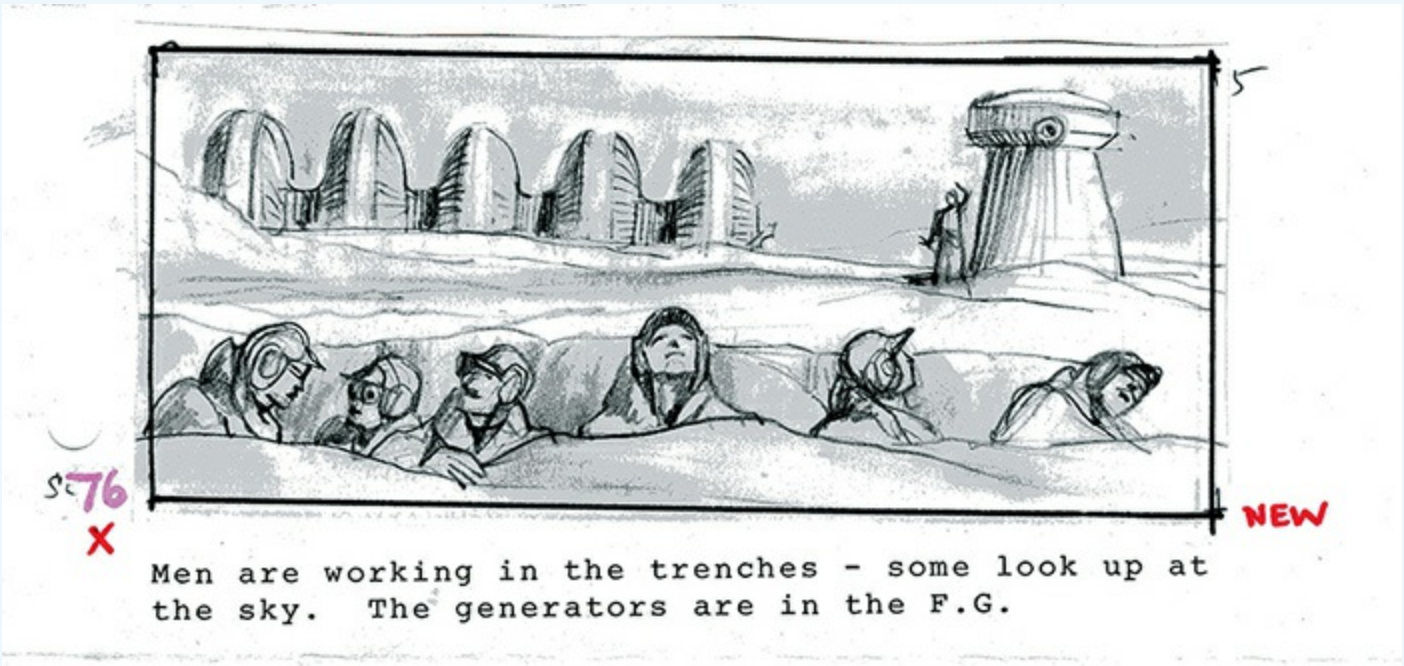
"We did a lot of the sequences' close-ups, mostly of the troops running and things," Tomkins says.

"We also did Luke running and firing his catapult, which goes up to the underside of the walker, where he's pulled up, which we did with a helicopter."

On Sunday, April 1, Colin Skeaping doubled in another shot of Luke falling into the snow from the belly of the walker. On Wednesday, MacDonald, Bloom, and company departed Finse by the 3:18 PM train to Bergen, leaving for London the next day. On the last day, there had been a huge avalanche—which the local people explained as a sign that spring had arrived.

"We were supposed to be there for three weeks," Bloom says. "We were there for eight."

"I can remember when we finally left, we presented the hotel with gifts," says Tomkins. "We had a collection and we managed to save enough money to give the ladies that brought the food out to us gold lockets, which we inscribed on the back, *Star Wars*. We presented all the staff of the hotel with a present and they were very delighted; the next evening, they reciprocated and gave everyone a little pewter cup with the words, *Thank you, Star Wars*."



Second unit made use of storyboards by Beddoes for many of its shots, such as Rebels in the trenches.




G-BCPA

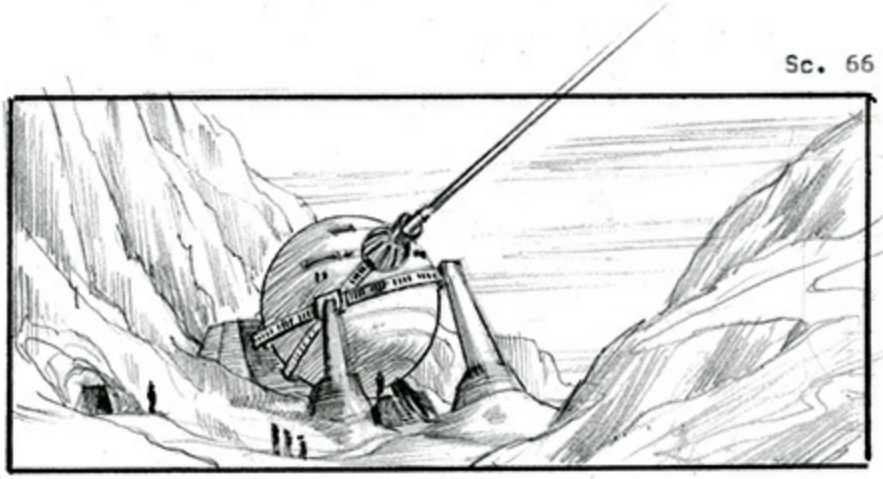
After several stops along the way, the helicopter and crew finally arrived in Finse, Norway (the Wesscam camera is encased in the ball attached to the exterior). Here they airlift stuntman Colin Skeaping dressed as Luke, who is being pulled up to the belly of a walker. Filmed on the lake outside the hotel, this tough shot took a few hours to complete.



The helicopter crew poses on the glacier in Finse, Norway.

REV. 5 Feb. 1979

Sc. 66



Sc. 66: FULL SHOT - Giant Ball-shaped ion cannon as it rotates into position and blasts two red energy beams skyward.

Norwegian Unit - Vistavision Plate

Location - To be determined

An Ivor Beddoes storyboard.



Second unit made use of mannequins dressed as Rebel troopers for some shots with explosives.



This big explosion, which would later be used for the probe's crash-landing on Hoth, took several hours to set up.



A rare panoramic photo of second unit and its long trench.



Dressed in pilot gear, stuntman Colin Skeaping performs a long fall to the snow that would be used for the moment in which Luke detaches himself from beneath the Imperial walker (again, filmed on the lake outside the hotel, as was the Rebel retreat).



Rebels retreat from the trenches, filmed on Saturday, March 31, 1979.



TALKING TRASH

NOS. 25–30, THURSDAY–THURSDAY, APRIL 5–12: STAGE 2—INT. CLOUD CITY (CORRIDORS AND ANTE-ROOM), 352 [LANDO AND OTHERS ON LANDING PLATFORM], 354 [HAN AND LANDO CATCH UP], 355 [C-3PO DESTROYED], 361 [CORRIDOR ON WAY TO "LUNCH"], 380 [LUKE SEES FETT], 381 [LEIA TRIES TO WARN LUKE]; LIVING QUARTERS, 360 [LEIA SUSPICIOUS]

By Thursday, April 5, Sid Ganis had returned to Los Angeles and production was five days over. While first unit started on several Cloud City sets, including the scene where C-3PO is blasted apart by stormtroopers, second unit continued in the ice corridors. On April 10, production was 6.5 days over and Jeremy Bulloch had his first day on camera in scene 380, transporting Han Solo in carbonite and shooting at Luke Skywalker. "I remember the director saying to me before we started, 'This character has to be a very cool customer. Imagine you're walking down the street in a Western town. He's quick, but stealthy.' "

Fett's costume was sometimes a hindrance to this coolness, however, as was the constantly changing program. Thinking he had time before a scene was to be shot, the actor drank a couple of glasses of lager—when he was ordered back on set. "The two pints had worked their way to my bladder, but I couldn't get out of my costume," Bulloch says. "You can't suddenly say in the middle of shooting a scene, 'Excuse me, could I relieve myself?' It would've taken me 20 minutes to take the costume off and 20 minutes to put it on again. But everyone knew I was desperate to go and they all made remarks."

Carrie Fisher's physical ailments also persisted and she was excused early due to illness, missing several days after being diagnosed with influenza and bronchitis. Harrison Ford also felt unwell and saw a doctor, but didn't miss any days. According to Arnold, Fisher, perhaps seeking a quieter environment, moved "to a home leased to her by Eric Idle of Monty Python celebrity." But the real problem was that Fisher, as she would later write, was continuing a pattern of taking "hallucinogens and painkillers. Mind expanders and painkillers. (Though over time and protracted use they became mind relievers and pain expanders—a place where everything hurt and nothing made sense.)"

On Thursday, April 12, a special crew filmed 41 of Ralph McQuarrie's paintings for the teaser trailer of *Empire* (50 feet was exposed for each illustration, using a 1:1.85 format). And spring had finally arrived. After shooting for more than a month, with a few days to relax over the Easter holiday weekend, cast and crew were able to reflect upon their director.

"He has a rather fluid style," says Hirsch, who was already cutting together scenes. "Not that he moves the camera all that much; he moves the camera at a certain moment through a scene and his staging of the action is fluid. Kersh doesn't cover a scene in a simplistic way. He doesn't shoot a master and then go in for close-ups. He will shoot mini masters that overlap at certain key points. It's a subtle thing. He really knows what he's doing."

"I stage differently from George; I use the camera differently," says Kershner. "I use the actors in a different way. I certainly love his work but mine is just different. The photography is totally different, the lighting, the movement."

"Irv is a director who seems to be very interested in the telling of the story," McQuarrie says. "He didn't have time to get involved the way George does in the nature of all the aspects of the film: the angles, compositions, shots, the color, the texture. George, perhaps, is more of an artist, where Kersh sees things from another point of view, a dramatic one concerning the motivation of the characters. Not that

Kersh didn't get involved. He did his primary job—and, believe me, it's a full-time project just getting the scenes organized, rehearsed, set up, and shot."

"I was constantly insecure about whether the tone was right—tone is everything, an indefinable thing, like quality," Kershner says. "True discipline is from within. Every artist, every painter, every novelist, anyone who does anything must do it for himself, must have his own discipline. That is really what tempers the character. That's what makes it possible to do something beautiful and to become something beautiful. That, ultimately, is what the film I'm making is about."

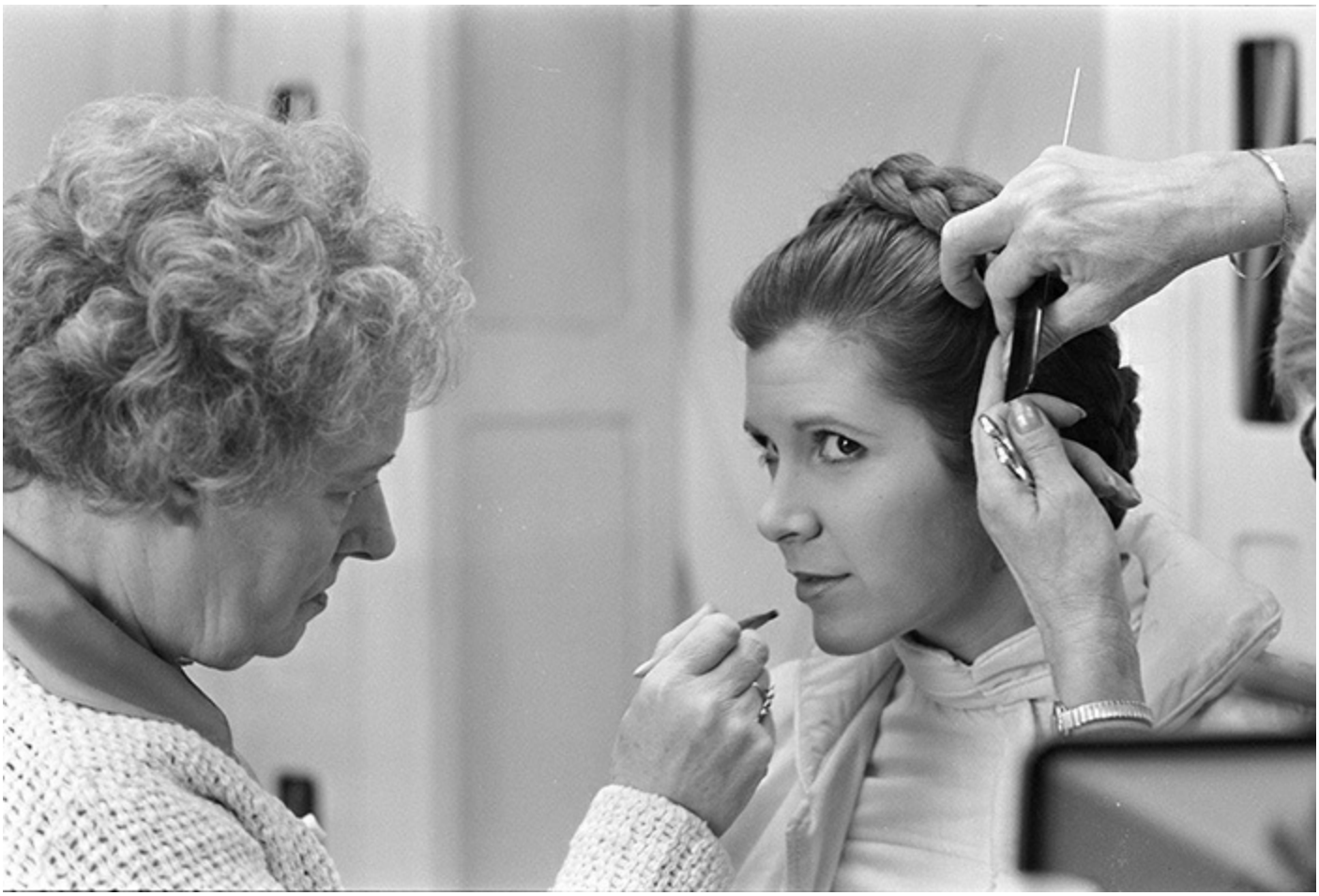
"I think that I give myself to him," says Billy Dee Williams. "I like to watch him, because his mind is constantly working. This is a vehicle that's new to him, too, and I think that certainly he's got to proceed in a way where he's comfortable about what he's doing. And the only way he can be comfortable is to cater to certain idiosyncratic approaches until he finally gets what he wants. But I think he gets it. There's no question about it. I mean, the man has a tremendous amount of energy and imagination; he's a very creative man."

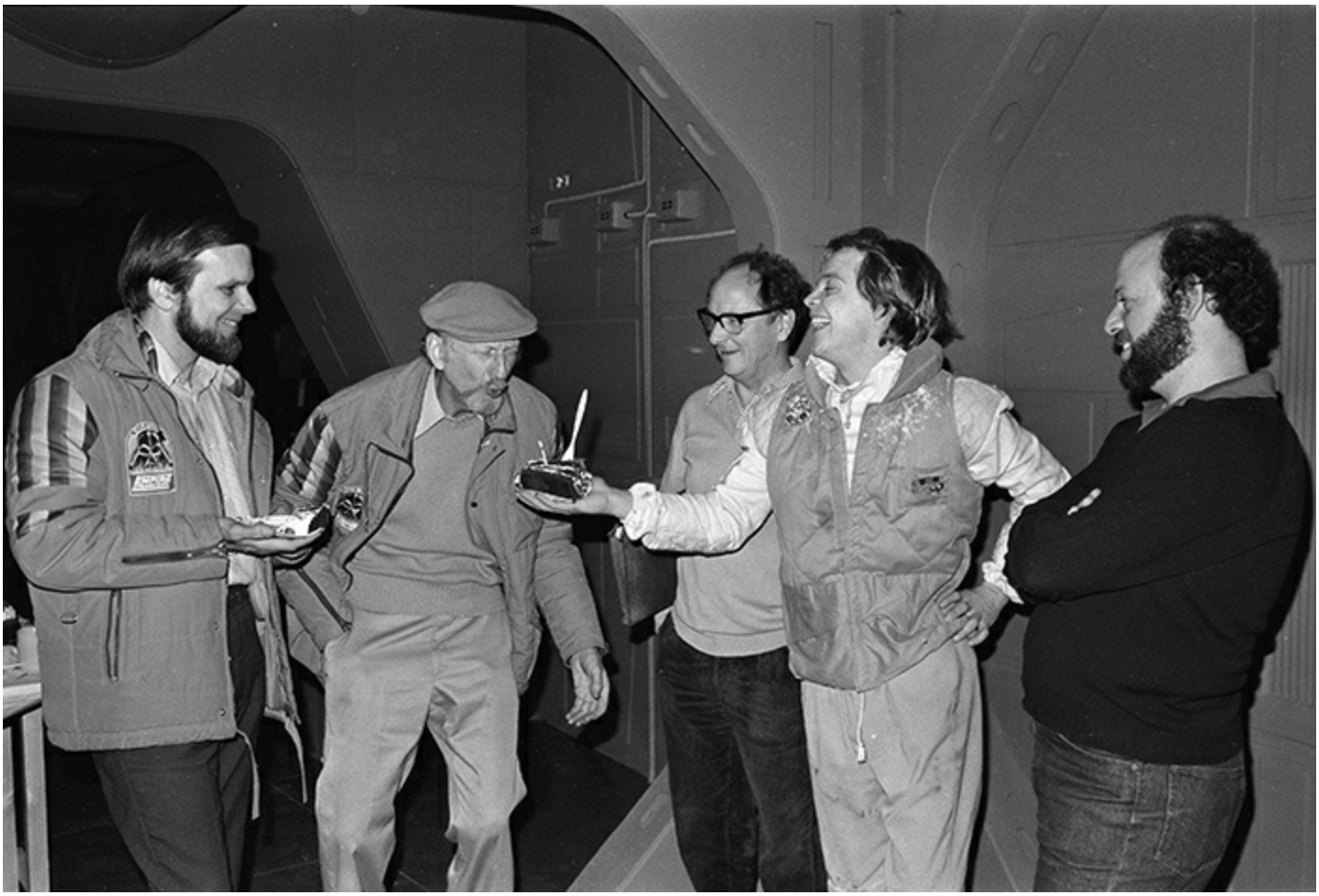


On the Cloud City corridor set, Kershner talks with Billy Dee Williams (Lando Calrissian).



Kershner hugs Fisher, April 1979.





Celebrating his birthday on April 29 are Kershner and producer Gary Kurtz, focus puller Kelvin Pike, Mark Hamill (Luke Skywalker), and editor Paul Hirsch.



Billy Dee Williams, Fisher, Mayhew, and Ford between takes of the scene in which their characters head toward the dining room, April 1979.



Fisher and Mayhew.



David Tomblin and Fisher.



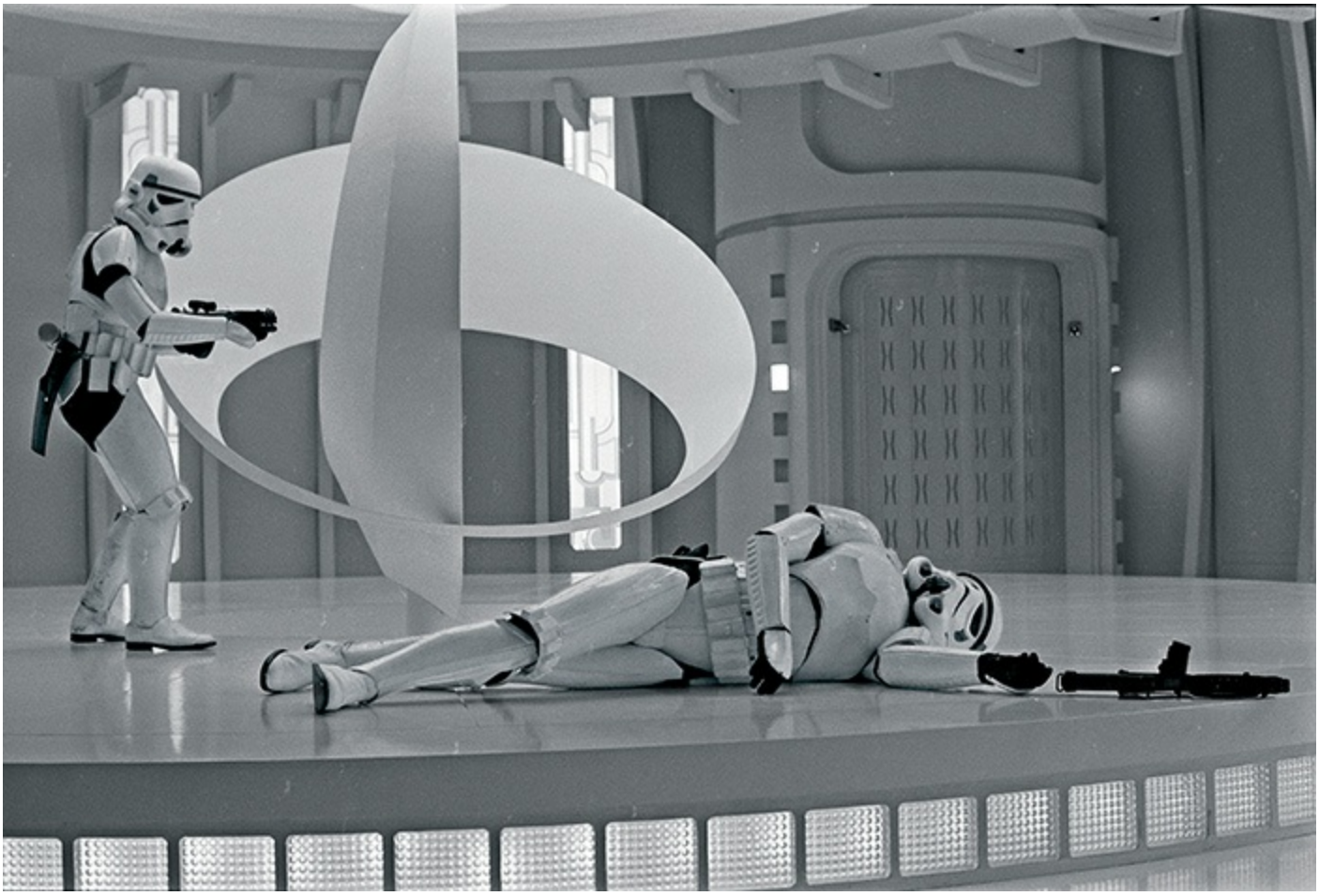
Fisher and Kurtz.



Fisher touches up her makeup.







A fallen stormtrooper.

"I make believe I'm friends with the actors, then I bully them," the director says. "But then I become hooked and I do become friends. I have to create an atmosphere of love. I want to feel close to the actors and I want them to feel close to me. I want them to be able to reveal their innermost secrets through their faces, their bodies, their voices. I want them to trust me, so that when they've finished a take and they're totally insecure, which all actors should be if they're not censoring themselves, they will look at me openhearted and say, 'Was it any good?' If they can, then they've done their best. If they do the take and say, 'That's great,' then they are either tired, lost, or conning themselves and me."

"I'm open to suggestion," Fisher says. "It would be stupid to be otherwise. Leia is not a real character. She is more of a caricature and is somewhat one-dimensional. It's not really possible to write out a list of Princess Leia's likes and dislikes. I do know her favorite color, though—it's white. She wears white all the time. But that doesn't help me much. In this film, though, Leia develops more. Kersh directs us as actors more than George did. But in *Star Wars*, George didn't really have to. There weren't as many scenes that called for character portrayal."

"Kersh would regularly say he liked what I did," Daniels says. "He would regularly say, 'You're not in this scene, but I think you should be in this scene.' Which was tremendously flattering; he made me feel really wanted. The difficulty was, of course, there was a reason I wasn't required in the scene. So, sometimes, I didn't have a real reason to be around. I think that's a shame, because it slightly dilutes the efficacy of the character."

"I treated the robots as if they were human," Kershner says. "If I was working with Artoo, I talked to Artoo and not to the people working him, whether it was the electronics people or the actor inside. I would talk to Threepio as if it was really Threepio. I'd try to talk with Chewbacca only when the actor

was fully costumed. Then I was staring at the Wookiee and not just an actor inside a Chewbacca suit. That helped tremendously."

"Kersh, I think, finds it easy to communicate with the actors," Daniels adds. "He is very excitable."

"I never told anyone I was doing this because they would have thought I was out of my head," Kershner adds. "But I finally started talking to my garbage cans at home. I'd be going to toss out some trash and I'd tell it, 'Open up.' The gadgetry becomes terribly real after a time."

"Kersh has made it his own film," Hamill says. "As a director, he's quite a bit different from George outwardly, and a different personality. I think George chose him because he likes his movies."

"These are a set of characters that sprang out of George's mind," Kershner says, "which are based on characters that he absorbed from the culture—comics, books, films—they've all been filtered through his mind. But what I'm taking, really, is raw material. He mined it and I'm decorating it and making, I hope, little jewels. The gold is there. I needed the gold in order to make the fine jewelry."

"Kersh wanted to discuss it much more and there was much more to discuss," says Fisher. "Unlike a play, you don't have an audience, so you don't know what works and what doesn't—so that's where both Kersh and George, for me, were the best ever, because they are one body."

"I never knew that my character only had two dimensions until critics told me," Ford says. "I don't play the third dimension, because it wasn't the author's or the director's choice to do that. But it's there. It has to be there. I don't have to play it because it's me. It's part of me, so the simpler I keep myself, the more it shows. This is a simple kind of enterprise and as such, the motives of the people involved are generally pretty straightforward. I enjoy playing this character. That's it for me. I cannot conceive of a negative aspect to doing this film."

"The thing that you learn in directing," Kershner says, "is that when you're on the floor, no matter how complex the shooting is—and the shooting is pretty complex here—you have to remain absolutely sensitive to every nuance of the behavior of the people around you. Because, ultimately, if you don't keep in mind the overall humanity, then the machine takes over and suddenly all you have are technically fine shots, technically good performances. The story's being told, but something's lacking, something mysterious, indefinable.

"So I am constantly talking with the actors. There's an enormous amount of feedback that you get from actors. I set the scene according to what I know the actors can do and should do and have been doing up till then. I'm using their temperaments; I'm using their qualities. To make them work against their quality would create conflict."

During that long weekend, Fisher went to the countryside, staying at an old inn in the village of Slaughter in the Cotswolds, according to Arnold. "Kersh went on a sentimental journey into East Anglia, the flatlands of Suffolk and Norfolk where there are still American air bases. He was stationed at one of them while in England in the U.S. Air Force over twenty years ago. But Harrison was unlucky. Bedridden with the flu, he also suffered from the incessant ringing of a security alarm right outside his window. 'If I'd had a laser gun I would have shot at it,' he told me."

"When I get home I'm faced with the practical problem of what and how to eat," Ford adds. "That occupies the period of time between returning from work and falling asleep. [laughs] And in the morning I get up and go to work. I don't really have a social life. I am a social type, but I just haven't got the energy for it."

IMMORAL LIZARD

NOS. 31–40, TUESDAY, APRIL 17–MONDAY, APRIL 30: STAGE 2—INT. CLOUD CITY: SCS. 360, 380, 381, 382 [LUKE, FETT, LEIA SHOOTOUT], 385 [CHEWIE STRANGLES LANDO], S386 [GROUP FINDS R2]; STAGE 1—INT./EXT. ICE GORGE, 21, 22 [LUKE UPSIDE DOWN]; STAGE 5—INT. VADER'S STAR DESTROYER (MAIN CONTROL DECK), 55 [VADER ORDERS THEM TO THE HOTH SYSTEM], 280 [IN THE ASTEROID FIELD], S432 [VADER REALIZES LUKE IS GONE]; 334 [DEATH OF CAPTAIN NEEDA]; VADER'S CHAMBER, 59 [OUT OF HYPERSPACE TOO CLOSE]; IMPERIAL STAR DESTROYER NO. 2, 316 [BOUNTY HUNTERS], 330 [FALCON "ATTACKS"], 331 [FALCON DISAPPEARS]

Worldwide interest in *Empire* had become intense, Arnold says, with media inquiries averaging around 130 per week: "They come from all over the world, Alaska to Brazil, from a Norwegian provincial daily to an Australian woman's magazine, from Warsaw to South Africa."

Production resumed work on the Cloud City interiors, scene 360, in which Leia and Han flirt and argue in their living quarters. Their dialogue had been revised on March 22, but Kershner and the actors made further revisions before shooting. Ford's two young sons, on vacation, watched their dad perform.

By Thursday, April 19, production was 10.5 days over and beginning to unravel. Brian Johnson departed for ILM to monitor its work, and an advance-shooting schedule was reissued with reshuffled scenes. "I have a full pyrotechnics team headed up by Nicky Allder, who's very experienced," Johnson says. "So I'm now free to go back to California and carry on with the model work, which is running a little behind schedule at the moment, so we need to speed them up."

The next day, Ford flew to Tangiers, Morocco, for a short holiday after receiving permission from Kurtz. While a rehearsal was held at 2 PM for the bounty hunters on Vader's Star Destroyer, another ship arrived on the nearly completed Star Wars Stage: the full-scale 23-ton *Millennium Falcon*, which was floated into position, as planned, by means of hoverpads filled with compressed air.

After the weekend, Fisher followed Ford's example by leaving for some respite in Dublin, Ireland, and then back to the States. The main unit filmed the ice gorge with Webb and Hamill. "I supposedly had my feet embedded in ice, hanging upside down," says Hamill. "That was really hard on my back. I used a lot of muscles struggling upward to my feet to try and get myself out. I think we shot one day on first unit, but then we went four days more with second unit."

"You see, when a unit goes over schedule, we can't cycle off people because we've still got sets to do," Bill Welch laments. "They haven't finished with the stage, so we can't strike it, and so on. It really throws us very badly."

"Yeah, we have more than one unit going," says Hamill. "So when I'm not working with the first unit, I'm with the second unit finishing up something the first unit started. With the bluescreen and the VistaVision camera, it takes so long to get all the elements correct that it can be really tedious. Pete Suschitzky is riding back and forth on his bicycle looking at shots, but I don't mind in a way because, really, you want to do the sequences as best you can."

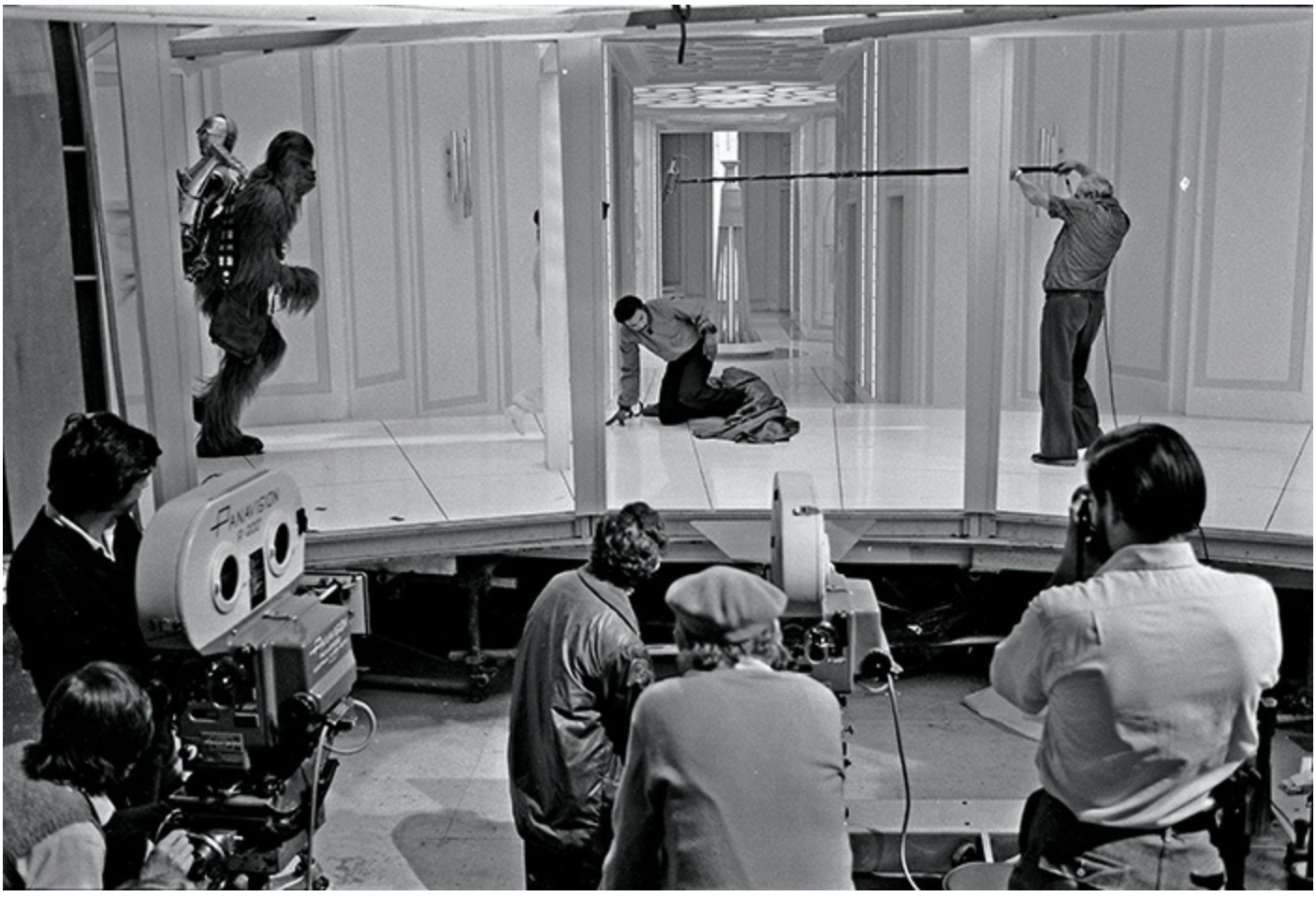
"I coped with the two units on different stages for the first 12 weeks of the picture with the aid of a bicycle which I used to commute," Suschitzky says, "And I carried a radio so they could call me back to the main stage if needed."

"The idea was to leave the second unit to finish," Kurtz says. "They would come in and do the time-consuming pieces, the robots or special effects. It was never my idea at all to have the second unit do major dramatic material. But we started having to do that because of the time problem—and it was especially difficult when I had to go in and do the rest of the ice cave sequence with Luke hanging upside down. Kersh had only done one day in there, so I had to do the rest of the scene, keeping in mind

the way he wanted to do it and bound by the restrictions of the way he started."

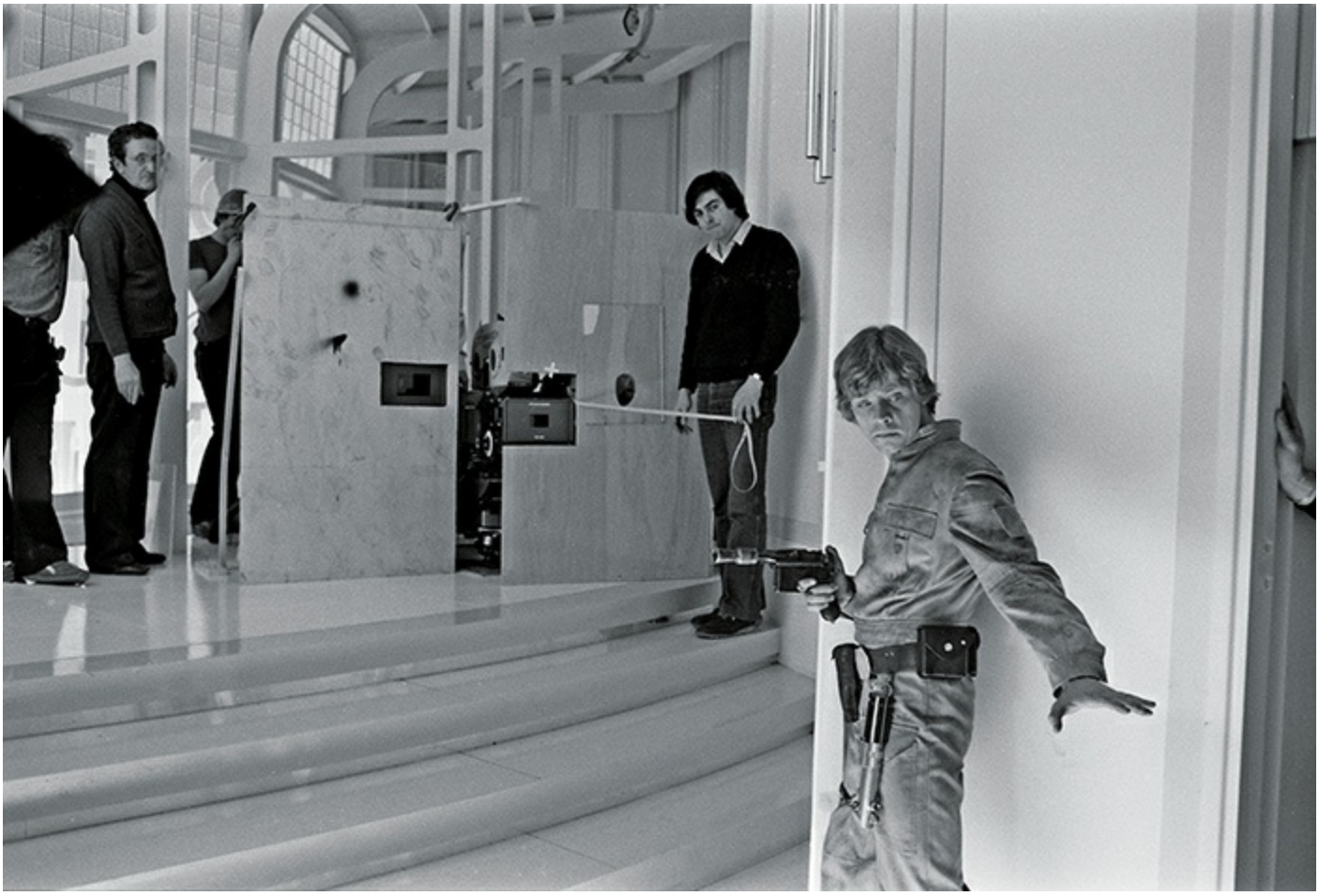
On Tuesday, April 24, with second unit in the ice gorge, the main unit moved to the deck of the Star Destroyer with Sayer on hand to supervise use of the bluescreen. That Wednesday and Thursday, Kershner filmed the bounty hunter recruitment scene on the ship's deck. In the creature workshop, Freeborn was still working on Yoda, which no one was allowed to see, but that scene displayed several of his department's other works (one mercenary called Tuckuss as late as the shooting script would have his name changed to Zuckuss, perhaps because *tuckus* in Yiddish means "ass").

"The admiral says to one of his officers, 'We don't need those bounty hunters. They're the scum of the galaxy,' " Kershner notes. "Then the admiral, who is standing below them in the control pit, is startled because, hanging over the edge of the bridge area, are 10 toes, huge claws with lizard-like skin—and you wonder, *My God, what's attached to that?* He looks up and you see a lizard character glaring down on him—but his disgust with that thing is not that it's some alien creature, but that it's an immoral creature. [laughs] That was not in the script, of course, his reaction to the toes, but that's what I mean by interpretation with humor. The Imperials are all very pure looking and very clean; they're all humans. And yet he's reacting to the bounty hunters' immoral motive. They work for money. Even the Imperials think they're doing good for the galaxy. There's no such thing as people desiring to be evil. They're evil for a purpose. They want to do good."



Williams films scene 385B in which Lando is strangled by Chewbacca, Take 7, April 19, 1979. Mayhew as Chewbacca, is carrying the pieces of the protocol droid—an act that began to tire the actor after several days. For years afterward, Kershner would be fond of telling the story of how the intricate motors designed to move the droid's head and arms were abandoned in favor of the simpler and more effective use of a fishing rod and line manipulated by crew just off camera and by Mayhew himself.

“Like crews anywhere, there are the strong members of the crew and there are the weaker members and it all gets done,” Kershner says. “But you know who you can count on for certain things and who you better help out on other things. But there was absolutely no ego problem and no psychological problems with the crew. I find that there never is with a good British crew.”



Kershner directs Hamill during the shootout on Cloud City (the camera and crew are protected from the pyrotechnics by a wooden shield; on the left is Maurice Arnold; on the right is assistant cameraman Chris Tanner).



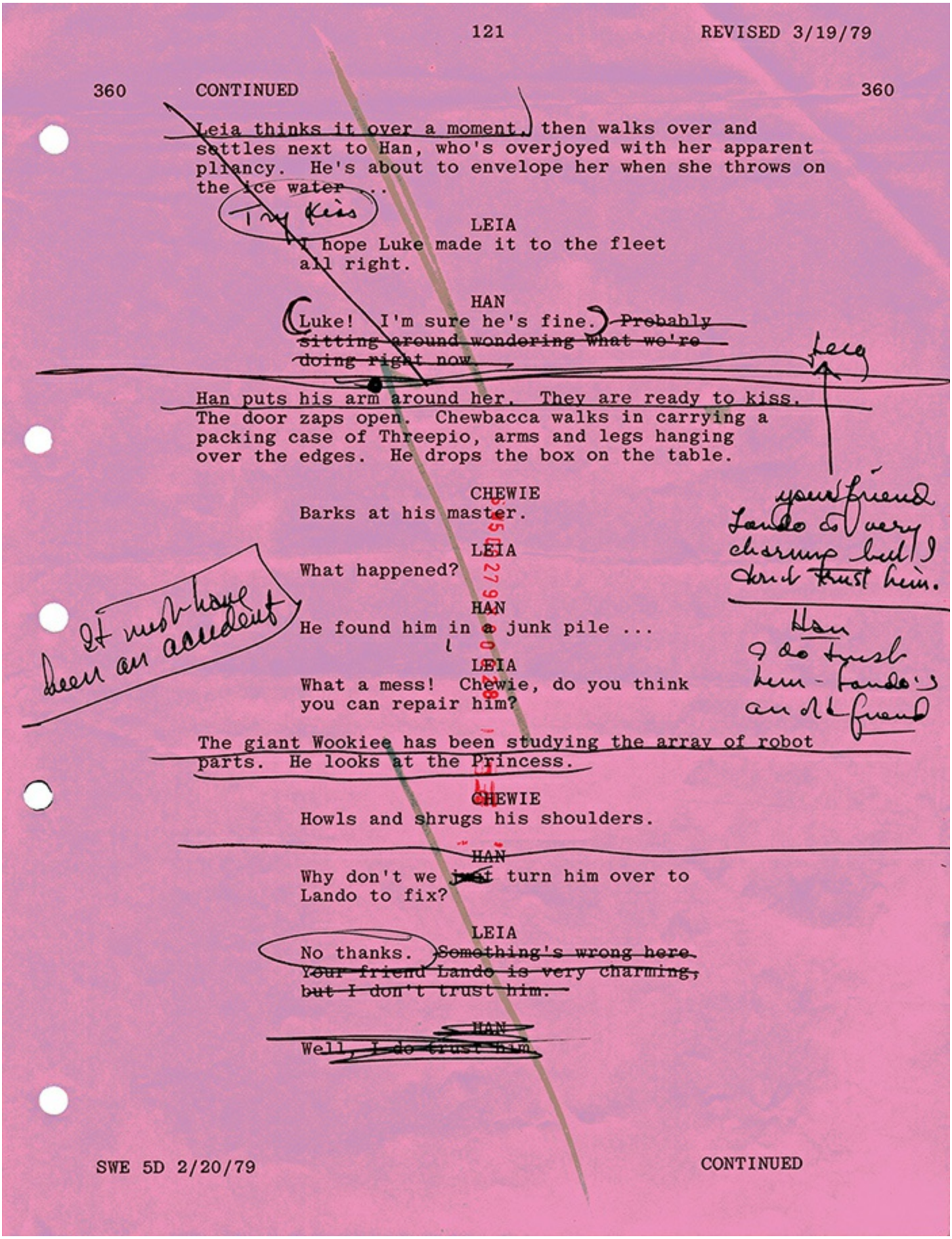
Kurtz, Kershner, and Hamill.



Hamill, Fisher, and Kurtz clown around.



Arnold, Fisher, Ford, and Kershner.



121 REVISED 3/19/79

360 CONTINUED 360

Leia thinks it over a moment, then walks over and settles next to Han, who's overjoyed with her apparent pliancy. He's about to envelope her when she throws on the ice water ...

LEIA
I hope Luke made it to the fleet all right.

HAN
Luke! I'm sure he's fine. Probably sitting around wondering what we're doing right now.

Han puts his arm around her. They are ready to kiss. The door zaps open. Chewbacca walks in carrying a packing case of Threepio, arms and legs hanging over the edges. He drops the box on the table.

CHEWIE
Barks at his master.

LEIA
What happened?

HAN
He found him in a junk pile ...

LEIA
What a mess! Chewie, do you think you can repair him?

The giant Wookiee has been studying the array of robot parts. He looks at the Princess.

CHEWIE
Howls and shrugs his shoulders.

HAN
Why don't we just turn him over to Lando to fix?

LEIA
No thanks. Something's wrong here. Your friend Lando is very charming, but I don't trust him.

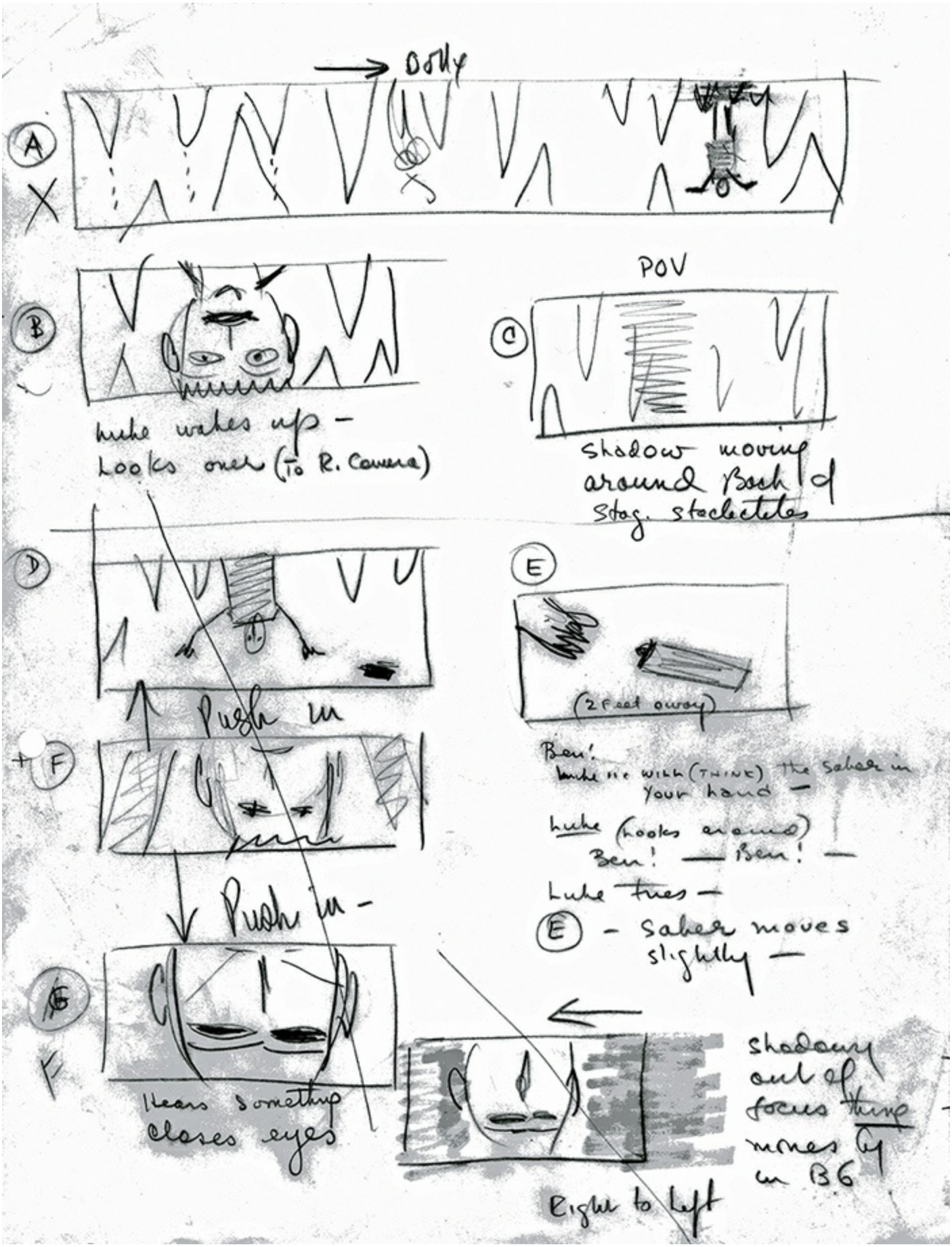
HAN
Well, I do trust him.

SWE 5D 2/20/79 CONTINUED

Kershner's revised script page for the living quarters scene, which he filmed in late April.

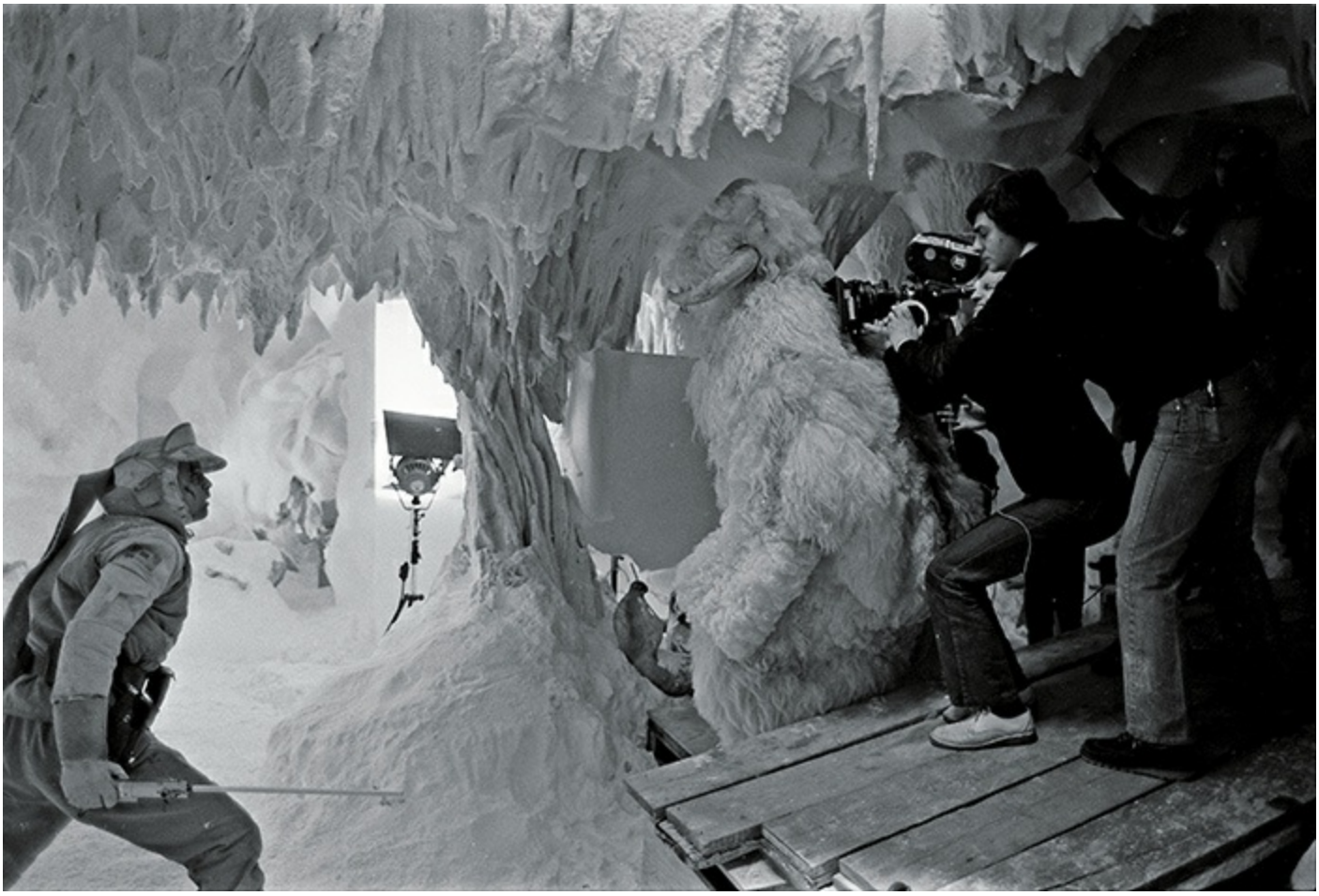


Fisher and Ford.



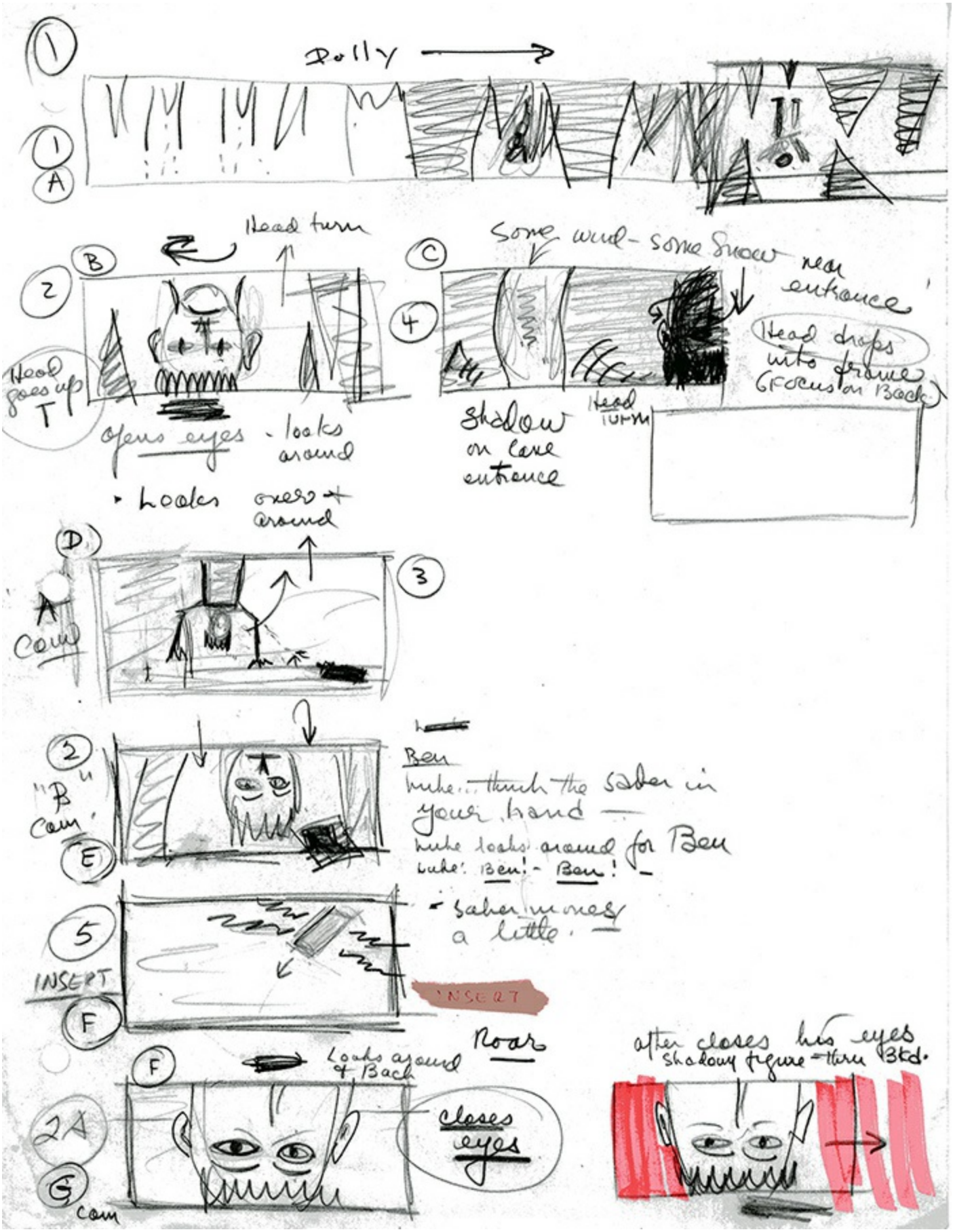
First unit filmed Hamill for one day in the wampa cave, after the scene had been reboarded by Kershner.



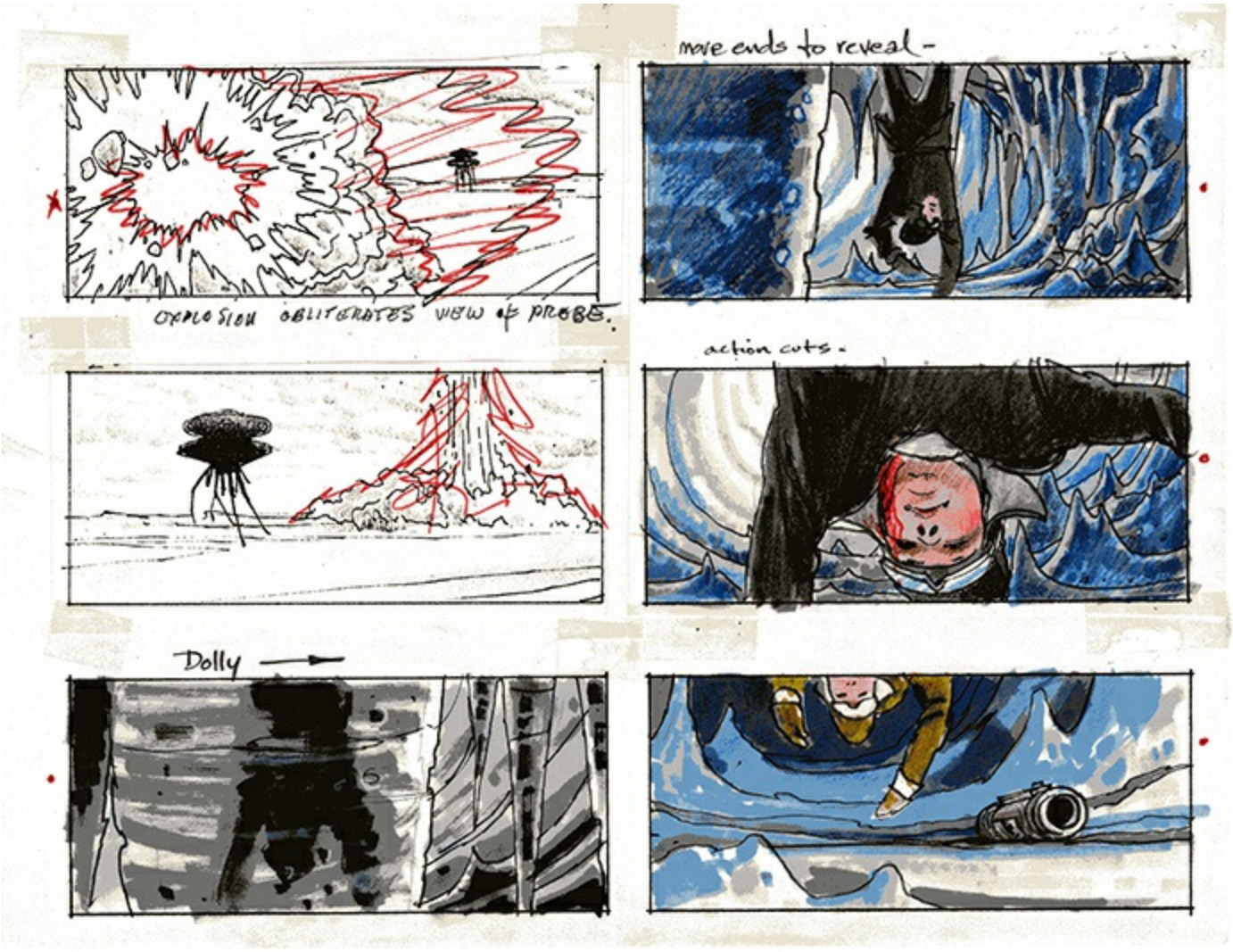


After using the Force to regain his lasersword, Luke defends himself from the snow creature.





Storyboard thumbnail sketches by Kershner.



Storyboard page by McQuarrie.



Kurtz directing second unit in the wampa cave with Hamill.



The first page from the complex "Breakdown Sheet," which charted actor and stage workflow, and which changed often during principal photography (this detail takes production up to March 15, 1979).

"Actors like Michael Culver (Needa), Julian Glover (Veers), Kenneth Colley (Admiral Piett), and Michael Sheard (Ozzel), who are on Stage 5 today playing Darth Vader's fleet commanders, are representative of a special breed," Arnold writes. "They spend much more time in the theater than in film studios … They are the grist of English theater companies like the National Theatre, the Prospect Theatre, the Royal Shakespeare Company, and the Royal Court Theatre, but when called on for film cameos they do marvelous work."

"I had a very simple scene, reporting to Lord Vader," Colley says. "It took two days to shoot because of the sheer complexity and size of the set, but Kershner was brilliant—he was very sophisticated and knew exactly what he wanted from it."

"I shot this scene very carefully," Kershner says. "All you see are scars on the back of Vader's neck for half a second. I imagined that beneath the mask, Vader was hideous: His mouth was cut away and he

had one eye hanging low."

Commenting on Needa's death at the hands of Vader, after the former has tried to apologize for a tactical blunder, Lucas says, "We had to keep reminding the audience that Vader was evil and the easiest way to do that was to have him kill anyone in sight." Darth's line, "Apology accepted," was improvised on set (or later in post).

"When I was wearing the mask, people had difficulty hearing me, so I used to change my dialogue," Prowse says. "I'd take a line like, 'The asteroids do not concern me, I want that ship,' and change it to, 'Hemorrhoids do not concern me, I need a shit.' "



Patternmaker Brian Archer works on Fett's helmet.



The work of dozens of artists combined for the scene in which Vader gives a group of motley bounty hunters their mission.



Kershner created the moment in which the toes of a bounty hunter disgust an Imperial officer.



Patti Rodgers sculpts the head of Zuckuss.



Detail of Fett's Gang by McQuarrie, circa 1980.



Kershner poses with the foreboding creations.



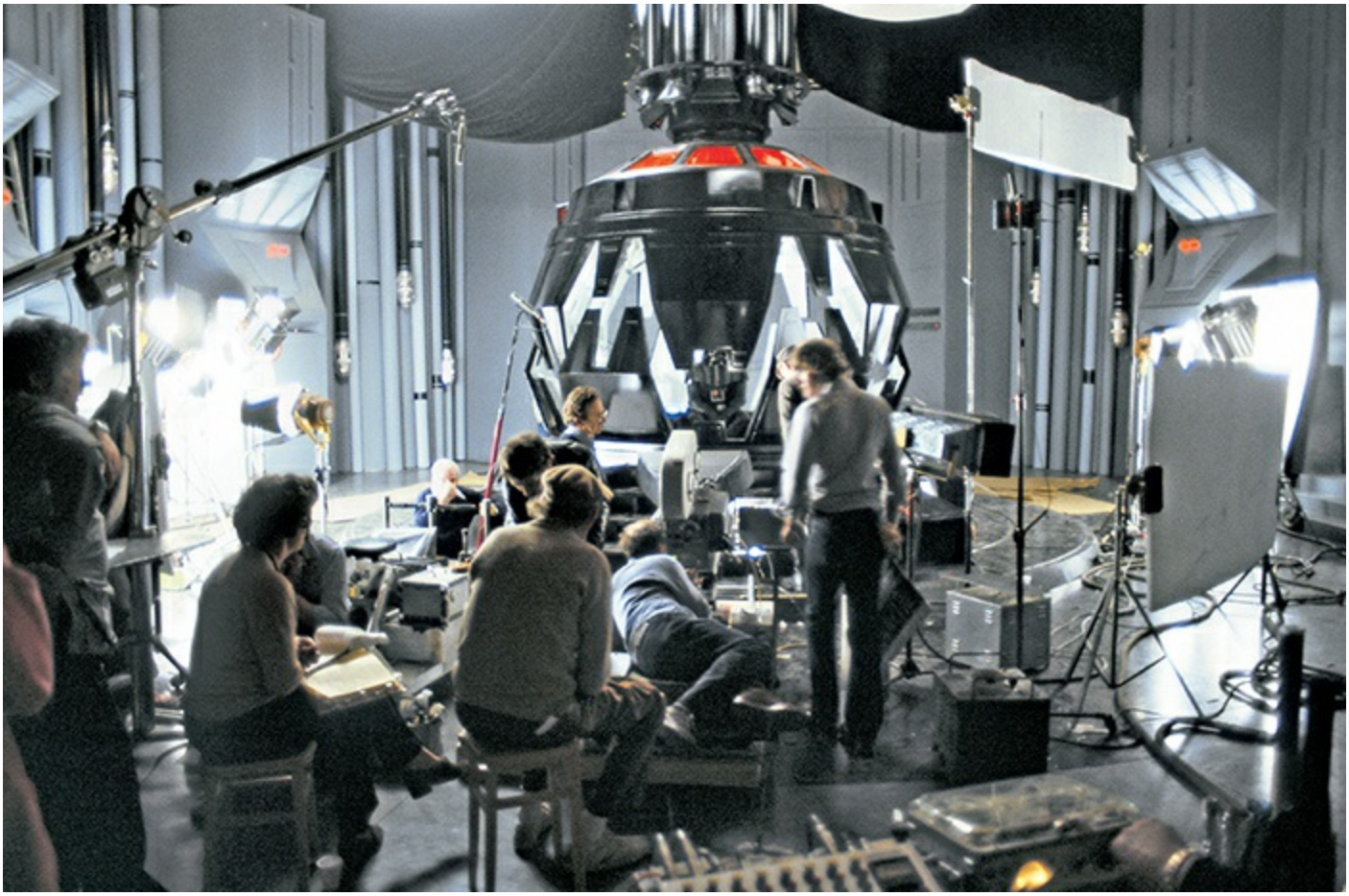
A half-dressed Prowse/Vader in discussion with Kershner.



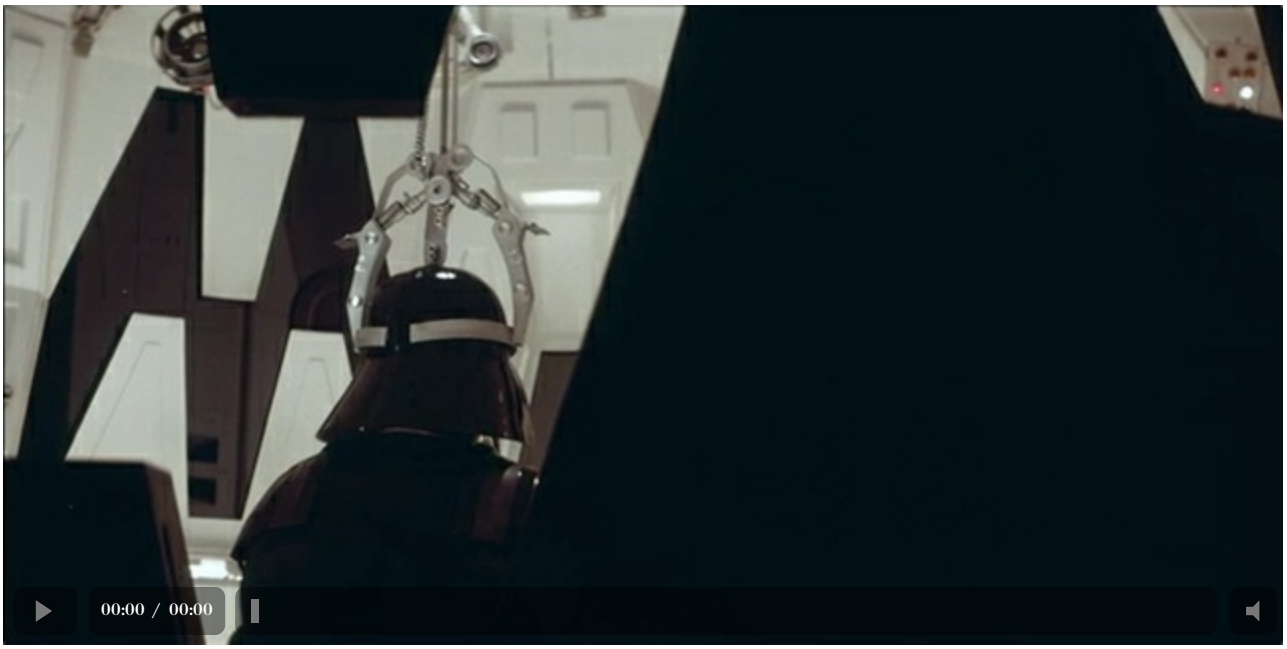
In late April 1979, Kershner filmed Prowse on the bridge of Vader's ship; only half of the set floor and dugout was actually built (the second half would be a flopped version of the constructed side).



Another scene to be completed in post was the hologram room, where the Emperor would be added later.



Vader in his meditation chamber, which Kershner shot in spring 1979. For the shot of Vader's damaged skull, Prowse wore a specially fitted bald-cap made by Freeborn's team.



Printed dailies from May 3, 1979, of a scene in Vader's meditation chamber. Note that you can glimpse David Prowse without a helmet between takes. (Vader's revolving chair makes quite a racket.) Prowse will later say that he would change his line on some takes, for a laugh, to, "Hemorrhoids do not concern me."

(0:39)

APRIL ILM: STOP-AND-GO

In addition to Brian Johnson, Jim Bloom returned to the effects facility. "When I came back from Norway with the second unit, which had gone way over, Gary came to me and said, 'I don't want you in England. I want you back in San Rafael because I don't think that ILM is gonna finish in time,' " says Bloom, who arrived back in the States on Friday, April 13. "So I went back to help run all the special effects. I was there for a while when Dick Gallegly came to me and said, 'Look, I'm a live-action guy; I'm not a postproduction guy. I have to leave.' So I took over his job and was the general manager of ILM from May or so of '79."

"Jim Bloom was basically responsible for coordinating all of the activities at ILM," says Edlund. "He came back here and helped us by developing a production board and scheduling out all of the shots."

Production meeting notes recorded the facility's steady march: "April 6. Currently have 57 Kerner Co. employees … New flex camera VistaCruiser should be complete in July … First test asteroid shot composited. Needs to be simplified—too many things happening—distracts from dramatic impact … [April 13] Empire camera returned from Norway and London … Due to electronic problems did not function properly. Needs to be tricked out and modified for stop-motion photography. Mockup of new printer constructed for manually working out proper motor sizes and alignment … Designed front of walker head details … Stop-motion animators have problem concentrating with extraneous noises on stage—need their own space to work. May have to consider night shift or trailer in parking lot."

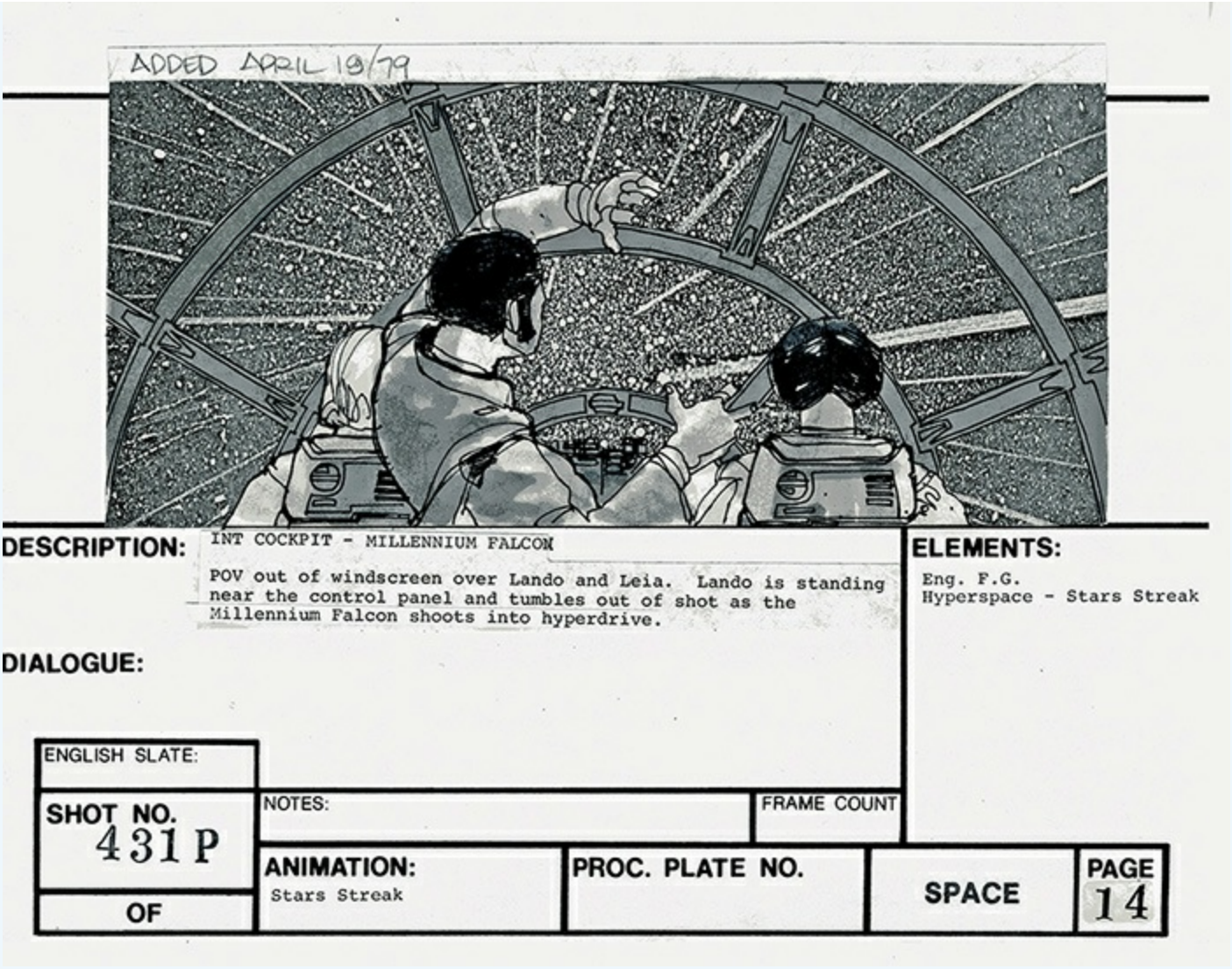
"Stop-motion animation is an intensely concentrated situation, so I was very conscious of needing to set up a very good climate for the artists to work in, and that's really never been done before in stop-motion," says Edlund. "These guys have always been shoved in the back room with a lot of noise and they haven't had a real comfortable area to work in."

On April 27, the latest Norway footage was "ready for George to screen," but everyone who saw it was disappointed. Photography shot for backgrounds was unstable and uneven. "When we got the film back from Norway, we had all these plates that weren't in any kind of order," says Muren. "We had a plate sequence of about 20 shots, and we had to generate about *80*—40 speeder shots and 40 walker shots. There was no organization at all."

"Any of the special photographic work that was done in either Norway or London, as soon as the negative was developed, that negative and prints of that negative were sent directly back to the States," says Edlund, "so that effects work could be started immediately."

"They had tried to put together a motion-control unit to send to Norway," Muren explains, "so they could do a camera pan and, later on, it would repeat the camera pan back in the studio. But it never quite worked."

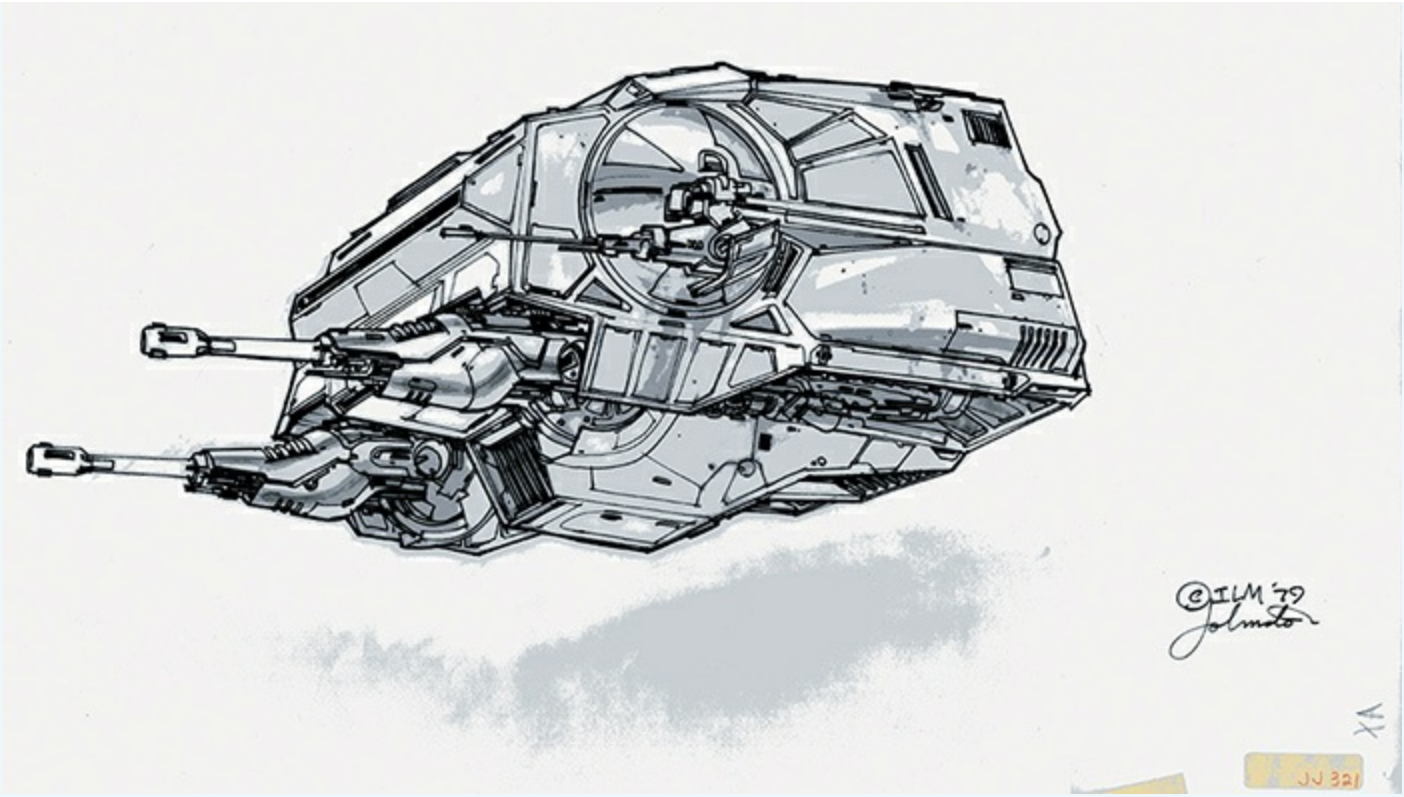
"The facility was still being put together," says Warren Franklin, who was on optical lineup as of March 5. "They were shooting over in Norway and sending in footage and we'd look at these things trying to figure out what the hell to do with it and asking each other, 'What were they thinking?!' "



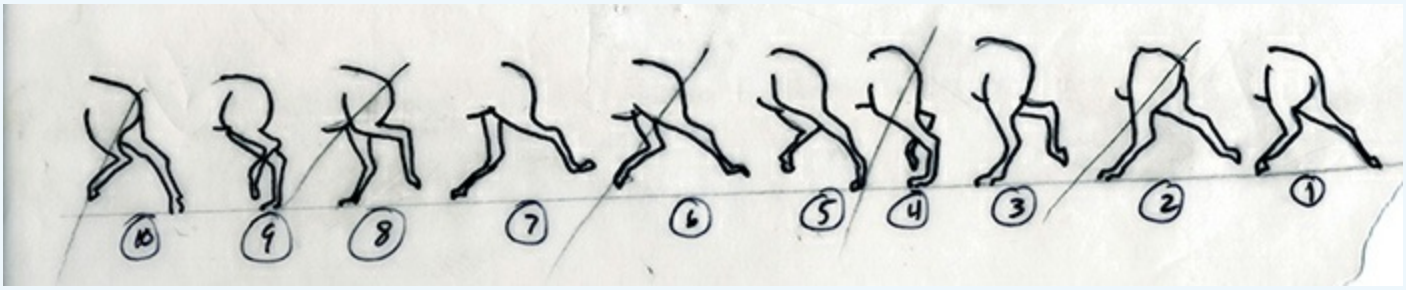
ILM worked on several fronts, modifying boards to keep up with script changes (by Johnston, April 19, 1979).



Making asteroid tests (with Ken Ralston).



Finalizing the walker head (by Johnston).



Using a Movieola, Tippett traced footage of the running horse filmed on Stinson beach, which contributed to a pencil test of an animated running tauntaun by Johnston.



Pencil test of an animated running tauntaun by Johnston, circa April 20, 1979 (note the rider waving at us).

CREATING MAN

NOS. 41–45, TUESDAY, MAY 1–TUESDAY, MAY 8: IMPERIAL STAR DESTROYER NO. 2, SC. 219 [COLLISION]; INT. VADER'S STAR DESTROYER, SCS. T429 [VADER PREPARES TO BOARD FALCON], 244 [ENTER THE ASTEROID FIELD]; VADER'S CHAMBER, SC. 294 [EMPEROR]

Production was 15 days over and only about one-third through principal photography on May 1. The need for more time of course meant a need for more money—a lot of it. To make matters worse, on May 4, when Ford returned from Morocco, he was unwell and diagnosed with a gastric infection; Hamill was also sent home due to illness. Now they were 17 days over. (Also on the fourth, Margaret Thatcher was elected prime minister and her party took out a half page ad in London's *The Evening News:* "May the Fourth Be With You, Maggie.")

"The next problems arose in the actual shooting where I found that the special equipment, like robots and other moving devices, never really worked," says Kershner. "Of course, you build a machine that has to do complicated things and no matter how much electronics you put into it and no matter how much thought goes into the design, it's still a prototype. And that creates tremendous problems, because time is always a problem in film."

"There were times when Kersh would talk to me about things which were purely from his own heart in terms of the creative whole," says Watts. "I have rarely come across a director with such dedication to the whole. I mean, a very, very creative man. But somewhere along the line in this game, we have to find the balance between that creativity and pure logistics and finance."

"Kersh is a very creative man," Reynolds echoes. "And until the time comes to actually turn over—that is, to get in the first shot—he's always looking for better ways of doing things. So there were occasions when he would say, 'Let's approach it in a completely different way.' But with that coming at such a late stage, it certainly did create problems. Though I think the picture's benefited from that, too. With someone as fluid and flexible as Kersh, I think some of his ideas enhanced the whole proceedings."

"The wild thing about 'K' is he's sort of untamable," Daniels says, "which makes him very exciting to be with, because he's a delightfully loose cannon. The difficulty is that you need somebody very strong on top of that kind of personality to say, 'Yeah, really nice idea, but we can't afford it or we don't have time' or whatever."

"Sometimes Kersh and I disagreed about how something should be done," Kurtz says. "He has a built-in mania for wanting to tie everything together in a shot, so that you show the foreground and background all the time. But this kind of picture, in some ways, doesn't lend itself to that. I convinced him on certain scenes that he couldn't shoot that way or we'd be here for years. On other scenes, he insisted that it was the only way to get the dramatic impact that he wanted."

"I thought it would be a more mechanical job and it's far from mechanical," says Kershner. "There are tremendous changes taking place moment to moment. What I do at the last minute is I make an adjustment. They're adjustments, not changes of mind. The conceptual base is what I rarely change. We're making a big enough film so that we have to believe in the integrity of the entire project, which means occasionally making adjustments—and that throws very rigid people. It also throws people that think of film as shots and not as building blocks of a film. A film is not made up of shots; it's made up of a much more complex system of units which interconnect in an incredibly precise way."

"Almost all of his ideas were really great and enhanced the scenes that we were doing," Watts says.

“Sometimes his requirements for those sorts of changes came very much at the last minute, but I think in most cases we managed to cope.”

“You can say we are behind,” Kershner says. “Actually, a schedule is a very peculiar thing, very arbitrary. A schedule was drawn up. I never approved it and I said it probably couldn’t be done. But we tried to shoot for it and now have fallen behind, though not disastrously. I’d like to speed things up, but there is no realistic schedule with a film like this, because nobody can foresee the day-to-day problems.”

“It was a difficult picture for Kersh, because of the number of sets we were working on and because sets obviously were not ready that far ahead of the time we went to shoot on them,” says Watts. “It was always the case of us, on Saturdays, walking the sets and discussing forthcoming sets, which was, therefore, the only chance Kersh really had to sit down and work out what he wanted to do.”

“Kersh is the kind of director that if you pressure him too much to the point of saying, ‘We’ve got to have four shots by noon,’ it makes it worse for him,” Kurtz says. “He gets slower because he’s trying to figure out, ‘Let’s see, if I have to scratch out all of this, I can’t do this shot and I can’t do that shot.’ And he’ll sit there and brood for about two hours trying to figure out how to do it quickly. Well, it’s not worth that. And then the scene isn’t any good. So it’s silly, because you’re ruining the one thing that makes the picture: what you’ve got on film.”

“I don’t have the authority to pressure Kersh,” Watts says. “All I could do was to nudge from the sidelines because, in a sense, that’s the producer’s responsibility. And I think it was a very difficult situation for Gary. I think, partially, Kersh was maybe allowed a little more leeway in terms of the shooting schedule, which stemmed back even to the fire on Stage 3. Had we banged ahead, we might well have come upon a time where we literally had finished shooting and the next set wasn’t ready to go. I think it was very difficult sometimes because Kersh would say things to me that he wouldn’t always say to Gary.”

On May 6, Lucas arrived in London. As rumors had begun to spread within the industry, an internal memo had been issued to Lucasfilm executive staff—Weber, Kurtz, Kazanjian, Moohr, and Ganis—stating that for the time being “the official budget figures to be released [...] should be referred to as direct costs [of] $17 million.” The reality was much more. “I discovered that they had started going over schedule,” Lucas says. “There were just a lot of things that had to be worked out that only I could really do, so I flew over. It began to be too much to work on the film while trying to create this company.”

“Charlie Weber and John Moohr were feeling their oats,” Kazanjian says. “They were the new big shots on campus and they wanted as much hands-on of the sequel to *Star Wars* as possible. But they didn’t know filmmaking.”



Lucas talks about the pressures of producing and escalating costs on Empire, which would have ramifications for many at Lucasfilm and on the next sequel. (Interview during principal photography by Arnold, 1979)

(0:54)

“George and Gary know that I pressure myself more than they can possibly pressure me,” Kershner says. “It’s a matter of pride to me to get the film done fast, to get it done well. I understand the need for compromise. There is no such thing as a perfect shot, a perfect film. The purpose of film is not to make a monument to oneself.”

"I had basically put everything I had into *Empire*," Lucas says. "I took the money, everything I had from the first movie, and rolled it over into the second movie. The first one was budgeted at $13 million and then Fox said, 'Make it for 7,' but the thing came out to 11. The second one was budgeted at $20 million, but, about halfway through, it became very apparent that it wasn't going to be 20. It was way over schedule and it had not been thought through carefully on the economic side. So we had to go back to the bank and get more money. I talked to the producer and said, 'I have to have a real number here. I can't have just what you would hope it would be or what you kind of guess it would be. I want to know what it is. Are you sure we can get this done for $25 million now?' And he said, 'Yes, we're absolutely sure we can get it done.' "

"*Empire* is double the budget of *Star Wars*," Kurtz explains, "partly due to the inflation of the business, the cost of lumber, of plastic pipe, of film stock, and everything else; plus, we had more sets and a longer shooting schedule."

"So we said, 'Okay. We'll go get the money,' " Lucas says. "But when you're actually standing there, saying to yourself, *Okay, it's my money*, and shelling it out, you're really betting that you can bring it in on schedule and on budget—and then you're betting that people will go see it."



A behind-the-scenes look at Kershner (with viewfinder) on the Hoth hangar set as it's being constructed in the Star Wars Stage, with producer Gary Kurtz. Note the panorama of the set in progress.

(1:55)

On Monday, May 7, Carrie Fisher returned to London. To complete the hangar set on the Star Wars Stage, Welch ordered a night shift for one week, with more than 100 craftsmen, including 59 carpenters. That evening, the Kurtz family gave a baby shower for Mark and Marilou Hamill.

"The shower took place at the Kurtz home in Buckinghamshire, a fine, rambling homestead," Arnold

writes. “Mark stood up well to the sentimentality of the occasion while Marilou presided gracefully over the opening of gifts. Then came a treasure hunt in the gardens, which a particularly cold May Day made a bit of an endurance test … George Lucas has been with us since the weekend. I saw him standing in the conservatory at Wallingford House, in a group that included Kurtz, Kersh, and editor Paul Hirsch. There they were, filmmakers framed in glass, each very different physically, all bearded, like figures in a Degas painting. From my position in the tea tent, I had no way of knowing what they were discussing, but they looked at ease. These are not men whom it is easy to read. The film is behind schedule, but their demeanor reflected no such anxiety.”

SETUPS: 585; SCS. COMP: 108/468; SCREEN TIME: 54M 38S/130M.



Kershner behind the VistaRama camera.



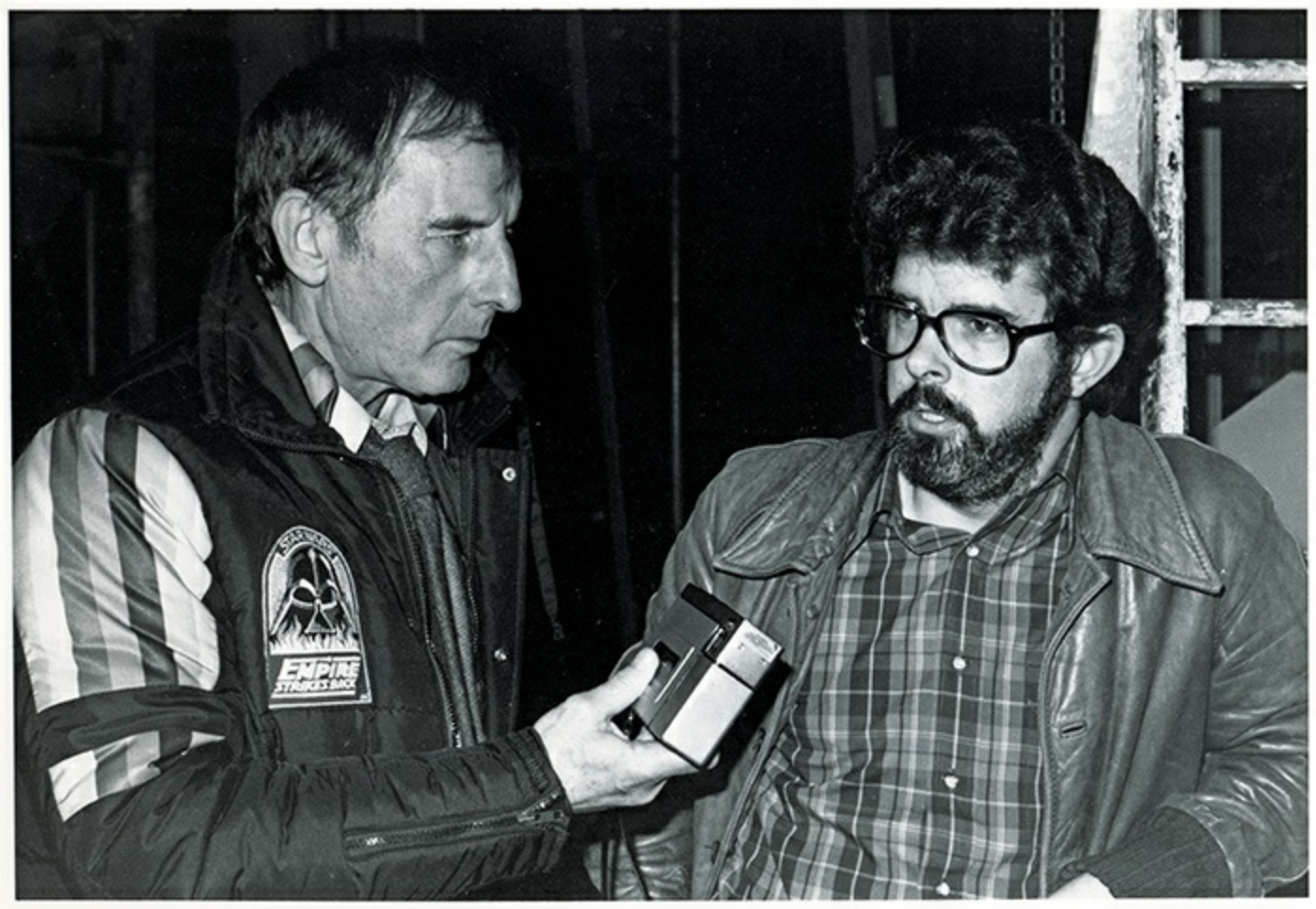
Kershner studying the script.



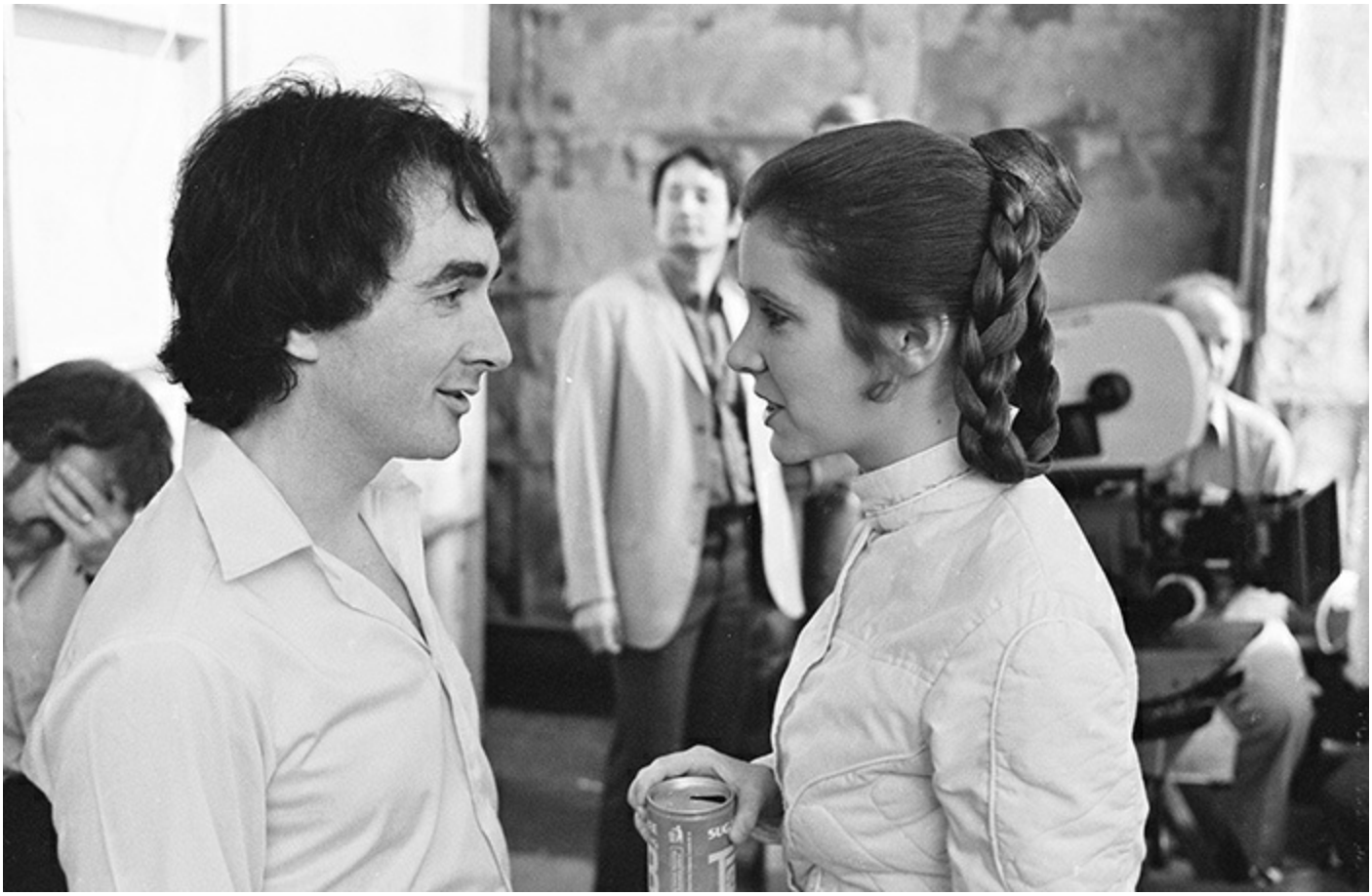
Kershner working with first AD David Tomblin.



Unit publicist Alan Arnold (and author of *Once Upon a Galaxy—A Journal of the Making of Star Wars: The Empire Strikes Back*) talks with Kershner.



Arnold gets Lucas on tape.



Anthony Daniels (C-3PO) and Fisher (director of photography Peter Suschitzky is in background between them).

SHADOWS IN THE LIGHT

MAY TO JUNE 1979

Still with great secrecy, the creation of Yoda continued. "I just saw the prototype," Hamill says. "It's not the finished thing and it's not the right color, but Stuart let me manipulate it, put my hand in, work it—and it's amazing how his face comes to life. I got this eerie feeling like I'd seen him in a hundred movies before. He also bears a resemblance to Stuart Freeborn, I think, which is fine. I had lunch with George the other night and I mentioned that to him and he said, 'Well, Stuart would make a great Yoda.' "

"We've been shooting tests and having a lot of discussion about Yoda," Lucas says. "I've spent a lot of time on this, particularly when they were doing the sculpting of his head."

REVERSALS

NOS. 46–49, WEDNESDAY, MAY 9–MONDAY, MAY 14: STAGE 8—INT. SNOWSPEEDER COCKPIT (TRAVELING MATTE), SCS. 82, 85, 91, ETC. [HOTH BATTLE]; STAGE 2—INT. CLOUD CITY CORRIDOR & DINING ROOM, 363, 364 [VADER TRAPS LUKE'S FRIENDS]

On Wednesday, May 9, Kershner filmed several Rebel pilots in the snowspeeder cockpit against bluescreen. "There were many days where we were just standing around," says John Morton, who played Luke's gunner, Dack (later changed to Dak for legal reasons). "They were hoping to get a window where they could run us over after lunch and shoot a little piece, so the actors had to be on call. We were juggled around with other things that were delayed for other reasons."

On Thursday, a small fire broke out on the *Falcon* set and second unit filmed scenes in the Imperial walker cockpit on Stage 5 with Mike Hook as assistant director. To the bemusement of Lucas, *Variety* reported the same day that, according to Fox, *Empire* was guaranteed $26 million from exhibitors.

"I think Fox released that story because it was good for them and helped to get other exhibitors interested," Kurtz says. "I don't think it helped us any. In fact, it probably made it worse, because as far as the press was concerned, it just said to them that it doesn't matter what the picture is like; we don't have to make a good picture. Well, I think that's a negative."

According to the early math, after marketing and distribution costs, *Empire* would still have to clear at least $50 million to make a profit—and not many films earned those kind of dollars (only 10 out of nearly 100 in 1979). And there was no guarantee that *Empire* would do *Star Wars* business. In 1970, *Beneath the Planet of the Apes* had taken in about about half of the first film's profits; *Godfather II* (1974) had made far less than half of its predecessor's US gross. More recently, in 1978, *Jaws 2* had successfully cleared $100 million—but that figure was not even close to 50 percent of what *Jaws* earned—while James Bond in 1977's *The Spy Who Loved Me* faltered with less than $50 million domestically.

It didn't help that *Empire*'s production was still floundering: Over the weekend, after the construction night shift had struggled to finish its work on the Star Wars Stage, Welch, Reynolds, and others had a disagreeable moment when they realized that the newly available space would still be too small for both the hangar and the swamp sets—so a large extension had to be quickly planned, budgeted, and built. More drama ensued when a statement issued by the production office said that first unit would begin

shooting on the Star Wars Stage next Friday "regardless of our schedule status at that time." In other words, Kershner would have to start filming while the hangar set was still being constructed.

"The prime reason for adding to the stage has really been dictated by the size of the *Falcon*," Reynolds says. "It takes up almost a quarter of the stage and to give the impression of depth and size, we've had to actually, virtually, extend the stage with this temporary structure by something like 60 feet or so."

Having done what he could to stem the budget and time overflows, Lucas took Sir Alec Guinness to lunch on Saturday at the actor's favorite restaurant—Neal's in Covent Garden—according to Arnold, who writes, "I cannot yet get a definite statement as to whether Sir Alec will re-create his role as Ben Kenobi."

The next day, Lucas returned to the United States, but he didn't go home empty-handed. "Usually, I would never show any footage beyond the rushes to a producer," Kershner says. "That's protection for myself, because stuff is judged quite badly at this rough stage of editing. You usually want to complete your editing and then show it. At first, when George said he wanted to see the footage, I said no and he said fine. But then I thought about it. *This is not a Hollywood production. I'm dealing with people who love film and who are trying to make the best picture*. So I changed my mind. I told Gary, 'Okay, when George comes over, I want you both to see everything I've cut, 50 minutes. If you have any impressions, let's hear them now.'

"So I showed them the film and George took exception to only one scene, only because I ended it on a certain shot and I suddenly realized that perhaps I'd made an error. Gary had some very astute remarks, but they were minimal. In other words, they understand a work in progress; they're professionals. I felt relieved that I had shown it. Now we're going on."

"Kersh is moving the camera a lot more," Hirsch says. "In the first film, the camera hardly ever moved. A lot of the energy was generated from the editing. In this film, there are more camera movements and energy generated without cutting quite as rapidly, although that remains to be seen because we're just getting started. It has a very polished look. The photography is really extraordinary."

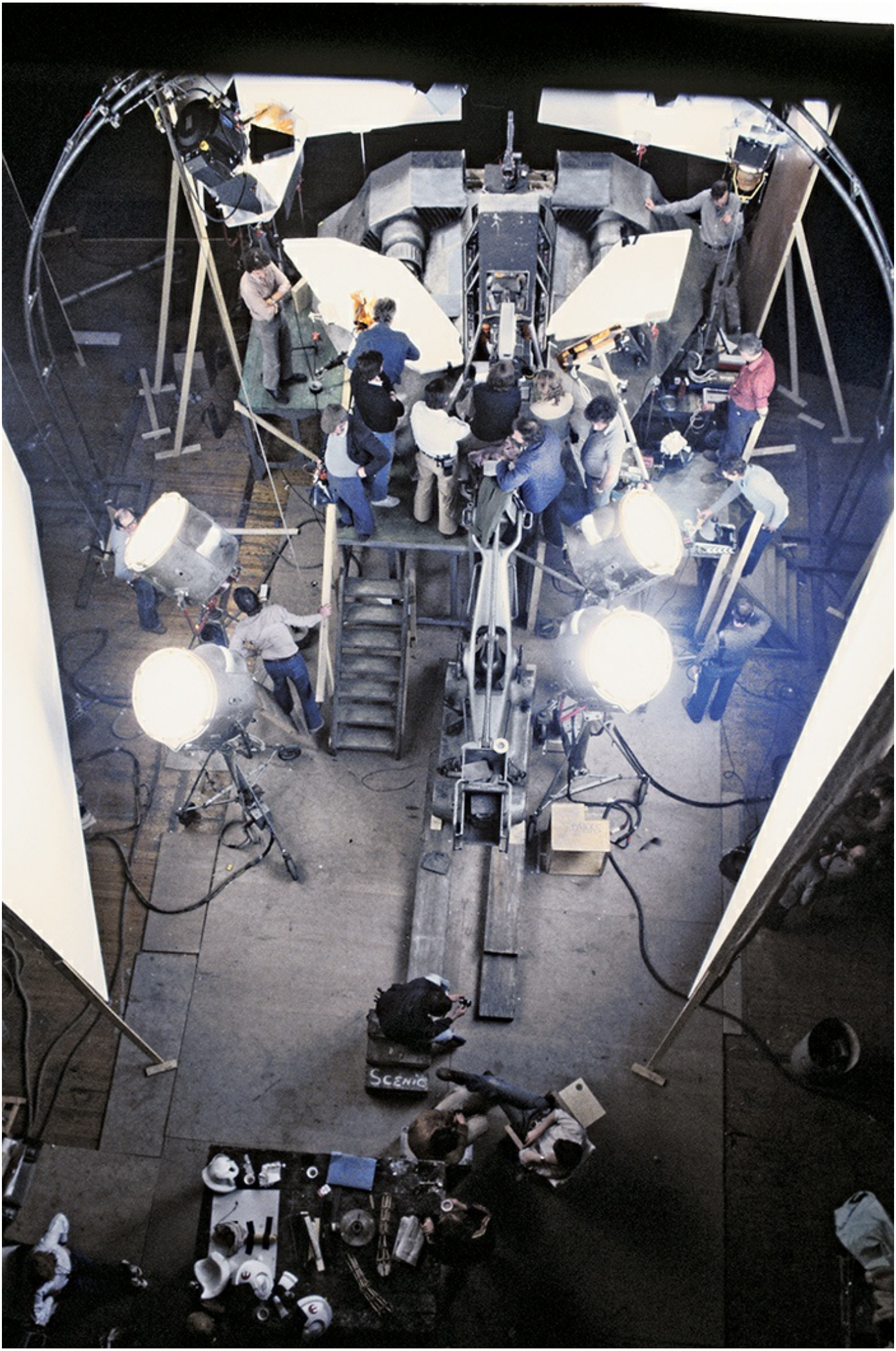
"George is a very fine editor, and he's taking back all the battle sequences that we shot in Norway," Kershner adds. "He's going to go through it all and rough it together so that when Paul Hirsch and myself go back to San Francisco, we will not be starting with raw footage; we'll be able to say, 'By God, it's there!' or 'No, I want to start over,' or 'Let's fix this, this, and this.' An ordinary producer can't do that."

"I'll be working in Marin County when we've finished shooting here," Hirsch says. "Meanwhile, we're in communication with the ILM people via videotape cassette. We send them copies of scenes that have been shot so they can coordinate the design of the miniatures."

"In order to finish the film on time, we're forced to shoot production and postproduction at the same time," says Kurtz. "The problem is that each can't see what the other is doing. Consequently, we're giving the telex machines quite a bit of work sending messages back and forth."

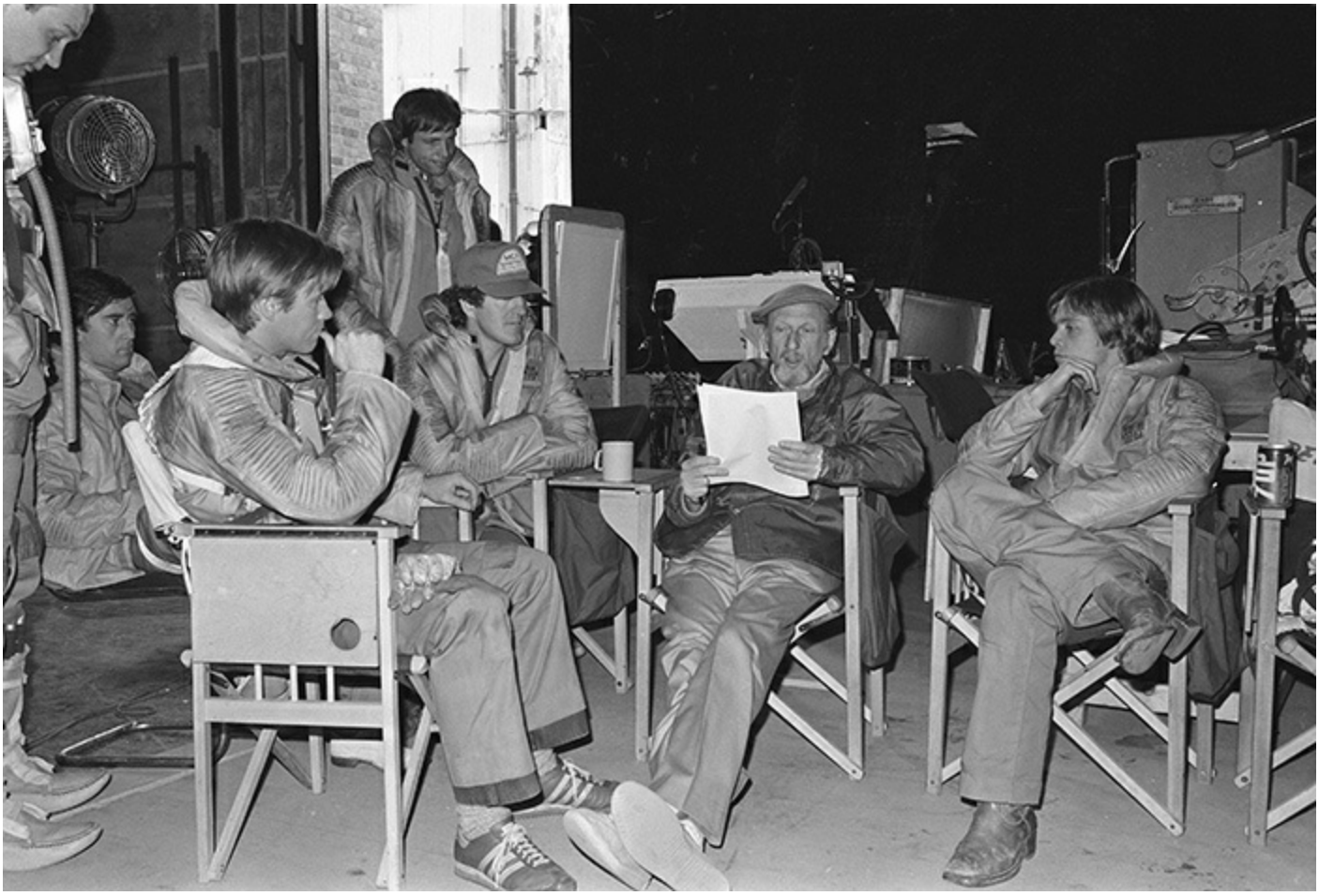
"It's always a problem with that gap of 6,000 miles," says Johnson. "You can't be in both places at once. Because Kersh was directing and not George, sometimes little things would happen and George would say, 'We don't really need this. We need that.' "

On Monday, Arnold was incensed when a journalist "worked her way into the studio under false pretenses, and poor Carrie was her victim. Their assignments are conditional on getting at the raw meat and this entails a sort of rape—which is how Carrie herself described the encounter to me later."

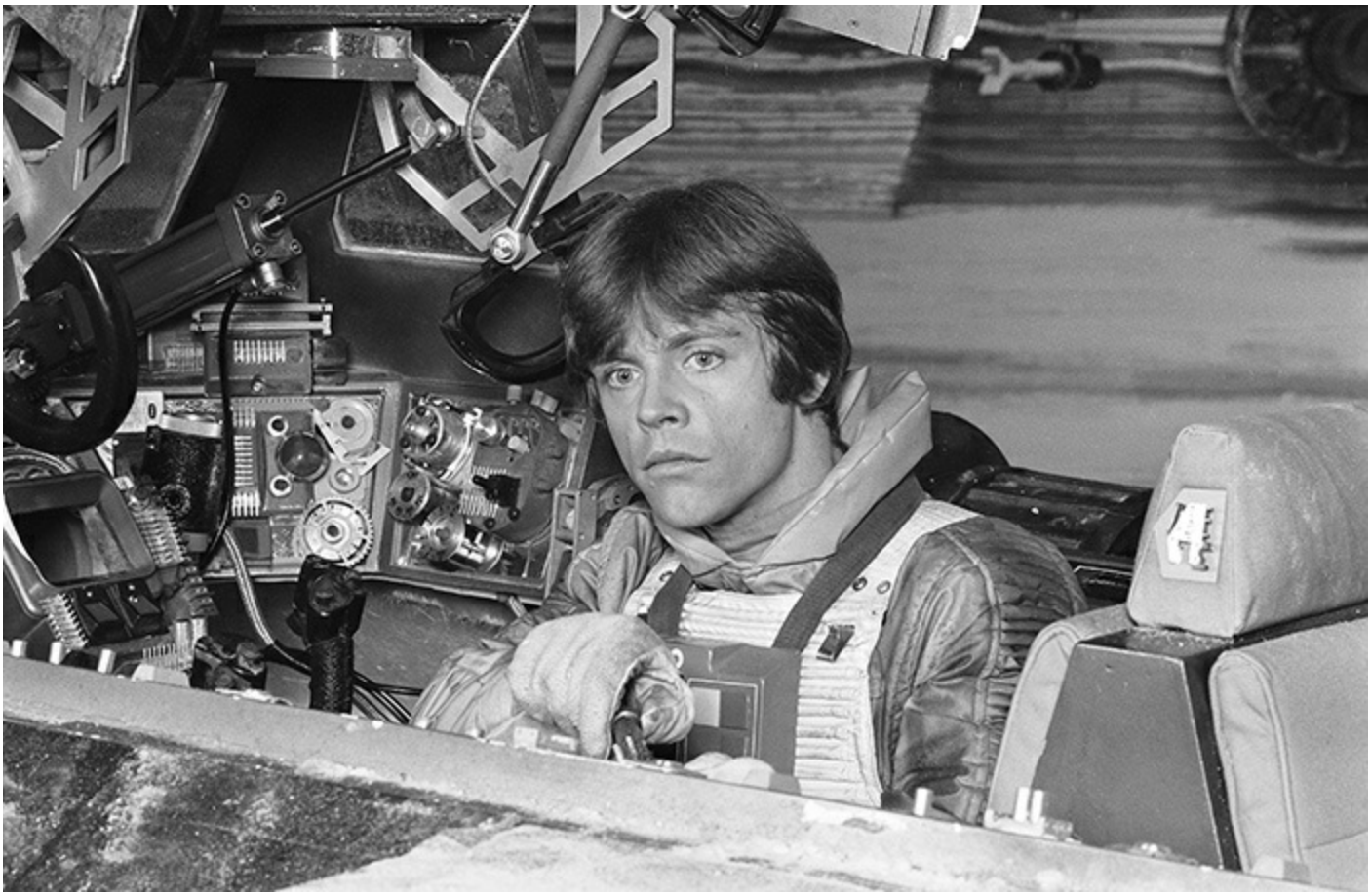

SCENIC

An overhead view of Kershner directing Hamill and consecutive pilots and gunners in the full-sized snowspeeder prop (crew would rock the craft on command), circa May 10, 1979.





Kershner, Hamill (on right), and X-wing pilot extras.



NOS. 50–54, TUESDAY, MAY 15–MONDAY, MAY 21: STAGE 8—INT. COCKPIT MILLENNIUM FALCON, 206 [HAN SEES SNOWTROOPERS], 282 [LEIA KNOCKED INTO HAN'S ARMS]; STAGE 2—INT. LARGE PRISON CELL, 370 [CHEWIE FIXES C-3PO], 372 [HAN VS. LANDO]

In early 1979, director Stanley Donen had replaced John Barry at the helm of *Saturn 3*. "It must have been a grim disappointment to John Barry to have his story taken out of his hands," Arnold writes. "The pleasure is that he has rejoined so many of his colleagues from *Star Wars*. 'It is like coming home,' he told me on the set today."

"John was very depressed about what the producers were doing to his concepts for *Saturn 3*—which he wrote and designed," Kurtz says. "He said he would love to join our 'family' again, so we offered him the job of second-unit director."

"Second unit then developed into a unit to pick up quite big chunks which we had to leave behind, and also the matte work," Suschitzky says. "I decided, after 12 weeks, that I needed another cameraman to help me out with the second unit and the matte work."

"Sometimes we had a lot of fun, but second unit is the closest thing that I can remember to the tension," says Fisher. "We did a lot more second unit on this; they were working, two and three and maybe four units at a time, so you were going from set to set and you had to sort of regroup your emotions for the particular requirement of each scene."

"We needed someone who I felt could work with Kersh, who could really understand what he wanted and wouldn't want to impose too strong a mark of their own, because that would create too much of a conflict," Kurtz says. "To work as a second-unit director with Kersh is very difficult anyway, because he has a tendency not to like anything that he hasn't shot, no matter what it is, because it's different from the way he envisioned it in his head."

Given the expanding chaos, a production meeting of department heads was held at the studio restaurant after completion of the day's shooting on Wednesday. The art department was having increasing difficulties. "We had, I think, eight people all working on individual sets," Bruton says. "You had a chap like assistant art director Fred Hole working on a certain set and then you'd have another chap from the art department working another set, and on and on!"

For Thursday and Friday, May 17 and 18, first unit moved to the large prison cell set on Stage 2, while second unit worked with Williams and Hamill on Stage 9, with Lando rescuing Luke from the underbelly of Cloud City.

"I filmed many shots of Solo as he is being tortured," says Kershner. "There were flashes of electricity everywhere."

"We had a scene where I have Han Solo in a torture chamber, but I have no idea how he got there!" Prowse says. "There is so much money involved now; everyone walks in fear and dread about getting ripped off; everything is so secretive—no one will tell you a thing. You got your script sections with dialogue and whatever descriptions were incorporated, and Kershner would give a sort of briefing as to what went where, but nobody gave away the plot."

As *The Register* of Santa Ana, California, would report, Prowse had a habit of "giving away plot secrets." "He doesn't mean to," Hamill says. "He just has this real child-like quality to please."

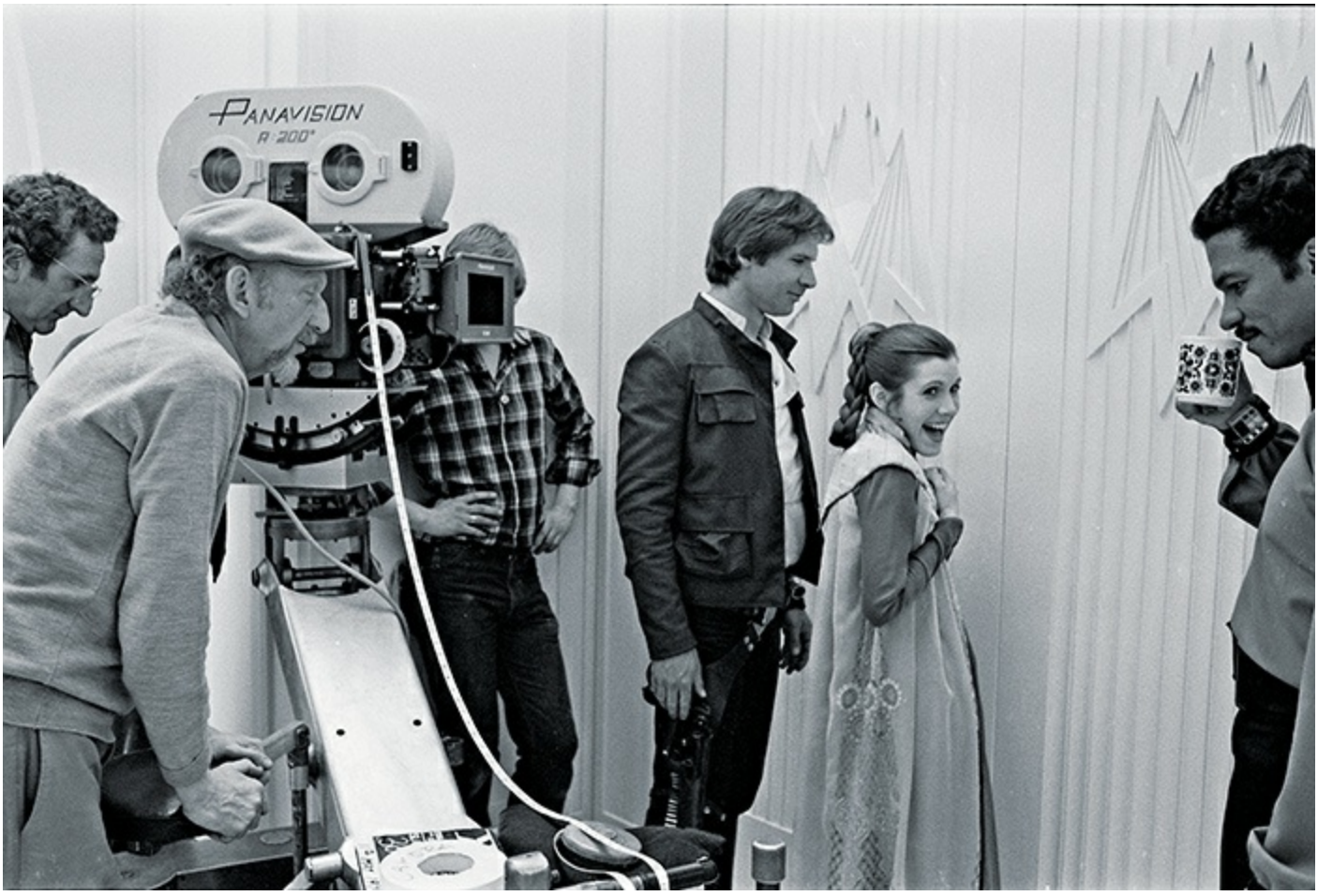
"David talks his head off," Kershner says.

After Prowse revealed key moments to *Starlog* magazine—that Boba Fett was after Han Solo and that a disfigured Vader would be unmasked (printed in its June 1979 issue)—Lucasfilm began keeping

track of who leaked what and where it was published. Its first report was telexed to the studio: "Harrison Ford, one leak; Carrie Fisher, one leak; David Prowse—nine leaks."

"I talk at science-fiction conventions and I try to give them a little bit of information they don't have," Prowse admits. "And I'll always say, 'Whatever happens, don't mention this to anybody.' But I am responsible for more leaks of information on this picture than anybody. People ask me questions and I let things drop."

"So they gave David pages of dummy scripts on this movie," Hamill says. "He was saying lines I knew were not real. But he didn't know I knew."



At the dining room door, Arnold, Kershner, Ford, Fisher, and Williams.



On Stage 2, Vader poses with stormtroopers and an Imperial guard, July 6, 1979. They are between takes for the scene in which Vader says, following his battle with Luke: (to himself) “Ben cannot help you now, young Jedi! (to the stormtroopers) Bring my ship in!” In postproduction, this line would be changed to a command for his shuttle.



Kershner, Williams, and Mayhew (without mask) on set with stormtrooper extras.

EVACUATION

NOS. 55–59, TUESDAY, MAY 22–TUESDAY, MAY 29: STAR WARS STAGE—INT. MAIN HANGAR DECK, 60 [LEIA'S SPEECH], 13 [HAN DISMOUNTS FROM TAUNTAUN], 61 [HAN AND CHEWIE FIX FALCON], 34 [DROIDS BY HANGAR DOORS], 35 [LEIA WORRIES ABOUT LUKE]

After first unit finished the prison scenes on Monday, Kershner finally made it to the Star Wars Stage and its enormous main hangar set the following day. There, approximately 67 Rebel men and 10 Rebel women extras were needed at a cost of £2,047.50 per day and three dining buses—plus a whole lot more fake snow.

"The day-players that spoke in the various scenes, a lot of them were picked in advance," Kurtz says. "Irene Lamb, our casting director, helped find most of those. But in the main hangar, when we had about 130 extras, Kersh was always complaining that it didn't appear to be enough people. It's very easy to have people disappear into a large set very quickly."

The mounds of dendritic salt gave headaches to many of the cast and crew, including John Morton. "Dendritic salt is the basis of it," Reynolds says, "with magnesium sulfate sprinkled on top to give the sparkle and glisten. I dread to think how many tons we've used in here, but it's quite considerable."

"I should say we used something approaching 50 tons of salt," Bruton says.

Because production was so far behind, plans to celebrate the stage's opening—a press reception attended by Prince Charles, and so on—were dropped. One visitor did show up, however: 18-year-old Matthew Pak from Chester, Virginia, who had won a *Star Wars* Fan Club drawing competition. Another visitor was Charles Champlin from the *Los Angeles Times*, who wrote that the new structure was second in size only to the James Bond Stage at Shepperton: "Amid the busy jumble, crowning a slight rise of land like a dark castle, stands a huge and brand-new sound stage."

Among the first scenes shot in it was one where C-3PO urges R2-D2 to come inside as night falls and the temperature on Hoth drops dangerously. "There were two big airplane propellers blowing wind and snow about, making an enormous noise," Daniels says. "So there I was, battling against what I considered to be a hurricane, doing hurricane acting—arms up in the air, flailing about in the snow. Finally, they stopped the whole operation and Kersh explained that when I saw the film, I'd hear a kind of breeze in this scene. It was rather more gentle than I was playing it, so could I be a bit more subtle?"

Another scene that first day had Princess Leia debriefing a large group of Rebel pilots. "In this one where I say, 'The ion cannon'—well, they changed it just a little bit to ruin the rest of my week," says Fisher. "And I was frightened, because there were about 200 extras all standing around me who I had no relationship with, and you can't say, 'Could I go off and get into character and have a private moment now?' That scene with the long speech was the toughest, because that set probably cost millions of dollars and they had to get off that set, clear it, and make the bog planet. There is a lot of pressure and it's all on you: If you don't get those lines right—and there had to be one master shot where I did the whole speech without any cutaway point."

"Carrie was very distraught about two scenes she had to do in there," says Kurtz. "One was the night scene where they're waiting for word about Han and Luke, where she was supposed to be upset and almost crying. The other scene was one where she has to talk to the troops. In both cases, she was very nervous about working in there and I ended up spending a lot of time talking to her about it. Like

Mark, she doesn't like to complain on the set. She feels that it makes her look petty in front of the crew. In this particular case, I didn't find out until a week later that she was unable to concentrate in there. As a matter of fact, they took her out twice during that instruction scene, because she couldn't get the lines exactly right. She had learned them, but the noise in that set bothered her greatly—the crew and the echoing of all the noise of the equipment made it like an industrial factory."

"I finally finish the speech and say, 'Understood?' and they say, 'Yes,' " Fisher says. "And I say, 'Good luck.' It looks so tense!"

"Every time we had to cut and do something over because of her not getting her lines right, she felt that she was causing delays and it just built up inside her and made it worse the next time," Kurtz says. "Eventually, she struggled through, but it was very hard for her."

"They kept building while I was shooting," Kershner says. "They'd build during the night and I'd shoot during the day, but I had to shoot completely out of continuity and from certain limited angles. And you work on a little gadget; it moves along and everything is working beautifully. Then you come on set the next day and put it on the floor, and you realize that the floor is covered with thick salt and it doesn't work."

"The ice hangar was something again," Reynolds says. "One can never say exactly where every shot will take place, and I think it would be unfair and unrealistic to pin down a director. So one's always fighting with how far to go with the finish and all the details of every part of the set. But there comes a time when you have to make up your mind and say, 'That's as far as we can go.' I did try to take the set up to a certain standard and hopefully it's come off."

"My job is to make it look as real and believable, but also as dramatic and interesting as possible," says Suschitzky. "Lack of color can sometimes be beautiful and interesting in itself and doesn't really present a problem. I have been adding points of interest, lights in shot, colors here and there, but I actually like the restricted tones. Colors come from faces and the costumes, so there's never a lack of color."

The hangar set had one advantage over smaller sets in that both first and second units could work in there simultaneously. "We are getting atmospheric shots like newsreel material, which will be cut into the main action," says John Barry. "It's such an exciting set to work on."

"John Barry just wanted to direct, period, so he was really in his element," Hamill says. "He was directing shots on that big stage with lots of extras, lots of action, and I just couldn't wait to dig in. I went up to him and joked about the fact that I'd been finishing up a lot of the stuff with second unit. I was just real anxious to start working with him."

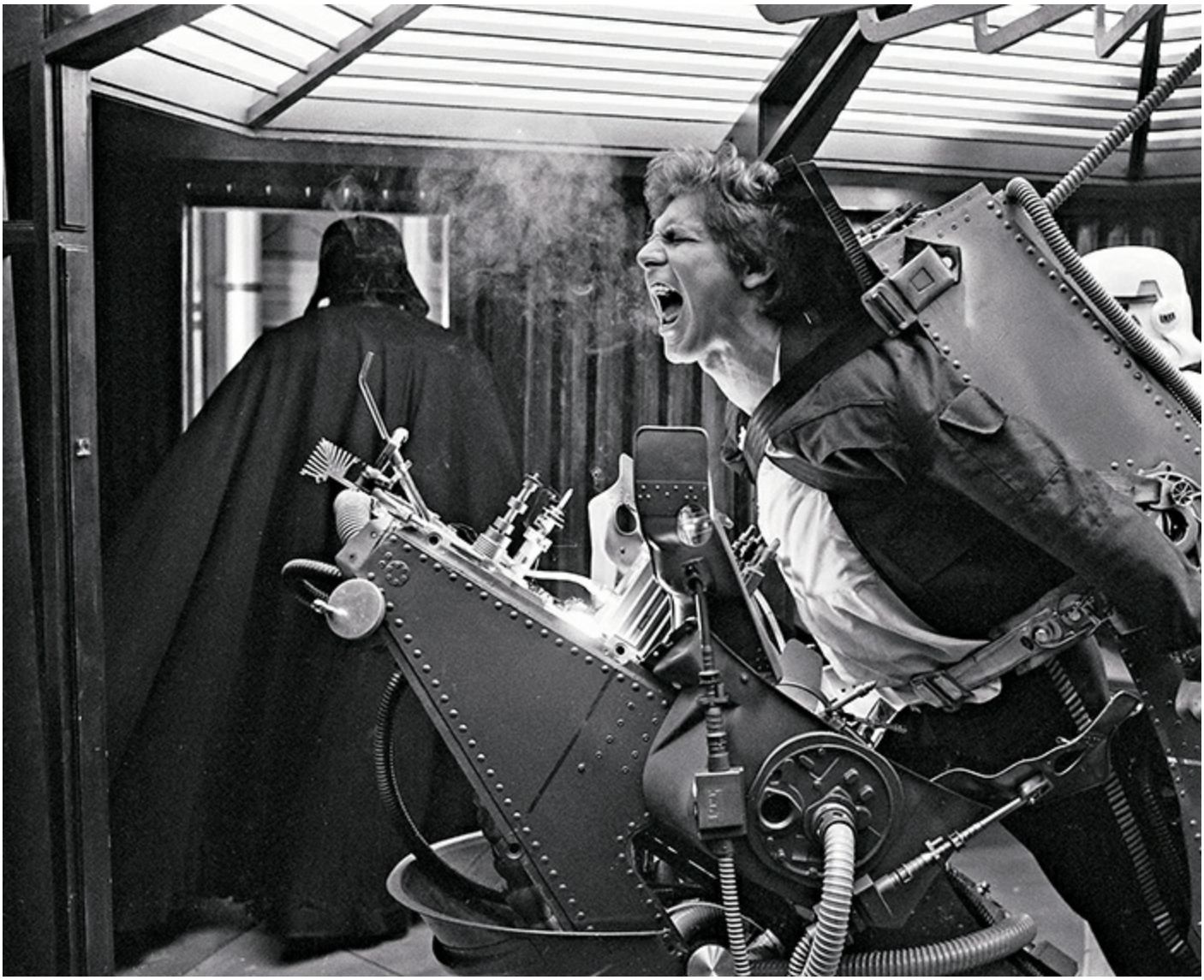


Kershner directs extra John Ratzenberger and then Carrie Fisher (Leia) as they prepare to shoot a scene on the Hoth hangar set in which she debriefs rebel pilots, late May 1979. The organized chaos of filmmaking is apparent here.

(1:47)



Prowse, who was often in the dark as to the context of his scene, and Ford receive direction (in the foreground is second AD Roy Button—who would become a top Warner Bros. production executive for the UK), and then film the torture scene.



Torture scene.



On Stage 8, Kershner shows Mayhew how to hold the head of C-3PO in the manner of Hamlet with the skull of Yorick.

"Ralph McQuarrie, Joe Johnston, and I worked on the designs and the paintings of the sets and then turned them over to Kersh, Gary, and Norman Reynolds," says Lucas. "When I was over here, I monitored the sets and put in my two cents' worth, but the designers went off on their own interpretations. The designs are fairly close to my conception, but there are differences, some of which are improvements and some of which I'm not that crazy about."

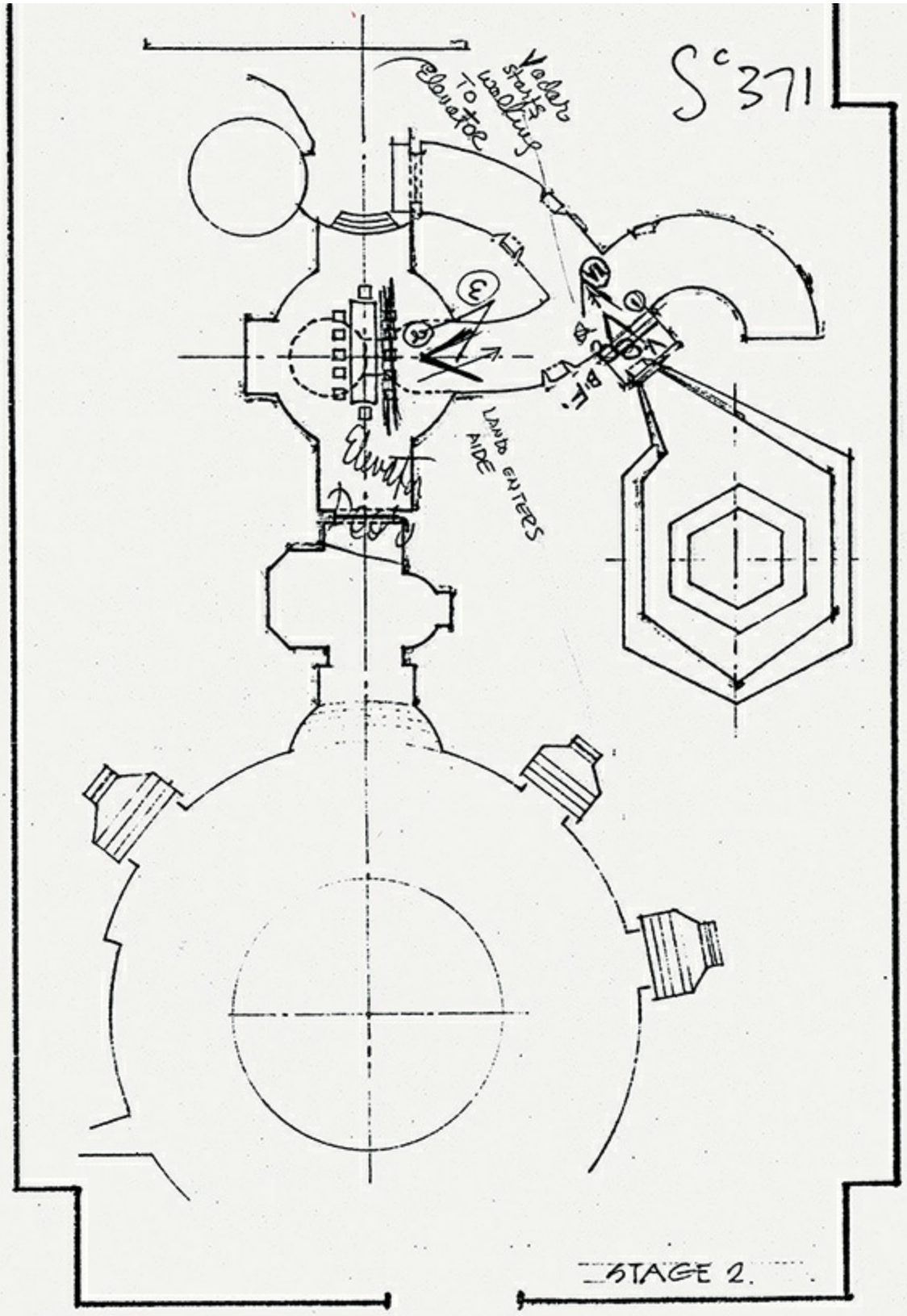


Filming in the Cloud City prison are DP Peter Suschitzky (Kelvin Pike is behind the camera; property supervisor Charles Torbett is behind Pike), assistant cameraman Maurice Arnold (standing), Mayhew (Chewbacca), and Anthony Daniels (to operate C-3PO, sitting). .





Beneath Cloud City, Hamill hangs (after a stuntman tests things out).



(1) - Looking INSIDE DOOR TO CELL - Vadar comes out - DOOR closes SLIGHT PULL BACK TO REVEAL BOBBA Fett DIALOGUE - To Vader EXIT

REVAMP INT. CLOUD CITY TO:-
INT. DINING ROOM
INT. CELL &
INT. CELL CORRIDOR

(2) L.S. Vadar comes forward LANDO & AIDE ENTER WALKING TOWARDS VADAR - Vadar stops to talk to Lando - then exits -

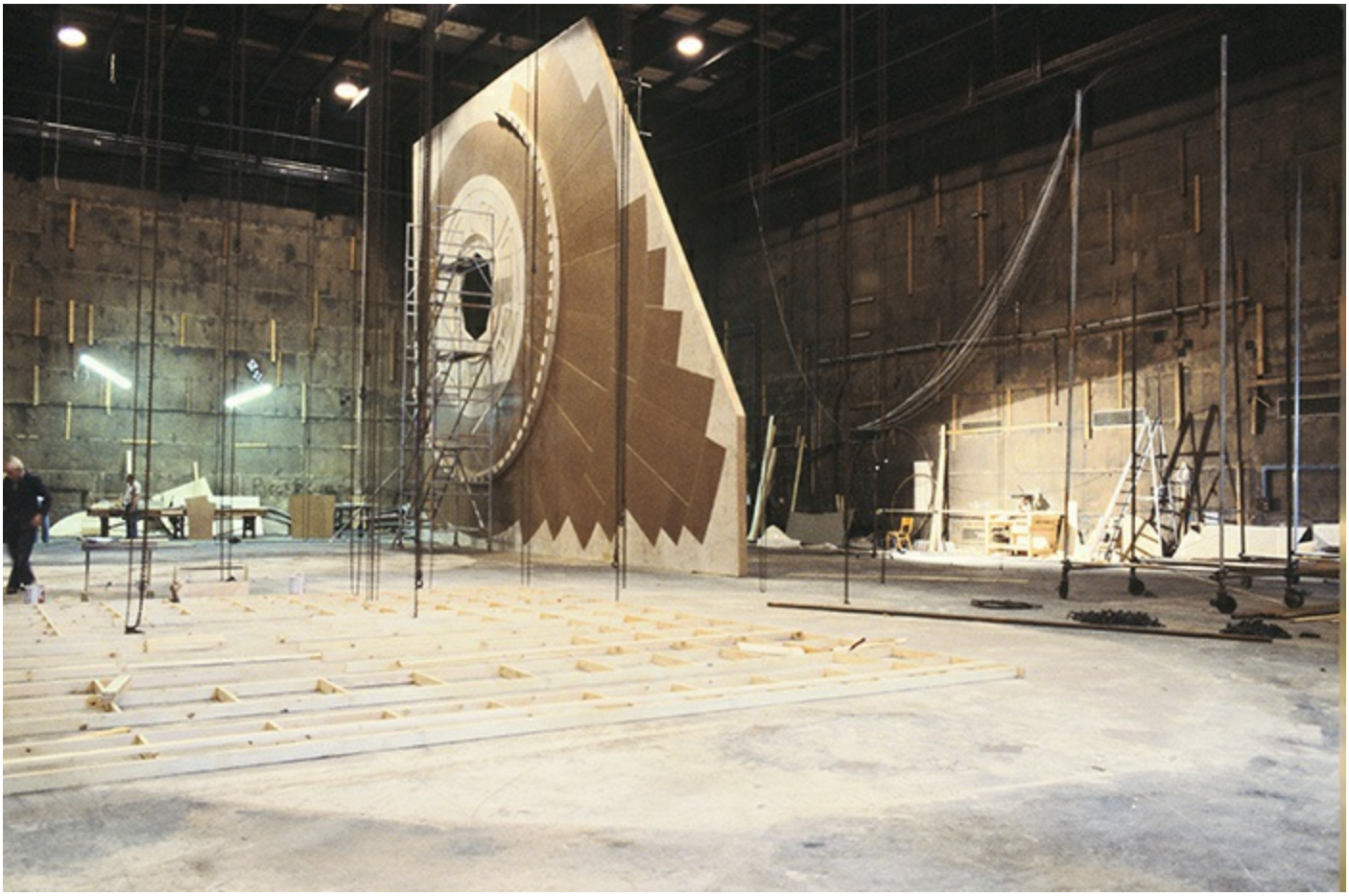
1/16" = 1'-0"

(3) Vadar sweeps into Elevators - Doors Shut - Stay with Lando and aide -

A diagram plots out scene 371.



Scene 371 is then filmed on Stage 2, with Lando getting a “bad feeling” about Vader and Fett, mid-May 1979. (Notice the new paint job on the Cloud City corridor, which is now a red-brown instead of white—the art and camera departments continually relit and redecorated to make a few Cloud City sets into many.).




LANSING BAGNALL
b

Billy Dee Williams as Lando stands on a fork lift, ready to be raised up to the *Falcon*'s exterior hull, where he'll rescue Luke.



Long shot of ice hangar, production painting by McQuarrie, spring 1979.



Ford as Solo running for the full-sized *Falcon* on the Star Wars Stage. "When George saw the painting, he told them, 'Do it like this,' " says McQuarrie. "The way this scene was actually built on a stage, it had a huge, circular opening above the set where we imagined daylight would come through—much like a dome without a roof."



Production works on the Star Wars Stage. “We had a full-size X-wing left over from the first film, and two partial ones,” says Kurtz. “We added onto that and now we have three or four complete X-wings.”











Views of the Hoth hangar set in progress and dressed, as housed in the Star Wars Stage.



Views of the Hoth hangar set in progress and dressed, as housed in the Star Wars Stage.



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Views of the Hoth hangar set in progress and dressed, as housed in the Star Wars Stage.



Kershner directs Fisher in a scene she found difficult—where Leia debriefs Rebel pilots—because of excessive noise (with the script is Kay Rawlings, continuity; on the other side of Fisher stands John Ratzenberger as Major Derlin).



Final frame.


DANGER
ALIVE

Clowning around and filming on the Star Wars Stage: Daniels with a helpful sign.



Mayhew, Fisher, Ford, Hamill, Daniels, and Baker in a rarely seen publicity photo.



Filming Chewbacca as he fixes the *Falcon*.



Hamill posing with a big gun in another rarely seen publicity photo—actually a laser ice-cutter, which Luke would've used to battle wampas in scenes that were never filmed.



Mayhew and Hamill rehearse Chewbacca's hug.



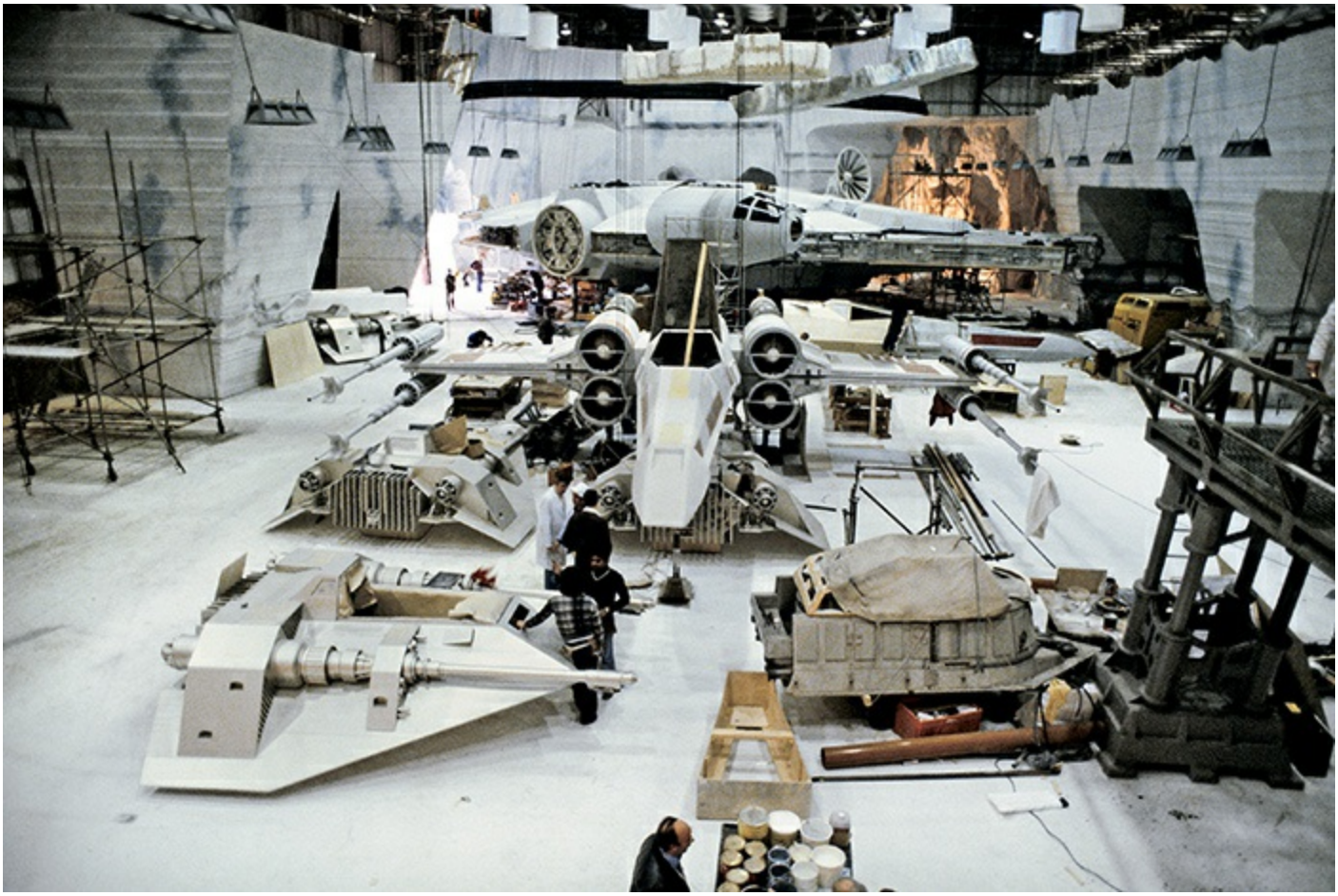
Hamill carries Fisher.


P.27

Kershner and Hamill.



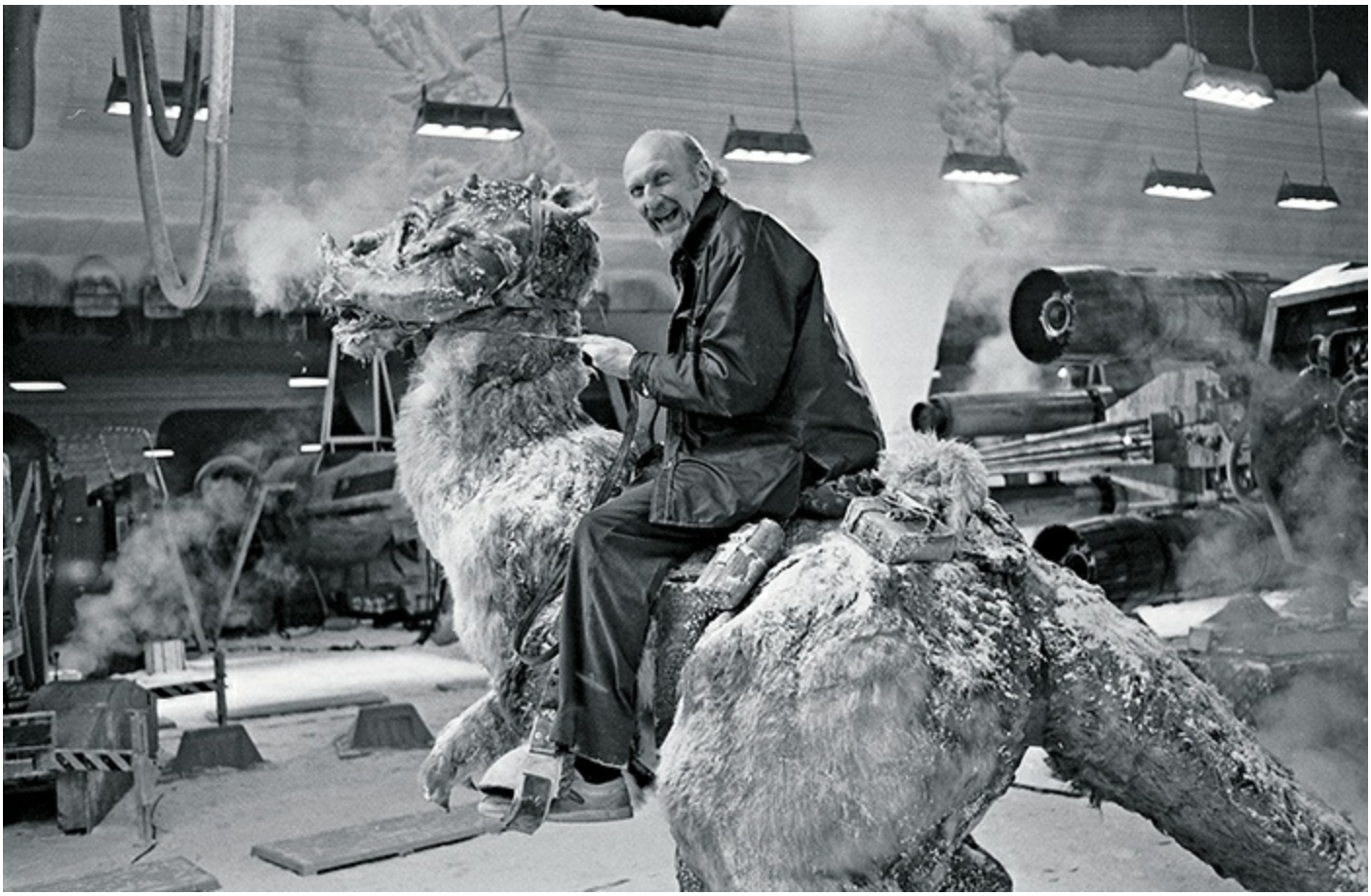
Treat Williams, Fisher and unidentified extra.



Bird's eye view of the Rebel hangar.



Fisher and Ford.



Kershner on tauntaun.

"The Sunday *Times* in New York were very worried about the relationship between Artoo and Threepio," Daniels says. "They thought there might be something, well, San Franciscan about it, I think. It made me laugh; I couldn't believe it. I was thinking of editing a magazine, a sort of 'Robots in Bondage.' "

Shooting on the Star Wars Stage included bit parts played by Norman Chancer (Deck Officer); Jack MacKenzie (Lieutenant); Tony Frier (Robot #3); and John Gavam (Robot #4).



A printed daily from a scene in which Chewbacca vents his frustrations at Han Solo, with Mayhew saying dialogue that will later be replaced by Wookiee roars: “Where the hell have you been?” et cetera.

(0:49)



“As the doors slam shut, I had Chewbacca scream in agony,” says Kershner. “That was a decision I made during filming.”



Kershner films Solo with his hand over C-3PO’s “mouth.” (Kay Rawlings sits in the foreground.) Daniels jokes, “What is interesting is I’ve had to rethink quite a few of my reactions because playing around with Han Solo, see, I can’t bully him like I used to bully Artoo, which is a problem.”





Former *Star Wars* production designer, John Barry consults with Kershner and directs second unit in the Hoth hangar on the Star Wars Stage.



Second unit director John Barry (center) with art director Alan Tomkins.

00:00 / 00:00

Recorded during principal photography in the Elstree Studios cafeteria, most likely, Kershner talks about the acting qualities needed to portray costumed characters. He defends Anthony Daniels and the others against someone referring to them as “cardboard characters.” (2:02)

MAY ILM: NIGHTS AND JETS

On May 4, Miki Herman's production notes listed several items: "George Lucas will do the remaining storyboard breakdowns when he returns from London in a week … Stage completed 29 elements in asteroid sequence … Huge asteroid crater set was built by Joe Johnston, Mike Pangrazio, and Chris Anderson … Half-size *Millennium Falcon* was completed [50 percent smaller than the original model]."

"We made an asteroid surface that was maybe 30 feet in diameter for this big rubber hand puppet that was the worm," Peterson says.

"We had to shoot all these asteroids flying everywhere, so, just for laughs, we went out and bought a bunch of potatoes at the local store," says Ralston. "We stuck those on rods and we started shooting potatoes, but not telling anybody. No one ever knew, but if you know where to look, they're hilarious. They look pretty much like the rocks; they're just smoother and go flying by the cockpit."

With Johnson and Bloom back in the States and Lucas due to return, tension increased at the effects facility and, on May 11, Bloom instigated a split shift to remedy the shot deficit: "Dennis Muren will shoot Camera 1 days; Ken Ralston will come in 3 PM to midnight; Jim Vellieux will shoot asteroid belt paintings and starfields on Camera 2." Three days later, Herman wrote that, "Mike Pangrazio is painting generator matte painting; Jon Berg and Phil Tippett have moved across the street [to the stop-motion trailer]."

The following week, Johnson traveled to Astrovision, in LA, to create the cloud plates. "I probably did the only other location work in the movie, which involved footage I filmed from a Learjet," he says. "I did the cloud plates with an Astrovision setup. Basically it was a Lear with a snorkel and a camera that shoots through the bottom of it. You can fly around and make pans and tilts by using a joystick inside while watching a TV monitor. It was quite a deal. John Dykstra and I met at Apogee when I rented their VistaVision camera for the nose of the Learjet. He was laid back and heavily competitive at the same time. There was rivalry between Apogee and ILM, but I was an outsider, being a Brit."

On May 29, everyone was relieved that the "Empireflex camera is now running. Has switch to convert from stop-motion to soundspeed." (Prowse had described the Empireflex at Elstree: "It worked with computers, and they flew it and the people trained to run it to England. They would test it out on the bench and it would be running great, but once they got it onto the studio floor, it wouldn't run. Then they'd take it back, put it on the bench, and check it over. Nothing would be wrong, but once on the floor, it wouldn't work, again.") The problem turned out to be a faulty motor —something so basic, it wasn't checked until late in the game.

As for the model shop, "Lorne and other people think it would be easier to start from scratch on the Darth Vader Star Destroyer rather than modifying an existing model. He has a new technique in mind that would save time … Would start building around June 4."

"The amount of work just kept growing and growing and growing," Peterson says. "And maybe if we'd been more adult and more business-like, we would've just put it down on paper and said, 'Look at this graph. This is what's happening and, realistically, we need more staff.' "



At ILM, the model shop (Paul Huston is next to the *Falcon*).


DO NOT TOUCH
THE ROCKS, PLEASE.
(THEY ARE WET)

Muren, Gawley, and asteroids.



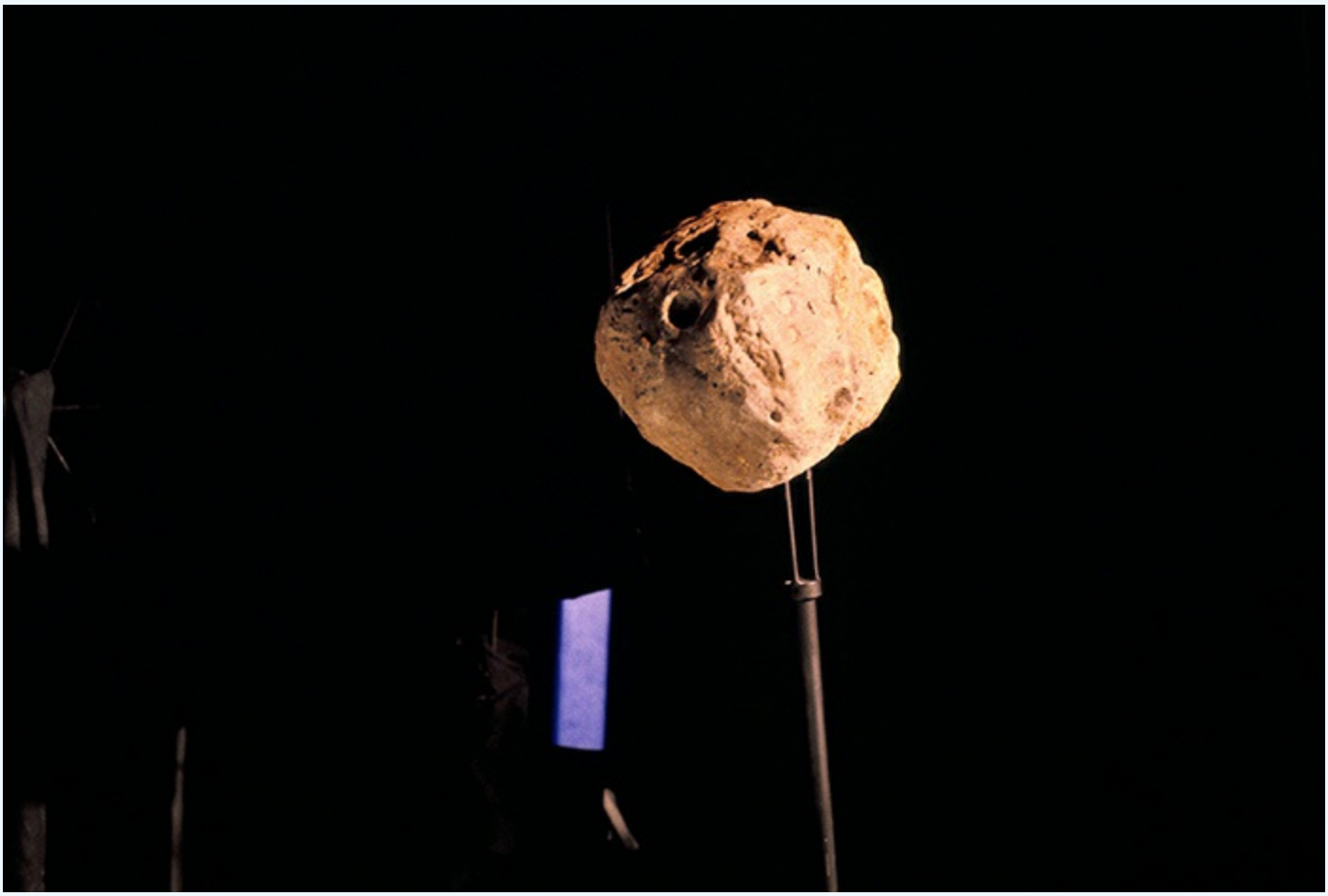
Inside the Learjet with the Astrovision setup.



Outside the Learjet.



Building the asteroid surface.





Stage technician Ted Moehnke works on an element for, possibly, the establishing shot of the asteroid field— using a motorized motion-controlled device that spun very small asteroids on mono filament string; this device provided the distant background asteroid elements, as photographed by Ralston.

TRAGEDY

NOS. 60–61, WEDNESDAY, MAY 30–THURSDAY, MAY 31: STAR WARS STAGE—INT. MAIN HANGAR DECK, SCS. 70 [LUKE AND DACK TAKE OFF], 24 [HAN TOLD LUKE IS MISSING], 114 [CEILING CRACKS OPEN ABOVE FALCON]

The weather intervened again when a violent rainstorm put the Elstree Studio switchboard out of action, but it did not affect filming. Footage from a hangar scene with the tauntaun was cut together and sent back to ILM, where it failed to impress. "I thought the taun looked pretty dead," Muren says. "They sort of goofed on the eyes. It was a very difficult job to do and they were rushed on it."

On Thursday, according to the Progress Report, second-unit director John Barry "arrived at the studio and complained of feeling unwell. Production arranged for medical assistance and a full report is on file." Barry was in Robert Watts's office when he said that he felt ill. Barry suddenly collapsed and was taken to a hospital. Later in the day, his temperature rose to 105 degrees, and by 2 AM, June 1, he was dead. Barry died of infectious meningitis, but, as one paper noted, "It was a mystery how he contracted what was normally curable, and why no one else on the crew caught it." *Variety* reported that he passed away "with a suddenness that, had it been written into a film plot, would have been called implausible dramatic license." The reporter also wrote that, though they were shattered, the British crew "kept their traditional cool."

"John Barry has died," Arnold writes. "It was so terribly sudden that the entire company is in shock." Reportedly, Barry had a disease that he'd picked up in North Africa and didn't like going to the doctor or hospitals.

"I remember I used to nag him all the time on the first film, to look at his drawings to see how it all came together," says Hamill. "He was always more than willing to do that. It's hard for me to talk about it, really, because I still can't adjust to the fact that it's happened. I was really looking forward to working with him. I was just about to get into weeks of work with him. He was one of the kindest, friendliest people in the world. It's one of those things when someone you know and have contact with daily is gone; it's just so unfair and you analyze it to death, really. That's about it."

"He was well into the work before he died," Kurtz says. "Some of the ice hangar scenes are his. It was a great shock to everybody because it happened so suddenly. And then we had to go through the rigmarole of trying to track down anybody who had come in contact with him over those two days because it was an infectious disease; fortunately, nobody else got ill."

"John was doing a fantastic job," says Lucas. "The film would have been much better if he'd lived."

BLUESCREEN FEVER

NOS. 62–68, FRIDAY, JUNE 1–MONDAY, JUNE 11: STAGE 8, FALCON COCKPIT, 296 [MYNOCK], 300, 302 [ESCAPE FROM SLUG], 337 [LANDO SYSTEM], 214 [FALCON PURSUED BY STAR DESTROYERS], 406FF, 413 [LEIA TURNS FALCON AROUND], ETC. [SECOND UNIT ON STAR WARS STAGE]; STAGE 4—INT. CARBON FREEZING CHAMBER, 376 PT. [VADER INSPECTS THE CHAMBER]

The same day of Barry's death, production moved back to the *Falcon* cockpit on Stage 8, its ad hoc plans in even greater disarray. A few days later, Harley Cokliss commenced work as second-unit director. "Harley came about after John Barry died so suddenly," says Kurtz. "I had to go back to direct the second unit for another week until we got him, because it threw us for a bit after we'd spent a lot of time figuring out that John was the best one."

"It's very sad for me because I knew John and liked him immensely," Cokliss says. "He was a very talented man. It was really a total fluke because I had just finished directing a picture called *That Summer* [1979] and I was visiting them on the set on the Friday after John died; and they, you know, were obviously very upset and said they needed a director for the second unit and asked me."

While Cokliss did what he could in the hangar, the actors' back-to-back scenes in the cockpit, over several days, slowly but surely wore them down. "It is detailed, effects-related, and time-consuming work in cramped conditions and, to the observer, is unspectacular," Arnold writes. This was true despite the fact that Kurtz had asked the art and construction departments to build the cockpit larger than the one used in *Star Wars* (when Lucas found out, he was less than thrilled—the cramped set of the first film had been designed to simulate the reality of jet fighter and rocketship cockpits, which are just barely big enough for their pilots).

"That cockpit was probably the single worst set we had as far as the actors were concerned," Kurtz says. "It was very close quarters to start with and a lot had to go on in there. And some of the action as written was very difficult to actually perform in the confines of the cockpit. It's also very difficult for the actors to work in a situation where they can't see what's going on. You have 25 people out there looking at them, but they're supposed to be looking at asteroids or ships. On the bluescreen stage, I think all the actors felt more like robots."

"I have this theory that the bluescreen gives off rays that penetrate the brain and make you go crazy," says Hamill. "Harrison really flipped out once, picked up a saw and started sawing through the console of his spaceship, which looks like metal but is made of wood. Everyone was saying, 'You stop him,' 'No, you stop him.' *I* sure wasn't going to volunteer—I had *no* desire to wind up on the floor."

"The worst is when we're in the cockpit and you're supposed to see stars or asteroids or whatever special effect, but we don't see anything," Fisher says. "We're looking at a corner of a camera and screaming, 'WHAT ARE YOU GOING INTO AN ASTEROID FIELD FOR?! Or, 'THERE'S SOMETHING OUT THERE!' "

"We did two or three days in the cockpit shooting toward the back of the cockpit, which was done on Stage 5," Kurtz says, "and then a month later came back and looked toward the bluescreen on Stage 8, when the cockpit was turned around, and went through the same scenes again to do the covering material. They were really just trying to match what they had done before for the bluescreen material—but because there was such a high volume and we had to work so long in there, they got very frustrated."

"Bluescreen is always difficult because we have to imagine, somehow, how it's going to look when it's finished," Suschitzky says. "One finds oneself shooting in a half-completed set and I have found that difficult from time to time."

"Peter Suschitzky, the cameraman, had not worked with those areas before, so he needed a certain amount of guidance as to how he could light certain things," says Kurtz. "And Kersh found it difficult in certain cases to deal with the special effects aspects, the bluescreen scenes, the matte painting scenes."

"Actually, Harrison and I never fought in either picture," says Hamill. "It was Carrie and I who had the screaming matches from time to time, though afterward neither of us could remember what they were about. She's a devil."

"Tension between the actors comes and goes," Kurtz says. "Some days they get on well, others they don't. But these are just the normal misunderstandings that take place under high tension. One actor says something to another and it's taken the wrong way; if they don't talk it out, they get angry. The

misunderstanding can last a day or two, or merely hours. Actors, more than anyone else, suffer from continuous anxieties as to whether they're doing a good job, whether they're approved of by other actors or members of the crew. They inflict upon themselves a sort of endless psychiatric self-analysis."

On Monday, June 11, shooting ceased at lunchtime so crew members could "attend the funeral of the late John Barry." Services were held at St. Paul's Church, Grove Park Road, at 3 PM; Barry was cremated at 4 PM. "To the little Victorian church in the London suburb of Chiswick came many of his colleagues, joining members of his family in a service of remembrance," Arnold writes. "Gary Kurtz, Norman Reynolds, Robert Watts, Bruce Sharman, among them—were there. Kersh attended and I saw Stanley Kubrick and Stanley Donen. Donen knew Barry long before the debacle over *Saturn 3* …"

By the time production left the hangar set for the Carbon Freezing Chamber that same day, for the 68th day of shooting, it was 22 days over (and Ralph McQuarrie flew back to LA). The crew began immediately more large-scale work on the Star Wars Stage, systematically destroying the hangar to make way for additional sets to be built around the *Falcon*, which would culminate in the bog planet—perhaps the most difficult construction of the film.

"We shot on those parts of the Star Wars Stage which had been finished, using more and more space as it became available," Kershner says. "When the whole stage was finally completed, the process reversed somewhat. Because once we had shot all the footage that involved specific parts of the set, the technicians began to destroy them in the battle scenes. Then they began building the bog sets in the same place. Some days I would come onto the set and find that an ice corridor had become a swamp overnight."

"I was a little disappointed in the production value that we got out of the hangar set, because of the time it took to do what we did in there," Kurtz says. "More than half the material was probably focused in so close that you didn't see the scope of the set. Several of the key big shots that we'd planned on getting, we didn't get at all because we ran out of time."

337 CONTINUED 337

Leia gets it after a moment. She smiles and pats Han like a puppy.

LEIA
Not bad, not shot, not bad. Then what?

HAN
Then we have to find a safe port around here. Got any ideas?

LEIA
That depends. Where are we?

HAN
Here ... near the Anoat System.

Han points to a configuration of small light points on a computer map screen on the control panel. Leia slips out of her chair and moves next to the handsome pilot. Several systems flash by on the computer screen.

HAN
Funny, I have the feeling I've been in this area before. Let me check my logs.

LEIA
You keep logs? My, how organized.

HAN
Well, sometimes ... Ah-hah, I knew it! Lando - now this should be interesting.

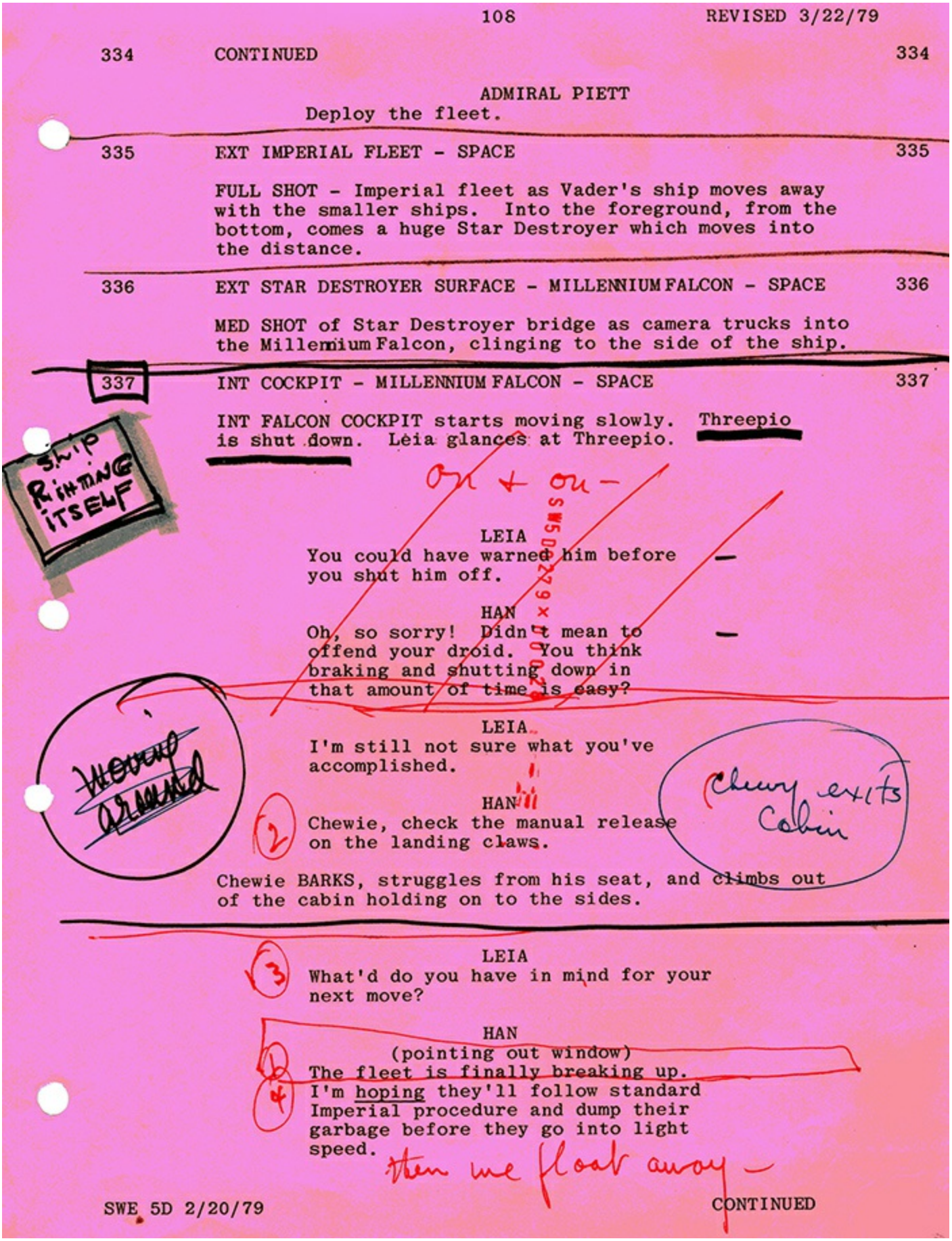
LEIA
Never heard of that system.

HAN
It's not a system, he's a man, Lando Calrissian. A gambler, con-artist ... all-around scoundrel ...
(winks at Leia)
... your kind of guy. The Bespin system. It's a fair distance but reachable.

LEIA
(reading from the computer)
A mining colony.

HAN
A Tibanna gas mine. Lando won it in a sabacc match, or so he claims. Lando and I go way back.

A page from the revised script with even more recent dialogue changes to scene 337 in which Han Solo decides to pay a call on his old friend, Lando Calrissian.



108 REVISED 3/22/79

334 CONTINUED 334

ADMIRAL PIETT
Deploy the fleet.

335 EXT IMPERIAL FLEET - SPACE 335

FULL SHOT - Imperial fleet as Vader's ship moves away with the smaller ships. Into the foreground, from the bottom, comes a huge Star Destroyer which moves into the distance.

336 EXT STAR DESTROYER SURFACE - MILLENNIUM FALCON - SPACE 336

MED SHOT of Star Destroyer bridge as camera trucks into the Millennium Falcon, clinging to the side of the ship.

337 INT COCKPIT - MILLENNIUM FALCON - SPACE 337

INT FALCON COCKPIT starts moving slowly. Threepio is shut down. Leia glances at Threepio.

Ship Righting itself

On + on -

LEIA
You could have warned him before you shut him off.

HAN
Oh, so sorry! Didn't mean to offend your droid. You think braking and shutting down in that amount of time is easy?

LEIA
I'm still not sure what you've accomplished.

HAN
(2) Chewie, check the manual release on the landing claws.

Chewy exits Cabin

Chewie BARKS, struggles from his seat, and climbs out of the cabin holding on to the sides.

LEIA
(3) What'd do you have in mind for your next move?

HAN
(pointing out window)
(6) The fleet is finally breaking up.
(4) I'm hoping they'll follow standard Imperial procedure and dump their garbage before they go into light speed.

then we float away -

SWE 5D 2/20/79 CONTINUED

Another page from the shooting script, with Kershner's notes.

337 CONTINUED 337

LEIA
Can you trust him?

HAN
No. But he has no love for the Empire, that much I know ...

Chewie BARKS something on the intercom. Han quickly changes his readouts and stretches to look out the cockpit window.

HAN
I see it, Chewie, I see it ...
Prepare the manual release.
(turns to Leia)
Here goes nothing, sweetheart.

Han leans back in his chair and gives her an inviting smile. She thinks for a moment, shakes her head; a grin creeps across her face and she gives him a quick kiss.

LEIA
You do have your moments ... Not many, but you have them.

HAN
Let 'er go, Chewie.

338 EXT IMPERIAL STAR DESTROYER - SPACE 338

FULL SHOT - Space and Star Destroyer moving slowly away from camera. Junk begins to trail out of the ship and float over camera as the Falcon tumbles by. The Star Destroyer roars and zooms into hyperspace.

339 EXT MILLENIUM FALCON - JUNK - BOBA FETT SHIP - SPACE 339

FULL SHOT - Junk over camera. Going away, the Falcon starts engines and races off into the distance. The junk slowly drifts away. Boba Fett's ship appears in the foreground and moves after the Falcon.

339A NEED Cockpit Shot Boba Fett INT

340 EXT BOG TRAIL - DUSK 340

Luke runs through the Bog, jumping incredibly high over roots, doing amazing double flips across mud holes, racing in and out of the heavy ground fog. Yoda again rides on Luke's neck.

Yoda tosses a silver bar high above Luke, but behind him. The young warrior instantly turns and cuts the bar into four places. Yoda is pleased, but Luke is suddenly distracted, wary.

YODA
Four this time! The Force you feel.

SWE 5D 2/20/79 CONTINUED

Another page from the shooting script, with Kershner's notes.



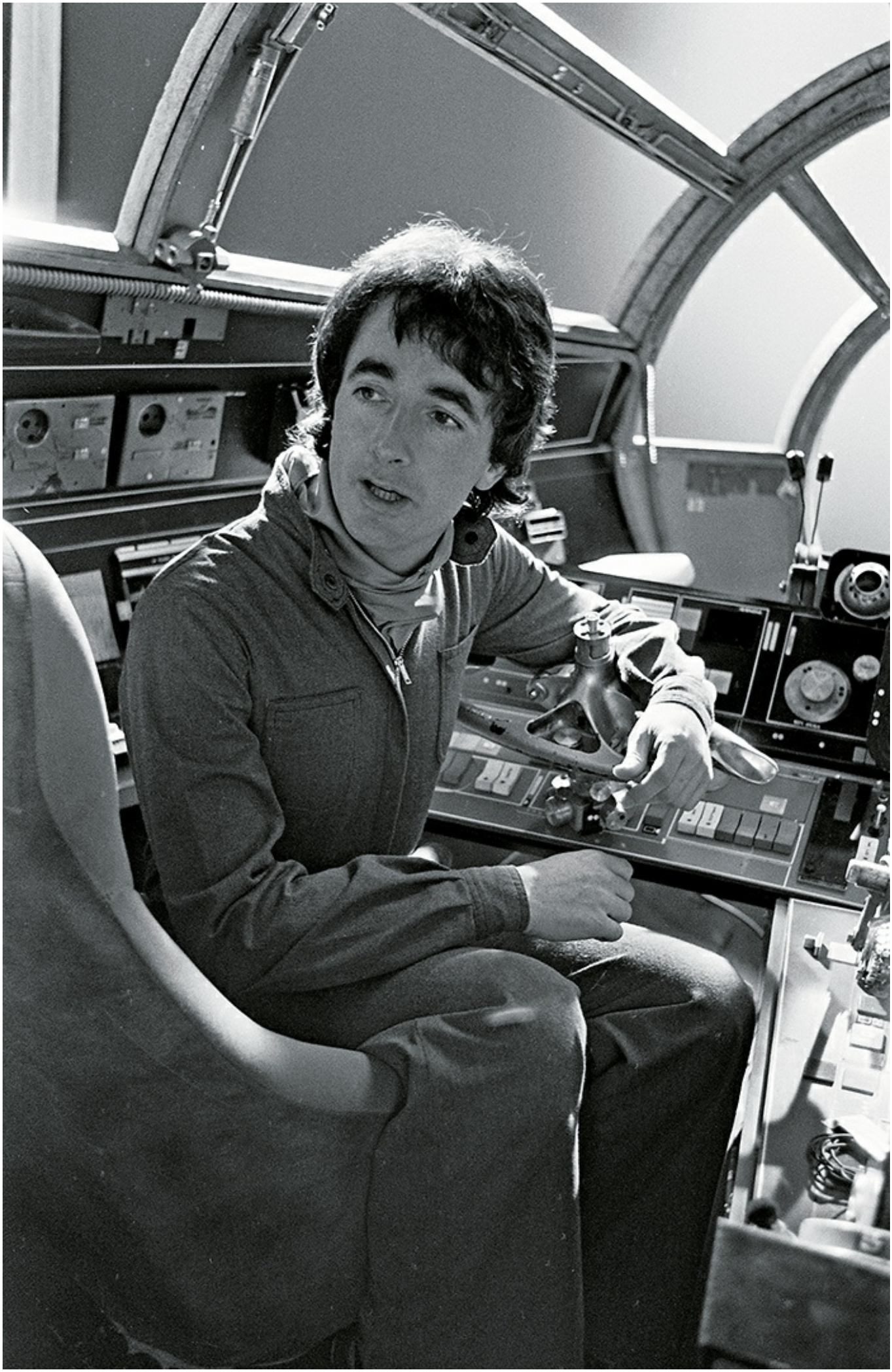
Looking into the *Falcon* cockpit.



Looking out of the *Falcon* cockpit.



Fisher and Williams.



HELTER SKELTER

NOS. 69–72, TUESDAY, JUNE 12–FRIDAY, JUNE 15: STAGE 4—INT. CARBON FREEZING CHAMBER, 379 PT. [HAN PUT IN CARBONITE]; STAR WARS STAGE—INT./EXT. LANDING PLATFORM CLOUD CITY, 353 [LANDO GREETS HAN, LEIA, ET AL.]

In mid-June, Elstree looked like a pinball machine with two balls going, as first unit bounced around between the Carbon Freezing Chamber and the *Falcon*, and second unit ran from stage to stage, picking up snowspeeder cockpit shots and whatever else they could manage. The ongoing trick was to finish shooting on all the sets that revolved around the *Falcon*, so production could deconstruct Han's ship for the next film and use its valuable real estate on the Star Wars Stage for the bog planet.

"It's hard to remember what makeup I'm in, what stage I'm on," says Hamill. "And then every other moment that I'm not shooting, I'm rehearsing with these stunt people because you can't get enough rehearsal, really. Now I've gotten to the point where it looks spontaneous, but it's real hard work. It's very difficult physically, but it's also exhilarating when you get it right."

"The first turnaround from the ice hangar was into the East Landing Platform," Kurtz says. "The matte shots for the arrival and departure from Bespin took about three days to revamp for. Then it was revamped into the asteroid cave and we had to go right back and shoot that—whatever else we were doing had to be interrupted."

"Every couple of weeks, George calls me," says Kershner. "He just called me two days ago and we spoke for about a half hour. We talk about the work that he's doing with the special effects in San Francisco, the models, what's being done with the matte paintings, things like that. I tell him what's happening here. I send him all the rushes on videotape. All I've ever heard from him is, 'I love them.' I've heard nothing else."

On Thursday, June 14, Carrie Fisher felt unwell again and production had to wrap early. Of Friday, Arnold wrote, "In Carrie's case what might seem to be temperament can be explained because she is allergic to a number of things. She can't wear a lot of makeup without getting a rash. She's naturally light in build, very sensitive, and doesn't always look after herself as she should … It's particularly important during a picture to live a disciplined personal life. All the actors are under strain. I think you will see as we approach the end of the schedule that we'll increasingly have to contend with this factor."

"Carrie's fine to work with," says Billy Dee Williams. "She's adorable, you know; she's not quite a disciplined performer yet, but she could be, I think, in the future."

"What we had to contend with on Friday were delays due to Carrie's late arrival," Arnold adds. "She had complained of stomach pains and spasms, and was sent for a checkup; two injections had relaxed her and she came in for her scenes. But the crew was unaware of the background and drew its own conclusions: Carrie had been up all night. A movie studio is very parochial, and rumor and gossip spread quickly—filling the time technicians spend waiting for other technicians to perfect something in their particular specialization."

The scene everyone was waiting to film consisted of the heroes' arrival on Cloud City. "Eric Idle had returned from Tunisia, where Monty Python were shooting *Life of Brian* [1979]," Fisher says. "And he brought over what I believe he called 'Tunisian Table-Cleaner,' which was a *beverage*. Well, Harrison

came over and the Rolling Stones came over, and I think we stayed up most of the night. So when we arrived at Cloud City, we were very happy."

Perhaps as a result of the delays, Williams kidded the actress during their takes. "He would say dirty things," Fisher says. "I would say them right back. He said something unmentionable as he kissed my hand."

"I've become more and more excited about the character," says Williams. "It's very difficult to fall into something like this, because it was totally different for me. It moves with a certain kind of rhythm. But the more I got involved, the more I found there were many, many places to go with this character due to, I suppose, the subject matter."

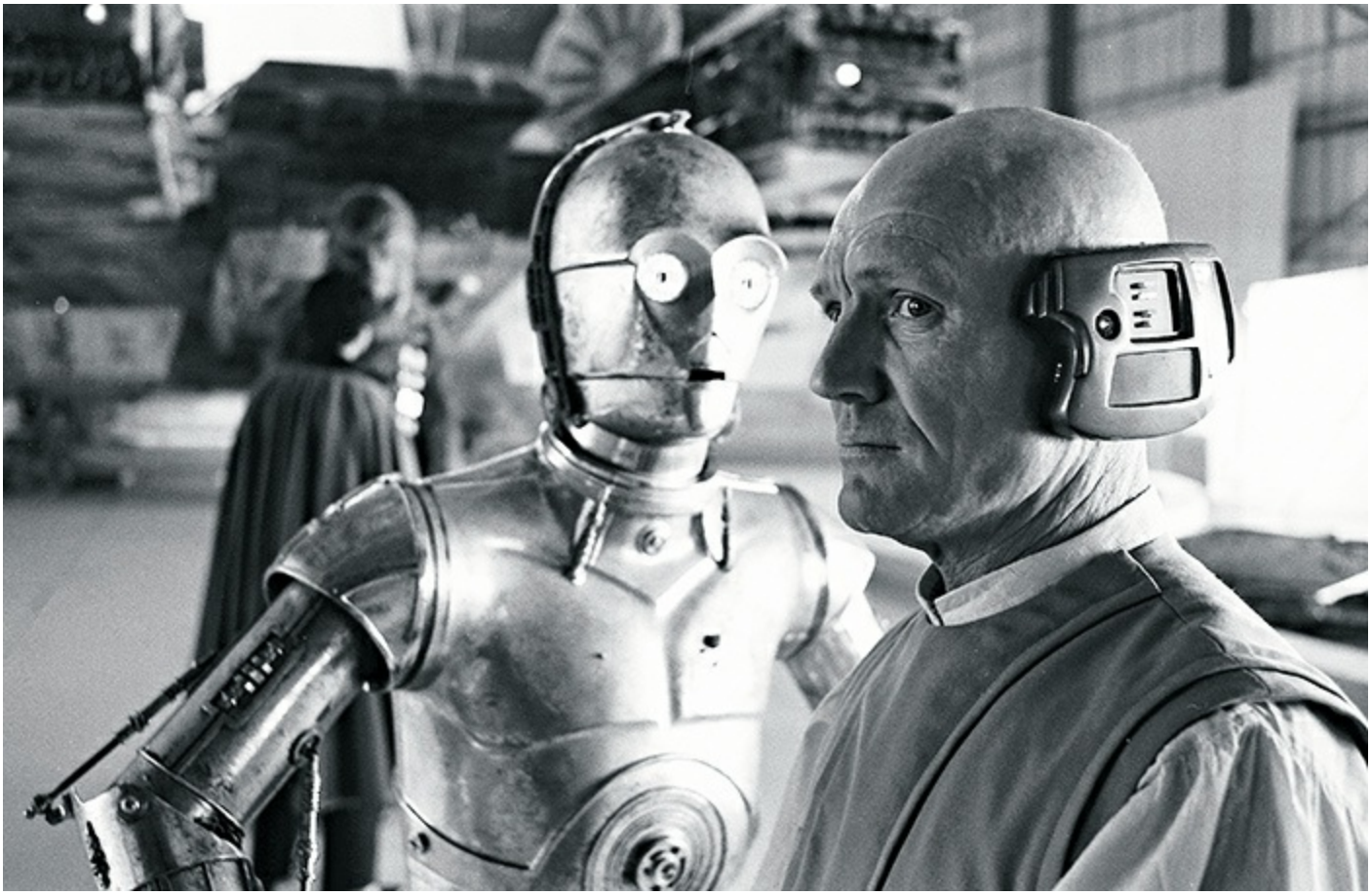
Ford and Kershner improvised that day, as well. When Lando eyes Leia lasciviously, Han's written line was, "She's traveling with me, Lando. And I don't intend to gamble her away, so you might as well forget she exists." On the set, however, Ford substituted the simpler, "You old smoothie."



Reynolds and Kershner inspect the landing platform being built around the *Falcon* on the Star Wars Stage.



Williams and Kershner.



Daniels as C-3PO and John Hollis as Lando's Aide.

"The hardest part to achieve on sets is the aging down and used look; it's something that not very many people are capable of producing," Reynolds says. "It's a combination of things really, from dirty water to waxed French polish and all sorts of tricks that have been acquired over the years" (Norank Engineering built the landing ramp of the *Falcon*, which was operated by means of hydraulics).



Kershner films the arrival on Cloud City, mid-June 1979. (Dolly grip Dennis Lewis; sound boom operator Don Wortham; still photographer George Whitear; camera operator Kelvin Pike; assistant cameraman/focus puller Maurice Arnold; and, sitting, Kay Rawlings, continuity).

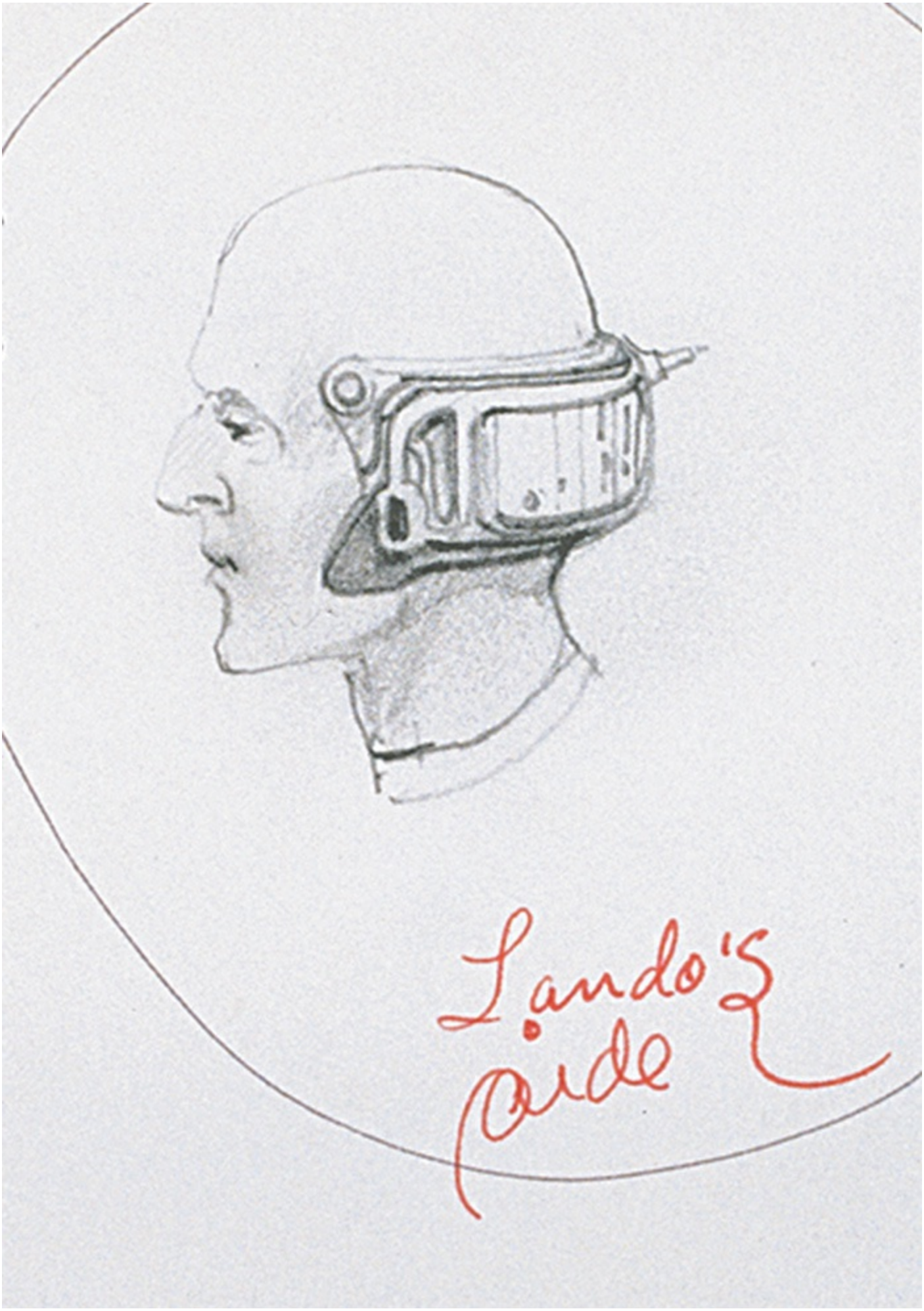




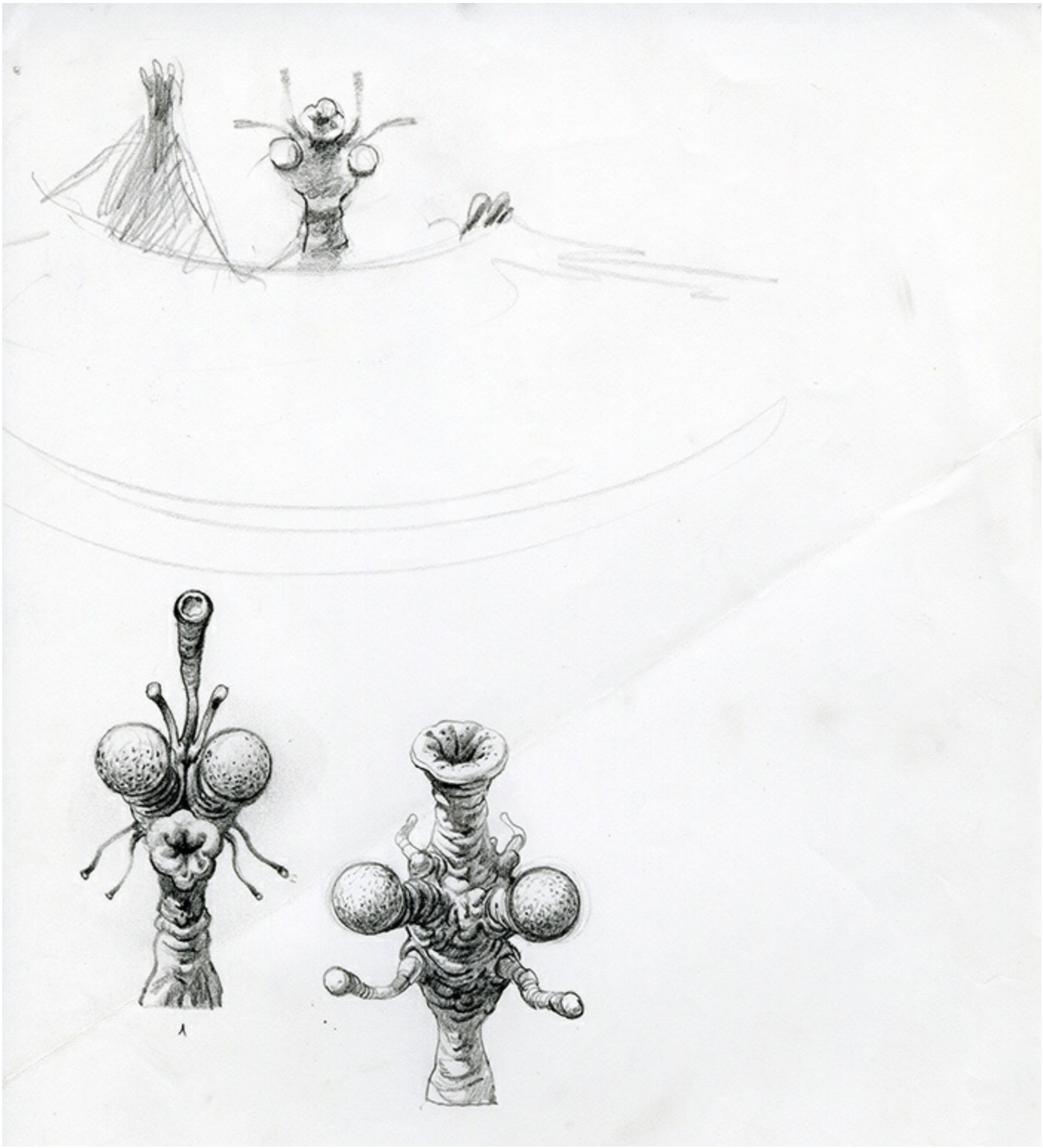
Lando, Chewie, the droids, and Leia make their escape from Cloud City.



Mayhew, Fisher, and Williams run along a makeshift Cloud City landing dock, filmed outside on the back lot of Elstree in order to raise the camera as necessary to obtain the desired angle.



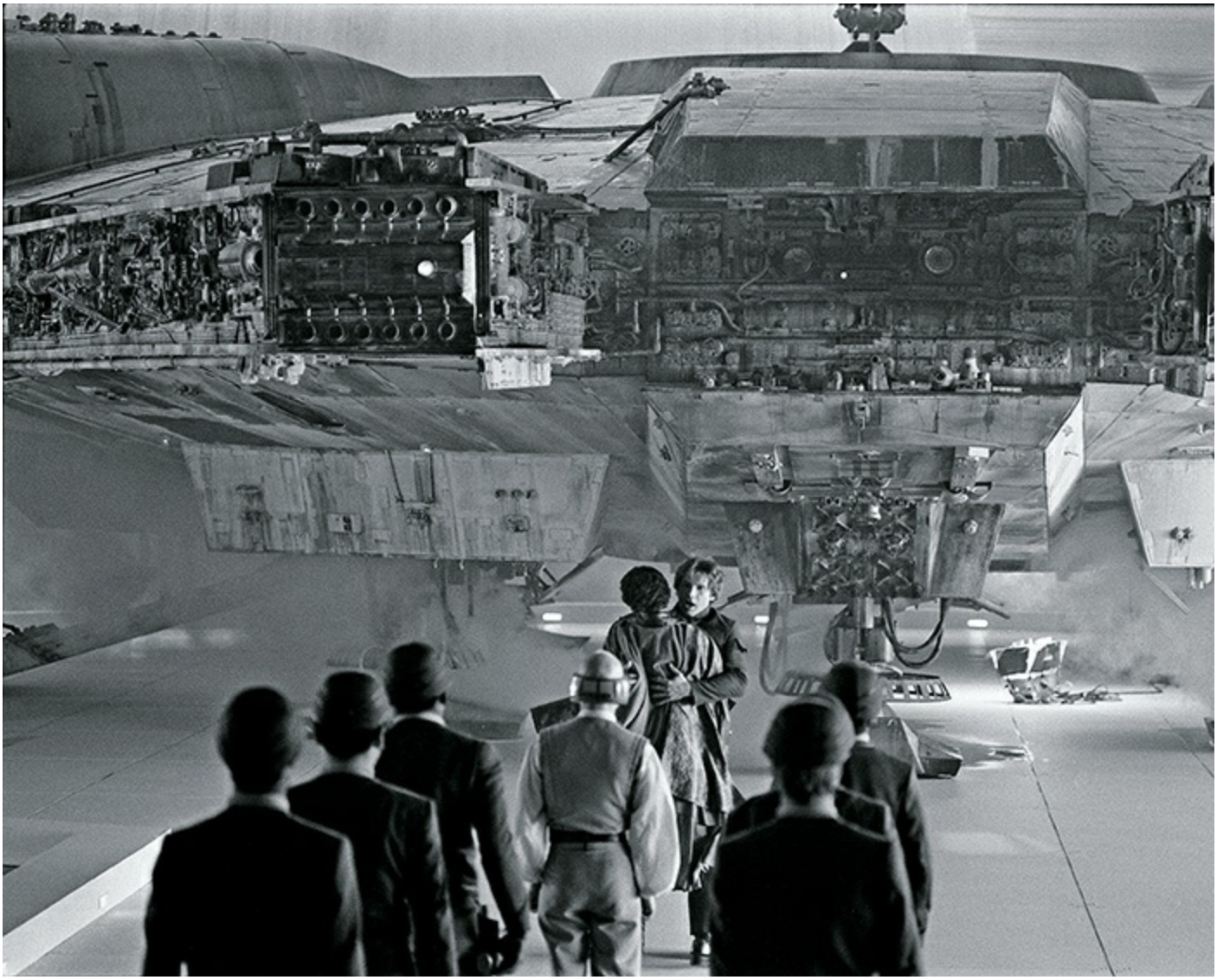
The look of “Lando’s aide” was fixed in a McQuarrie sketch approved by Lucas.



Concept sketches of mynocks by McQuarrie.



Ford sitting behind an X-wing.



Williams, Ford, and company continue filming several scenes in the hangar, on Cloud City, and in the asteroid cave.



Ford and Kershner consult on the Star Wars Stage, which has been transformed into an eerie set built around the *Falcon* (amid decidedly low-tech set dressing), circa June 18, 1979.



A printed daily (black-and-white dupe footage) from June 19, 1979, second unit, of Luke in his X-wing heading for a crash landing on Dagobah, with lines that won't make the final cut, such as, "Oh, Ben, what did you get me into?"

BUGGED

NOS. 73–76, MONDAY, JUNE 18–THURSDAY, JUNE 21: STAR WARS STAGE—EXT. FALCON/ASTEROID CAVE, 298 [MYNOCKS]; INT./EXT. LANDING PLATFORM CLOUD CITY, 353, 406 PT. [FIREFIGHT]; STAGE 4—INT. CARBON FREEZING CHAMBER, 379 PT. [HAN PUT INTO CARBONITE]

On June 18, Kershner shot the *Falcon* in the asteroid cave set, while Hamill continued doing X-wing cockpit bluescreen work. "As the set went up, we'd walk through the duel," Hamill says of the Carbon Freezing Chamber. "I'd also asked them to type up the swordfight in a few pages, so I could write down every move with every line and start associating the fighting part with the acting part. I drew a figure of Darth Vader and put the different hit marks, right hip, left head; it was like, Camera Left, Camera Right."

On June 21, now 24.5 days over, first unit shot scene 379, in which Han Solo is put into hibernation on the Carbon Freezing Chamber set.

"The Carbon Chamber struck me as being rather like a model for a stage set," says Suschitzky. "It looked unfinished. It certainly had no walls at all; it was a series of ramps and disks and blackness. I was extremely concerned about that set, about how I was going to make it look believable and dramatic. I decided to light the whole thing from underneath, as the floors had been made translucent. In the black areas, I had shafts of light penetrating the darkness. Then the whole set was filled with steam, which made it photographically very impressive, but physically very uncomfortable, since it was like working in a Turkish bath. We were quite high up in the stage and we all suffered for quite a number of weeks."

"Kersh sets up, talks to the technical chiefs, confers with each of his players, decides on his angles," Arnold writes. "At times, the noise of compressed steam escaping is cacophonous, the carbon fumes repellent … At times, it seems like organization by default, that the director's will alone gets things together. First rehearsals were a miasma of trial and error."

"The scheduling was done as if it was just another scene," Kershner says. "However, everything went wrong, including the rubber gaskets beginning to burn up and making everyone sick, with everyone having to be evacuated from the set. The little people started getting ill, maybe because they are only three feet above the steam, so it blew into their nostrils. I was sick the whole time I worked there. The smoke got me, finally."

"We had great difficulty in shooting that set, because we built it 12 feet up from the stage floor," Reynolds says. "People had to clamor up to that level amongst all of the steam. But I liked the idea of having the amber color, because I think that gave it a very eerie sort of feel, and the steam jets coming up from the floor helped enormously. For the scene of Han being lowered into the vat, we had a hydraulic platform installed under the floor, sufficiently low enough for Han to disappear out of sight. I think the little pig people gave a slight bit of humorous and weird feeling to the whole proceedings."

"I think the words *freezing chamber* are completely wrong because it was like a sweaty jungle," says Watts. "The whole thing was full of steam and it was not very pleasant to work in."

"Jets of steam shot into your face and you had to ignore them," Kershner says. "The heat would really build up, because we had dozens of arc lights, plus the fog machines. We were often working 30 feet in the air, so we were really in the middle of this heat wave. We were up there filming for weeks."

"Kersh, more than anyone else, decided to use an abstract look to this set," Lucas says. "To use mostly

steam in this hellish place, which is right in the middle of heaven, so to speak. It's more steam than physical reality."

"And so, on a day meant for lazing in the summer sun," Arnold writes, "I followed Kersh onto the Carbon Freezing Chamber set … It is 8 AM. We enter Stage 5, already throbbing with activity, and climb a stairway to the central platform where Kersh joins Suschitzky, who is lighting the set for the long shot of the group's entrance. They take turns looking through the lens … All this is recorded on tape, because I persuaded Kershner to wear a cordless mike throughout the day, connected remotely to my tape recorder. I may be wrong, but I don't think that anything quite like this has been done before."

Much of the following recorded dialogue would discuss the script, which, as of February 20, 1979, read as follows:

VADER

Put him in the carbon freezing chamber.

BOBA

What if he doesn't survive? He is worth a lot to me.

VADER

The Empire will compensate you for the loss.

LEIA

No.

[C-3PO complains as] Chewie attacks the stormtroopers …

HAN

Chewie, no! Stop it, Chewbacca! … Save your strength for another time, Chewie, when the odds are better.

Chewie barks a doleful farewell.

HAN

Yeah … I know … I feel the same way … Keep well. (turns to guard) You'd better chain him until it's over.

Han takes Leia in his arms and she gives him a passionate kiss.

LEIA

… I love you. I couldn't tell you before, but it's true.

HAN

Just remember that, 'cause I'll be back.

Irvin Kershner: This set is so peculiar that we've got to keep watching little relationships or the thing—like this light, I worry whether it's too bright back here.

Peter Suschitzky: [laughs] I think you're just worrying about everything now.

Kershner: [directing stormtroopers] I want the camera back there, which will be out of the way. Once I get them in position, then we're just going to take two cameras and do all the action, just do the whole bloody

thing.

David Tomblin, 1st AD: Alright.

Kershner: [to Harrison Ford] Good morning.

Harrison Ford: How are you?

Kershner: I tried to call you yesterday. I wanted to see you, I wanted to talk with you about the scene and I couldn't get you. I tried very hard late in the afternoon and early in the evening. I wanted to talk to you about the scene because I've been working on it and there are a lot of things that I've sort of discovered about it, [laughs] in looking at it. ("Larry Kasdan had written some very good scenes, but there was still the interpretation," Kershner says. "The interpretation is what kept me awake nights.")

Ford: You've got one other problem—I tried to tell the art department about it a long time ago. The shirt is not the same shirt. It's clear there's no jacket on.

Kershner: They'll take it off when you go down. We missed a beat, you know why?

Ford: Why?

Kershner: I've been to real executions and I wanted this to be like an execution.

Ford: So did I.

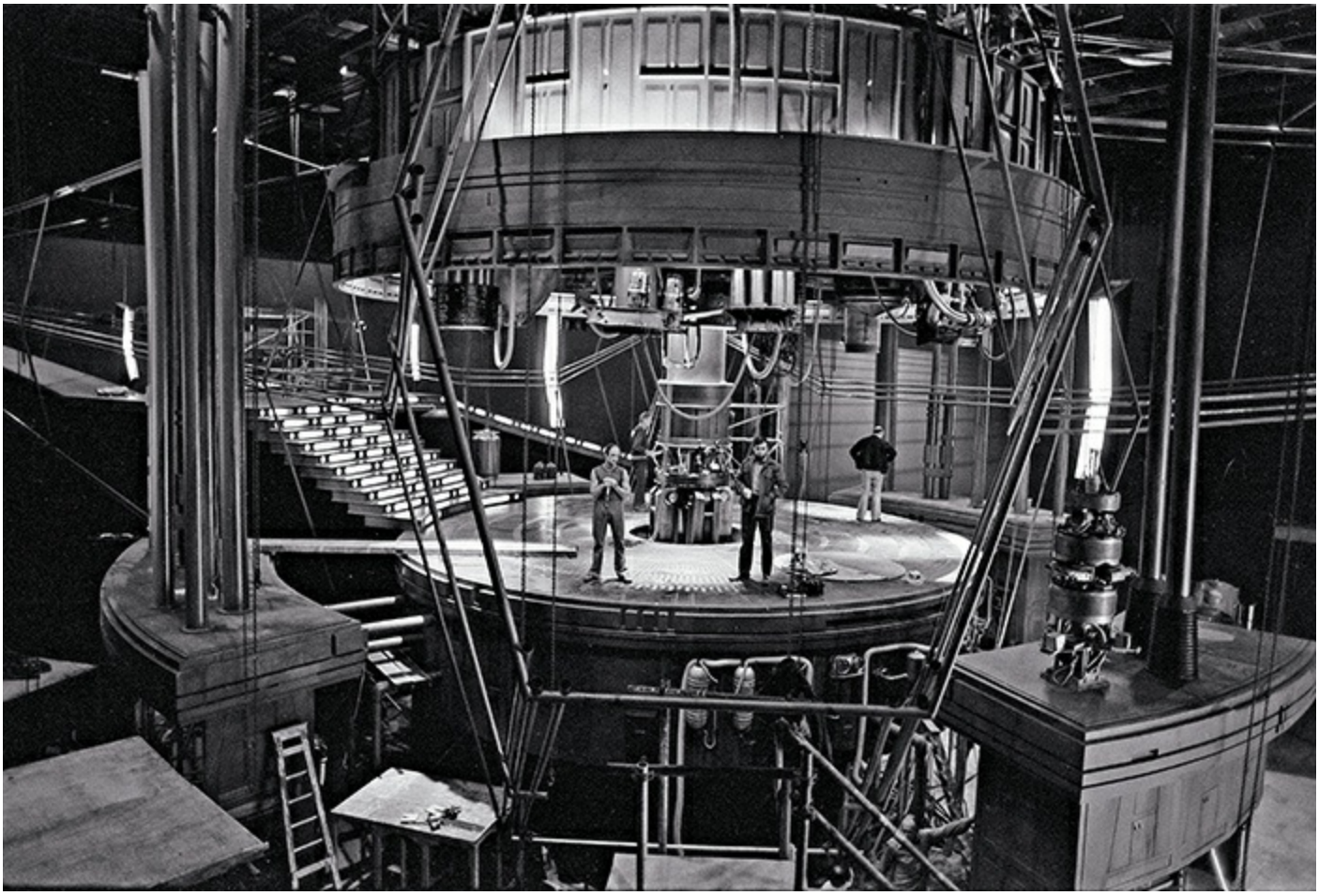
Kershner: They strip people halfway down. And it's always so demeaning. Do you know what they do in the gas chamber? They put black shorts on you, so the people who handle you afterward won't get the gas on their hands, which burns. So we've got to make it look like an execution, like you're at a gallows, except here it's a pit, you see.

Ford: Okay, so you've got the shirt with no sleeves. Well, do you want to go talk?

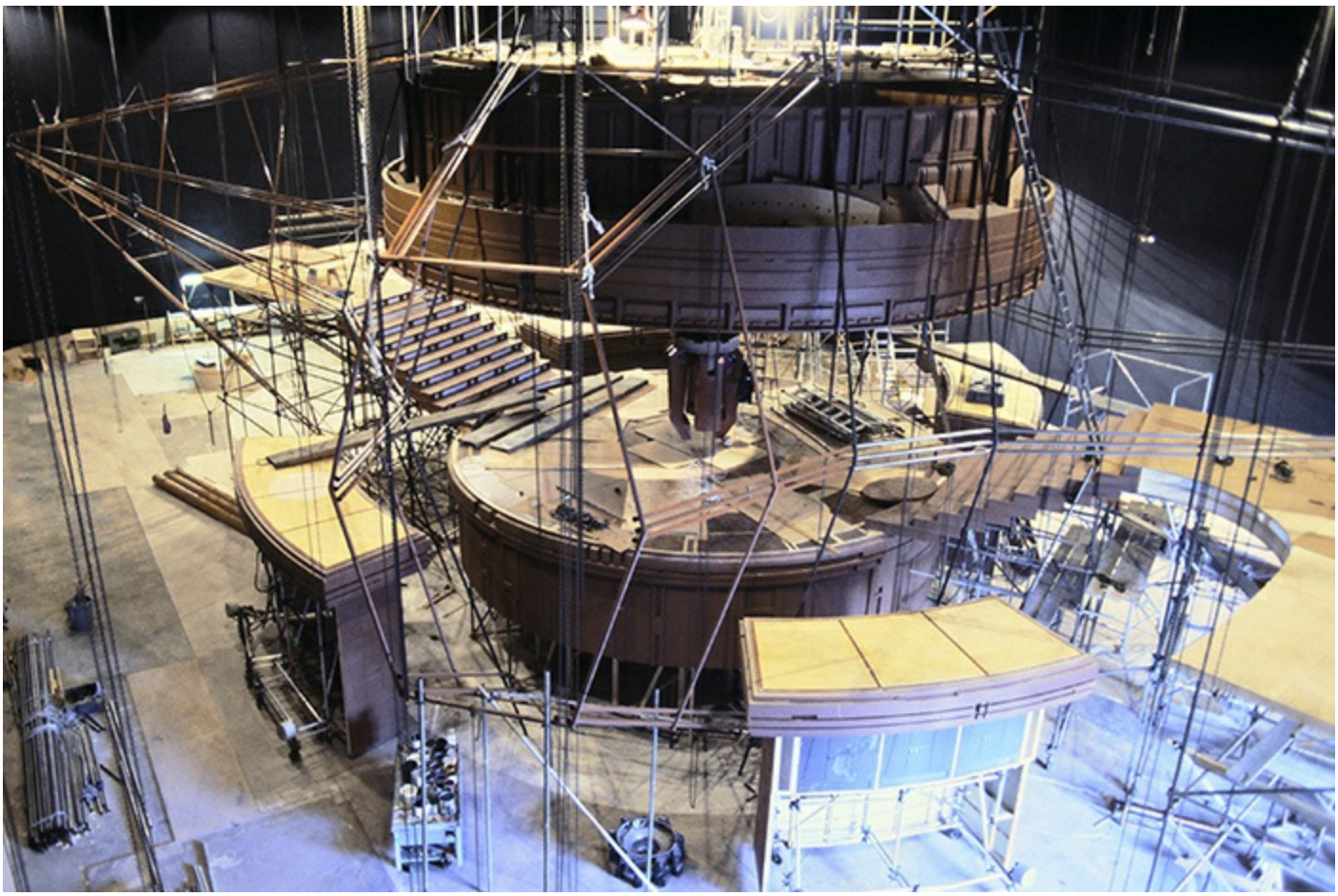
Kershner: Yeah. I want to set up the scene, so they can work on just the entrance. It's only an entrance. Then I thought we'd go and lock ourselves away for a few minutes.

Ford: I'll be in makeup. Are you going to block it out?

Kershner: Yeah, I'll block it out. Harrison, there's one thing I discovered that will affect us here. You [Han Solo] have no way of knowing that you're the one that they're going to do anything to. They're bringing all three of you in, but you don't know anything; she doesn't know anything. You've never been in this place. We have to add some lines to that. [Harrison departs.]



Kurtz inspects the completed Carbon Freezing Chamber set on Stage 4, based on Reynolds's design, where they would film scene 379, in which Han is put into carbon freeze (stuntman Colin Skeaping, leaning on a lightsaber prop, stands with Kurtz).



Kershner: [to Suschitzky] It might be nice if the stairway was much dimmer.

Suschitzky: I can't make it that much dimmer without putting filters on because they're fluorescent lights. They can't be dimmed. ("I think the photography is marvelous," Hirsch says. "It has a very soft, luminous look to it, which is very pleasing.")

Kershner: Oh, I see.

Suschitzky: Who are you bringing in?

Kershner: The whole group is coming in and I'm just wondering where the strongest shot is. I could bring them from the back. In other words, I can bring them down here and place them and then reverse it for the master when they go back.

Tomblin: You've got to reverse on the set anyway. ("Because the set had no back and it was a symmetrical set, all the reverses were also shot in the same direction as if they were the other way, which means that you're constantly thinking in your head, Let's see, if I turn the set completely around and they're standing the other way …," Kurtz says. "We ran into some difficulties there. In some of those scenes, Kersh had a hard time putting together what he had done before, because we couldn't shoot in continuity, we had to shoot all in one direction and then turn around.")

Kershner: Wait a minute. [looking] There's something nice here—a high angle. This isn't bad, right through the stuff. Yeah, oh yeah, this works. I never looked up here. That's the trouble with this set: You can't move around. If we could just move this bloody thing, thank you. [Crew moves object.] You didn't see the rushes, did you?

Suschitzky: No, I didn't, no.

Kershner: Oh shit, well, I want you to run over to the editing room and see it, okay? This morning. Because it will help us to visualize everything. [Suschitzky agrees and Kershner returns to his shot.] Oh boy, I got it, I got it. Boy, I saw something really interesting with the 150 [mm lens].

Suschitzky: I want to see how wide.

Kershner: Let me look at it with the 100 now. You got a finder? ("One of the most difficult things to do with a flat screen is to interpret three-dimensional space," says Kershner. "Your directions of left to right, right to left, become completely tangled. So I was constantly checking myself. Is my orientation correct? Are they looking in the right direction? Am I changing it unnecessarily? Am I making it too complicated? Am I making it too simple? Am I losing the audience? This had to be done for every single moment.")

Suschitzky: At the moment, there's a 40. ("For the last two or three months, we switched over to a normal Panaflex," Suschitzky says. "We then used the Panaflex-X as a second camera and an Arriflex as a third camera. Because there were many difficult and physically awkward sets, which involved climbing over various forms and up ramps and so on, we needed a lightweight camera.")



Kay Freeborn adjusts Fisher's makeup and Barbara Ritchie sees to the actress's hair.



Mayhew as Chewbacca has his Wookiee hair coiffed by makeup artist Syliva Croft.

Kershner: Try looking at a 100. Take a look, just for the hell of it. [yells to the actors] Alright, action! Walk! [to Suschitzky] Then I'll cut in to a couple of close shots. I'll cut in to a closer shot of Vader and Lando when Vader says, "Put him in the Carbon Freezing Chamber." Bam! Cut to close-up there of reaction and then cut back to the long shot as the Wookiee goes crazy and starts throwing things around.

Tomblin: Don't you want to shoot it as a master and just pick the points that you want?

Kershner: I'm talking about the cutting. But I do want to bring it in—

Kelvin Pike, camera operator (who had just shot *The Shining*): I think both cameras want to end up dead center, you know, both shots.

Kershner: On the longer lens it should be over there, yeah. The symmetry doesn't work with a longer lens. On the wide lens, you've got to be symmetrical. The group is nice. It's a good group now, don't you think?

Pike: Oh, I do. It's excellent.

Kershner: It all works. I think the grouping is fine; it all works. We can even put stormtroopers here, you see, out of focus. We can enclose the frame with a couple of stormtroopers in the foreground, which would give you a whole other dimension.

[Norman Reynolds has been waiting in the wings for a chance to talk to the director. He seizes the opportunity provided by the change of setup, and the two go into Kershner's office to look at a maquette

of the gantry set.]

Kershner: As Luke comes to this point, this is the first time that he sees Vader.

Reynolds: Yes.

Kershner: His natural reaction will be either to jump back or to just begin to back up.

Reynolds: Yes, that's how I see it also.

Kershner: He starts to back up and we suddenly reveal the set on a wide-angle shot and, my God, he's going out onto this pinnacle. Luke turns his sword on. We don't even see what he sees and he starts to back up. As he starts backing up in close-up, on his face, we fill up the frame with his head and there is Vader, just taking the last few steps. That works nicely.

Reynolds: Yes.

Kershner: I better make a note of that, because it works so well. See, that's why the model helps. Without the model, I'd never see it.

Reynolds: Yeah.

Kershner: Thank you for bringing it to my attention, because now I've got that—it always worried me. Next? Medical [the last set of the film].

Reynolds: Now, this is just a sketch, but anyway, there is a question of the round window or the square window.

Kershner: Don't we want a round window?

Reynolds: Gary has said that while he thinks it ought to be a square window, I don't know. I wanted to bring it to your attention at this point to get your reaction to it.

Kershner: Why should it be a square window?

Reynolds: His thinking, really, was that if there's part of the square window in the frame, it sells the idea of it being on a ship.

Kershner: Uh-huh. They don't have round windows on that ship?

Reynolds: It can be whatever window you like. We could make it round or whatever. That was just his feeling. I do want to get—

Kershner: First of all, Luke and Leia end up standing in front of it, you see? Then, we come around so they actually look at the Millennium Falcon *in here, at the end. See, this would be lovely to shoot against bluescreen. Then we see the droid working for a moment. Then we pull back and we see the people walking here. Now, that will be done in a reverse.*

Reynolds: Yeah.

Kershner: Luke gets off the table in a close-up, you see, and Leia walks past him and we go with her, coming to the window. I don't know if that window looks so elegant at the end there. We have the window, right?

Reynolds: I'd have to make one.

Kershner: Can't you use the window from the reactor station?

Reynolds: We won't have shot it.

Kershner: We won't have shot it?

Reynolds: We won't have shot it. They're anxious to get—I think this is Carrie's last thing, isn't it? They're anxious that she should finish.

Kershner: I see, I see. Oh boy. Have we worked out this business of Luke's hand?

Reynolds: That's the other thing I just wanted to talk to you about, just to get your reactions.

Kershner: Well, we have to come up with something.

Reynolds: I'll come up with something—is it a stainless-steel thing?

Kershner: Wait a minute. I've got to turn this tape recorder off now because it's sort of secret material. [Reynolds laughs. Recording recommences in Kershner's trailer as the director and Ford go over the upcoming scene; it is 11 AM.]

Kershner: The thing that I realized was that you have no idea what you're doing there. ("The Carbon Freezing Chamber is complex technically and dramatically," says Kershner. "It's truly one of the few drama scenes in the picture. It has to do with love, hate, extreme fear; it has to do with anger. It has many emotions, plus the complexity of steam, sparks, lasers, of all kinds of effects.")

Ford: The last time you saw us was in the cell when Lando walks out and I say, "You're a real hero," right?

Kershner: Yeah.

Ford: And Chewie and Leia lift me up.

Kershner: Yeah, and Lando was trying to help you.

Ford: When he walked out?

Kershner: Yeah. So, okay. That's where we left it.

Ford: So I know that I'm doomed, more or less.

Kershner: Yeah.

Ford: I mean, what does a bounty hunter mean? The script never says what a bounty hunter means, but if a bounty hunter doesn't mean that he's deadlier than shit, [laughs] then we've lost the dramatic value of the bounty hunter.

Kershner: Right, he looks deadly, yeah, right.

Ford: I'm dead. I've got a debt to Jabba the Hutt. I never paid my debt; this guy is coming after me.

Kershner: Yeah, except what we've learned is that Jabba doesn't want you hurt. He wants you delivered intact. But you don't know that.

Ford: I don't know that. All I know is that since I haven't paid my debt, I'm going to be bumped off. This guy is going to bump me off unless I can talk him out of it. I have never had the opportunity.

There's no scene where I try and talk anybody out of this.

Kershner: No.

Ford: I never say a word. They've got us in the jail and that's it. Now, this is no time for a grave-side speech, but um …

Kershner: Yeah, the situation looks helpless because they've got troops, they've got Boba Fett.

Ford: But still, Han would think there was a way of getting out.

Kershner: Let me tell you what the rationale is. Why do you think that Leia and Chewie were brought in here?

Ford: In there?

Kershner: Yeah. I know why they were brought to the Carbon Freezing Chamber. It came to me. They're brought in so that you would not make any problems. Because if you tried to make a break, if you tried to jump them, if you try to do anything, if you try not to go into that pit, they'll say, "Okay, we're going to kill them."

Ford: Right, okay. I mean, Chewie tries to—

Kershner: And you stop him, so he wouldn't get himself killed.

Ford: For a character that was built around George's line, "Give me a good fight any day over all this hiding and freezing …"

Kershner: Right.

Ford: Well, I mean he had this line in the first script. That is the definition of Han's character. Otherwise, I'd decide to join Chewbacca in the fight, push as many of them as I could over the edge, 'cause we're all dead anyway.

Kershner: Okay, so we need a scene—

Ford: So it could be a few words between me and Billy Dee.

Kershner: You can see it in his face; you realize that this is not the way he intended this thing to work, that this thing got out of hand. And as you're stepping into that place and you see him standing there, he looks miserable. He looked miserable in the jail, too.

Ford: Billy is not in this scene.

Kershner: Yes he is. He's standing right there.

Ford: That's what I'm saying. He doesn't say anything. He doesn't contribute anything. What if, when I come down and see the others, I look at him and say, "What's going on?" You know, I assume it's something that he is still in charge of.

Kershner: "What are you doing? What are you up to now?" [Kershner writes down dialogue.] Alright.

Ford: "What's the plan now, pal?"

Kershner: "What are you up to?" Let's do it cliché; it's much better. "What are you up to now, buddy?"

Ford: [laughs] "What are you up to, buddy?"

Kershner: You're going to be a guinea pig.

Ford: Lando says something about, "They think you'll be a lot easier to transport frozen," or whatever it is. My hands are chained behind me, right?

Kershner: Yeah.

Ford: Just bind them like that, in the front. They've got to take the bindings off in front when they put me up on the thing, because my hands are like this [mimes the final look of the Carbon Freezing monolith].

Kershner: Yeah, that's right.

Ford: I have to come in with the manacles on. Now, that will give me the idea that something's up. They're coming in dressed the same way.

Kershner: I don't think they should be. You're the only one who should be manacled.

Ford: I'm coming in different than anybody's seen me before, manacled like this.

Kershner: I think you should be manacled and they take them off when they send you into the pit. ("When I had to do the carbonite casting, months before I shot the sequence, the guy was lying there all rigid—acting frozen," says Kershner. "So I said to myself, Gee, something's wrong with it. If he dropped down into the pit, something would come in and go shoom-kaang! And what would his first reaction naturally be? Probably to raise his hands up to protect himself; he would shout or gasp. Later, when I cast Harrison's face, I said, 'I want the exact moment you realize that it's actually happening, and you've got to try to stop it!' ")

Ford: I should be manacled because the—it won't stop the love scene. I don't have to put my arms around her to kiss her. It's got to be rough, brisk, and over with.

Kershner: Absolutely. I don't intend to screw around.

Ford: All I'll have to do is shake the guy off who's holding me and then Billy can say, "It's alright." Then I can walk over to him and the whole scene with him would be this: "Save your strength for another time, Chewie."

Kershner: "When the odds are better," yeah. That's alright.

Ford: "When times are better." But this part here … [refers to Leia–Han dialogue] … I'd just as soon …

Kershner: No, no, no, I'm not going to do that.

Ford: Yeah.

Kershner: I'm not going to do it. [pause] "I wish I could have told you before."

Ford: I think she ought to just say, "I love you," as I'm passing by her.

Kershner: "I love you." "Just remember that, because I'll be back."

Ford: No, I—

Kershner: Yeah, I'm just saying how it would go—

Ford: If she said, “I love you,” I could say very nicely, “Yeah, I know. Don’t worry, I’ll be back.” (“I think of myself as an assistant storyteller and the obligation is to find out what the story is before you have to tell it,” Ford says. “I don’t want to just make a director happy. I mean, clearly they give you the money to make the director happy. But I think that the best way to make him happy is to make myself happy with what I’m doing, to do the very best I can.”)

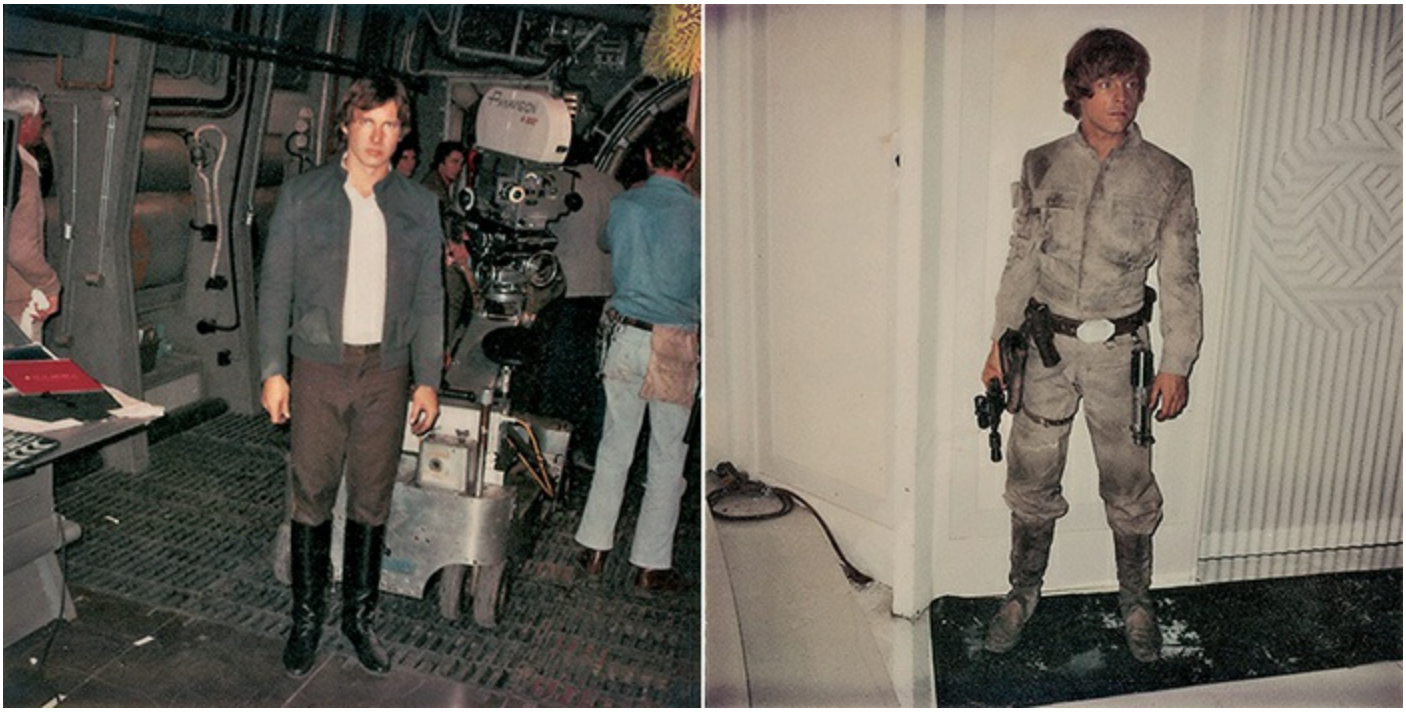


At Elstree Studios, Harrison Ford is in conversation with Alan Arnold, who wonders if Solo is a cardboard character. Ford doesn’t think so. (1979)

(2:13)



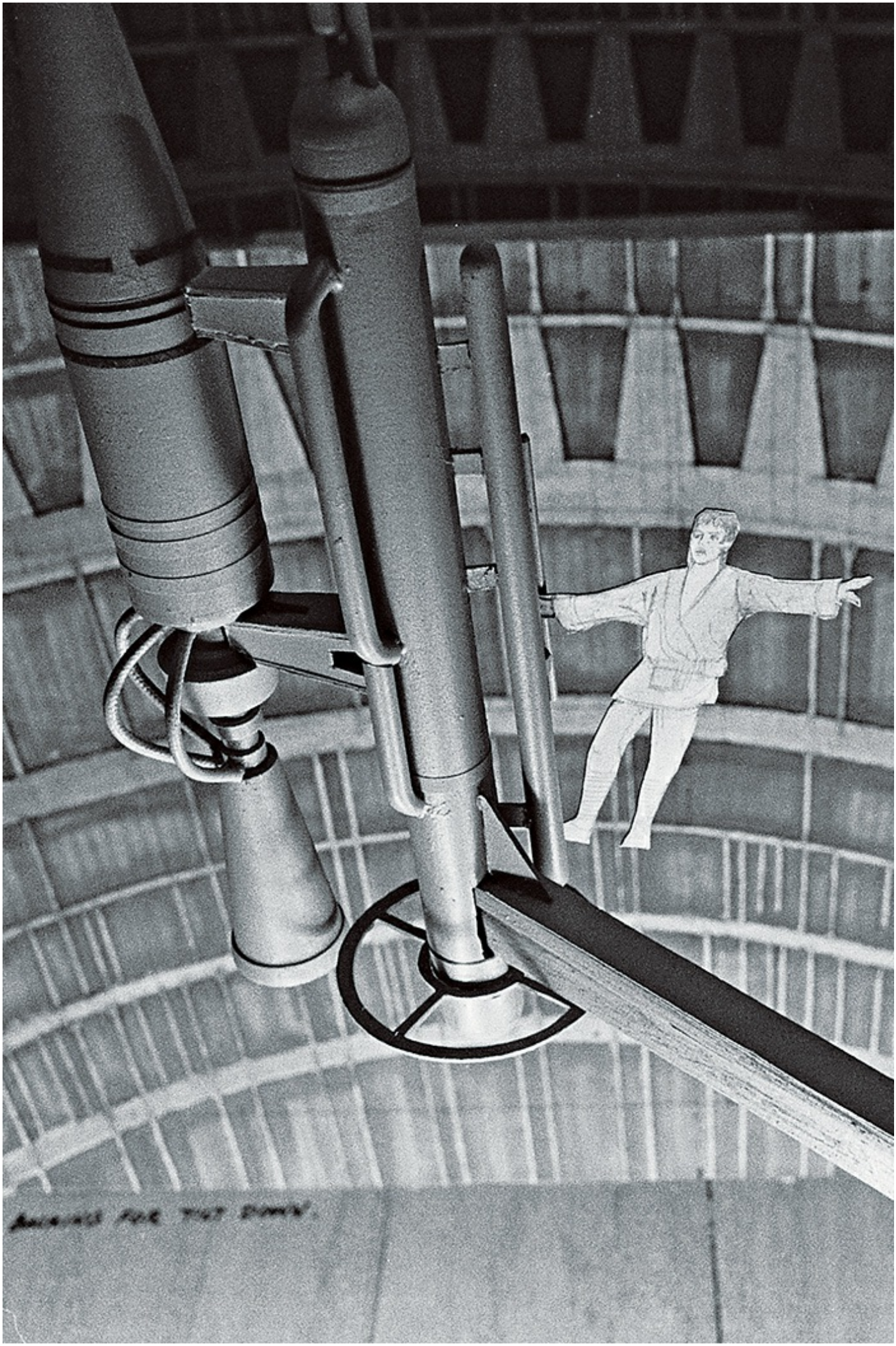
Costume continuity Polaroids.



Costume continuity Polaroids.



Watts and Reynolds work with Kershner as he blocks out shots with the aid of a maquette of “medical,” the film’s last set, and a view finder.



A maquette of the gantry and pinnacle enabled the director to plan setups on that set.



Ford and Kershner on the Carbon Freezing Chamber set; they would also discuss Solo's dialogue in great detail while sequestered in the director's trailer.

Kershner: Yeah, you've got to say, "I'll be back."

Ford: [laughs] But if she says, "I love you," and I say, "I know," it's beautiful and it's acceptable and it's funny.

Kershner: [laughs] Right. Okay. Now, I only have one big problem here.

Ford: But I also have to say to her, "Don't worry about this," in some way.

Kershner: No, you can't. You can't because you don't know whether this is the end or not.

Ford: The point is: I'm not worried about myself anymore; I'm worried about her.

Kershner: You know what? I may keep Vader out of there until the end. After all this stuff is over, Vader comes in. He walks right in and all he says is, "Put him in the Carbon Freezing Chamber."

Ford: That's beautiful, you could start—

Kershner: Why should he be watching all this crap going on? He shouldn't even be there.

Ford: Yeah, but this is it. He's there because he's telling Boba Fett—

Kershner: Then he's got to watch all this stuff.

Ford: He could walk away.

Kershner: No, he couldn't. [laughs] There's no place to walk to. I'm really stuck there. See, I hate a scene where the bad guy waits and finally says, "Enough of this horseshit, now let's get on with it." That's really what the scene is.

Ford: I'm coming right back. I'm getting a cup of coffee. [Ford exits.]

Kershner: [sighs, resumes writing, slowly speaks dialogue out loud] Group comes in, stops near Lando. Four troopers bring them in. "What if he doesn't survive?" Han looks to Vader. [Ford returns.] Okay, I've got something interesting. "We'll compensate you." Now we cut back. "What's up, pal?" or "buddy."

Ford: "Pal."

Kershner: "What's up, pal?" That's nice and it's ironic. And he says uh …

Ford: How about "hero"?

Kershner: No, you've already done that.

Ford: Why do they have to watch?

Kershner: So that you'll behave. It's sadistic. No, you see, the problem here is, I've got a two-part harmony going.

Ford: What would be great, I'll tell you what …

Kershner: Leia: "Why? Why?"

Ford: … if Chewie takes Leia, then turns her against him, puts his arms around her, doesn't let her watch, you know what I mean?

Kershner: That's not bad; that's interesting. But there's something powerful about her face while she's watching you disappear.

Ford: Oh no, I don't mean that she doesn't watch.

Kershner: If he hugs her at the end …

Ford: I just can't see that they would stand there and watch. Best friends watching the execution. It doesn't happen … You don't watch something like that.

Kershner: I think they have to.

Ford: I think you can't say to Chewie, "I'll be back," or anything like that.

Kershner: No, no, no, no, you can't.

Ford: How about if I say to him, "Save your strength. I'll be alright. Look afte her," you know what I mean?

Kershner: "Look after her." Right. [A crew member enters the room and delivers some food, and Kershner thanks them.] "Look after her." Chewie barks dolefully.

Ford: And as I turn, she can say, *sotto voce … "I love you."*

Kershner: [continues to speak slowly what he's writing down] Leia: "I love you." And Han says, "I know."

Ford: Yeah.

Kershner: "Yeah, I know. I'll be back." The kiss. Walks onto platform. [Puts pen down.] Better scene. ("If you've had some good writing, the actors can rarely improve on the writing," says Kershner. "What they can do is loosen up the dialogue—find the true meaning, the right emphasis and phrasing of the words through improvisation.")

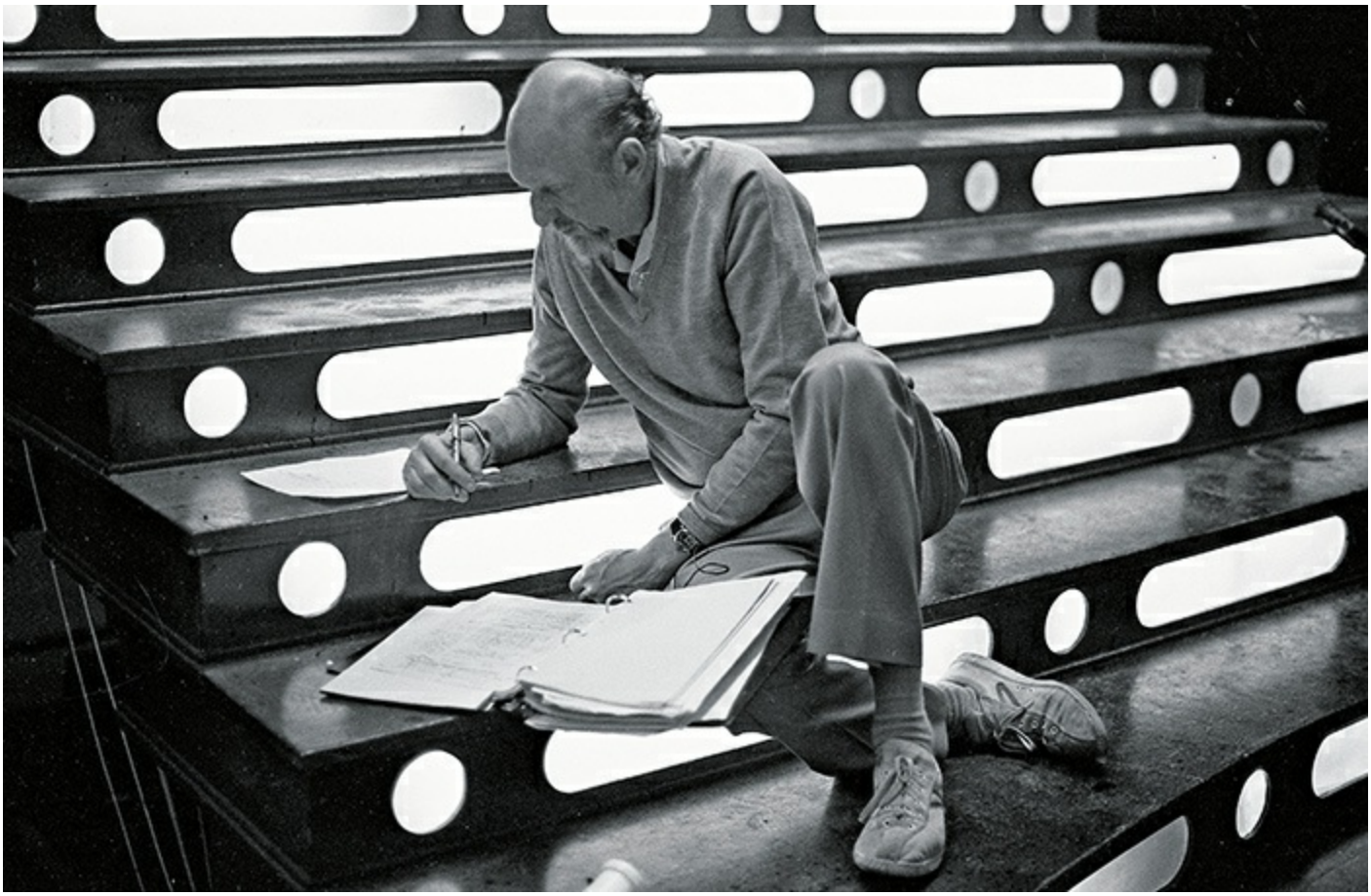
Ford: Now, how can we stage the kiss so it works? If they already have me by the arms—you know how short she is. If they have me by the arms and they're pulling me back, you know what I'm saying?

Kershner: I'm going to get this typed up.

Ford: Great.

Kershner: And give it to Lando [Billy Dee Williams].

Ford: But look, see, if I'm standing here talking to her like this, and Vader says, "Put him in the Carbon Freeze," and the two guys come up and pull me back by my arms like this, right? [Ford mimes the scene for Kershner.]



Kershner works on script revisions.

Kershner: Yeah. Alright, let me go get this—I'll be right back—I want to continue. [Kershner exits and finds Billy Dee Williams.] *I've got some changes. I've been working on the scene all night and I'm just going to get*

it typed up, unless you don't need it typed, unless you want to write it in.

Billy Dee Williams: I will.

Kershner: I'm doing something more interesting. So what happens is, as they come down toward you, Han says to you, "What's up, pal?" Meaning "pal" in a very derogatory way, and you say, "You're being put into carbon freeze," very softly to him.

Williams: You know, I had that thought yesterday, that's when I figured I'd—

Kershner: Right, right, then Han says, "Then why are they here?" Because he's concerned about Leia and Chewie, right? And so are you. That's what's interesting. "Then why are they here?" And you say, "To keep you polite," which is ironic, you know? She says, "You know that could kill him"—as if you're responsible. And you say, "I'm powerless." It's between these old friends who are really suffering. You're suffering, he's suffering, Leia's suffering, you understand? The scene looked good, by the way. I saw it already, what we shot yesterday.

Williams: You don't think it's giving away something too soon?

Kershner: No, no, no. It's not giving anything away.

Williams: I mean, Lando's unpredictable—that was the whole point, wasn't it? I mean, you don't really know where he's coming from. ("Billy is a man who likes precision and he'll do something 150 times," says Kershner. "It doesn't matter to him, just so you're moving toward an objective which is clear. It makes it very easy to work with him. When he first arrived, I felt he had sort of a star complex. But I now realize that I was wrong. It was simply that he works a certain way and once he began to see the way we were working, he loosened up and began to enter the spirit of the production.")

Kershner: Yeah, that's right. But you've already had the jail scene. It's very good. [Kershner calls out across the stage] Kay! [Script continuity Kay Rawlings comes over.] Kay, could you type up these two pages and make a couple of copies? The master's being set up, which is the entrance. They're ready?

Ford: [calling over to Kershner] Are you going back to the trailer?

Kershner: I'm going back to get my stuff. [to Williams, as Ford exits] How would you like to stand next to your best friend while they're sending him to his death?

Williams: There was a different point of view about this character before, wasn't there?

Kershner: It's all changed, yeah. He's much more interesting, I think. Much more interesting. [to a stagehand] If you're going down, could you give this to Harrison, please? Thank you. [Sighs, long pause, as he starts the blocking; a few minutes later, Kershner walks over to Carrie Fisher.]

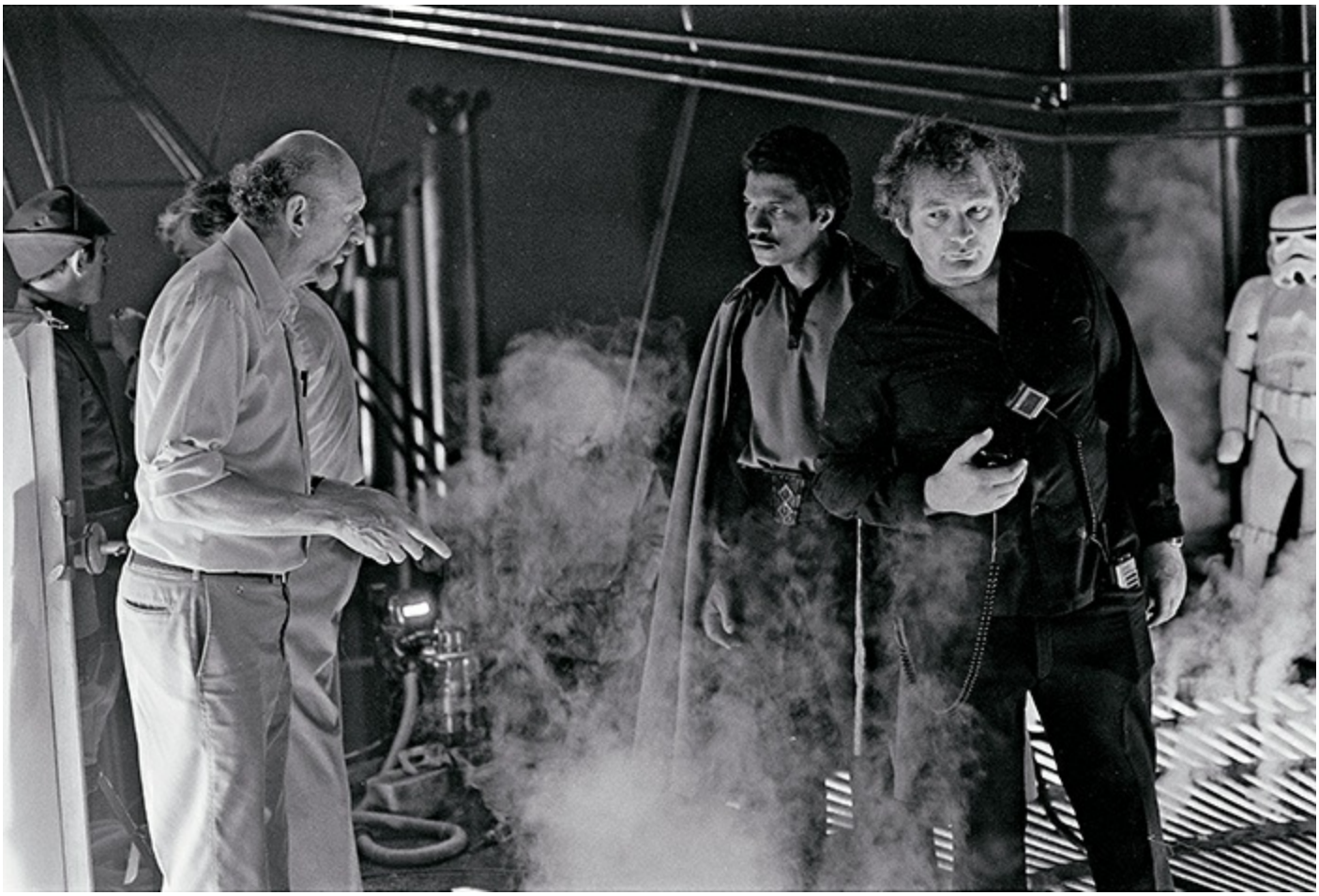
Carrie Fisher: Hi.

Kershner: Hi. I've just changed the scene.

Fisher: I know, Harrison told me.

Kershner: Yeah, I just changed it because I had a million ways to go and nothing was really good because it didn't answer one important thing: Why you are here to watch it. Why not just get him out of jail and just do it? It doesn't make sense, does it?

Fisher: No.



Kershner, Williams, and Tomblin.

Kershner: Well, there's only one reason, and they do it when they take people to executions in order to keep you from fighting, from making a mess, from trying to take certain people with you. Vader doesn't want any problems.

Fisher: Okay.

Kershner: Meanwhile, Han says, "What's up, pal?" very sarcastically. Lando says, "You're being put in a carbon freeze," and he feels miserable about that. He's beginning to feel powerless. "And why are they here?" And Lando says, "To keep you polite." And you say, "You know, that could kill him." See, the whole scene was based on ignorance before and I want it to be based on knowledge.

Fisher: No declaring, no kissing? ("Special effects gave Harrison a very good mouth," Fisher says. "He's very good at kissing. All actors have the opportunity of taking kissing lessons at drama school. Naturally, we all choose to do so. Harrison by the way doesn't like screen kissing at all and, right before, he told me he'd done a screen kiss where he'd put oysters in his mouth and slipped them to the other person.")

Kershner: Oh sure, all that continues, the kissing, everything. This is just the beginning of the scene that changes. I'm just getting everybody their pages.

[The stage continues to be prepped for the rehearsal.]

Fisher: You wrote this other part without me.

Kershner: No, no, no, it's just the first piece.

Fisher: There's nothing Leia can bargain for. There's nothing I can do.

Kershner: That's why you're all here, to make Han realize that there's nothing that he can do, that you're all powerless.

Fisher: Well, it doesn't keep me from like—I could slap Lando or something, I don't know. How near is he to me?

Kershner: He's right next to you.

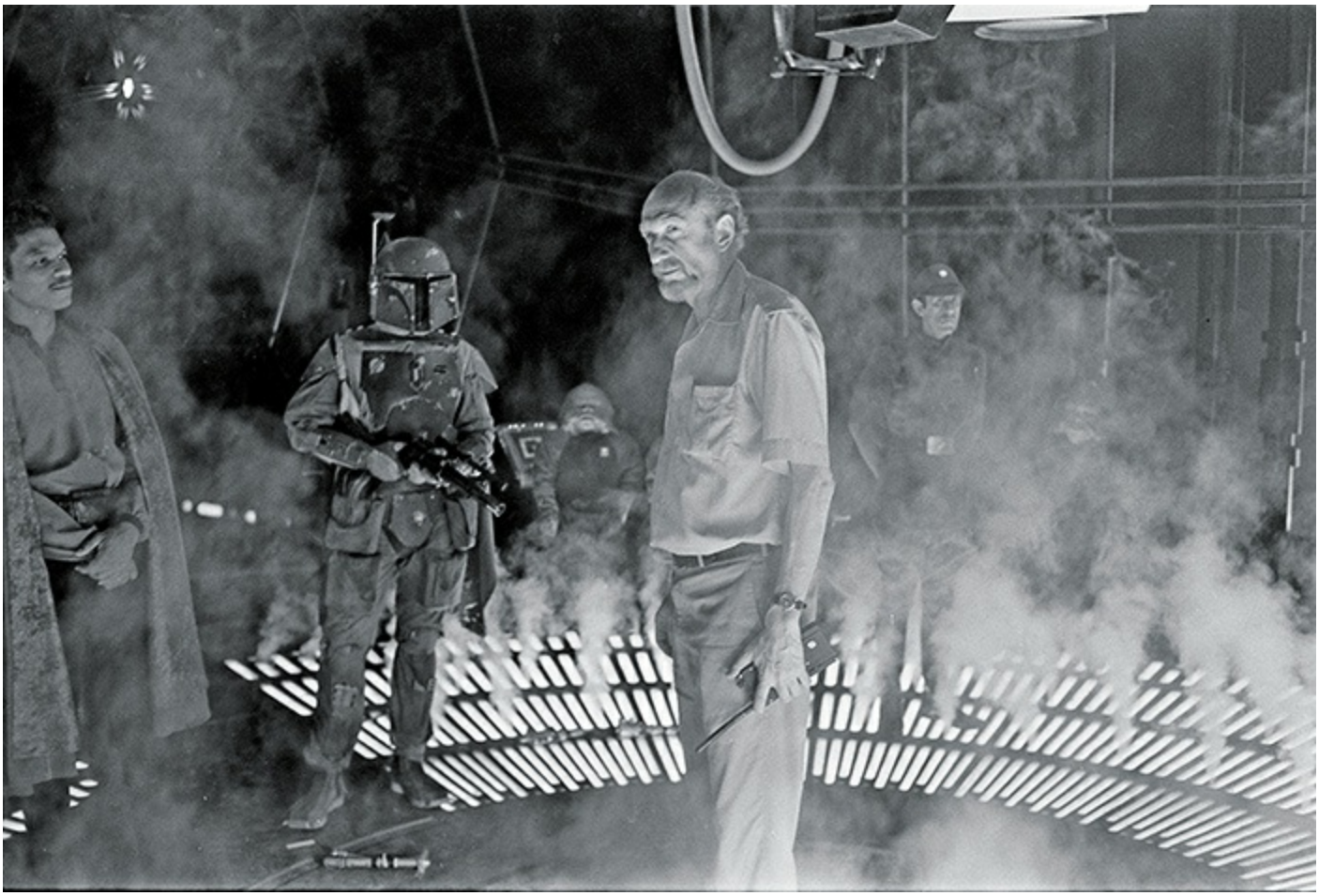
Fisher: Could I slap him?

Kershner: [pause] Let's see. "To keep you polite." "You bastard!" is really what you would say, "You bastard!" but you can't say that.

Fisher: Do I have to be polite? I could just have the bad manners to slap him.

Kershner: You look up at him and you just haul off and slap him? Now, you could grab Han. You don't want to let him go.

Fisher: No, I don't want to let him go.



Williams, Jeremy Bulloch (Boba Fett), and Kershner (with walkie-talkie) block out a shot (in background is Milton Johns as Vader's Aide).

Kershner: Yeah, immediately two stormtroopers come and start pulling you away and that's when Chewbacca

goes crazy. Yeah, that's good. I think you would grab him and not let him go. It's got to be physical action. Lines don't do it.

Fisher: I know.

Kershner: Alright, so let's say you slap him, because you don't know what the hell he's doing.

Fisher: I just think he's scum. I wouldn't even dignify him with any kind of conversation at all. If he's stupid enough to buy anything that Vader said and thought that he was going to get what he wanted.

Kershner: He believed him.

Fisher: Clearly, Vader has a reputation, but Lando thinks he's the one man who Vader is going to make a partner out of. He's got to be an asshole. I would just have more contempt for him.

Kershner: Okay, so you would slap him? You're not punching him, are you?

Fisher: I'd do as much as I could before they pulled me off of him.

Kershner: Okay, okay, alright. Billy! [to Fisher] This is the most difficult scene I have in the film. I've been going crazy. [to Williams] Look, we're trying to come to a conclusion. I'm going around, looking at each person's point of view here, right? I've got Boba Fett's, I've got Vader's, I've got Han's. I know what Chewie's is. I'm trying to get what hers is. Vader is suckering you in and you're buying it. So she has absolute contempt for you now, which is maintained right through the choking scene, right? She'll attack you, you see? And at that point, the two guards come in and pull her off, you see.

Fisher: Pull me off before I actually knee you.

Williams: The only thing I feel about that is I've been attacked so much in this movie.

Kershner: That's what's good. See, then, there's redemption. If you don't go to the bottom—

Fisher: No, basically all I'll do is a girl attack. I just slap you.

Kershner: But it's interesting.

Fisher: You can slap me back.

Kershner: No, no, he wouldn't do that.

Williams: I don't want to do that, I don't think so.

Kershner: When you finally quiet her down, Lando says, "I'm powerless."

Fisher: It should be mean.

Kershner: "I'm powerless, you bitch!" That's the whole point, see, the line is not neutral, "I'm powerless"—it's [angry whisper] "I'm powerless."

Williams: It's an impossible situation.

Kershner: Let's try it. It's the only way we'll know.

[Suddenly Fisher gives Williams quite a powerful whack.]

Williams: Don't hit me like that!

Fisher: Did it hurt?

Williams: Of course it hurt.

Fisher: I'm sorry. How do you hit someone?

Williams: I'll just stop you. If you want to hit me, fake it. You know how to fake a hit.

Fisher: [laughs] But really grab me.

Williams: I'll grab you, don't worry. [They rehearse it.]

Kershner: Okay, alright, so we'll try that. We'll see if that works.

[Later: It is 12:50 PM, and they're nearly ready for a take.]

Ford: Did you change this [referring to new typed pages]?

Kershner: Yeah, I think it sounds better if he says, "Make you behave."

Ford: Nobody told me this.

Kershner: I'm going to do a rehearsal now. I'm gonna do it.

Ford: Okay. [Kershner calls for Fisher.]

Kershner: Carrie, what's going to happen is, Boba Fett says to Vader, and you can hear it, "What if he doesn't survive? He's worth a lot to me." "The Empire will compensate you for the loss. Put him in." That's the first you really know of the danger. You say, "No!" I think that there has to be a reaction on your part and then Chewie goes crazy. So I've reversed the whole thing.

Fisher: I resent that I love Han and he knows …

Kershner: We've got to find a way of doing it so that we don't say cliché things.

Fisher: Harrison was here while you were making changes and I always feel like it's behind my back, that you're rehearsing.

Kershner: No, no, no. This we haven't rehearsed yet. This we're going to rehearse.

Fisher: Yeah, but I don't know that, I—



Williams, Hollis, Fisher, and Kershner, as the latter two discuss the scene.

Kershner: See, I couldn't tell you before.

Fisher: I'm just talking about the other thing that you guys started to rewrite and I wasn't there. I always I feel like, "It's the bimbo again." They can't do anything with me, I guess.

Kershner: No, it's not the bimbo. ("Harrison is a very fine actor," Kershner says. "I regarded that scene as entirely his, which is why I gave him so much opportunity to tell me how he thought we should treat it. That led to a little tension with Carrie, who thought I was giving him too much head. Professional jealousy is very healthy, incidentally, and natural. But it was his scene.")

Fisher: [irate tone] I would just like to be there. I don't even need to say anything …

Kershner: You weren't here, you weren't here!

Fisher: You've got to know I'm here in the studio.

Kershner: Okay, alright, okay.

Fisher: And then I yelled at Harrison.

Kershner: Yeah, don't yell at him, yell at me.

Fisher: I did and now Harrison's angry at me.

Kershner: No, he's not angry at you.

Fisher: Well, he thinks I'm angry at him for no reason and I'm not angry …

Kershner: See, I've worked on it for two days now and I have not been able to come to any conclusion. The scene is totally illogical unless we obfuscate.

Fisher: Alright, but there's no reason for me to be mad at him and I got mad at him. Because he came to me with the changes and I thought, *Wait!*

Kershner: Because I had given to him the page first, and I hadn't given it to Lando and I hadn't given it to you. ("I think that Carrie began to feel that she had two directors," Kershner says. "And finally I explained to her that I was giving Harrison his rein, his head, so that he could try everything on me and then I could, in a way, censor or encourage. Once she understood it, she calmed down, but there were a couple days of extreme tension. We were changing lines on the set.")

Fisher: His assistant was coming to me, but I mean, it's all because of a mistake. It's like I'm a day worker.

Kershner: No, you're not a day worker.

Fisher: I know that. But then I get mad at him and then it fucks us up.

Kershner: Okay. Where is Harrison?

Crew member: He's right there. Harrison!

Fisher: So now he's pissed off because I'm pissed off, because I have no right to be pissed off at him. And that's totally valid.

Kershner: Because he feels very insecure about coming up with any ideas at all.

Fisher: He's not insecure—I never even speak!

Kershner: No, he feels insecure. You can speak at any time, with any scene at any moment. You can stop a scene in the middle at any time.

Fisher: I don't know. As you can see, he is very angry, as he has a total right to be because I would not speak to him. I'm sorry. So it may play well for the first part of the scene, but if we have to kiss each other, there might be trouble.

Kershner: No, I'll fix it, I'll fix it.

Fisher: He shouldn't have to come to me; he can come to you.

Kershner: He was eager.



Stormtrooper, Fisher, and Kershner.



Fisher's stand-in waits …

Fisher: I know he was.

Kershner: He was eager because he was worried about the scene.

Fisher: And I was stupid. But I …

Kershner: And I've been very worried about it, I've been so worried about this scene. I worked on it yesterday afternoon until I had such a headache. You know, I worked on it all day Saturday and Sunday. I came to no good conclusions because I realized the illogicality.

Fisher: There's certain information I should at least have for myself, where I can at least come to the conclusion for myself while I'm watching you guys do a scene that may not center around me.

Kershner: Okay, okay, I'll take care of that. Do you want me to do it now or later?

Fisher: It's always been a precarious relationship anyway.

Kershner: Why?

Fisher: Because I do shit and because he was bored with everything. "When you're older, we'll all tell you about it." ("But to Carrie's credit, there is so much affection between her and Harrison that it was almost a love–hate thing," Kershner says. "But she got overly anxious and carried away and angry and then was extremely sorry about it, which is very good. But I like when there's a certain amount of tension on the set.")

Crew member: We've got to put the steam in now and you're in the firing line. [The stagehands prepare

for the shot and the conversation is interrupted.]



While waiting—Suschitzky, Fisher, and Hollis, with stormtroopers (including stuntmen Peter Diamond, Colin Skeaping, Reg Harding, Tony Smart, Malcolm Weaver, and Bob Anderson) and hog men (Eileen Baker, John Gavam, Tony Frier, Mike Edmunds, Mike Cottrell, and John Lummis). In fact, Kenny Baker's wife, Eileen, played "Hogman 1" (and a droid in the hangar scenes).



Tomblin: [speaking through a bullhorn] Has everyone got their heads on and you're ready? Alright, Dave [Prowse], put your head on, please. Okay, start walking. Blow out the steam now.

Kershner: [speaking quietly to Tomblin] I don't want to do this scene. Some of the actors are all angry at each other. [laughs] Everybody's furious with each other. Carrie went crazy. ("Directing is a job Kersh attacked with great courage," Ford says. "It's an awesome responsibility, a difficult job, and a job in which you're bound to catch a lot of flak sooner or later.")

Tomblin: The only person we haven't given a position yet is Vader.

Kershner: He can come in and we'll give him a position on this one.

Suschitzky: It's still too clean around here. Do we need some smoke as well?

Kershner: Yeah, it looks clean. It really looks clean. Yeah, with all that steam and everything, it still looks—I think we need …

Suschitzky: What do we need in the foreground?

Kershner: There's nothing there. Yeah, we need a big pile of steam right there. There's nothing there at all and I'll be shooting the scene right there. You really need it. I want to see the CO_2.

Tomblin: [on the bullhorn] Dave—he wants to see the CO_2 in the foreground please. [Another test is performed.]

Kershner: Everything has to work now.

Tomblin: [on the bullhorn] Alright, here we go! Action! [More CO_2 effects as the scene is blocked.]

Kershner: That's better. Is Vader in the right spot? [They do a take.]

Tomblin: How did that work, timing-wise?

Kershner: Very well. [to Williams] What's nice is when they get to the bottom of the steps, you just turn away.



Prowse, Kershner, Williams, and Ford.

Williams: Alright, now, when Han says something to me, do you want me to turn toward him?

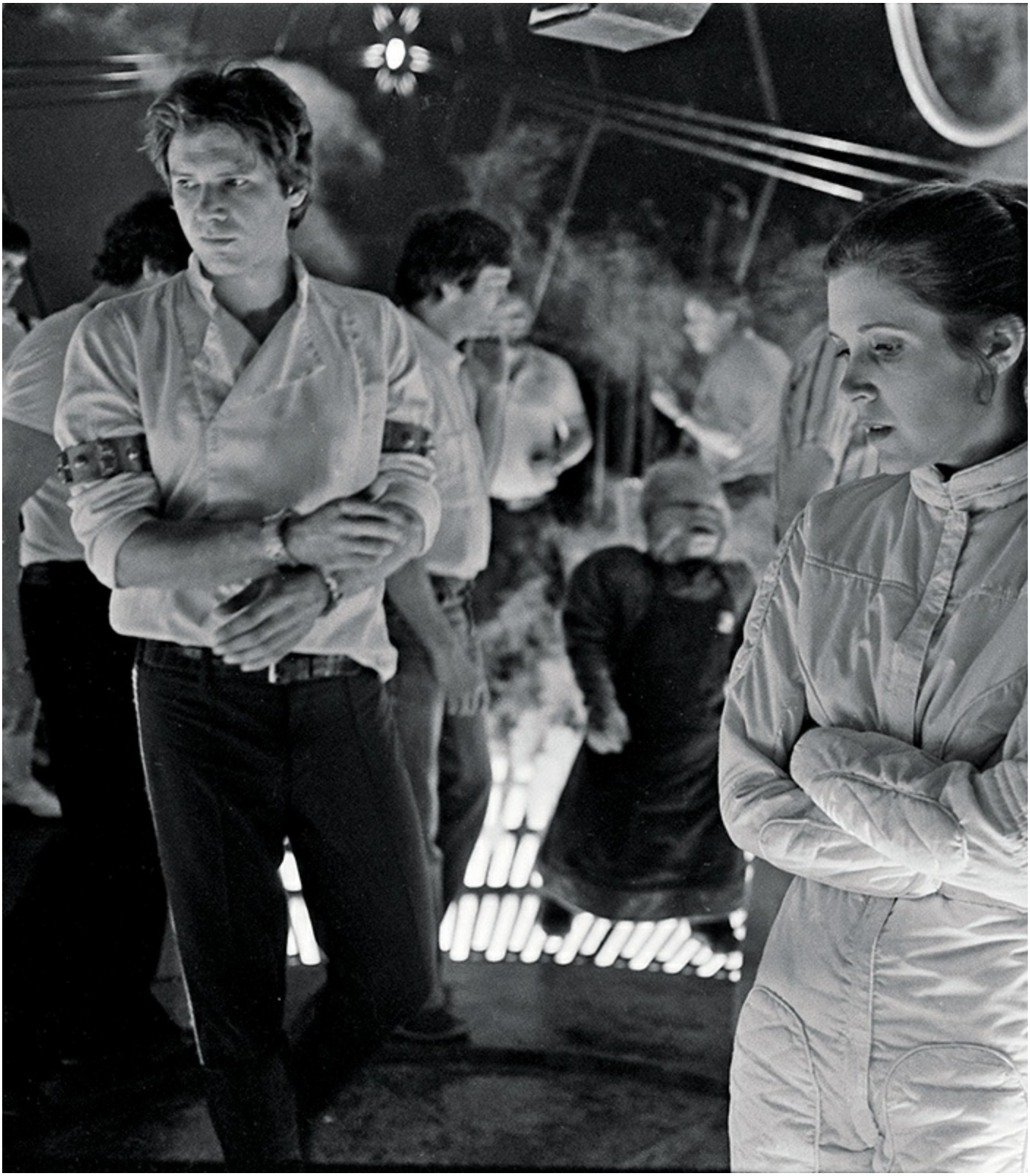
Kershner: No, don't turn to him in this shot, okay?

Williams: Okay.

Kershner: Because I want the shot only to work until the moment that Boba Fett walks over to him. Then I'm going to cut into the dialogue.

Williams: Okay. ("Kersh talks about *flowing* all the time," Williams says. "He's very much involved with Buddhism. I was very much at one point involved in Buddhism. And out of it, I think we acquired certain knowledge, understanding, and awareness, which makes it easier.")

Ford: I come up behind him while that other scene goes on?



A momentarily estranged Ford and Fisher.

Kershner: No, I'm taking it to the moment when Boba Fett walks away. As soon as Boba Fett walks away, you're all standing back here and that's when you say, "What are we doing now?"

Tomblin: It's gone quite well.

Kershner: [to Fisher] Carrie, you've never been in this place, it's something new.

Fisher: Alright.

Kershner: It's an industrial complex of some sort. But why you're here, you don't know.

Fisher: Okay. Harrison and I will probably not be speaking with one another for another couple of hours. I tried to apologize and he just waved me away.

Kershner: That's why I love him, because he's sensitive [laughs].

Fisher: So am I.

Kershner: What are we gonna do. [laughs] Did I imply that you're not?

Fisher: [amused] No.

Kershner: Okay, okay. We'll work it out, we'll work it out. [More scene prep.]

David Prowse: If I can just change the subject completely and take your mind off of it: Have I given you a copy of my book?

Kershner: No. What book is that?

David Prowse: I've written a book called *Fitness Is Fun*. I want to give you a copy. I brought one in, so sometime this afternoon.



Mayhew and Kershner.

Kershner: Just published? Oh, great.

David Prowse: Yeah, I'm doing a signing at Harrods on Saturday.

Kershner: Gee, that's great, that's lovely you took the time to do that.

David Prowse: Yeah, I worked on it every Sunday all the way through. It took me the best part of nine months to do. It's a lot to do with exercising. Your son would love it, because it's really a textbook on weight training.

Kershner: Okay, well, I'll buy one and have you sign it and give it to him. Boy, this is some scene. [More stage prep.] Oh boy. [to Peter Mayhew] Now, Chewie, we've got to talk. Of course, you're a Wookiee and you don't know what this place is. When he says, "You're going into a carbon freeze," you don't know what a carbon freeze is. All you know is it's dangerous. Give us one of your reactions, then do the growl. When Vader says, "Put him in," she says, "No!" And the two troopers will grab him. I want to work it out so that you will grab one of them, this one first, and—[yells across the stage] Peter! Peter Diamond!

Peter Diamond: Yes!

Kershner: While we're waiting, let's do some work! [laughs] This is going to be dangerous, yeah. You've got to work out something, so he can take you and start to tussle with you. The gun comes out of your hands, clunk, and wham!

Peter Mayhew: Do you want a backhanded swipe?

Kershner: It could be. Okay, you've got that. Now, David!—no, another David—I've got too many Davids. [to Prowse] Now, you're here, he [Boba Fett] walks over to you, and he says two lines of dialogue. And then you say, "Put him in." Okay, at that moment …

David Prowse: There's a big melee going on, isn't there?

Kershner: No, there's no melee going on. When you finish the dialogue, you say, "Put him in." At that moment, the realization that it's about to happen takes place. Leia's horrified, she holds on to him, he picks up his big clammy arm and goes wham because the two stormtroopers come forward. Now, Harrison, your position here, when he says, "Put him in," these two guys come to grab you.

Ford: Okay. I still want to know some things about the first one. Will I hear Vader?



Mayhew, Fisher, Kershner, and Williams.

00:00 / 00:00

On the carbon freeze chamber, Kershner discusses with Ford the logistics of the moment in which Chewbacca loses his temper—and how Solo should stop him before the Wookiee is blasted by stormtroopers. (Recorded by Arnold on June 21, 1979)
(1:17)

Kershner: Yeah. I haven't done a rehearsal yet. I'm trying to get little pieces while they're doing all this shit that has to be done.

Ford: All I'm asking is, when Vader is talking to Boba Fett, I'm standing here—

Kershner: You hear him.

Ford: I can hear what he's saying?

Kershner: Yeah, you can hear it.

Ford: Then why do I ask him what's going on? You just had them come in and play this little scene with me behind, then I say, "What's going on?"

Kershner: No, no, no.

Ford: Are we going to rehearse it? I'm just trying to figure out how to make it work, too.

Kershner: Yeah, alright. I can't work with this steam going on. I've got to shut all the steam off and do the rehearsal without the steam. We can go nuts with this; you can't hear anything.

Ford: And we're rehearsing from the very beginning?

Kershner: From the very beginning we're going to rehearse, from the very beginning. [to Mayhew] So, you reach for him, wham! That's it and now the others descend on you. We've got to find a place where he would stop you.

Ford: What keeps me—

Kershner: You're shackled.

Ford: If I was going to be able to stop him with, "Stop, Chewbacca, stop," then I would stop him before he killed any more guys and before the other guys had a chance to even get to him.

Kershner: First of all, why do they hit him? Why don't they just pull their guns on him and blast him?

Ford: I've got to stop him so fast for it to work. The other guys won't even have a chance to get over there.

Kershner: Yeah, maybe that's right, maybe that's true.

Peter Diamond: We're going to need to do this fast-paced, yeah?

Kershner: Yeah, we're going to do a rehearsal right through—I've never had one rehearsal with the dialogue and everything. Let's just do one without the steam where we can actually hear everything and see that everything is working.

Peter Diamond: Okay. [Tomblin calls for the staging of the scene.]

Kershner: What's that thing? I've never seen it all together without steam. Bob, Bob, whoa, whoa, what is that?

Bob: That's just paint from the can, that's all.

Kershner: You know, we're breathing so much shit in here, I don't think we need anymore, I really don't think so. Yeah, we don't want that there. Boy, they throw that propellant around like it's candy. [More scene prep.]

Williams: At what point do you want me to turn?

Kershner: [to Fisher] What's the matter?

Fisher: I apologized and he can't even …

Kershner: He'll calm down, don't worry, he'll calm down.

Williams: At what point do you want me to—is there any specific place you want me to turn? When they come to about the top of the stairs?

Kershner: No, when they're halfway down, you look over. Give it about three beats and then look away. That reads nicely, you know. [to the crew] Alright, let's go, this is a complete rehearsal.

Tomblin: Okay, let's clear unless you're acting, please.

Kershner: With all three cameras. [whispers to Tomblin] Now, is Lando's aide clear in terms of not being right in back of …?

Tomblin: Yeah, that's John Hollis.

Kershner: He can be a little bit more to the left, huh?

Tomblin: Right, okay, why don't I move John Hollis?

Kershner: [to Hollis from across the stage] John Hollis, move half a step to your left. (Hollis played "Lobot"—short for lobotomy. Although in the fifth draft, he had at least one line, it had been decided that the assistant was a mute. "The idea of Lando communicating with Lobot through his headset did not exist in the script," Kershner says. "I added that on the set.")

Tomblin: That's it.

Kershner: Right. [to the assembled crew] Okay, here we go. Alright, this is a rehearsal. We do everything, minus the steam. Alright—action! [Steam is released.] Minus the steam! No steam, no CO_2! [Scene proceeds briefly.] Cut, cut, please cut!

Tomblin: Hold it. It doesn't seem to be working properly.

Kershner: Not again. [Tomblin directs the crew to their places.]

Tomblin: Alright, ready, here we go! Action! [Scene is played out as Tomblin directs the troopers and little people.]

Kershner: Cut! Okay. Kel, how did it work?

Kelvin Pike: Pretty good.

Kershner: Yeah, it looked alright for me. [to Williams] As Boba Fett walks away, he starts the dialogue.

Williams: Do you want me to continue with the dialogue?

Kershner: Yes, I want to do the dialogue.

Williams: Oh, I didn't know that.

Kershner: We're going to do the dialogue, yeah. I thought you understood.

Williams: I thought you wanted to wait until the cut.

Kershner: No, no, no. I want to do the dialogue right there. Yes, Harrison, he misunderstood that. [whispers to Williams] Okay, we do the dialogue in a long shot and then we'll overlap it.

Williams: You didn't tell me.

Kershner: Okay, I'm a fool. [laughs; he then turns to Tomblin] Okay, now, precisely when Vader is about here, that claw should be coming up. ("My feeling is that when you're shooting, the first thing you do is put up the camera on a wide shot and get the entire scene," says Lucas. "You block it and shoot it in one big, wide master. You can do it very quickly—and what it does is, it makes the DP light the entire set and the cast go through the entire scene, so everybody knows what's going on. What Kersh would do is he would shoot a piece of someone coming in and sitting down or he would shoot the fight and then have him go out the door. Those are two different masters, so the cast and crew sometimes wouldn't see the whole thing played through in one piece—so they often never understood how it all went together.")

Ford: Are we continuing?

Kershner: Which?

Williams: Dialogue. That's what I asked you.

Kershner: We're doing the dialogue, yes, you're doing the dialogue.

Ford: [irritated tone] We never got past, "What's going on, pal?" Do you want to go past that, or not?

Kershner: No.

Ford: Okay.

Williams: So one last time, we're not going to go into …

Kershner: Yeah, you're going to do your dialogue. Then …

Williams: He's going to ask me …

Kershner: Yeah, "What are we doing here?"

Ford: That's what I just asked you, Kershner. I say to him, "What's going on, pal?" We've never gone any further in rehearsal than that.

Kershner: I thought you did it. It looked like you did it.

Ford: Billy didn't know, Billy never answered.

Kershner: Oh, okay, yeah, we do that.

Williams: Oh, we do that, okay.

Tomblin: Do you want to break for lunch?

Kershner: No, I want to do the shot now. I want to just do it because it's a long shot. It's only for an overlap, you see what I mean?

Ford: [sounding stressed] Nobody noticed anything. This is the third time I've come up to Billy and said the line and Billy hasn't turned around and said a word to me. Now, that's because Billy didn't know that we're supposed to do the dialogue.

Kershner: Okay, I'll tell you what, while you're standing here, let's see how you do the dialogue.

Ford: Can we have somebody stand in for Carrie?

Kershner: Yeah, absolutely. [to a crew member] Where's Carrie?

Crew member: On the stair.

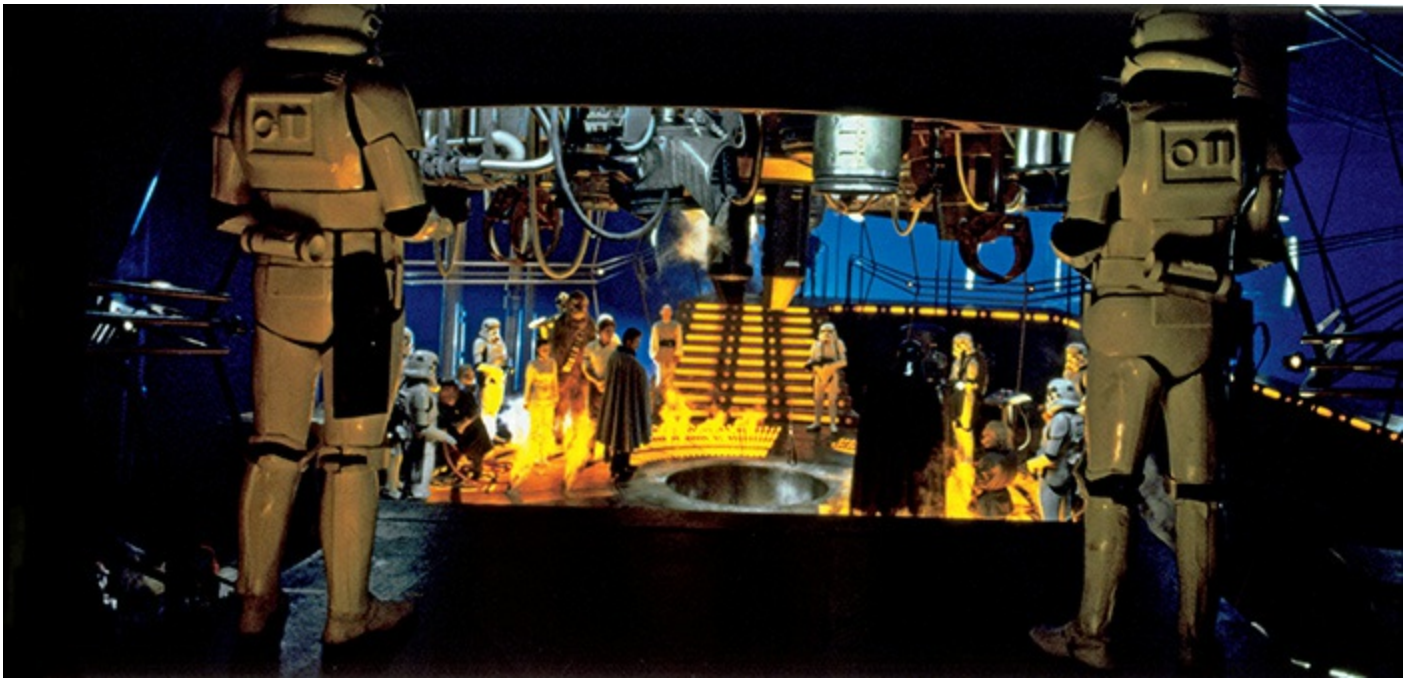
Kershner: Carrie! Could you stand here please? [The actors go over their lines.]

Ford: Are we going to have to raise our volume here to be heard above the steam?

Kershner: You're talking just to yourselves. This is a little scene between just the four of you.

Tomblin: Everyone in position.

Diamond: This is the easy bit, Kershner [laughs].



After many rewrites, rehearsals, and some anguish, the cameras rolled on scene 379, beginning with an establishing shot envisioned by Kershner earlier in the process (complete with framing stormtroopers; crowd artists included Alan Harris and Robert Young as Lando's Guards).

Kershner: No, this isn't; this is the hard one. I need to know just where to cut in. Whew! It's a monster. [Time passes.]

Tomblin: Okay. [Barks orders to stagehands with a bullhorn.]

Kershner: Harrison? Where is he? [to stagehand] I want this jet to be moved to this side because it's obscuring Lando completely. [Bell rings.]

Ford: I started the dialogue while he was still there because there was nothing going on that …

Kershner: Well, it won't look like nothing's going on in this extreme long shot. There's so much going on, you're bewildered by the whole thing.

Ford: That's what I play, bewildered?

Kershner: Yeah. And I'm gonna send Vader in a little sooner. I'll try to speed the whole thing up a little bit.

Ford: Well, it worked out because by the time Fett got to Vader, we were done with our dialogue.

Kershner: Yeah. Except that I want to cut in on your dialogue, so I can hear it. And therefore, I wanted to wait until Boba starts walking and then I cut in, you see?

Ford: Why doesn't he walk a little bit faster?

Kershner: Alright, Jeremy!

Jeremy Bulloch: Yes?

Kershner: You start walking around here as soon as Vader has stepped off the last step, then you start coming around to him. You're setting the pace, aren't you?

Bulloch: I'm setting the pace, yes.

Kershner: Set the pace a little faster; you're too slow, okay?

Bulloch: I couldn't see a thing. The helmet steamed up, but I can do it; it'll be alright.

Kershner: Oh, gee, that's a shame, yeah, but it should be a little bit faster. [to crew member] Okay, as soon as I get this, we cut and go to lunch. We come back from lunch, we do a rehearsal and stay right to the end; knock it off with two cameras to the end.

Tomblin: We leave that set.

Kershner: We leave it set. We don't change that setup. We stage the whole thing to the end, the fight, the whole thing.

Tomblin: Okay, stand by!

Kershner: Ready for fate to take over. We should start making bets on how many things go wrong. [laughs] At least nobody's fallen off yet.

[They do a take.]

Crew member: Are you happy with that or do you want to go again?

Kershner: Can we have somebody fix Threepio here? Wardrobe! Okay, we need some wardrobe here. Can you get him, please, right here? His arm came off. David [Prowse], can you walk just a touch faster? Without falling.

Tomblin: We've got too many people up there. Jesus Christ. What's going on? [He directs with his bullhorn.]

Camera crew member: Three-seven-nine, take two! [Uses clapboard.]

Tomblin: Ready?

Kershner: Yeah. Action!

Tomblin: Action! [Incredibly loud steam jets operate as the scene proceeds during several takes.]

Kershner: Cut! Okay, print it. Okay, print those two; that's it.

Kay Rawlings: We're printing four and five.

Tomblin: [bullhorn to crew] Now everybody listen. [off bullhorn, quietly to Kershner] You want all the principals back, yeah?

Kershner: I'd rather do the rehearsal first, then …

Tomblin: You ought to get that one done, Kershner, get that one done, then …

Kershner: Yeah? Okay, let's get that one done.

Tomblin: [bullhorn] Listen, please, after lunch we're doing exactly the same shot on a close-up lens, after the makeup checks for the principals to be here. Everyone else, come back at three o'clock, thank you. Break now for lunch.

Eventually, with many onlookers, the scene and setups were completed; Hamill would say that he

really enjoyed watching Ford and Fisher work in that "Spencer Tracy–Katharine Hepburn way." "This time was better because people knew they were on some sort of winner," Daniels says. "You only had to look at the script to see that it was very, very good. Most times watching a scene in the studio is very dull, especially for the thirtieth take. But there were some scenes where people were actually crowding in to watch."

"The scene where I am about to go down the chute to be carbonized—well, the original line was, 'I love you, too,' but I felt that the other way was Han Solo's way of saying, 'It's not over,' " says Ford. "I was very interested in that moment and how it works. We never even shot 'I love you, too.' We just went ahead. It gave George pause. He had not written the scene with a laugh. But that laugh opens you up emotionally. You don't have another emotional outlet in that scene. The kiss, as the Princess and I are pulled back, is visually strong, and there'll never be a payoff for the scene without a laugh."

"When they first showed the dailies to the cast and crew, they used the live sound and so when I say, 'I love you,' I was body-miked and it was at the right level," Fisher says. "But when Harrison replied, it came out a loud echo: 'I KNOW!' Well, the cast and crew laughed for about 15 minutes. It made them so happy to be working on the film because it was just very funny. But it works because they actually can make the transition from that laugh into the fact that it is something very sad."



Final frame of Leia and Han's farewell kiss.

"How do you like the way the film was shot?" Kershner asks. "We didn't want the comic strip look, but a look of diffused color. People's faces have green on one side and red on the other, or the scene is orange or blue."

CONTINUITY DIALOGUE

After all of the many revisions and brainstorming sessions, the script supervisor's final notes read as follows when Han is frozen in carbonite:

INT. CLOUD CITY—CARBON-FREEZING CHAMBER

THREEPIO

If only you had attached my legs, I wouldn't be in this ridiculous position. Now, remember, Chewbacca, you have a responsibility to me, so don't do anything foolish.

HAN
(to Lando)

What's going on … buddy?

LANDO

You're being put into carbon freeze.

Boba Fett moves away from the group to Darth Vader.

BOBA FETT

What if he doesn't survive? He's worth a lot to me.

VADER

The Empire will compensate you if he dies. Put him in!

Realizing what is about to happen, Chewie lets out a wild howl and attacks the stormtroopers surrounding Han.

From the instant of Chewie's first move, Threepio begins to scream in panic while he tries to protect himself with his one arm.



Ford posed for his portrait in carbonite, which was later combined with a standin's body for the complete picture.



Crew (second assistant camera Madelyn Most at far left, assistant cameraman Chris Tanner in the white shirt next to Billy Dee Williams; with beard, second unit director Harley Cokeliss) prepare the frozen Han prop for a shot (the equipment case on the left is marked “SFS” for “Samuelson's Film Services," which provided the majority of the camera gear for *Star Wars* and *Empire*). Holding the spray bottle is probably prop man Keith Vowles.

THREEPIO

Oh, no! No, no, no! Stop!

HAN

Stop, Chewie, stop! Stop!

THREEPIO

Yes, stop, please! I’m not ready to die.

Han breaks away from his captors. Vader has evidently nodded to the guards to let him go and the pirate breaks up the fight.

HAN

Hey, hey! Listen to me. Chewie! Chewie, this won’t help me. Hey! Save your strength. There’ll be another time. The Princess—you have to take care of her. You hear me? Huh?

Chewbacca wails a doleful farewell.

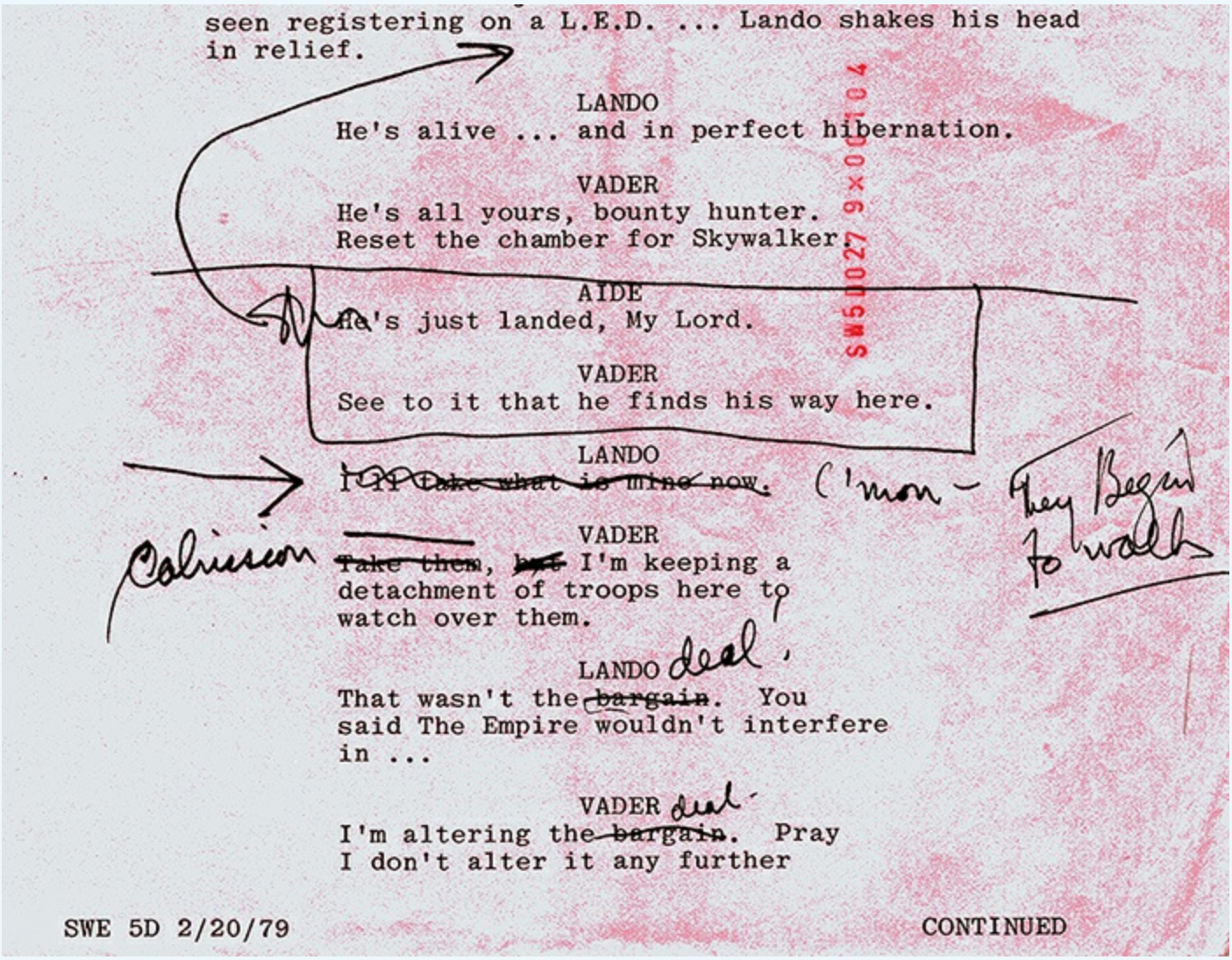
Han turns to Princess Leia. They look sorrowfully at one another, then Han moves toward her and gives her a final, passionate kiss.

LEIA

I love you!

HAN

I know.



seen registering on a L.E.D. ... Lando shakes his head in relief.

LANDO
He's alive ... and in perfect hibernation.

VADER
He's all yours, bounty hunter.
Reset the chamber for Skywalker.

AIDE
He's just landed, My Lord.

VADER
See to it that he finds his way here.

LANDO
~~I'll take what is mine now.~~ C'mon – They Begin to walk

VADER
Calrission ~~Take them~~, ~~but~~ I'm keeping a detachment of troops here to watch over them.

LANDO deal.
That wasn't the ~~bargain~~. You said The Empire wouldn't interfere in ...

VADER deal.
I'm altering the ~~bargain~~. Pray I don't alter it any further

SWE 5D 2/20/79 CONTINUED

Another page from the shooting script shows last-minute changes to the dialogue after Han is frozen in carbonite.

NOS. 77–80, FRIDAY, JUNE 22–WEDNESDAY, JUNE 27: STAGE 4—INT. CARBON FREEZING CHAMBER, 379 PT.; SECOND UNIT—HOTH PLAIN, FALCON COCKPIT

Monday, June 25, was declared the last of the originally scheduled 76 days—but by then, production was 26 days over and nowhere near the finish line. To make matters worse, that afternoon, an injury occurred.

"The week began auspiciously," Arnold writes. "The Hamill baby arrived, a son they named Nathan Elias [after Hamill's grandfather and his favorite author, Nathaniel Hawthorne, according to *The Buffalo Evening News*], thus ending a period of tension for the couple. Marilou was much overdue. She began her labor while visiting friends in Hertfordshire, and the baby was born in the early hours of Monday [1:50 AM]. Mark was up all night, staying at the hospital and calling relatives and friends."

"I called Gary Kurtz at five in the morning when I finally got everything sorted out," says Hamill. "I said, 'So, I'm not coming in tomorrow.' He said, 'Fine, of course not. Get a good night's rest and congratulations.' My big mistake was not taking the phone off the hook—because I got a call at eleven o'clock that morning, saying, 'You could really help us out if you just finish this one bluescreen thing, because then we could tear that set down. The rostrum is going to be covered with salt and you're reaching over your snowspeeder to get the bomb out—and you look up and a big giant foot is going to crush you. So you have to turn toward camera and leap as far as you can.' I said, 'Well, let me call you back.' I called Marilou and she said, 'Don't worry about it. The baby's sleeping all the time anyway. Just go do the shot and I'll see you around five or six, no problem.' So, because she said that, I called back and said, 'Alright, I'll be there.' "

On set, Hamill, Kershner, Kurtz, and crew had a champagne toast in honor of newborn Nathan Elias. "It's so funny to have something that personal going on and then have to come and do a movie," Hamill says. "It seems so absurd. Here I am standing in front of a bluescreen with fake snow and just jumping and landing on my face. For this I went to acting school?"

"There were only a few moments during the entire six months of shooting when someone actually neared the breaking point," Kershner says. "At one point, Mark had to take a fall and he broke his thumb. The pain was excruciating. He was writhing on the floor, face contorted, covered with salt. I think, at that point, he wouldn't have minded never seeing any of us ever again."



In the shot where the actor injured his thumb, Hamill leaps from his snowspeeder just before it is crushed by a walker's foot (which would be added in post).



Mark and a pregnant Marilou Hamill.

"We did it six or seven times," Hamill says. "I had the gearbox and a lot of equipment on, and I'm banging my head around in the helmet; I still have a little scar on my forehead from where the salt scraped it badly. And then, on this one take—and people remember the exact take because it later turned into a semi-crisis—I smashed the bone of my right thumb. I thought, *Oh that's painful*, but it didn't really bother me and we got the shot."

"A little later, I joined Mark in his dressing room," Arnold continues, "while we composed a telex containing information about the birth for dispatch to Lucasfilm and Twentieth Century–Fox … I left the studio that evening thinking all was well in our tight little world of make-believe … But I was to learn the next day that Mark became angry after I had left. His thumb swelling, he called Kurtz and took him to task for not having used a double that afternoon. Kurtz responded by summoning a stunt double and a wigmaker to the dressing room. If Mark was going to be indisposed, then they must be prepared to shoot without him. This ruffled Mark all the more … Mark ordered everyone from his dressing room. Then he was driven home in ill humor."

"The day that Mark sprained his thumb, he was so angry about that incident," Kurtz says. "I think it was a combination of being frustrated from that and being very tired over the events of the last couple of days and the baby coming and everything else."

"It got worse and worse," Hamill says. "By the time I got home, I couldn't get my jacket off—I have this baseball jacket and I couldn't get the elastic cuff around my hand, it was so painful. So I went to Avenue Clinic with Marilou. And because of that we shut down, because I couldn't swordfight with that problem."

"We shut down the first unit for four days to let him recover," Kurtz says. "And the next day when he came in, he yelled at me for it being my fault for having him do that jump that sprained his thumb. Maybe it was, although that particular jump was rehearsed several times by the stunt coordinator. But Mark was so keyed up because he was just getting ready to start the swordfight and had been rehearsing it for six or eight weeks. He was so disappointed that he couldn't start it. At that point, his stunt double and the hairdresser came in to just check the wig to see about matching. He got very angry and almost threw them out of the dressing room because he felt in his head that somehow we were going to shoot the sequence without him because of his thumb injury, which wasn't the case at all."

"After getting over the shock of knowing that I couldn't continue shooting—and I was really primed to begin a whole new section of the picture with Mark—after getting over the disappointment, I realized that there was nothing I could do about it, that he was in the hands of the doctors and fate," says Kershner. "So I immediately jumped into the preparation that's almost impossible to do adequately on this picture."

With first unit halted the following day, second unit continued in the *Falcon* cockpit with Ford, Fisher, Daniels, and Mayhew. Hamill went for X-rays at Barnet General Hospital and the insurers, Bayly, Martin, & Fay Ltd., were notified. Production was counseled to not use Hamill until his hand was fully healed.

"On Stage 4, a small group of stagehands was disconsolately playing cards," Arnold notes. "Tuesday, Wednesday, and Thursday passed, and still Mark was indisposed. I talked to Kurtz about the implications. It was better, he said, that Mark's thumb be allowed to heal completely rather than risk a more serious sprain at the height of the confrontation sequence. It would also cover production from the

insurance standpoint. This morning, I looked in on Stage 4 again. The card game was still going on."

On Friday, Hamill was seen by Dr. Collins at Elstree and again announced "unfit" for shooting due to his left thumb; insurers were again advised. While the daily routine ground to a halt, that same week brought further troubling news regarding the fate of *Empire*.

"On June 27, we were not shooting and that was also the day we heard that Laddie was leaving Fox," says Kurtz of their most stalwart protector. "It was a shock to all of us, of course, because it came as a surprise. The situation was not a surprise. I had known about the conflicts between Laddie and Dennis Stanfill [president of Fox] for quite a while. It was the timing. I felt that somehow it probably would come after the first of the year. Our biggest concern is how it affects the distribution of *Empire*. I just think it will require more work in liaising with the Fox people and George meeting with Stanfill. George was the one who was there when all of this was going on and he related it back to me, but they did make an effort to make sure that we knew what was happening."

According to Aubrey Solomon's history of Fox, Alan Ladd and his two partners—Gareth Wigan and Jay Kanter—left the studio after negotiations with Stanfill fell apart. Ladd had wanted more money to renew his contract. "The criticism over the deal with Lucasfilm is what ended my tenure at Fox, really," Ladd says, "because people were very angry and irritated, even though they made millions of dollars off it. We had a big fight, so I stomped out of the boardroom and said, 'I quit.' "

"Fox didn't have to take the deal, but *of course* they took the deal," says Sid Ganis. "They took the deal for two reasons: one because *Star Wars* was such a gigantic success and there was no reason to believe that *Empire* wouldn't be also; and the second reason is, how do you not take the deal? But along the way, there was negotiation after negotiation; there was a home video negotiation between the studio and Tom Pollock, myself, and a couple others that was intense and lasted for days and days."

"It's like having your closest ally suddenly change governments," says Lucas. "It's very unstable because Laddie was our mentor there and he was the one watching over us. With him gone, we know that the studio people are not giant fans and that the board is not that happy with us. So we're watching the situation very carefully, because I have a lot of concerns that the studio might turn into chaos as a result of all this."

SETUPS: 922; SCS. COMP: 201/468; SCREEN TIME: 92M 38S/130M.



Ford, Peter Beale, Jay Kanter, Alan Ladd, Jr. (center), Patricia Ladd, and Kurtz (right), during a visit of Fox executives to the studio. After Ladd left Fox, Ashley Boone became head of foreign and domestic distribution, and Sandy Lieberson the head of production.

JUNE ILM: ON THE TAUN

By the middle of the month, ILM's model department had completed the eight-foot Star Destroyer and had started on Vader's ship, which was to be complete by July 16; by month's end, they'd completed the three snowspeeders. The first walker was due July 1. Production meeting notes for June 11 indicate that a decision was made not to build Cloud City as a miniature: "Will consist of paintings, cutouts, and foreground 3-D pieces." One week later, Herman reported that the "Oxberry is here, set up, and almost operational … Toilets for across the street—install ASAP."

The Oxberry animation stand was new to ILM, so Peter Kuran had hired Sam Comstock to operate it back in February, because the latter had been working for an educational television team in Kentucky where he'd acquired valuable experience with the machine.

"The eight-foot Destroyer is a duplicate of the first four-foot Destroyer, but it had to do so much more," Johnston says. "It was certainly hard to do and it took a lot of people's efforts over many months. George is satisfied with it much more than he ever expected; its lighting system, its mechanical system all work perfectly. That was real satisfying."

On June 25, Herman wrote, "Kerner Co. over budget. Department heads urged to stop spending and hiring. Evaluate your expenditures and buy only the necessities … Jim Bloom would like people to consider trying to start the work day at 8 AM instead of 9 AM to increase productivity."

"I had to break away from shooting," says Muren. Ken Ralston and Don Dow split Camera 1 "and Jim Veilleux continued on camera, so I could supervise for a couple of months. Don Dow started shooting in the daytime. We've had all the cameras shooting for months and months, and still the end is going to be a tight squeeze. I was hoping that by jumping the gun a bit we would be able to avoid the rush that always comes at the end of a show like this."

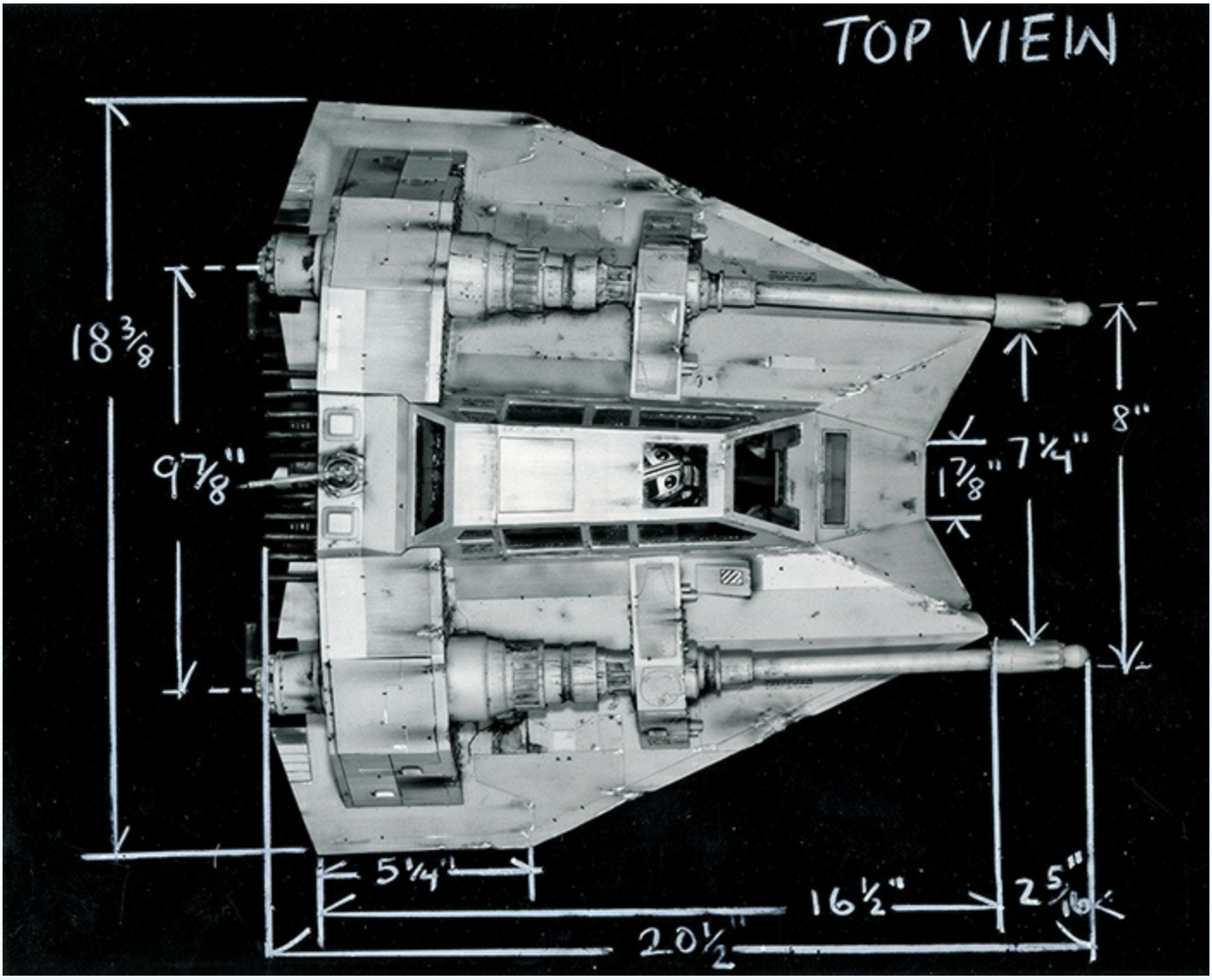
Doug Beswick, a *Star Wars* veteran, was working on another project in his San Fernando Valley machine shop when "Jon Berg called me and asked if I'd be interested in coming up there […], so I went up for a short visit. Jon and Phil showed me the taun […] They had this old armature, which was well deteriorated by that time, and a photograph of the taun that would be used in the film. There were a few sketches describing a basic idea of what was required for the armature. So I came back to the Valley and built a wooden prototype based on those drawings which illustrated the dimensions of the model, where the joints were, and what did what. A month later, I flew back to ILM with it and they made some changes. I worked from that and from a cast of the actual taun. The armature I made was aluminum, because it had to be light."

"Phil had his end worked out," Muren says. "The armatures were functioning properly, and the puppets were cast."

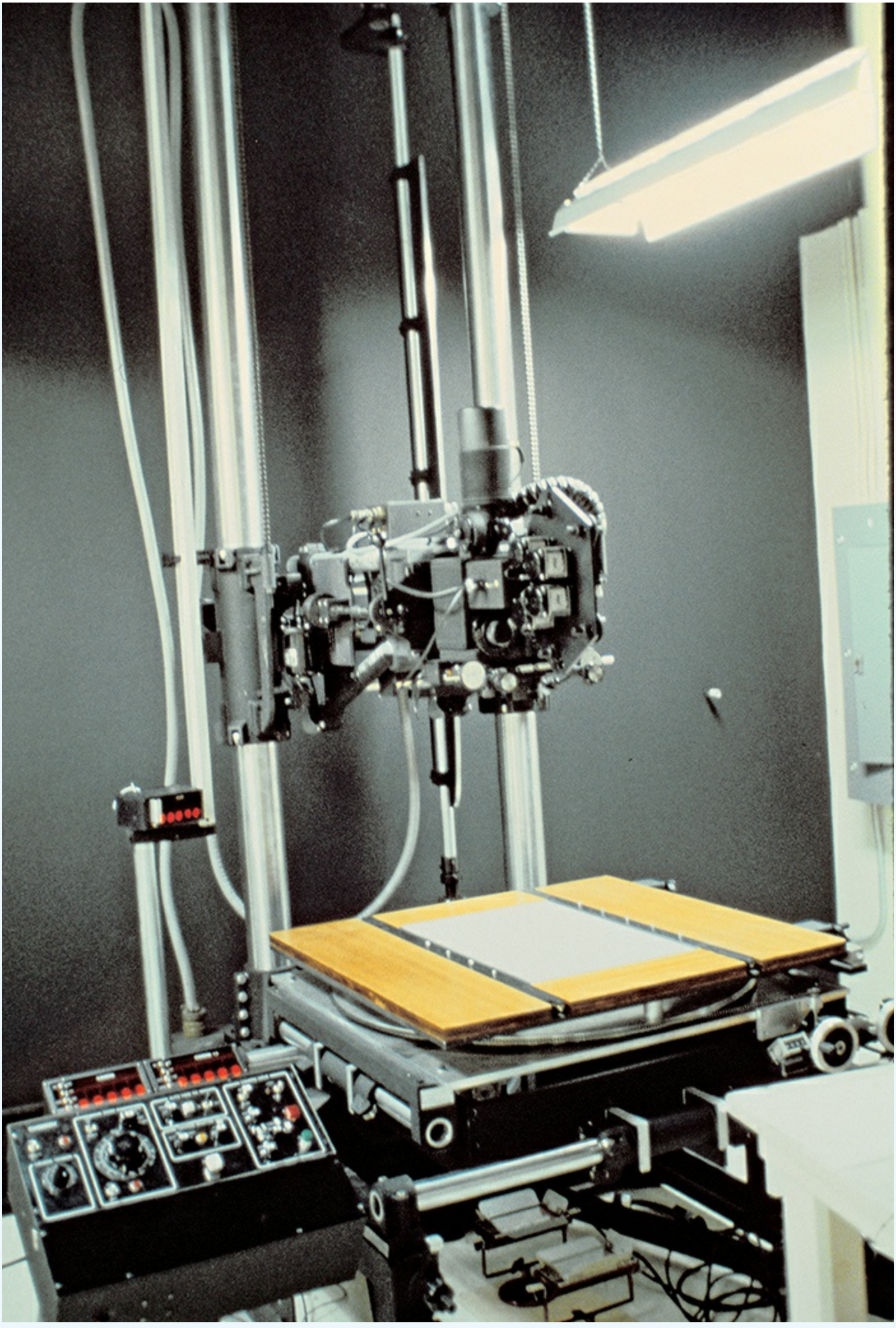
"Doug and I went back and made the final taun armature used in the film," Tom St. Amand says.

Painted snowscapes were suddenly due August 1, a decision having been made to not shoot the walkers against bluescreen. "To resolve the matter on how to shoot the walkers, Ken Ralston shot a bluescreen test with a walker on each side of the frame, similar to a scene that might appear in the film," says Muren. "But the matte edge looked funny, so it was discarded."

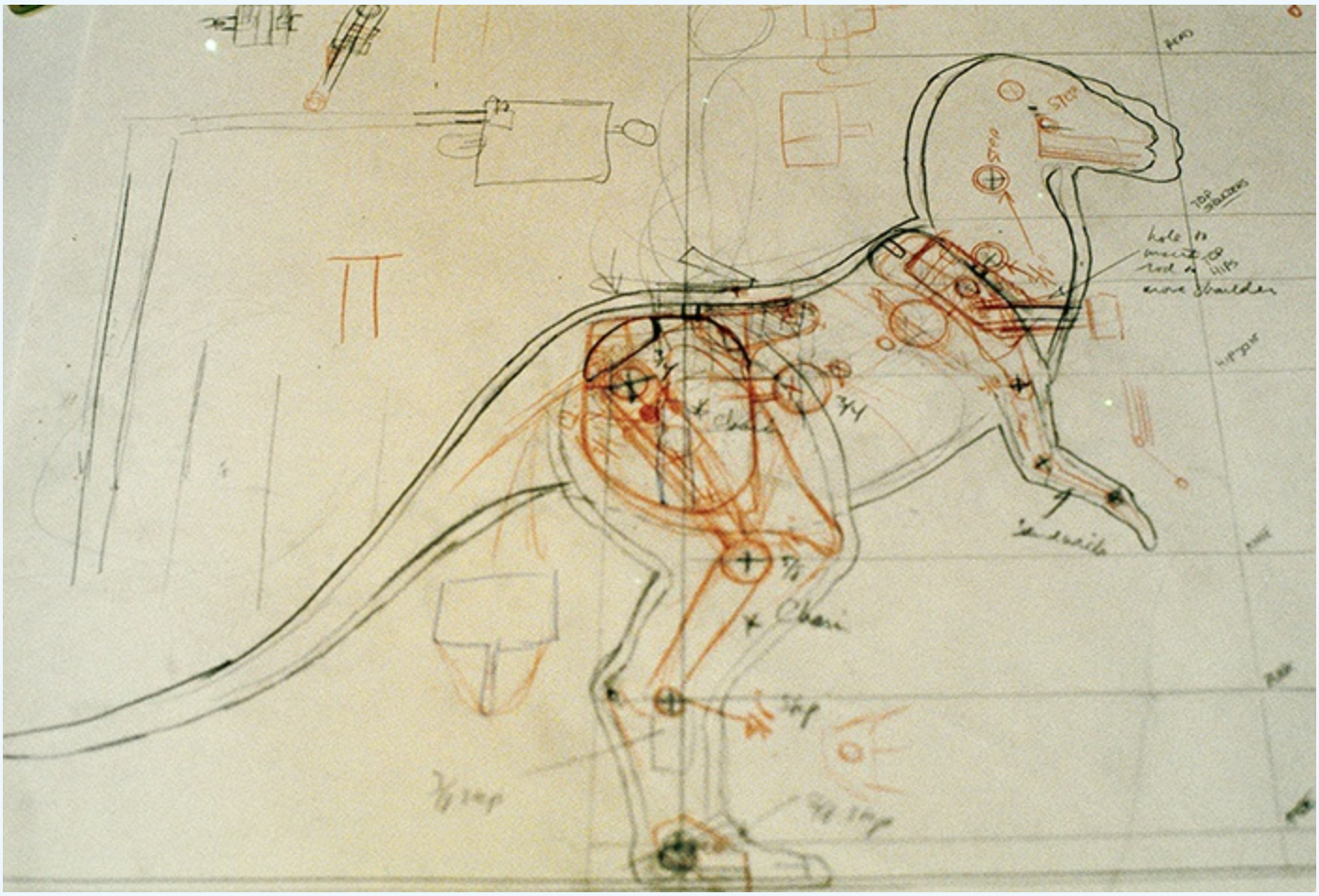
With the coffers emptying, work continued …

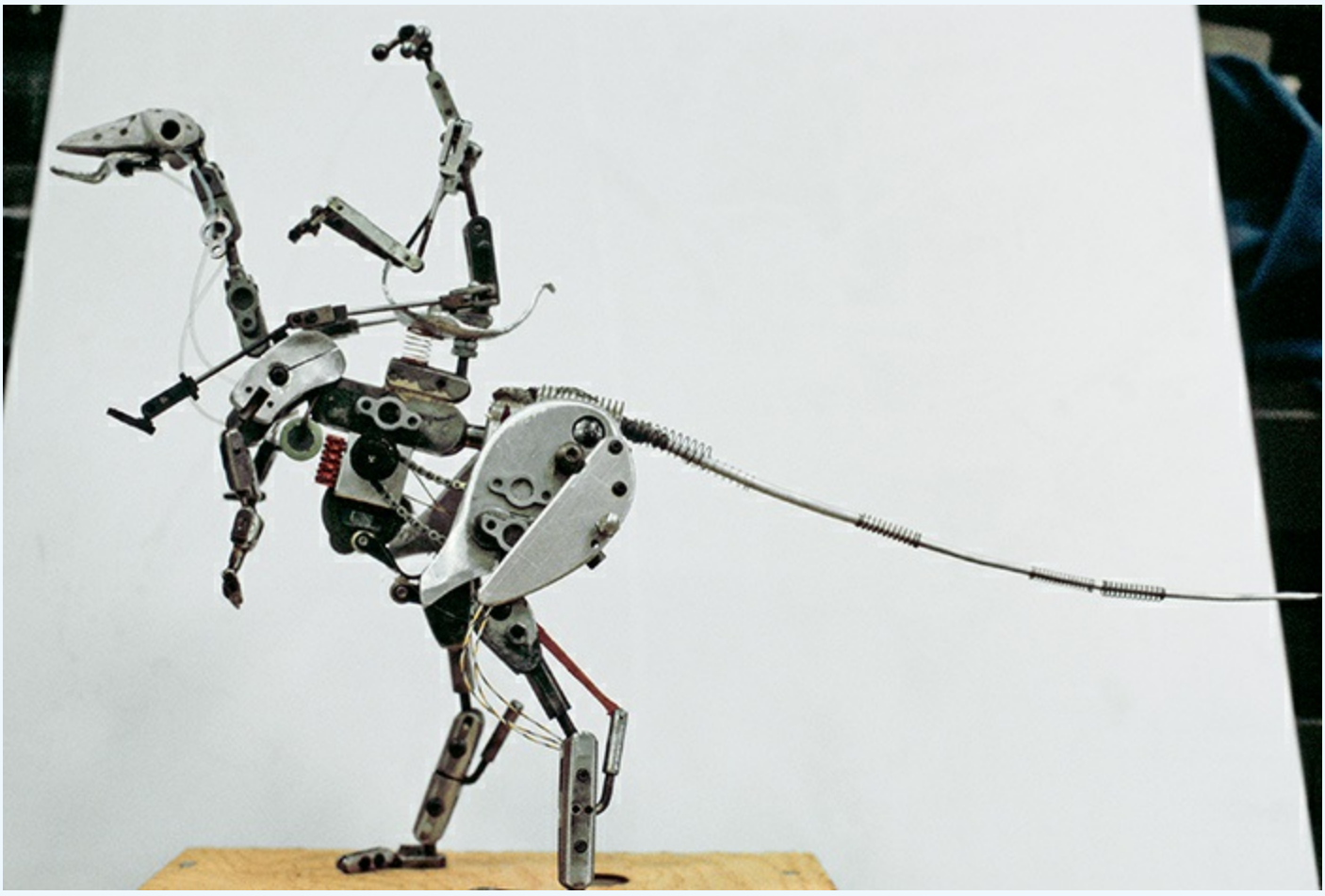


Snowspeeder miniature with measurements.



The Oxberry animation stand.



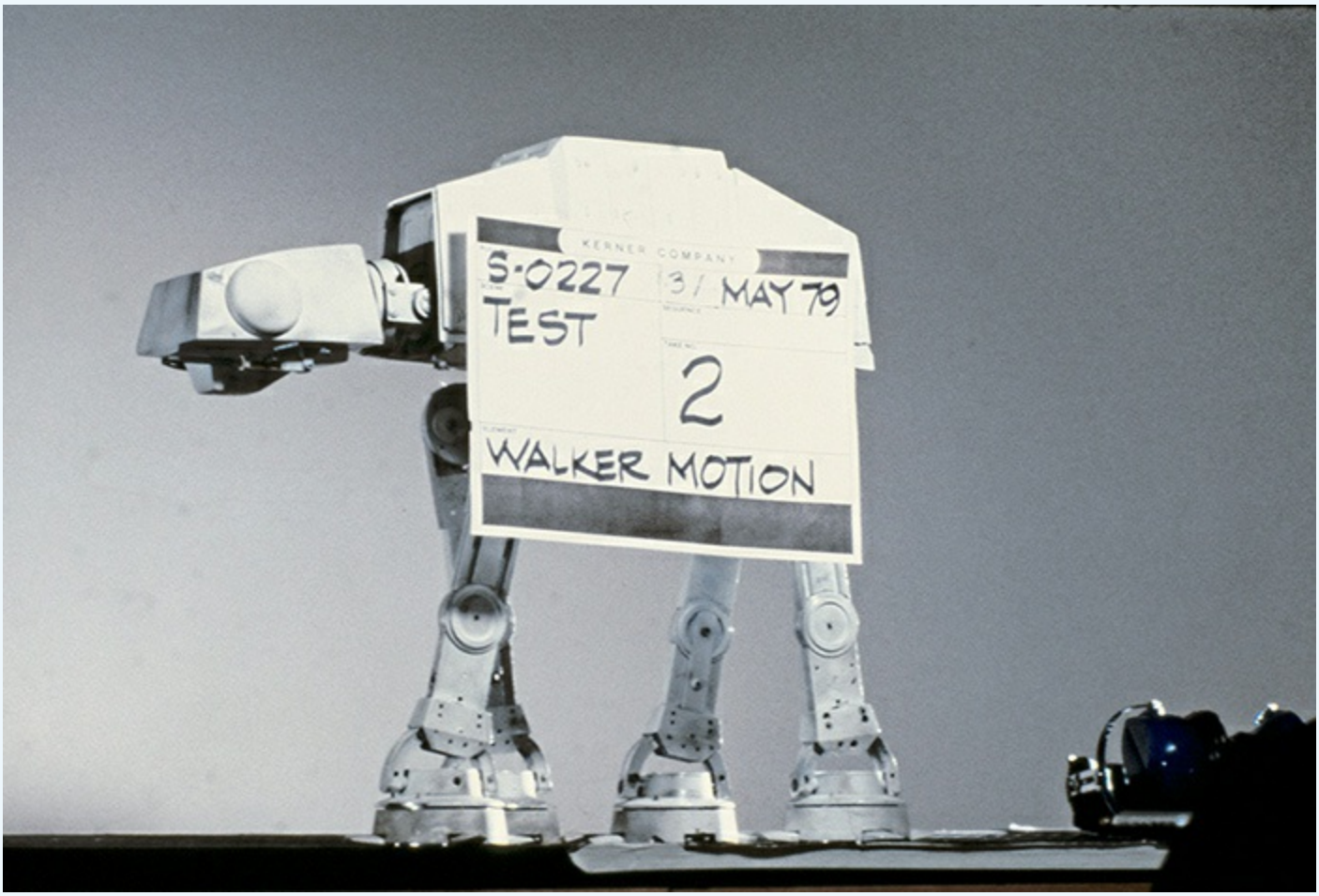


The design for the displacement and plotting joints for the tauntaun stop-motion armature.



Casting of the tauntaun models.





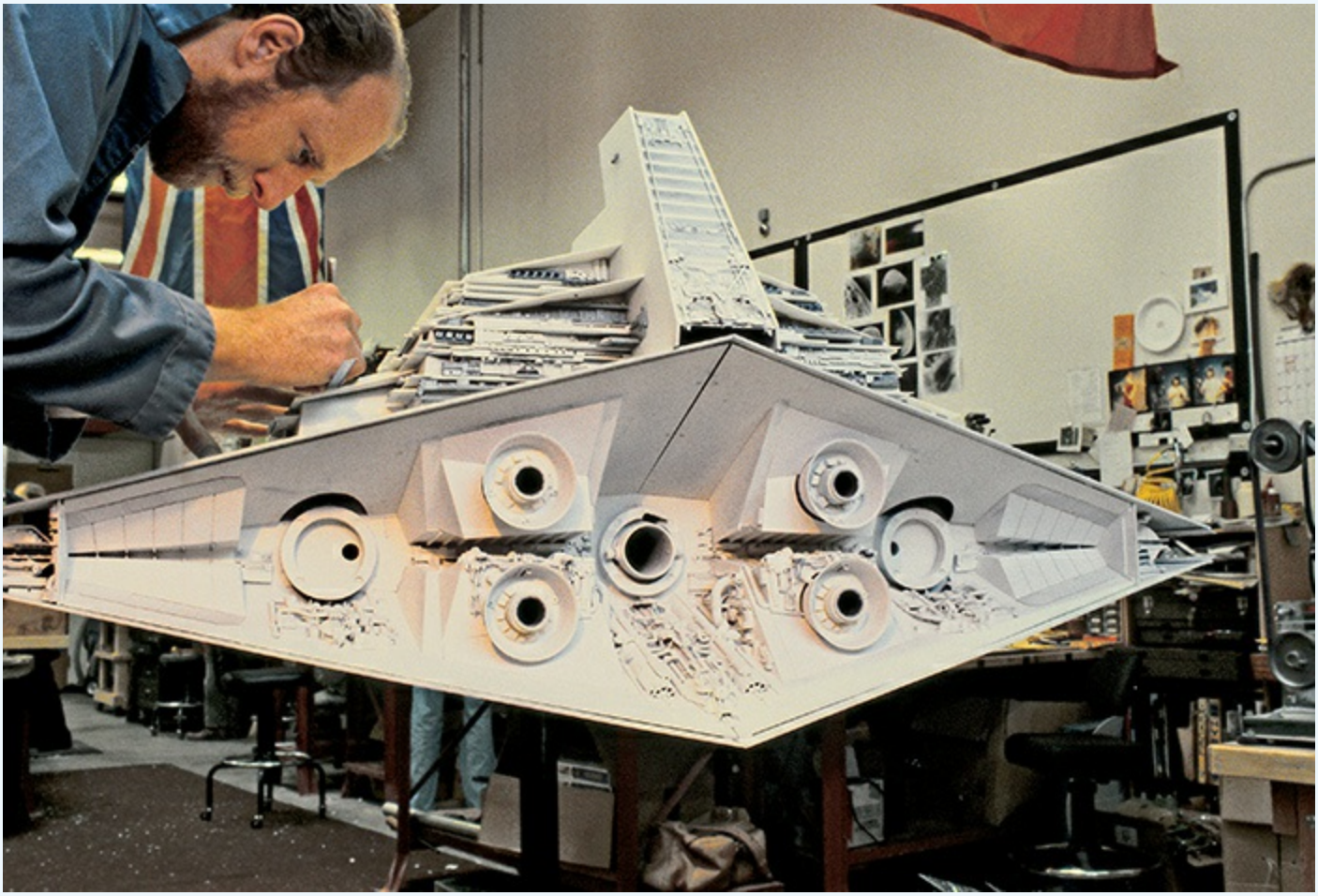
In May 1979, ILM conducted a walker test.



Peterson (in blue shirt) and Johnson conduct a tour for business folks (with what looks like the beginnings of the Star Destroyer on the table; behind them are model kits that would be "bashed" for parts; to Johnson's left are Dick Gallegly and model makers Mark Thorpe and Wesley Seeds).



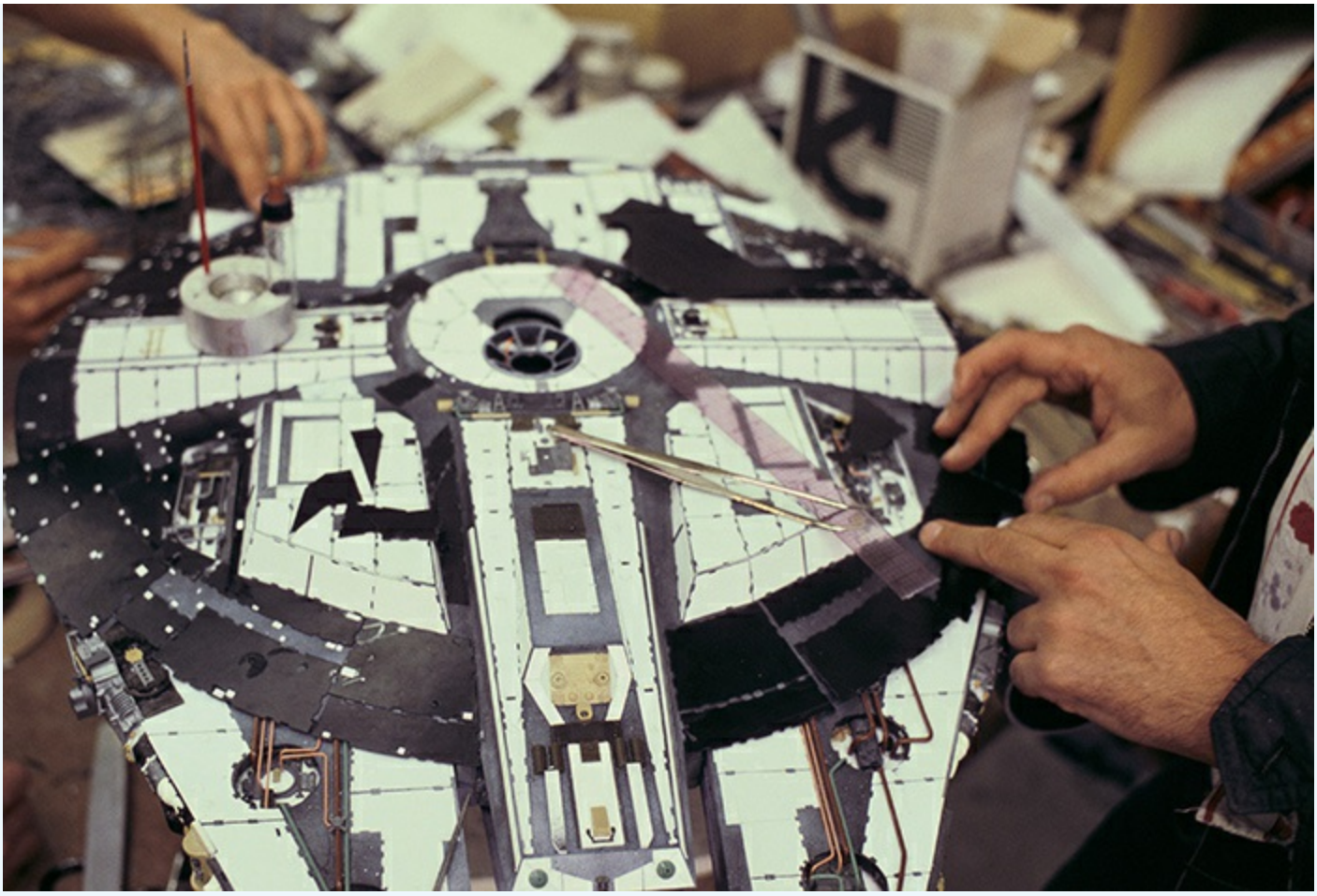
Huston and Ease Owyeung work on the new Star Destroyer.

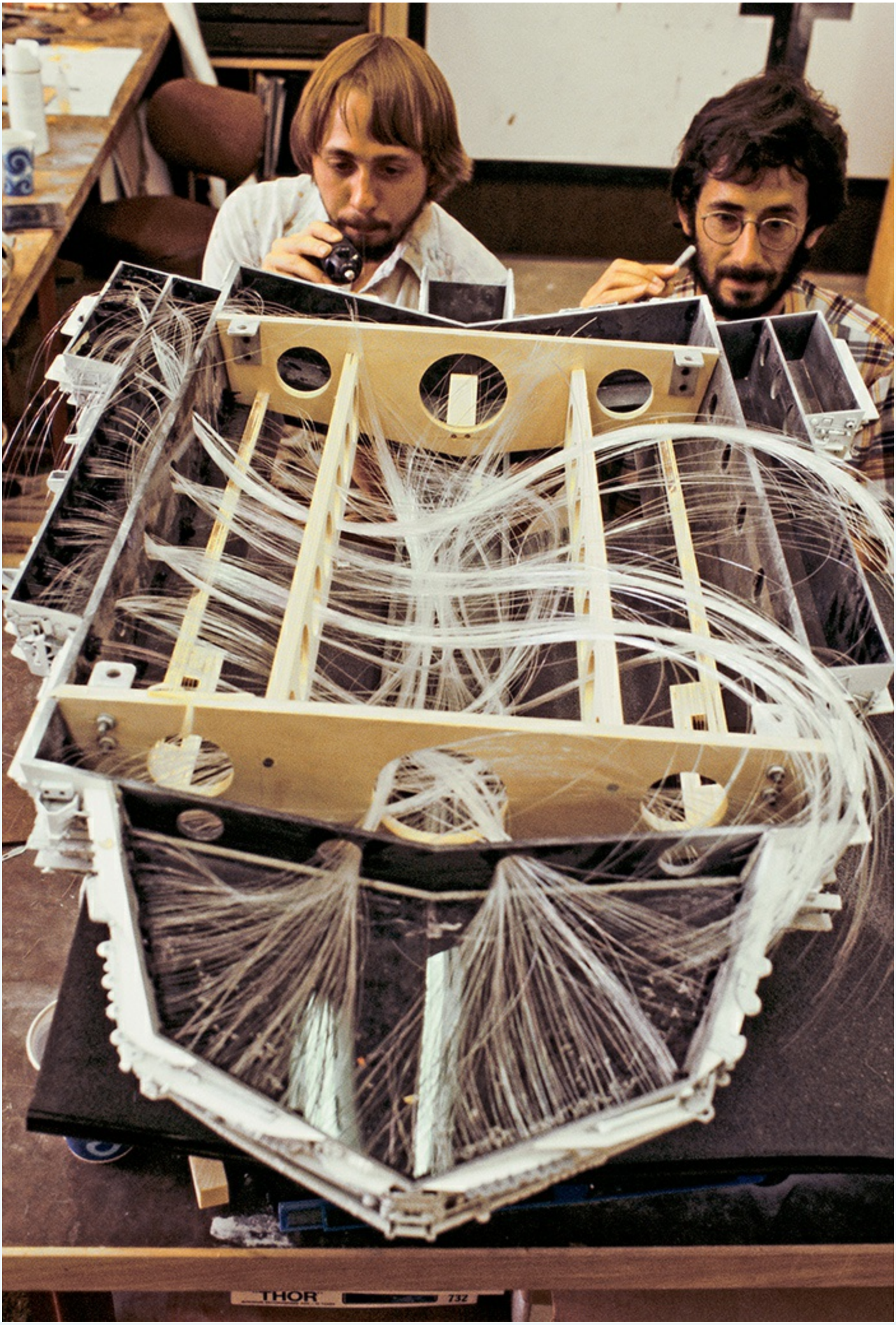


Gawley works on the new Star Destroyer.



Visual effects supervisor Brian Johnson poses with the completed Star Destroyer model.

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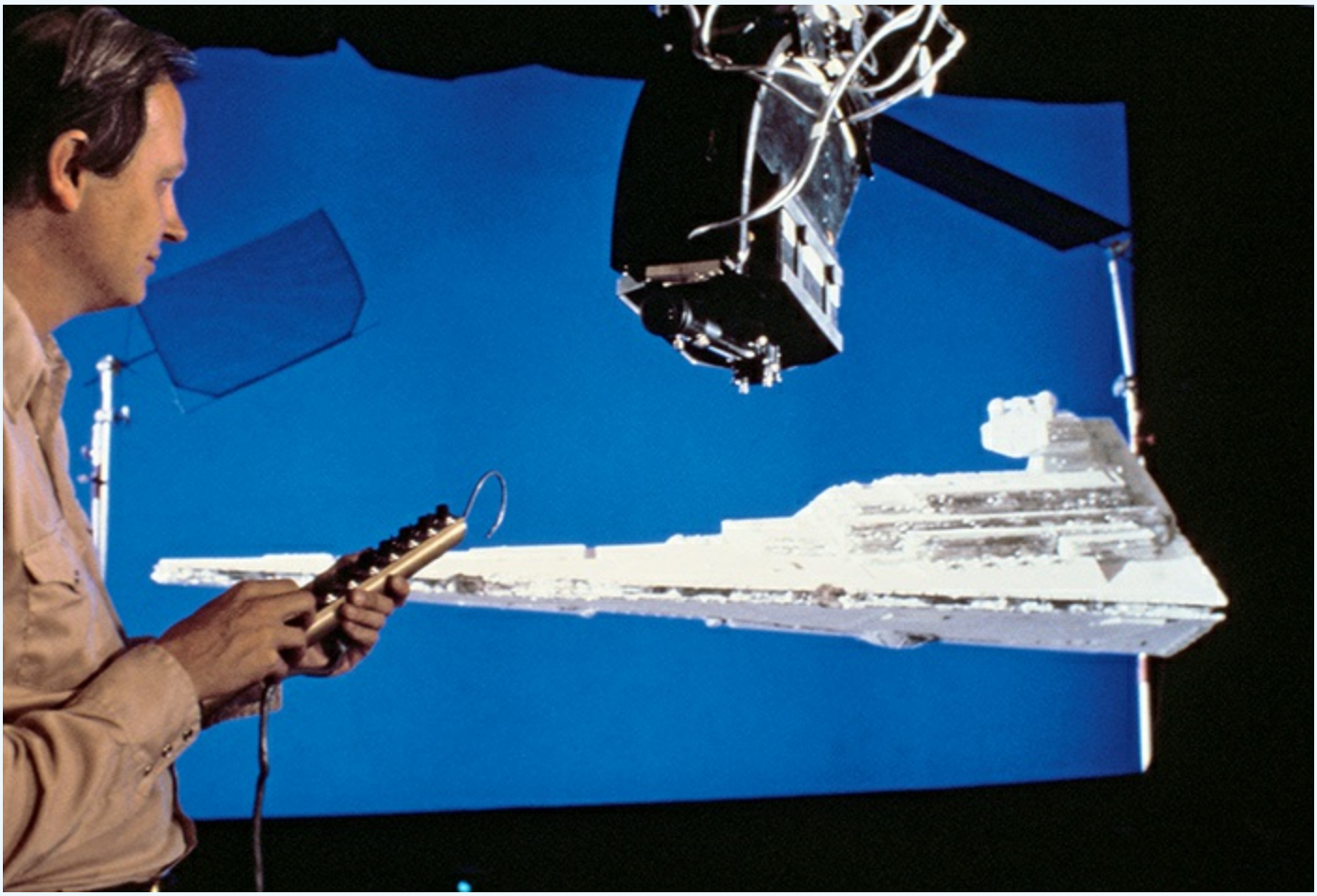
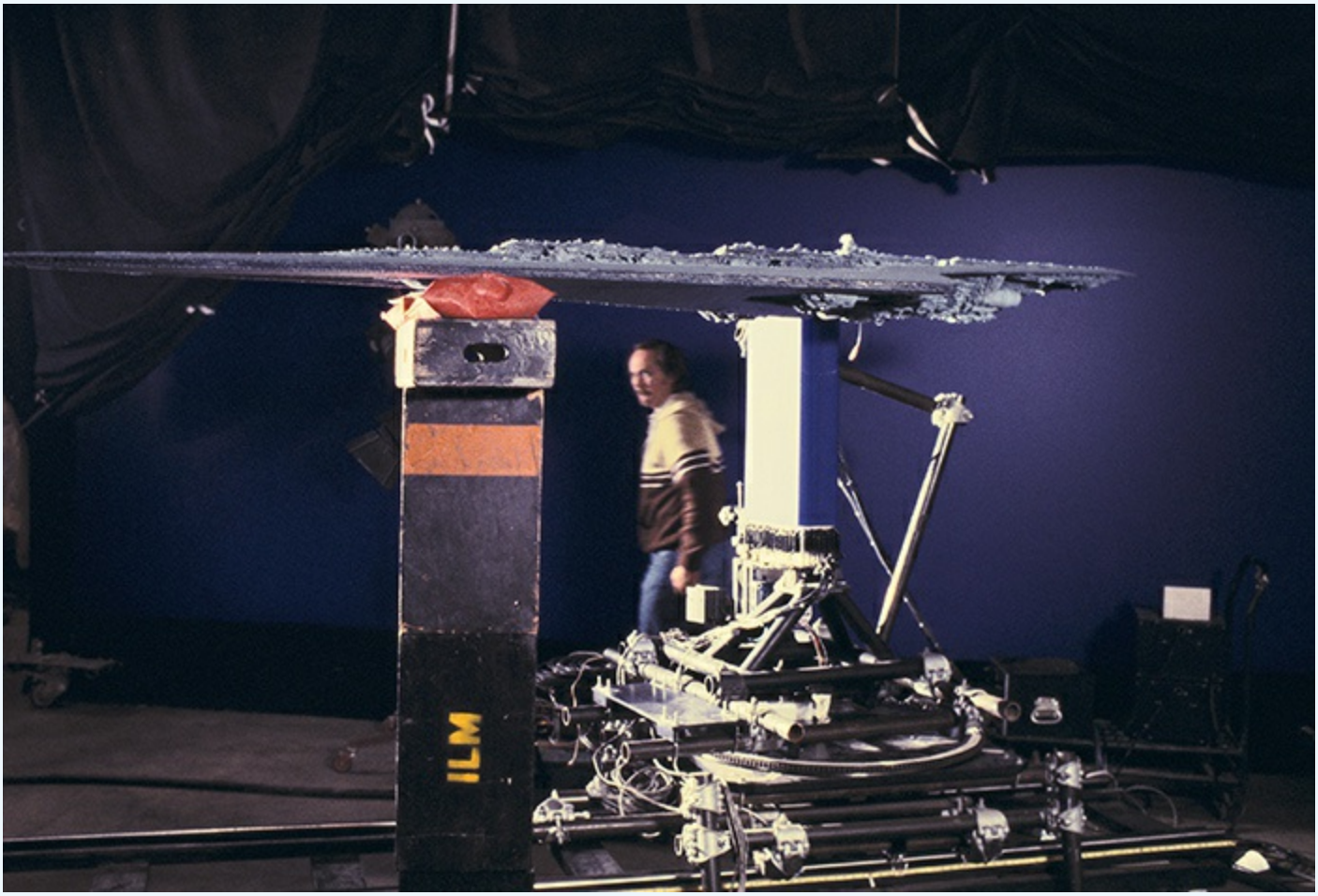
Seeds and Thorpe work on the fiber optics of the new Star Destroyer.



Muren films the new Star Destroyer against bluescreen.



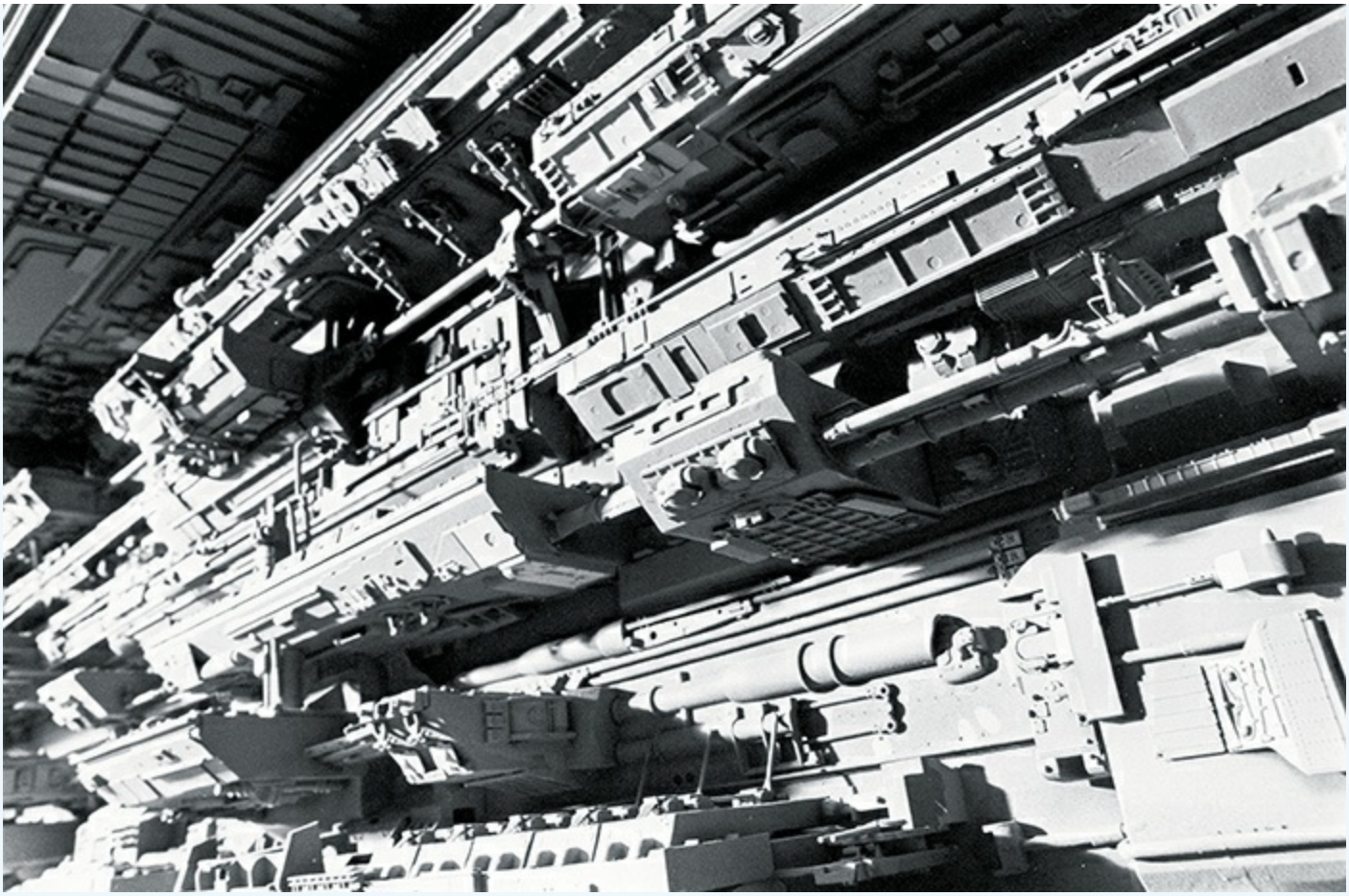
ILM camera operator Don Dow and visual effects supervisor Dennis Muren prepare the lighting for a shot of the Star Destroyer's underside, with animator Rick Taylor in the background.



The Super Star Destroyer set up for a shot (with Don Dow in background) on a kind of oversized bluescreen pylon, with extra mechanics to support it (along with apple boxes to take some weight off the front), in turn, on top of a motion-control model-mover setup.



The final model.



A detail of the final model.

"I remember a fairly small 'production meeting' in the screening room early on when everything seemed new and exciting, and many of us were just getting acquainted," says Jon Berg. "Dick Gallegly had been involved in movies and TV for a long time and had worked for Walt Disney on the original *Davy Crockett* series [1954–55]. He compared working with Disney to his impression of George—not too shabby. In the same meeting, someone asked what the plan was for everybody after *Empire* was finished. Without a beat, in that wonderfully deep, rich voice of his, Dick said, 'Throw us all back in the gutter where he found us.' It was so fast and said with such humor, it still makes me laugh."

FALL FROM SPACE

JUNE TO AUGUST 1979

CHAPTER SEVEN

RUNNING ON FUMES

REPORT NOS. 81–82: THURSDAY, JUNE 28–FRIDAY, JUNE 29: MAIN UNIT—NO SHOOTING; SECOND UNIT, FALCON COCKPIT

On Friday, June 29, Ford wrapped his role as Han Solo, after shooting ever more *Falcon* cockpit shots against bluescreen. At this point, with Hamill injured and production 30 days behind schedule, morale hit its lowest point.

"I'm terribly tired and that's about all I have the energy to feel at the moment," says Ford. "Probably later on I'll have more complex feelings about it, but right now I'm just relieved that it's over."

"Harrison was waiting by his telephone for Gary to see the rushes and make sure there were no hairs in the gate so he could get out," Hamill says.

"Harrison hardly said goodbye to you," Arnold commented to Hamill. "He said goodbye to me because I said goodbye to him. But he couldn't get away quick enough."

"He was exhausted emotionally and physically," says Kershner. "He just couldn't wait to leave, even though he loved doing the picture. It's a long, long schedule and everyone's away from home. The actors were at the point of collapse and exhaustion by that time."

"I think probably the time that felt the worst was toward the end, just before Harrison left," Kurtz says. "There was one week when I was sort of assaulted by everybody at the same time. Harrison, Carrie, and Mark for various reasons. I think all of the actors had a hard time, all of our young people, because the picture was very hard, very demanding on them."

"I remember falling asleep one day on the set and dreaming about half robots, half people," says Fisher. "You're hanging around the set for three or four months and you're going to lunch with midgets and giants every day—eventually it permeates the brain. So I had these violent nightmares, dreams where you keep trying to impose *your* reality and you can't. It gets you crazy."

"There were lots of times when you say to yourself, *I don't care; I hate this movie and everyone in it; I just want to go home*," Hamill says.

"The first picture was very easy by comparison and maybe the actors weren't quite prepared for what was required," Kurtz adds, "so that as they reached the middle of the picture, everyone was quite tired and a little on edge. We had a lot of arguments. We were shooting in the Carbon Freezing Chamber and I felt that we had serious problems with both Mark and Carrie with Kersh in terms of communication. They were talking to me in the middle of the night and we had long sessions in the studio, and it just felt that there were tremendous barriers that we had to break through. But that's part of the job, I guess. That just happens."

"Gary spent a lot of time taking photographs," Fisher says. "I would ask, 'Gary, are you producing now? Is this producing?' "

"I'm totally out of my mind, but I am trained to be reserved," Ford laughs. "My mind is raging completely out of control at all times. And I suspect everyone else's is, too, so it no longer scares me the way it used to. I don't even think about it. I mean, I think I'm sane enough to operate in the real world

and I think I am relatively nice. I think the nicer an endeavor I'm engaged in, the nicer a person I am. So I try to lock myself in with good things to do."

"As we got toward the end of the day, sometimes the tension on the set was such that everybody's trying to race to get finished," Kurtz says. "I know that all the actors at one time or another felt we raced through their material, seemingly without regard for them, just to get finished."

"You get into a lot of technology and when the technology breaks down, you gotta fix all that stuff," Billy Dee Williams says. "So you're sitting around a good deal of the time until they get ready to use you."

"The robot broke down, the steam didn't work," Kurtz says. "It was very frustrating for everybody on the set, but most frustrating for the actors because that just reinforces their fear that the acting isn't as important as the technical parts of the picture."

"Mark is very dedicated," says Kershner. "I think Carrie in her way is just as dedicated. I think she hides it. It's not stylish to be that dedicated. Harrison works very, very hard when he's acting. But when he's finished, it doesn't really affect or change his life. He keeps his personal life intact. He's not the measure of his work. In other words, he's not ambitious in a way that some actors are who will carry their work home with them. He has other things on his mind."

"I work a lot with Artoo and, of course, I'm working with Darth Vader, whose voice will be done by another actor," says Hamill. "It's like the ultimate test as far as using your imagination. Even bluescreen is about trying to imagine flying through space or imagining your reaction to an explosion of a ship. It's more fun when Kenny works, because you have somebody to talk to; it's very lonely working with mechanical creatures. It's rough."

"Rough?" Kershner laughs. "It was beyond rough—it was crazy. Threepio had it rough, too, trying to run up stairs, up ramps, being hurled around the spaceship. He was exhausted."

"Here I am, supposedly quite devoted to that little fellow, Artoo, and he's not a little fellow at all," says Daniels. "He has all the charm of *Star Trek: The Ashtray*."

"There were difficult times with the artists," Watts says. "I think that, in a funny way, it was the same team that we had last time, but an older, more exposed to publicity, and slightly changed team from the one we had last time."

"It's no trouble to offer a menacing presence when you're told to hurry to the set, fully dressed, only to stand around for two hours while technicians adjust the lights," Prowse says. "I get madder and madder! It's no fun, I can tell you. The costume is quilted leather, weighs 48 pounds. The mask fogs and I sweat unbelievably."

"I'd throw my hands into the air in desperation about three times a day," Kershner says. "The pressure was great, but the good nature of the cast got us through it."

"Kersh did look as though he was sort of at the end of his tether," Arnold says to Kurtz.

"Kersh got very tired because he said he'd never done a picture like this before," Kurtz replies. "Normally on a picture, you can pace yourself: 'I've got this big block and then this big block, and then I've got a lot of easy stuff.' But this was all hard and he's used to a system where he's got certain things finished. We came down to a point in the middle of the picture where we hadn't really finished *anything*."

"I tried not to call George too often," Kershner says. "When I had big changes to make, toward the end of the film, we had a running dialogue on the phone, long distance. On minor changes, I went ahead and made them myself."

"I see the dailies in the United States on videotape, and I'm constantly talking to Kersh and Gary over the phone," Lucas says. "This is only the second of my pictures that I haven't directed [after *More American Graffiti*]. It's been a unique experience to write down something the way I thought it should be, explain to the director how it was supposed to be done, describe the ambience, and then have it come out completely different from the way I'd thought of it. It's an interesting experience and I can now see why screenwriters go crazy."

"George Lucas came in and we talked," Arnold says to Kurtz of Lucas's previous visit. "There were times when he thought, *Well, I would have done it another way*. He indicated sometimes, although he admitted that he was never there to see the day-to-day problems, that he felt that if he'd been directing, he could have gotten things done more quickly, based on his experience on the last one. Do you feel that you could have exerted—and he didn't say you could—could have exerted more pressure throughout upon people and upon situations to speed it up?"

"It's possible in certain situations," Kurtz replies, "but it is a delicate thing. Working with a director who hasn't done this type of picture, it's difficult to explain in advance that certain scenes are very, very complicated and you have to simplify them as much as possible. I think there are certain scenes that could have been done much faster. But Kersh's style of working is entirely different from George's and he has a harder time adjusting to problems."

"Gary didn't form a relationship with Kershner," Watts says. "He didn't establish the relationship between producer and director—and that's the most important one of the production. His heart was in the right place, but he wasn't good with people. When you're producing, you need to be able to talk to every type of person; I think the skill of producing is being able to do that. His personality, however, is such that some people, I think, find it a little difficult because he is, I suppose *introverted* is the right word. I do believe that I'm quite good with people and I think that has to be a plus in these circumstances, because certainly Gary does not have the common touch."

"I didn't really work with Gary that much," says Kershner. "I worked with the production people mostly and he was back there working with them, I guess. I didn't think of Gary as an actual part of the production manager team. He was sort of involved in some kind of a supervisorial way. I had a very friendly relationship with him and that's about it."

"My relationship with Kersh did fray a bit," says Kurtz. "He was under pressure from the financing side and I was under pressure from the production side to get it done as quickly as possible. And so it did fray our relationship. But I always felt that the sequel to *Star Wars* was going to be a big hit no matter what, just because of the nature of the expectations, so we therefore had to look at it on the basis of, *Yes, alright, it is costing a little bit more and it's gone over budget, but it has to be better or it's not going to work*. So that was one of the arguments that I had with George. I think that's where we disagreed the most. Whenever this came up about Kersh working slowly, I would say, 'Look at the rushes: The performances are really good, it's working really well and it's going to surprise everybody.' But it was difficult, there's no question about that."

"I think Kershner is feeling similar to the way I felt on the first film," Lucas says. "He feels that it's not coming up to his expectations. When you're on the set, trying to get things to happen each day while everything's falling apart around you—the robot won't move or some technical thing malfunctions—then you're compromising day by day and dying a thousand deaths."

"The crew, the last couple of months, started taking little vacations," Kershner says. "They had only contracted for a certain amount of time and I wanted them to stay on and finish, so they would take off

for a few days and come back, while somebody else would fill in for them. But I had no rest; Gary had no rest. We just stuck with it."

"I remember Stuart Freeborn was under the gun and it was very tense," Frank Oz says. "We had to get this thing done, we've got to start shooting with Yoda. And so, while we're talking to him, I was just playing with Yoda's head—and I dropped it and it cracked. Stuart said, 'I think I need a drink.' It was terrible, because here we're pressing so much and I'm the one who screwed it up."

"Ivor had to go back into the hospital while working on *Empire*," McQuarrie says. "He had cancer." (Beddoes would pass away in 1981.)

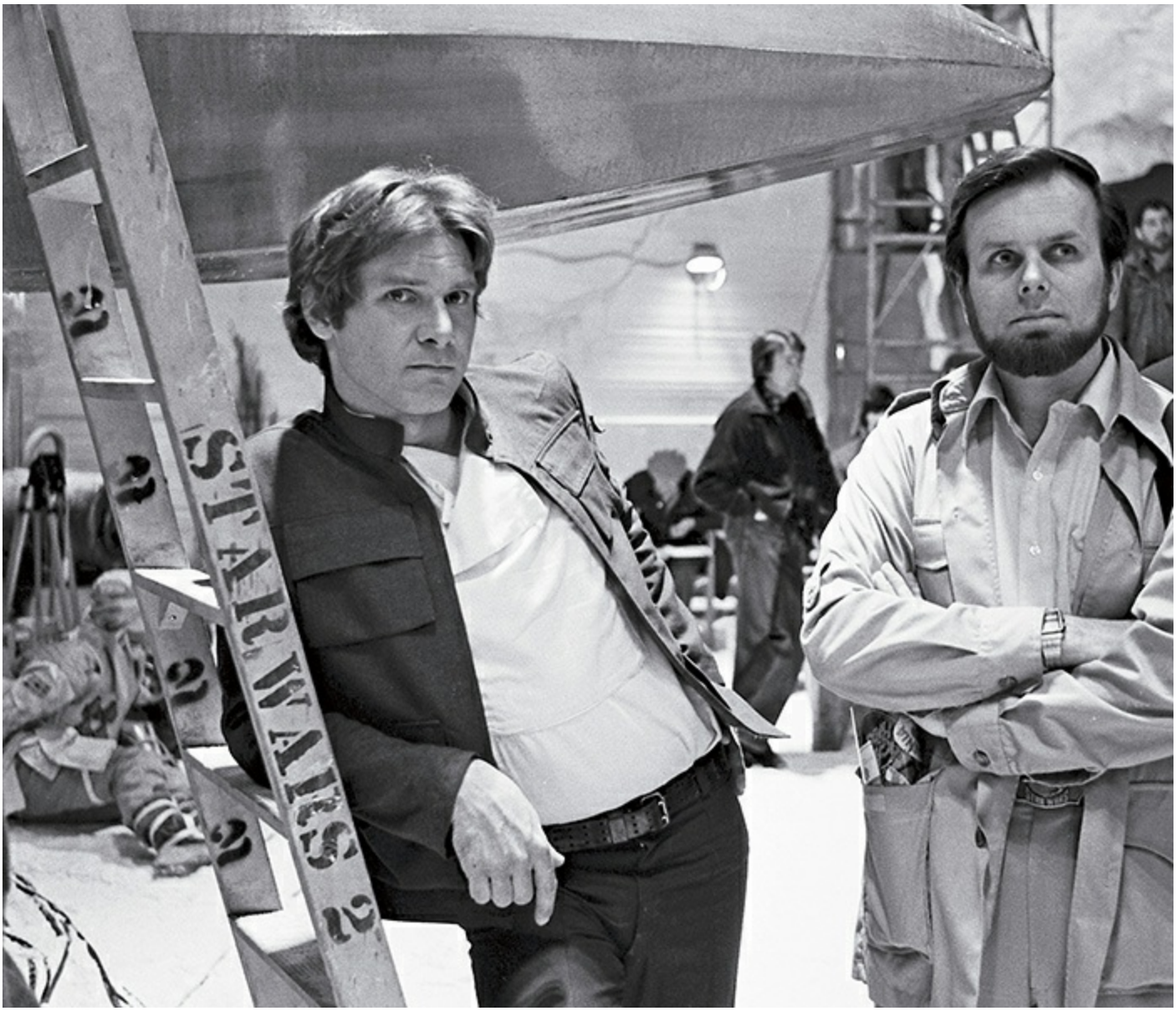
"I think that we've put in more hours than anybody," Bill Welch says of his construction crew. "It's been very difficult at times when one has had to plead with individual chaps, saying, 'Come on, give us one more weekend, because we're in trouble.' I've been very lucky that we got the response from the people."

"We had constant meetings with the art department about how much labor we could expend on certain sets because at some points we ran out of available people," Kurtz says. "There were just no more people available anywhere in the English industry, no plasterers or carpenters. We even thought of bringing people from Spain or Italy or somewhere. As we got to the end of our schedule, *Flash Gordon* [1980] had started and they were using a lot of the other available people."

"The actual script itself was more complicated," says Watts. "There were more sets and more effects. My own impression is that the whole feeling of the film was very different. Last time around, on *Star Wars*, we were making a film where nobody knew what it was. It had no aura about it; it was a much lighter experience in some respects. This time around, everybody was conscious of what they were living up to, and obviously trying to do as good if not a better picture than last time. I think from that point of view it was possibly more formal a feel."



Mayhew and Baker take a break.



Ford and Kurtz.


FULL

Fisher (perhaps having nightmares on the set).



Kershner and Reynolds make plans with a maquette of Yoda's house.



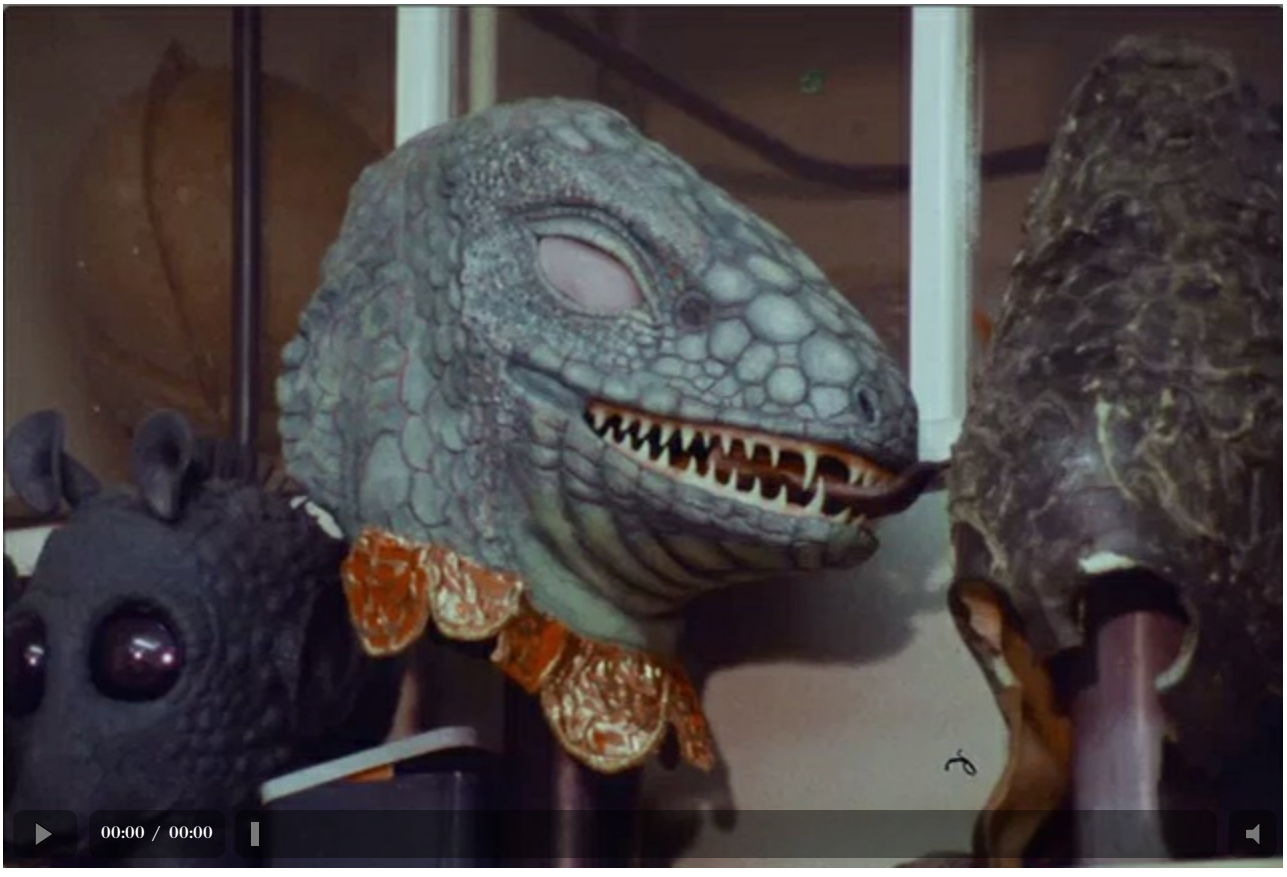
Effects technician Dennis Lowe works on the animatronics inside the Yoda puppet as it slowly takes shape.



Freeborn shows Oz and Jim Henson the work-in-progress Yoda.



Kershner with Freeborn examines the same Yoda.



With four weeks' work completed and four more weeks of work to go on the animatronic Yoda, Stuart Freeborn discusses the creation

of the spiritual Master, even speaking as the Yoda puppet at the end of the clip, early July 1979.

(2:08)



Stunt coordinator Peter Diamond talks about sword stunt double Bob Anderson. (Interview by Arnold, August 20, 1979)

(0:48)

DUELING

REPORT NOS. 83–84: MONDAY, JULY 2–TUESDAY, JULY 3: STAGE 4—INT. CARBON FREEZING CHAMBER, 384 & S391 [LUKE BATTLES VADER]

"Everything is in motion again," Arnold writes. "Mark is working, bright as a button. Filming of the first scenes of the confrontation between Luke and Vader has been resumed." Dr. Collins had pronounced Hamill fit, and main unit shooting recommenced on Stage 4 in the Carbon Freezing Chamber.

Stuart Freeborn, however, had toluene splashed in his eye and had to go to the hospital; Harrison Ford boarded a plane for LA.

"After four days, the swelling went down and he was fine," Kurtz says. "Mark then did an outstanding job." Facing Hamill as Luke was Bob Anderson as Vader. In addition to 30 years' experience as Britain's senior national fencing coach, Anderson had film experience that included *Star Wars* and action with Errol Flynn and Douglas Fairbanks.

"That uniform was terrible," Anderson says. "I'm six feet one, and I had three extra inches on my helmet and two inches on my boots. I had a couple of cloaks on. Quite often, I could see only Mark's feet, so I was doing it virtually blindfolded."

"Bob Anderson was a double for Darth Vader," says Peter Diamond. "Bob trains the British Olympic team and has himself appeared in the British Olympics, in 1948 and '52. I first met Bob in 1952 myself and we've been friends ever since. We've done hundreds of fights together as such, whether as the heroes or the villains. Bob to me was the best man in the country to have on this picture for this particular swordfight."

"As it turns out, we never did a long-enough sequence so that I would have to remember every move," says Hamill. "We'd say we're gonna do this bit, and I'd say, 'Oh yeah, it's this one, right?' And we'd go over it. But it was good for my peace of mind that if they'd asked us to, we could have done the whole swordfight from start to finish."

The architect of the fight was of course Diamond, who also worked with the props and special effects department on the evolution of the lightsaber. "I have given a lot of thought to it and a lot of new ideas because, from a laser sword point of view, I don't know anybody who runs a laser-swordfight school," he says. "So obviously I had to be very inventive and think up a lot of new ideas which were new to swordplay and would be acceptable to the public.

"The actual blades of the laser swords have to be photographic if possible. We do this by covering some blades with front projection material which reflects the light and glistens with a small glow; then, in the process of the film being completed and through animation, they're able to widen this, so it gives us the effect of a laser glow."

"It's a very difficult sequence to sustain because you're dealing with a man whose face you can't see and who's twice as big as his adversary," Kershner says. "You're dealing with a swordfight, which is sort of an anachronistic idea these days, except it's a laser sword, which, if it touches something, immediately atomizes it. It's full of problems, but we're gradually getting through it and we're almost finished now."

"That Carbon Freezing Chamber [whistles]—I thought I was going to faint today, really," says Hamill. "I got so dizzy. They say it's because I'm hyperventilating—you know, I'm supposed to be out of breath—but if you do that, the oxygen disappears because of the steam."

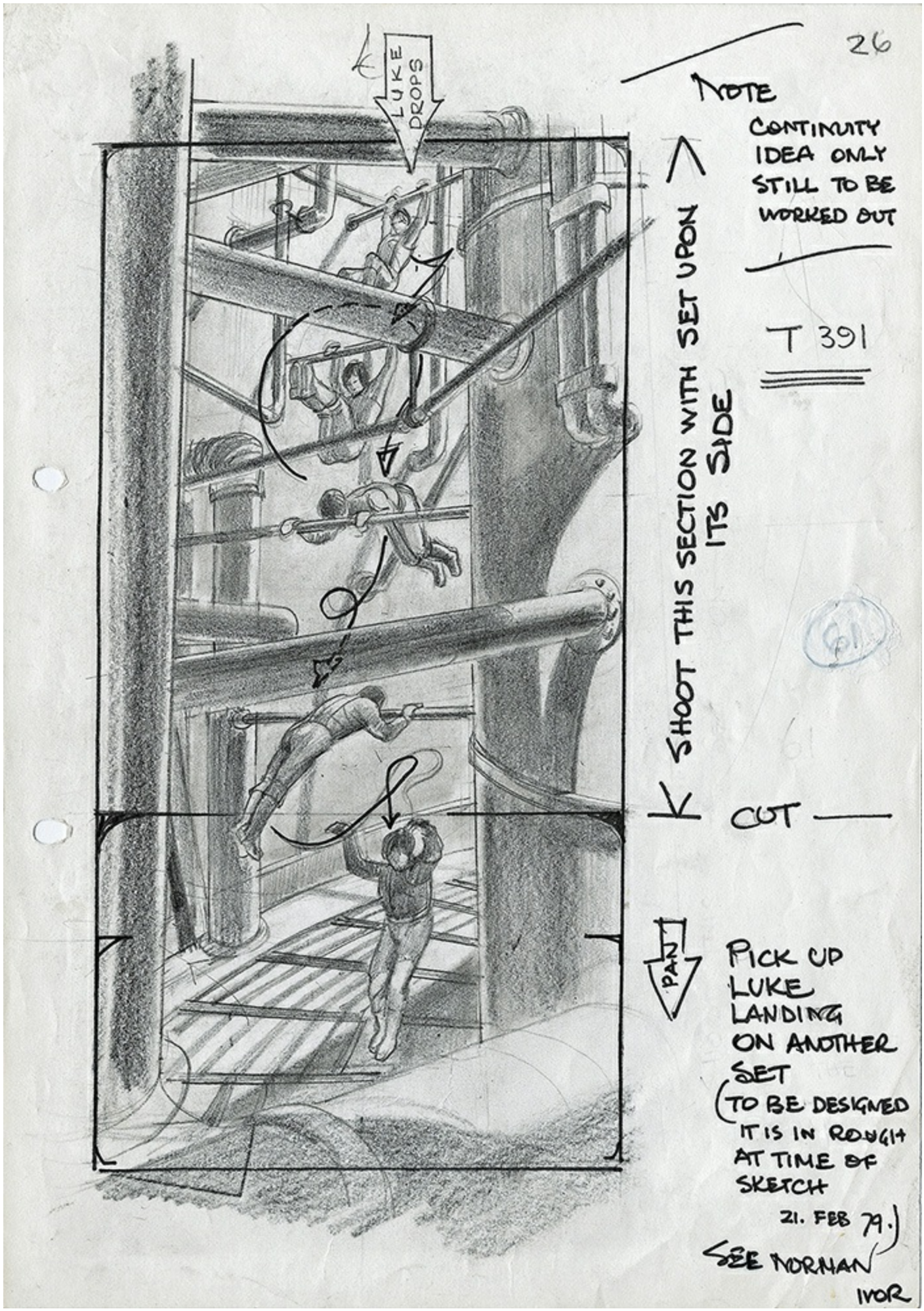
"We had steam, slippery surfaces, very dangerous falls which could have happened unless we took extra precautions for the safety of the artists," says Diamond.

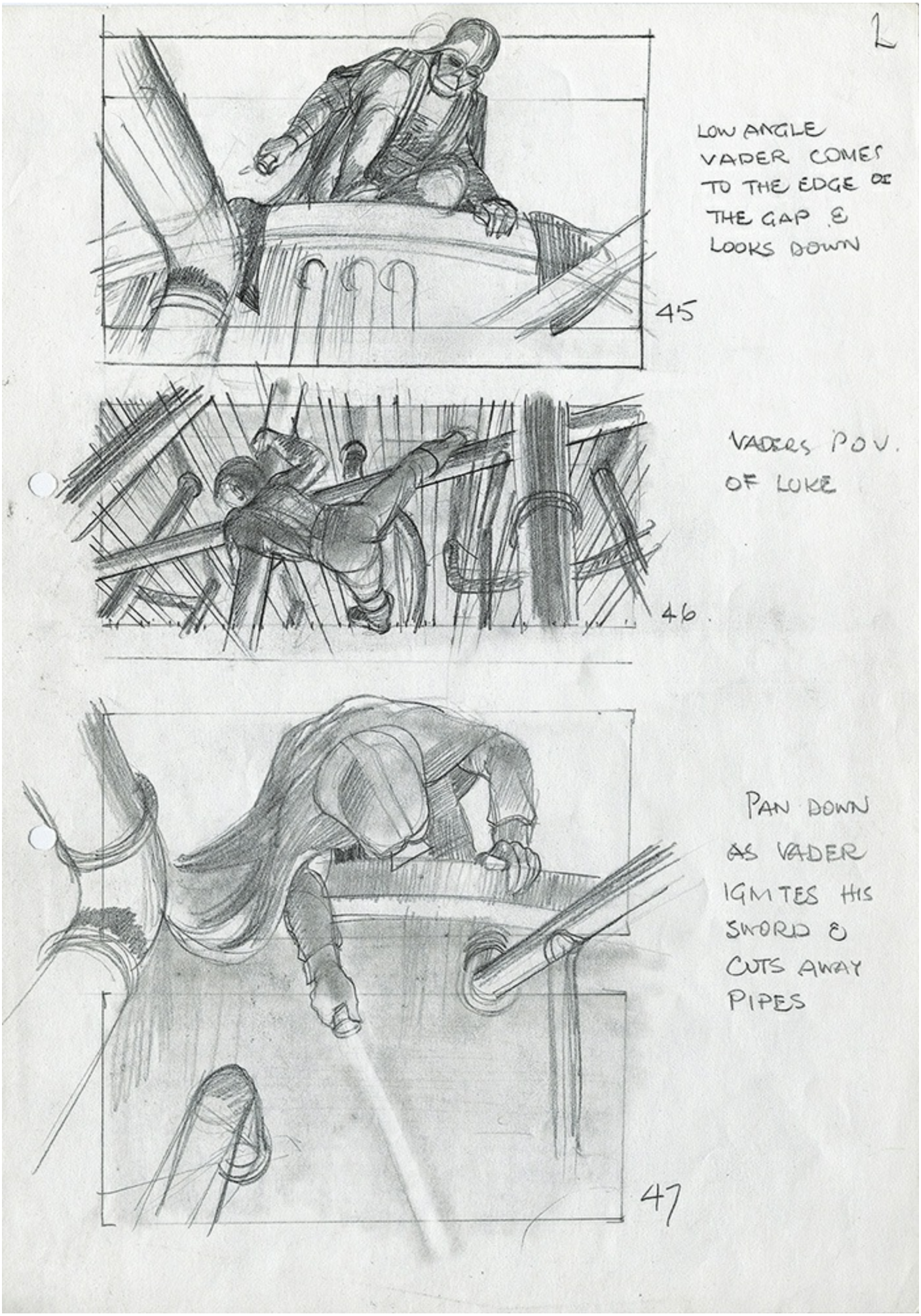
"Everyone's tempers were on edge," says Hamill. "Since Kersh knows so much in his mind what he wants to see, he has a tendency to act things out for you, which is not one of my favorite things in life. One time, he said, 'When you do that, don't do'—and he did some sort of face; it was his interpretation of what he thought I did, which peeved me to the point where it got into a tug-of-war. I said, 'I didn't do that.' He said, 'Yes, you did.' Blah, blah, blah, to the point where he said, 'Okay, you just go see the movie and you'll know you did.' And I said, 'I don't even want to see this movie!' It was real baby. But probably that was good, because then he said, 'Oh, really? You're not going to see—? Okay, cut the lights, cut the camera, cut everything. Why even shoot it? He doesn't even want to go see it.' Then everyone feels terribly guilty seconds later."

"Mark and Kersh both got angry," Kurtz says. "They were working under very difficult circumstances. In this case, I think Kersh felt that Mark wasn't listening to what he was saying about how he was doing something, and Mark felt that Kersh was acting out everything for him and he didn't feel good about that. Now it's gotten to the point where I've made sure that they talk at the beginning of each day and go over the material in advance."



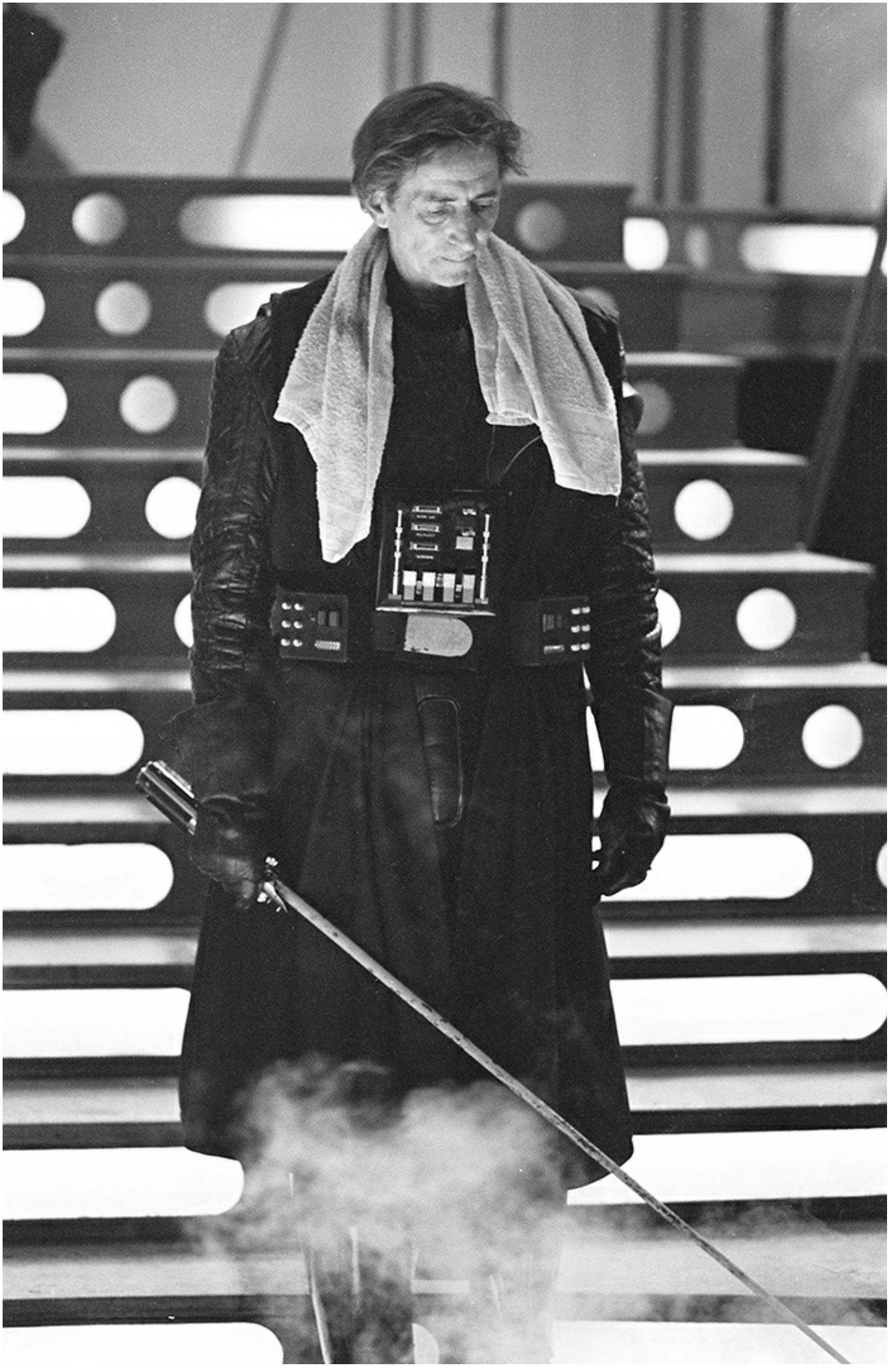
Hamill and Anderson prepare for their duel as Luke vs. Vader.





Two pages of storyboards by Beddoes illustrate an early “continuity idea only” in which Luke acrobatically flees Vader.





Stunt man (swordsman) Bob Anderson during a break in filming.





Many moments of the duel between Luke and Vader.



“They have to pull their blades, because it’s very soft material, so the blades could easily break,” says stunt coordinator Peter Diamond. “We’d just be breaking blades all the time and it would be very difficult to shoot the sequence.”







Printed dailies from July 20, 1979, in which Luke duels with Vader (Bob Anderson) on the carbon freeze set.

(1:18)

YANKEES, GO HOME

REPORT NOS. 85–92: WEDNESDAY, JULY 4–FRIDAY, JULY 13: STAGE 2—INT. EAST LANDING PLATFORM AND CORRIDORS, 390 [LEIA AND CHEWBACCA IN HAIL OF LASERFIRE]; 399 [LANDO ORDERS EVACUATION], 406 [RUN UP RAMP OF FALCON], 405 R2-D2 [LAYS DOWN CLOUD OF FOG]; STAGE 8—INT. MEDICAL CENTRE, STAR CRUISER, 432 [DROID WORKS ON LUKE'S HAND], 435 [LUKE SAYS GOOD-BYE TO LANDO, OS]; STAGE 9—INT. FALCON COCKPIT, S431 [LUKE THINKS ABOUT VADER], U430 [LUKE REBUKES BEN]

With the full-sized *Falcon* scenes nearly finished, the art and construction departments were hard at work completing the next environment for the Star Wars Stage: the bog planet, home of Jedi Master Yoda. Adding to the building costs, the British pound was on the rise in relation to the American dollar, which threatened to tack on $800,000 or more to the making of *Empire*.

"They had to try and build the bog planet in seven weeks instead of fourteen by working nights and long hours of overtime and weekends," says Kurtz. "That was very disruptive on its own."

"We're prefabricating enormous trees in readiness for that set because we don't have very much time to prepare it," says Reynolds. "The director seems happy enough with the set, but things never work out quite as well as one hopes. It should take twelve weeks, ideally, but I think we're going to be pushed for time, so we're looking for, hopefully, eight or ten weeks."

Waiting for the trees to be installed "may force us into a small hiatus," Kurtz adds. "If that happens, then we'll just have to hold the crew over that time period as part of our insurance claim because of the loss of Stage 3."

"I've been going up to the Star Wars Stage like once a week just to see the bog planet progress," says Hamill. "Once we heard this thunderous explosion. It really gave us a start, like, 'What the hell is that?!' We went rushing out just in time to see that one of these water tanks had blown off its metal top with such force that it had ripped right through the tarpaulin. It was about 30 feet up in the air and water was just *gushing* out of the tank. What scared us was we had just passed it eight seconds earlier."

"The bog planet is 112 tons of plaster," says Bill Welch. "There's 23 or 24 trees, at four or five tons apiece. Scrim, which is the thing that's put into plaster to hold the whole thing together, we're using

48,000 meters of it. We have an area which is about 65 feet by approximately 45 feet with 3-foot depth of water. We therefore have to bring all the ground levels up 3 foot plus, to get the water to flow from the falls at the end, down the riverbed, back into what one would call the swamp. So everything has got to be built up on steel work. Then you have a big pan backing around the stage, plus your cutouts of your trees for extra depth to the set; the pan backing must be about 450 feet by about 44 feet high."

On Wednesday, July 4, Fisher felt unwell but was allowed to continue working. That evening, all members of the crew were invited to a screening of the Show Reel of the film in the Administration Theatre, at 6:30 PM, followed by a buffet in the Studio Restaurant. Two showings were required, given the large turnout, and they were also treated to the film's 90-second teaser that featured McQuarrie's paintings (which cost $12,061.45 and did not contain the potentially confusing "Episode V" as part of the film's title).

"As soon as you begin to show something that's not finished, you react very strongly to every sound and every shift of a person in a seat," says Kershner. "You assume that they're all trying to tell you something. You're quite tuned up. So you must be careful not to react with the shifting moods of, let's say, the uninformed audience, and certainly the crew itself is uninformed in terms of what the overall final effect will be."

"The screenings for the crew are not really intended to give us an idea of how the film is coming together," says Kurtz. "It's more to give the crew a sense of what the film is like."

"I got there a little bit late," Hamill told Arnold. "Some of the crew had had just enough to drink so that they got very, very honest: 'We don't call it Independence Day, we call it Good Riddance Day'; 'Go home, Yank,' and all that. They weren't being malicious in any way, but you can see there's an underlying hostility. Still you'd think, since I've been here seven months or something, it's not like I'm a tourist. I live here now. I know what it's like to pay bills here, drink your milk, use your post office, use your phones—so be fair."

The next day, it was Peter Mayhew's turn to feel unwell, and he was sent home. (Milton Johns, Vader's aide, completed his work on the film that day; on Friday, John Hollis, Lando's aide, wrapped his role.) "Working in 90-degree heat wearing a 15-pound costume of yak wool and mohair would be fatiguing in itself," Arnold writes. "But if you also have to carry 35 pounds of metal on your back, it becomes a test of endurance. But not having Peter here has meant running further behind schedule."

"Poor Chewbacca almost broke down," Kershner says. "He was physically drained. He just couldn't run anymore. We gave him a couple of days off to recover."

"When I realized I'd first gotten the part, I did go and sort of study a monkey family just to see their reactions amongst each other," says Mayhew. "This I think has helped in the characterization. And some of my character has gone into Chewbacca: The way he walks is my own walk, the way he reacts to things is my own way of doing things."

"I extended the range of Chewbacca," Kershner says. "He has a much larger role in *Empire*. I made him more vulnerable; we show him frustrated, exasperated, angry. These things make him *human*."

On Day 90, Wednesday, July 11, production was 33 days over and Kershner moved the main unit to the medical center on Stage 8 with bluescreen and technical adviser Stan Sayer on hand for the film's complex last shot.

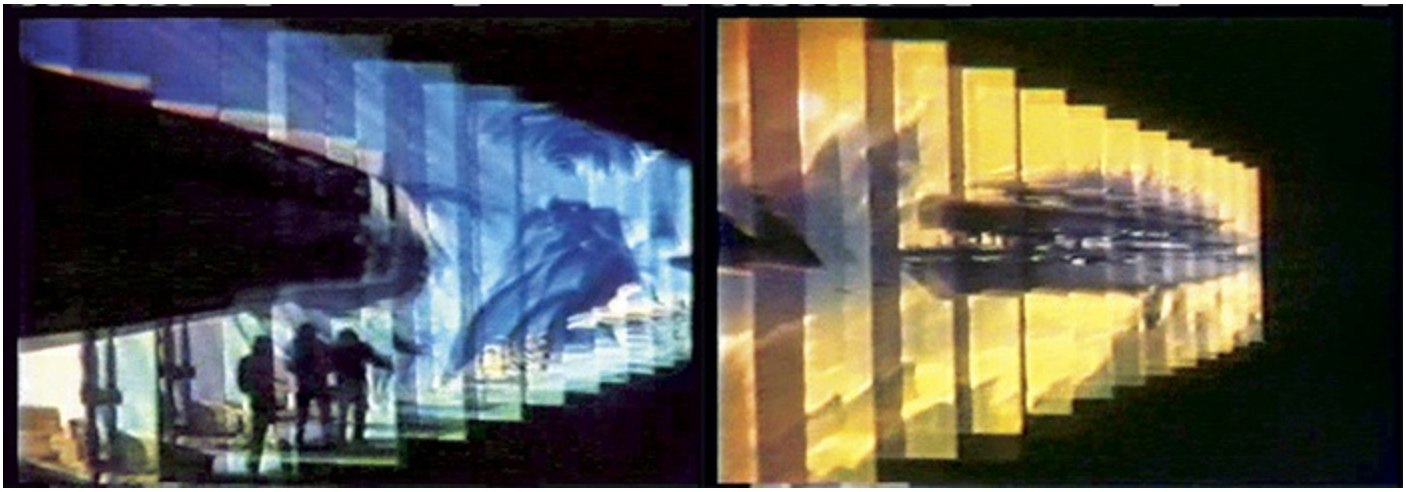
Long before that day, Kershner had written a letter to Lucas: "Whenever I see an amputee, and I'm sure most people feel this way, they wonder how it is not to have any feeling, any sensitivity in the fingertips." Consequently, a rewrite had the medical droid poking Luke's prosthetic fingertips, which

then react as would real ones.

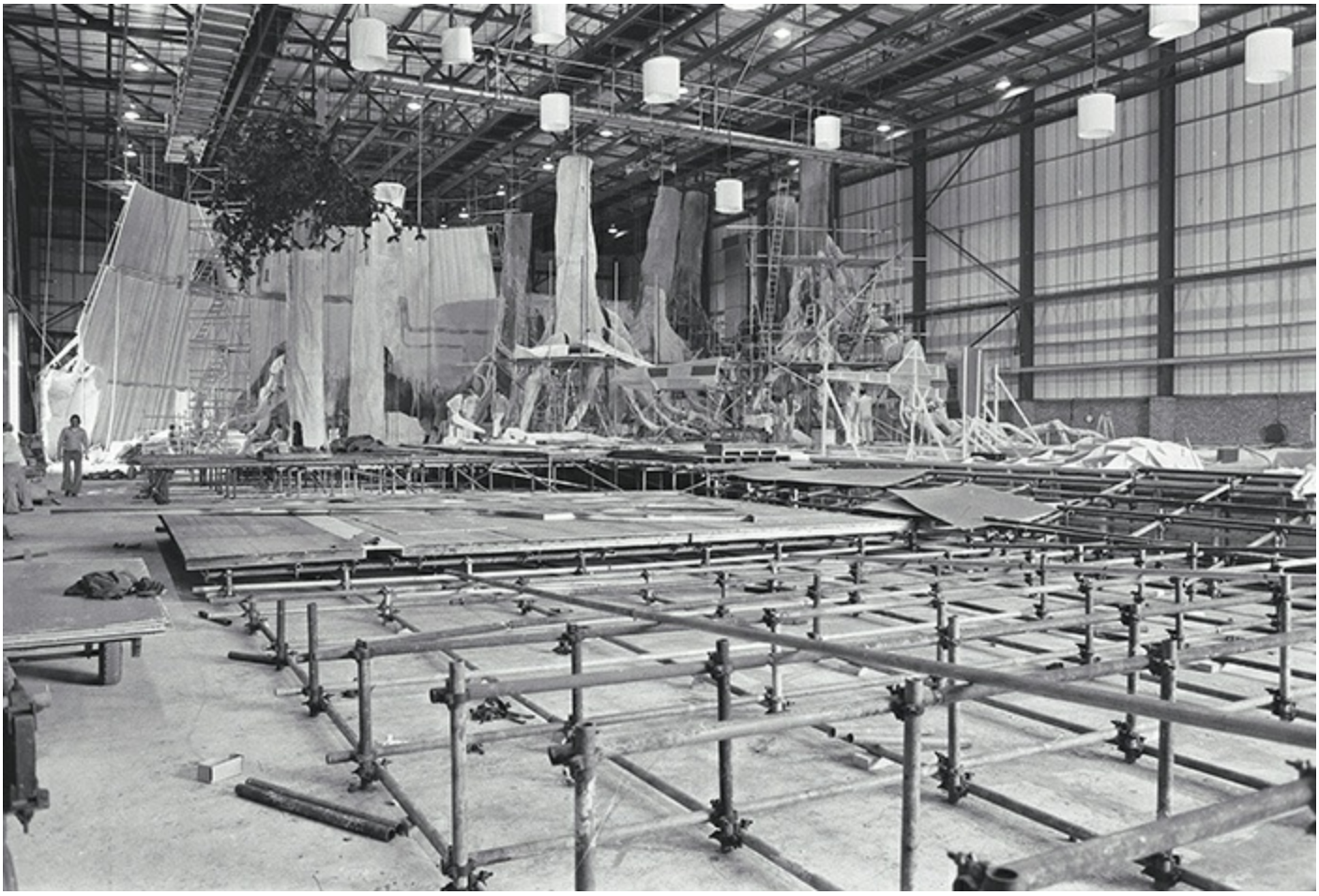
"The audience had to know that Luke has feeling in his hand," Kershner says. "That way, even though he has a mechanical hand, it isn't creepy when he puts his arm around Leia at the very end of the film."



Hamill drinks champagne with the grip crew (in the middle with dark hair is Alan Williams).



Final frames from the theatrical teaser for *Empire*, which featured only McQuarrie artwork (with added rippling effects), as very few of the visual effects had been completed—photos of the characters, however, did "introduce" Lando Calrissian to the world.



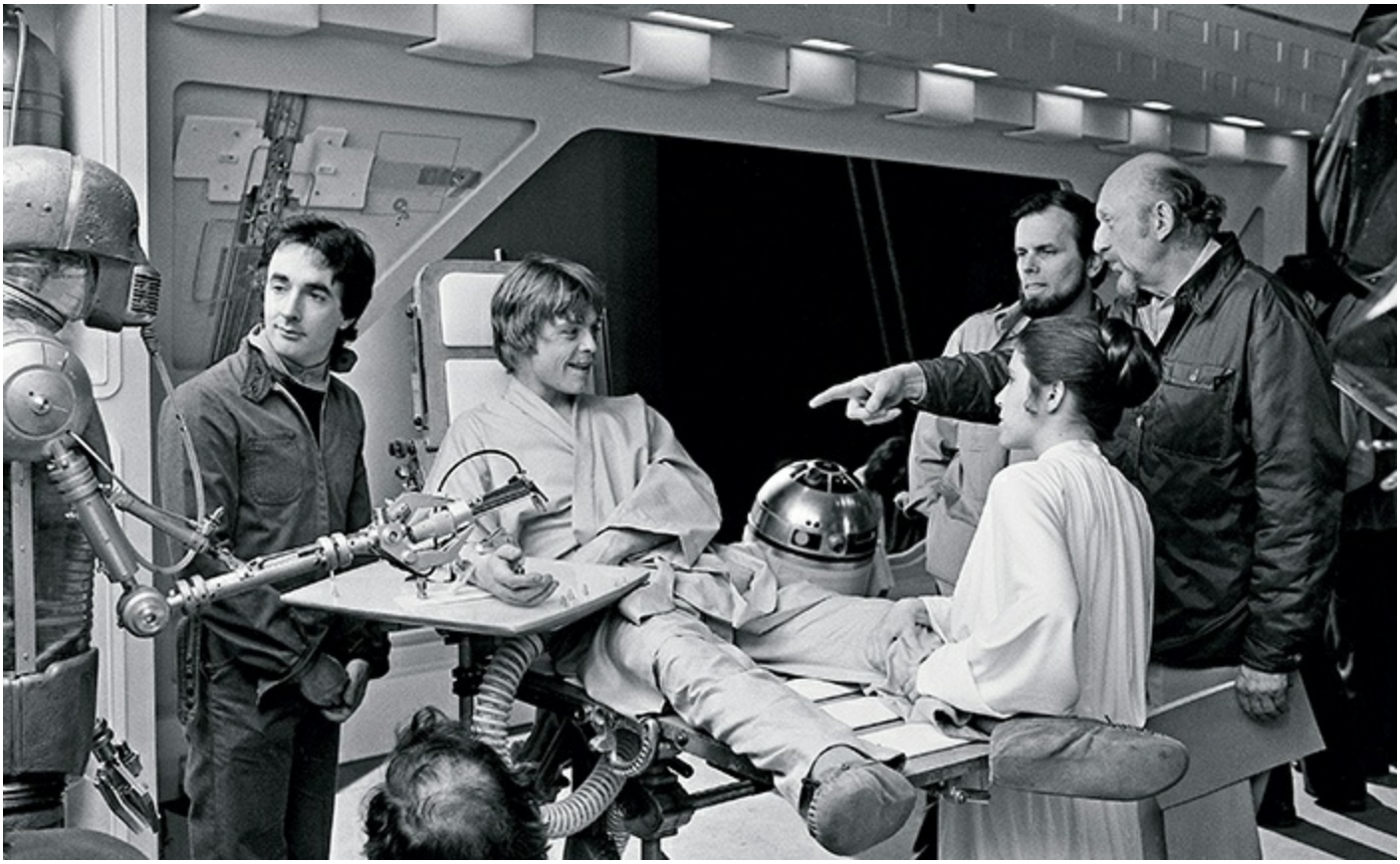
Construction work progresses on the Dagobah set.



The Dagobah set was being built on the Star Wars Stage.



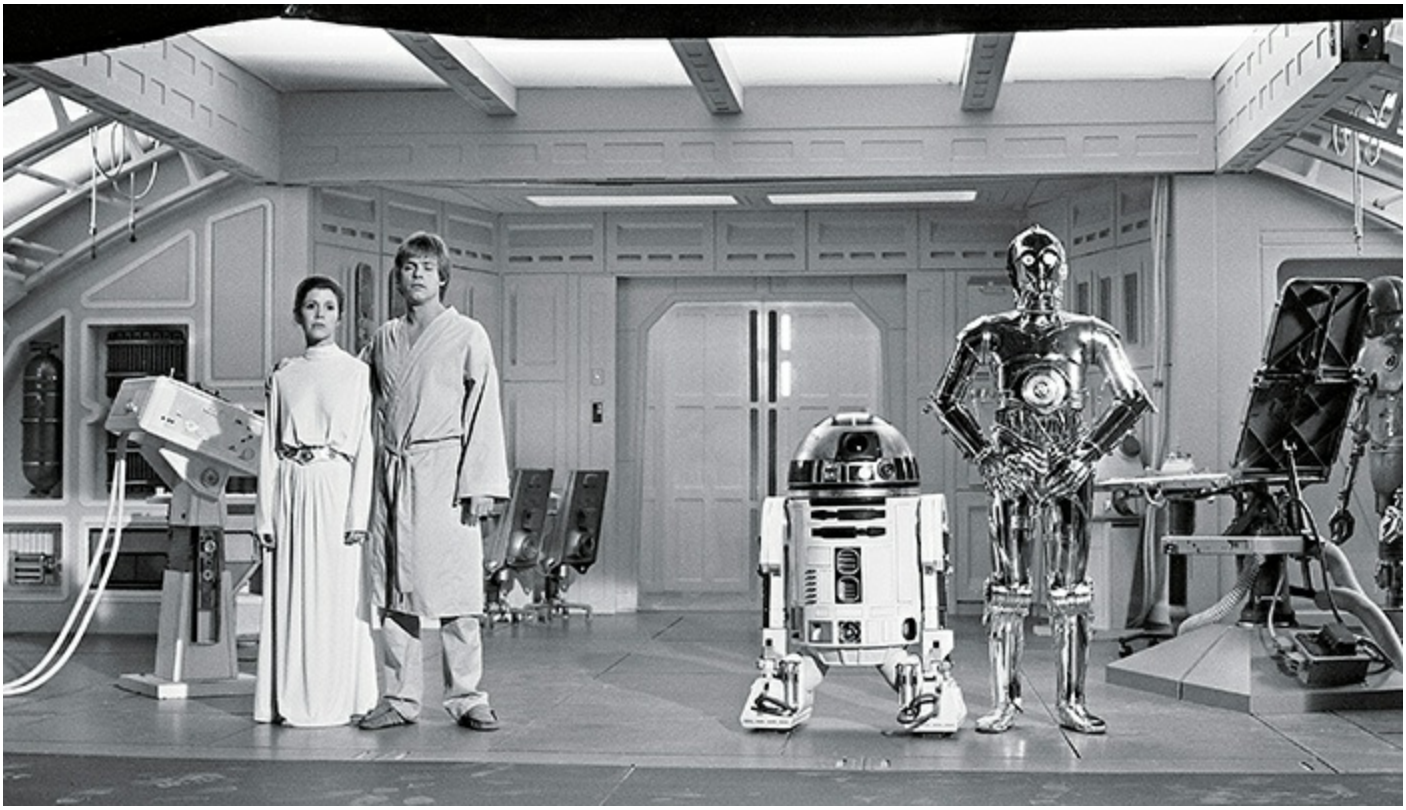
Hamill and Fisher clown around with Kurtz, on July 12, 1979, before Take 1 of scene 432D, the medical ship.



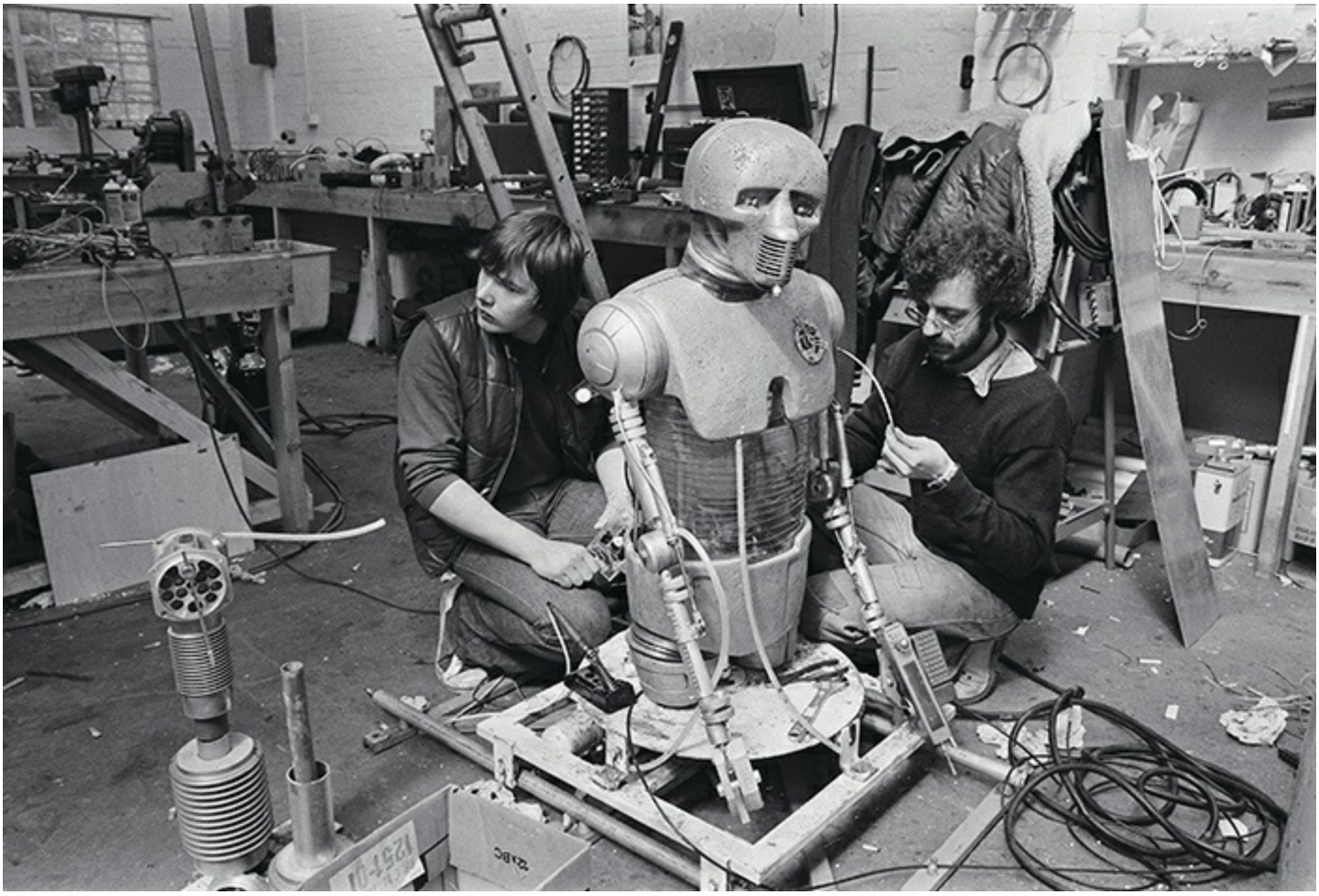
Kershner directs.



Fisher and Hamill.



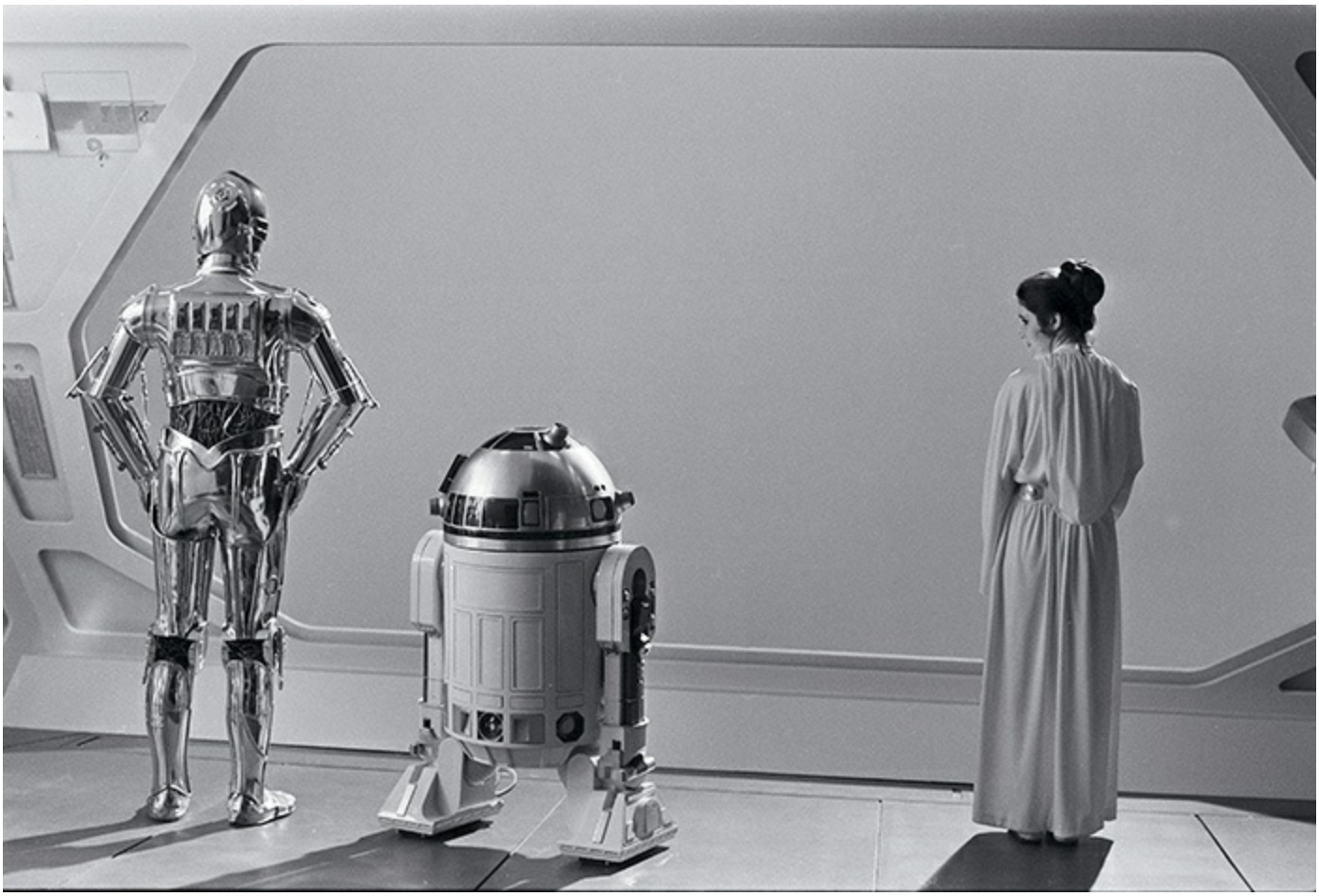
The last shot of Leia, Luke, and the droids looking on.



Building the medical droid.



The last shot, looking into bluescreen.



Daniels, Baker, and Fisher.

JULY ILM: ANIMATICS

On July 2, Herman's notes read, "Joe and George are redoing snow battle boards. Will need some more animatics."

"George came up with the idea to create animated cartoons in place of some of the special effects scenes that weren't going to be finished for a while," says Peter Kuran. "That way, he would be able to determine the timing and the cutting, and whether or not a shot was actually going to work from the original storyboarded creation."

"I couldn't use storyboards because they didn't really tell you what happened because it was an editorial process," says Lucas. "It wasn't one shot followed by this shot, followed by that shot. It's really, 'What is the movement?' It was very Sergei Eisenstein in its design, which meant it really had to do with movement across the screen more than it had to do with what the shot was. So, given that, I needed some way to create movement. That was most important to me."

Snow battle dailies had first been cut together by Hirsch and Kershner, then brought back by Lucas to ILM; after using the animatics to make a rough cut, Lucas would order a new generation of storyboards, which he and Johnston would then review on the KEM editing table, shot by shot.

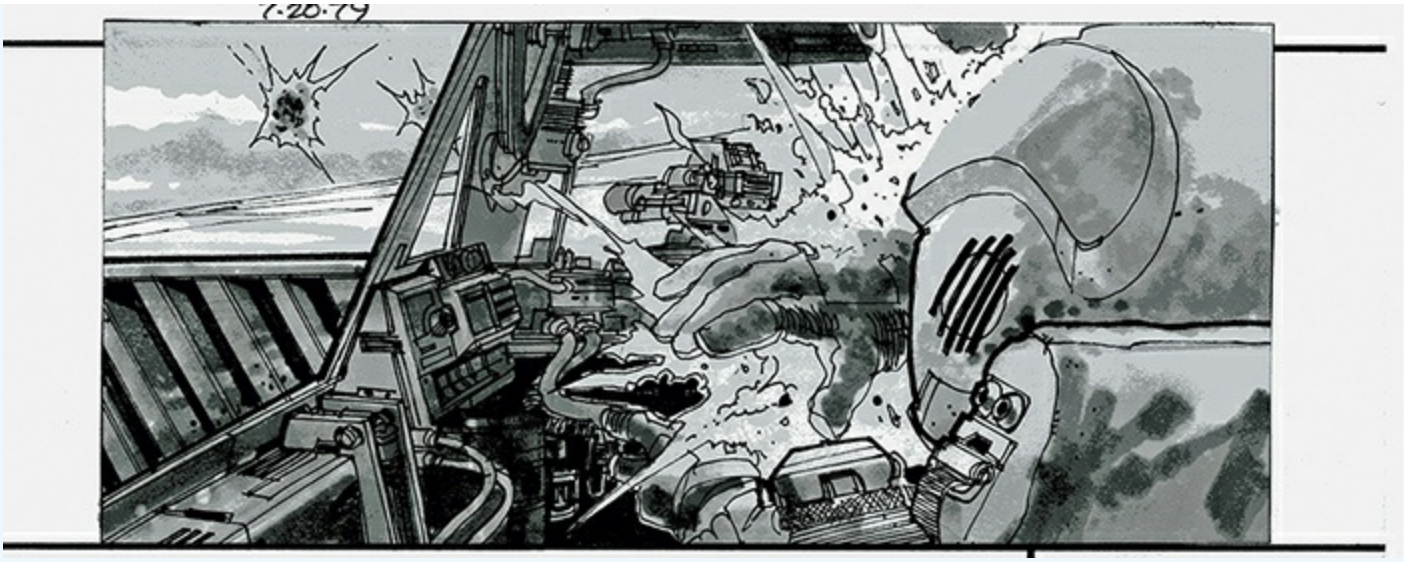
"If you were to take a comic strip and photograph it, then put in all the in-betweens, you'd have an animated film," says Lucas. "If you take the animated drawings and replace them with live-action footage, you'd have a movie. It's a logical extension of storytelling, combining the graphic with the literary. When I got to *Empire*, I had a ground battle and I couldn't use World War II tanks to substitute for walkers because the whole idea was different. So I thought, *I've got to come up with something else*. So that's when we actually came up with the Leica reel idea; we'd do real cheap stick animation. On the first film, I couldn't even afford to do that."

As details of the snow battle firmed up, Muren figured out how to do the walker and tauntaun shots within his department's financial and logistical limits, which often meant the availability of only a single backdrop for several setups. "Dennis completely rearranged the walker sequence to get the result he wanted," says Tippett.

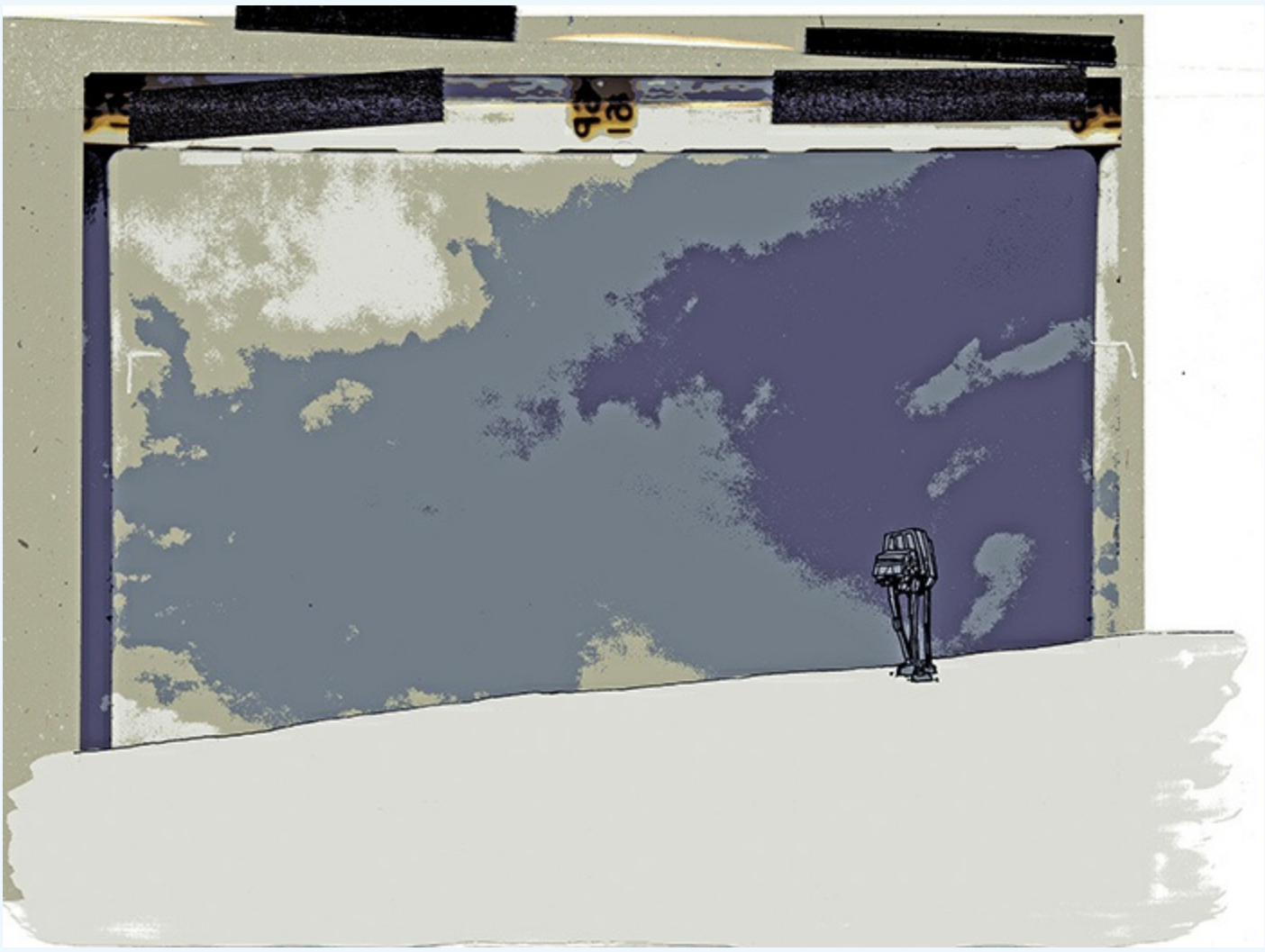
In mid-July, the model shop finished Vader's Star Destroyer and the "new tauntaun legs turned out great …" Production reports also noted several in-house logistical concerns: "The upstairs needs more phones; hour lunches do not count as work; and all complaints should go through department heads."



Yoda's seeker ball, for training Luke on Dagobah, concept by Rodis-Jamero, July 1979.



Revised storyboard by Johnston, July 20, 1979.



Transparencies made for animatics of the battle on Hoth, divided into sky ….



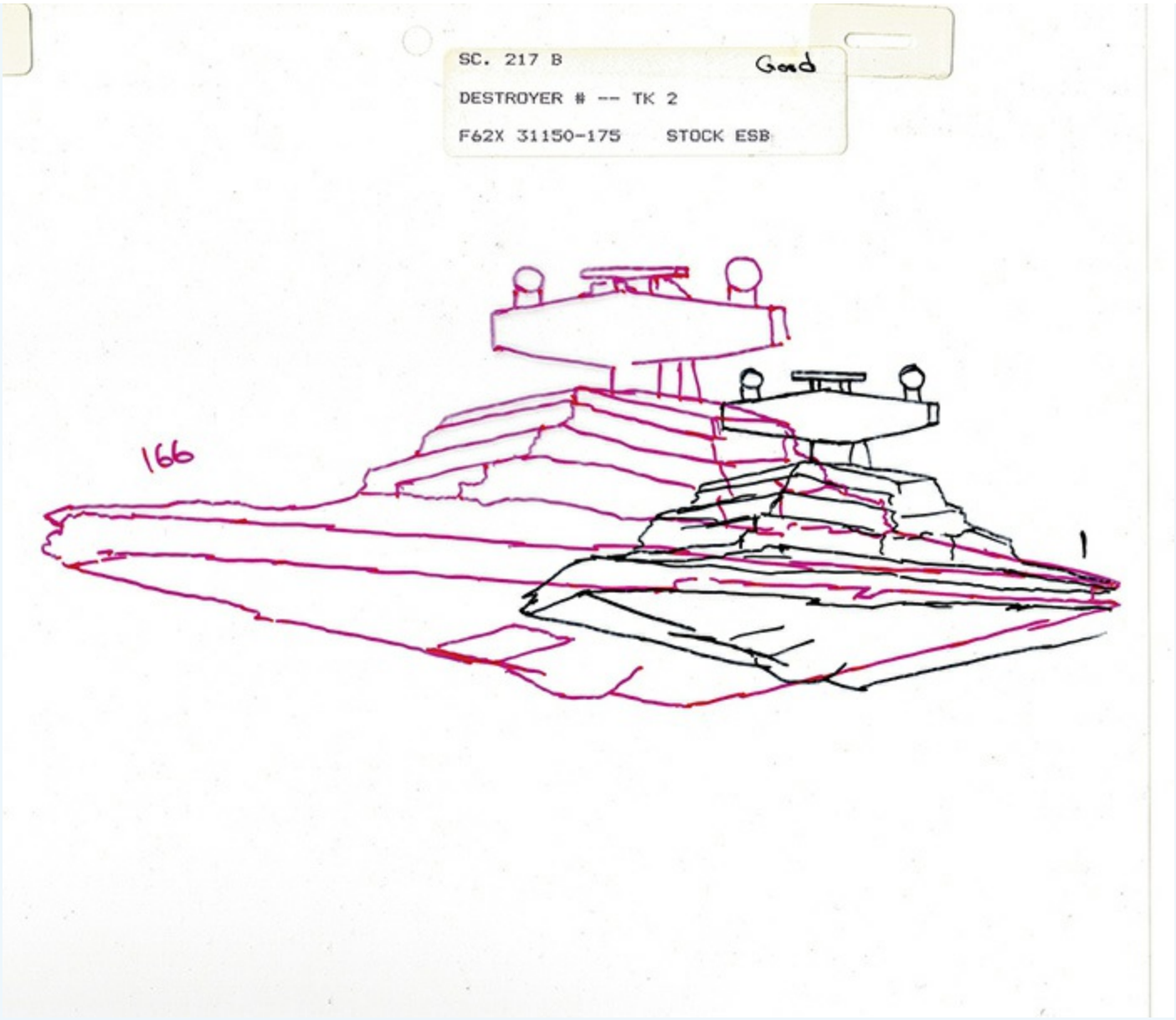
... walker ....



… and snowspeeder, for shot M-110—and a single sheet for the moment before Luke's snowspeeder is crushed by a walker. A written description of animatics from the ILM Archives reads, "Early ones quickly sketched out in pencil. Drawn out on paper first, xeroxed onto cell. Cells were painted with various shades of gray. Photographed and squeezed onto B&W negative. Printed and cut into."



"Background animatics" of Cloud City (for a shot that would not make the final cut).



Animatic sketch for scene 217 in which a Star Destroyer and TIE fighters pursue the *Falcon* (the latter elements would be added later).

REVISED 7/3/79



DESCRIPTION: INT BRIDGE VADER'S STARDESTROYER

Vader stands on the bridge looking out the window. Admiral Piett approaches him.

DIALOGUE:

PIETT
They'll be in range of the tractor beam in moments.

VADER
And their hyperdrive is deactivated?

PIETT
Right after they were captured, Sir.

VADER
Good, prepare the boarding party and set your weapons for stun.

ELEMENTS:

Stars

English F.G.

ENGLISH SLATE:				
SHOT NO. T 429AP	NOTES:	FRAME COUNT		
OF	ANIMATION:	PROC. PLATE NO.	SPACE	PAGE 3 A

Revised storyboard by Rodis-Jamero, July 3, 1979.

DUANE

ANAMATICS

I. SNOW BATTLE SEQUENCE

M92: 3 speeders meet up and bank overhead. (Replaces sc. 146).

M106 or M107?: (See Miki) Progression of walker between shots needs to be closer.

M110: Similar to sc. 113. Speeder should come over camera much bigger and crash bigger. Omit 1 walker.

M118: ECU - Luke's POV of giant foot. Foot comes up and over. PAN under as it comes down to block out screen.

M119: Same as Sc. 164. Luke falls. Giant foot comes down and crushes speeder.

M127: Similar to sc. 170. Scale wrong. Should show partial leg in f.g.

M141: CU Walker head firing. Change angle.

M144: 3 walkers to camera firing lasers. Needs more extreme angle.

M152: Similar to Sc. 196. Shrink walker, speeder same size.

II. OPENING SEQUENCE

A. TAUNTAUN: Sc. 2
3
4
4B (NOTE: Was formerly 3B - misplaced in sequence)
12
26B
28
31
32 (NOTE: Without Han & Luke)

B. MISC.: Sc. 6P

C. PROBE ROBOT: S11 (NOTE: Omit page 1 of 2)
11
16
R27
S27
36
47
48
49 (NOTE: Probe & speeder)

D. SPEEDER: 37
38P, 39
40
41
49 (NOTE: Probe & speeder)
49A

(CONTINUED)

A typed page describes shots for the animatics sequence that would stand in for the final snow battle effects shots in early cuts of the film.



Lucas at the second July 4 company picnic, where Dunham entered via balloon—and crashed, nearly setting the forest on fire (below).





Paul Huston at work on the *Executor* model, Darth Vader's flagship.

On Sunday, July 15, George Lucas returned to London. "Suddenly, showing up every few weeks or so didn't work anymore," he says. "I had to be there every day and I had to be helping Kershner, which developed into a lot of work."

Additional concerns had also brought Lucas back—the budget, the schedule, and so on—but the most urgent matter was the film's financing, which was falling apart.

"There were some business mistakes that were made," Kazanjian says. "*Empire* got out of hand budget-wise and the picture ran into big problems. Part of it was Charlie Weber's fault, part of it was John Moohr's fault, and a lot of it was Gary Kurtz's."

"The three major entertainment loan officers from Bank of America, which was financing *Empire*, came into my little office," Weber says. "They looked almost shell-shocked and said, 'We have to pull your loan on Friday; we're at a million-dollar payroll.' I said, 'Why? You have $50 million [sic] in advances in the Fox coffers.' And they said, 'We have a new credit manager who just came in and your budget's doubled, so it's an automatic. There's nothing we can do about it'—so I was stuck with trying to make a million dollar payroll by Friday."

"It became apparent that *Empire* was going to go even further over budget, further over schedule," Lucas says. "It wasn't going to be $25 million, it was going to be closer to $30 million. I said, 'Gary, now we have to go back to the bank again and God knows what's going to happen—they may not extend the loan.' But we went to the bank and the bank said, 'No, we're not giving you another dime.' So I couldn't finish the movie. We were like 20 percent away from finishing the movie and I was afraid I was going to have to go back to Fox and beg forgiveness. I would have to give them the movie, and then I wouldn't have my freedom."

"The picture was way over schedule and $5 million over budget," Kazanjian says. "Suddenly the accountant called and said, 'We need five more million dollars.' Well, five more million dollars is a lot of money and Charlie's big error was he didn't see that coming."

"The despair was we had to find the money as quickly as possible—we had to make the payroll," says Lucas. "So we said we'd pay everybody every other week instead of every week. That was a delaying tactic until we could actually find a way out. The big question was, *Could we get it done in time?* I was trying to keep the picture going and we couldn't let the cast and crew realize that we were in financial trouble—we had to go on as if everything was fine."

"I had no awareness of what was going on behind the scenes financially," Kershner says. "No one clued me in, no one asked me, no one told me. I just did my work."

Black Falcon supplied a Band-Aid by loaning another $525,000 to Chapter II that month, but the situation was alarming and beyond licensing's resources. According to one source, Twentieth Century–Fox, aware of the situation, was threatening to call in the completion bond and take over the film.

"There was tension between Lucasfilm and Fox," says Ganis. "The fact that Lucasfilm was the owner made it a little more intense, made it the Supreme Being at Twentieth Century–Fox, so anything that Lucasfilm said went, which inhibited the creative people and the businesspeople at Fox. Generally, what George demanded stayed in the realm of lawyer-to-lawyer. But every once in a while, it kinda burst out into the world of the top executives of the company."

"We didn't see that coming," says Kurtz. "It was a terrible moment and then having to go back to Fox for more help—nobody liked that idea, least of all George."

"We couldn't meet our debt," Lucas says. "All the money I had made from *Star Wars* was committed to this film, plus more, but I didn't want to go to Fox and give them the movie because I'd have to give all the rights back—I was very close to losing all the rights after I'd worked so hard to get them. It was an extremely high-pressurized situation—I had to keep the picture going, somehow get people to work without pay, hope to hell that we could make a deal with another bank, hope to hell that whatever they asked for didn't involve me having to go back and renegotiate big-time with Fox. It was a very intense situation. It was my learning that when you play with the big boys, it's no holds barred. And things kept slipping …"

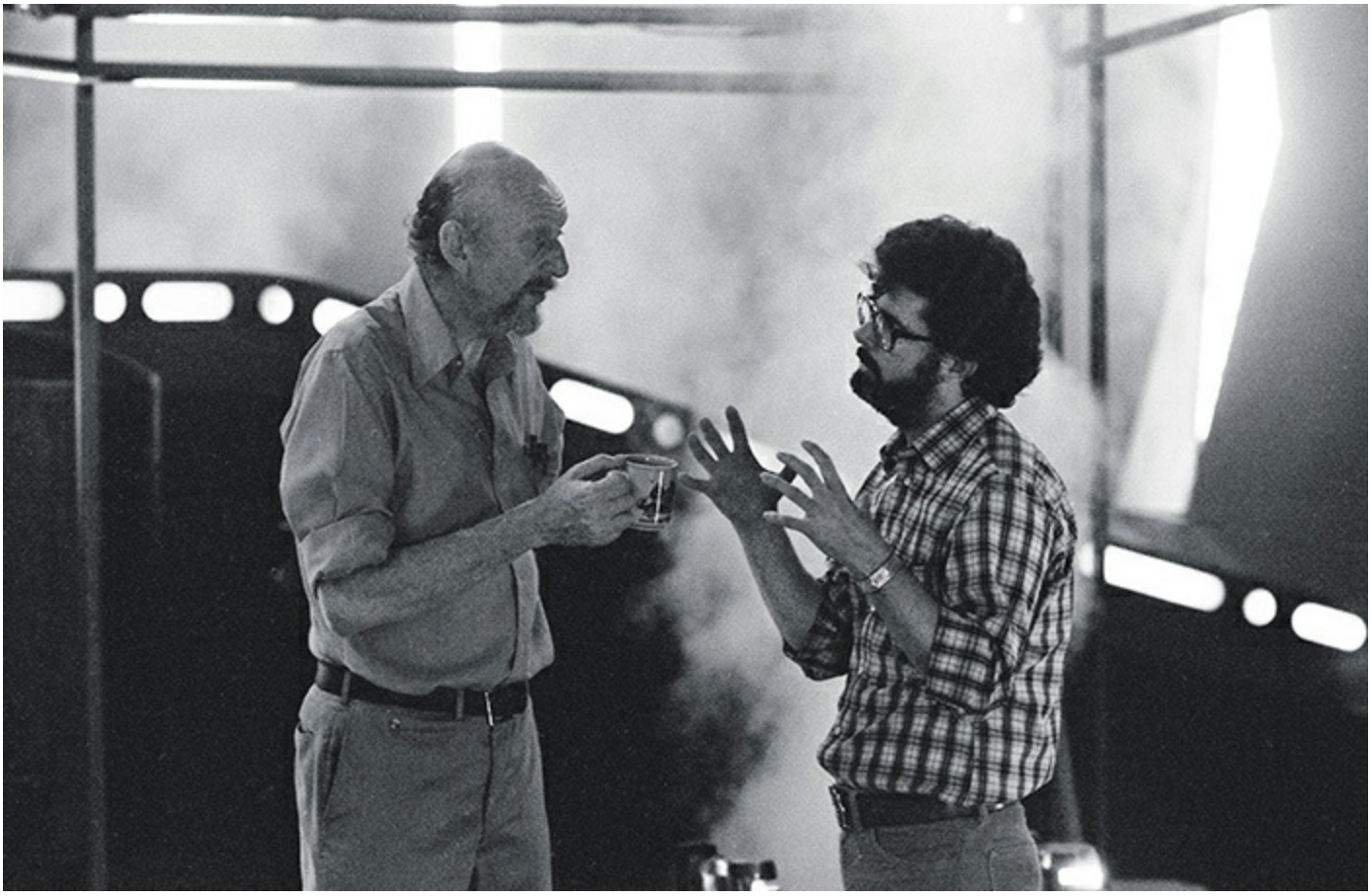
"It's really two years of inflation between the two pictures," Kurtz says. "For labor the cost has been normal, I assume, about 15 percent a year average. For the cast, it was like a 500 percent inflation rate, because the deals we have with them on this picture are substantially higher than before. Simple things like plastic pipe, all petroleum-based products, went up 300 to 400 percent."

"Gary is one of the most technically qualified producers that I've ever worked with," says Watts. "His background in filmmaking has been so wide and diverse, and his own interest in the mechanical aspects of filmmaking is so great. He's kind of like a film school bible, but there's a big difference between theory and practice."

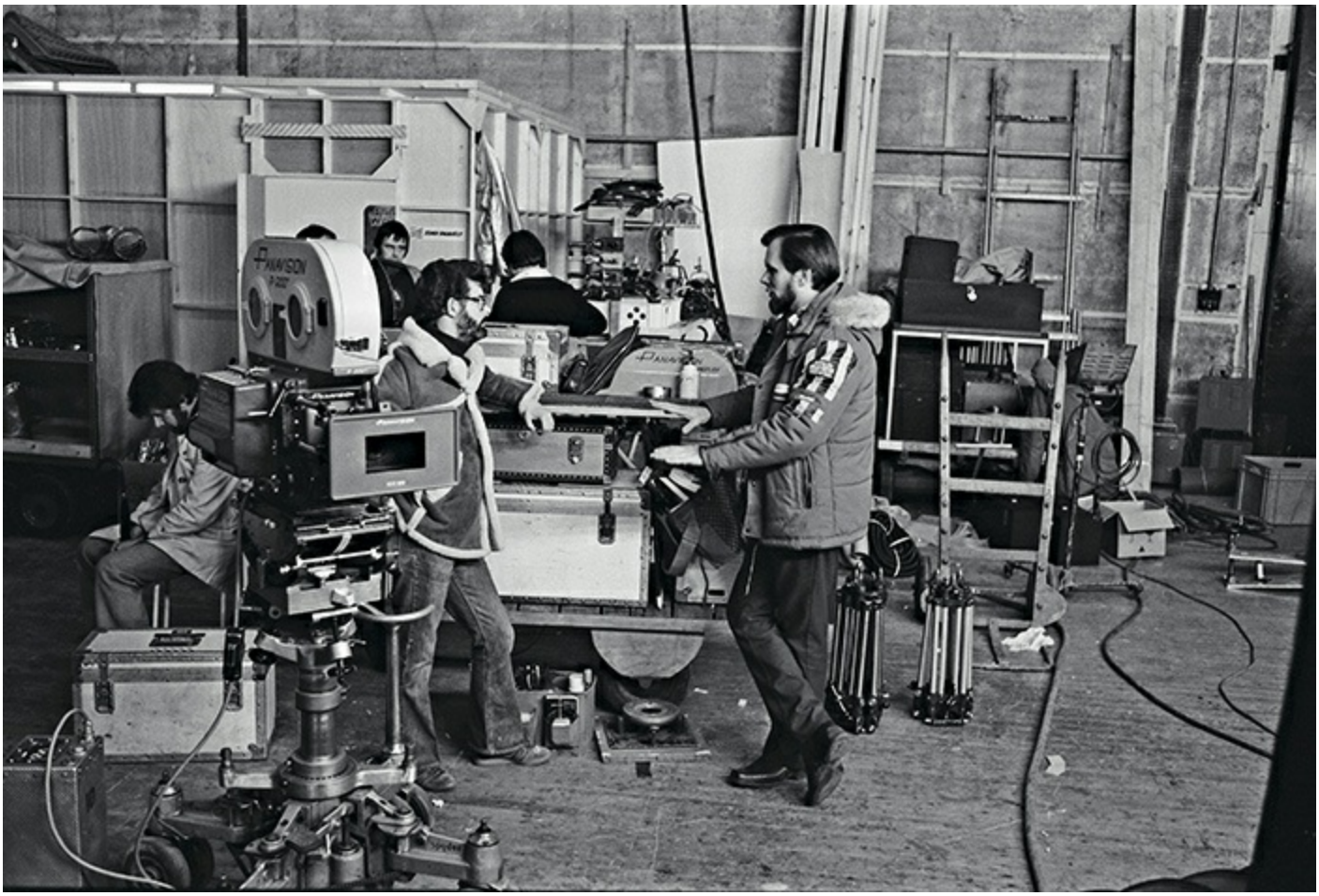
"Part of the problem was that even after shooting began, we kept modifying the script," Kurtz says. "And we did add 8 or 10 sets. So, really, what we were talking about was being over about seven or eight weeks, half of which I would attribute to technical problems, such as special effects not functioning or sets being very difficult to work in, like the Carbon Freezing Chamber. And the other four weeks are really due to the way Kersh worked, just his pace and his method of operation, his not being able to do the throwaway scenes very quickly and concentrate on the other ones. He put the same degree of attention into everything."

"I was never sure if anything was right, I was guessing," Kershner says. "And then I realized that Lucas had financed this picture himself and there I was shooting a guessing game with millions and millions of his money at stake. This put a terrific burden on me, because I knew whenever I screwed up, it was costing him money. But that's the way film is—you chase shadows."

"The director worries about making the movie and doesn't have to care about any of the other things," says Lucas. "Unless you've got somebody at the helm on a day-to-day level trying to cut everything down, it just doesn't happen. Gary is trying but, ultimately, Kersh is the one in the driver's seat, and he just isn't of the same school as I am. It's understandable. Most directors aren't. They're concerned about making movies, not about saving money. They just want to make the film as good as possible—which is what they're paid to do. Kersh was working very hard trying to get the movie done, but it was very slow and tedious work, so I had to really come in and kind of get very involved to try to see if we could salvage it before I ran out of money. What it really came down to is a very loud ticking clock …"



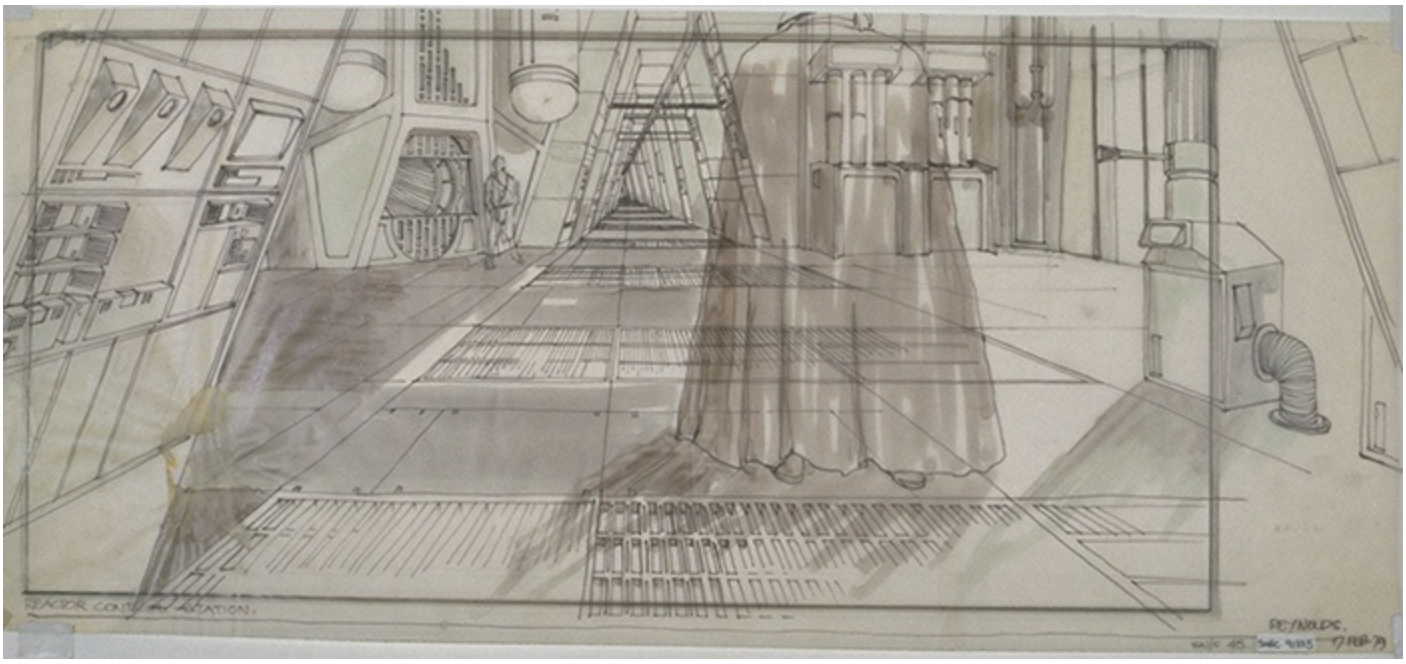
Lucas talks with Kershner.



Lucas talks with Kurtz.



Hamill and second assistant cameraman Peter Robinson, who is taking measurements for the camera crew.



A production concept drawing of the reactor control room, by Reynolds, February 1979.



Set construction on Stage 1 of the Reactor Control Room, which combines elements of Reynolds's and McQuarrie's concepts. Reynolds was very much an "English gentleman," but very firm, according to McQuarrie. "He said, in effect, you can design things over there in the corner; we're gonna do our thing. But a couple of times, Kershner came by and said he was worried about the sets on Cloud City and could I do some paintings that enlarged them? Afterward, George said to Norman, 'This is the way I want to see it.' "

HUMAN MISSILE

REPORT NOS. 93–98: MONDAY, JULY 16–MONDAY, JULY 23: STAGE 1—INT. REACTOR CONTROL ROOM, S391, U391 [LUKE KNOCKED THROUGH WINDOW]

From July 16 to 23, Hamill dueled and dueled with Anderson on the Reactor Control Room set on Stage 1, with Lucas checking in. "George said, 'Hiya, kid. Are you having fun?' " relates Hamill. "I said, 'Yeah, I'm having fun.' And he said, 'Congratulations.'

"I'm pleased that he's interested enough to really oversee the whole thing," Hamill adds. "It gives you confidence, really, and it's certainly not a hindrance. He gets along well with Kersh and today he was very interested in making sure that when we lock blades with the lightsabers, we had a proper amount of tension there—you know, he has ideas about the swordfight. I think he must be pleased. He only tells you when you do things wrong."

"When we were in the reactor room, with pieces of machinery being thrown at the artists, particularly Luke Skywalker," Diamond says, "he stood a great chance of being seriously injured."

"You had a very dangerous missile fired very close to you," Arnold reminded Hamill. "The missile was lethal. I probably shouldn't say this, but Peter Diamond described it to me."

"Oh yeah, I was literally shaking with fear that day," Hamill says.

"The missile itself was made of metal and wood, and was quite heavy," Diamond says. "Obviously, if

it had hit anyone at all, they stood a chance of being killed, because of the weight of it and the force that was being projected from the air machine."

"The missile was fired by an air cannon, which was behind him," Kurtz explains. "It wasn't on the camera side shooting past him, although it looks that way on film. Both the special effects and stunt people felt that all of the glass would go outward, that there was no chance of danger. We went over that very carefully because I had felt originally that we should just shoot that as an insert and not have him in the wide shot. But Mark was fully 15 feet away from the closest piece of glass."

"It's unusual because we can't put in a mini trampoline because it would be seen," says Colin Skeaping, Hamill's stunt double. "So I am doing a gymnastic-type movement, which requires running in from the back of the set, then turning to face the way I've come, to give me enough height and distance to get back out through the window. There won't be any wires; it will be done straight backward through it."

"Colin Skeaping was a stunt double and a competent gymnast, so to get the effect of the wind blowing, the gymnast did this marvelous round-out, followed by a back somersault," says Diamond. "It gives us the impression he's being sucked out of the window."

Meanwhile, Lucas was reviewing all of *Empire*'s diverse elements, spending a good deal of time with Kershner and Hirsch, but also taking time to watch others' movies. "We just saw an interesting film last night," he says, "which was made I think on a fellowship or on a grant from the American Film Institute. It's called *Eraserhead* [1977], which is a most bizarre movie, but quite interesting. Stanley Kubrick had it and wanted to see it, so we watched it in the studio."

"Some of the problems I've faced have been functions of the way in which the picture was shot, which go back to certain production difficulties," Hirsch says. "In several instances, we've shot sequences over a period of weeks, so I find myself having to edit sequences without all the material, which becomes tricky. Also, because we are over schedule, George felt that it would be dangerous to wait until we got the whole film put together before we started our second pass. So what he did was to take the first three or four reels, which we'd felt in our last screening was where our greatest difficulties lay, and he started to do a second cut on them while I continued assembling other scenes for the first time."

"My primary task is in the cutting room," Lucas says. "The first thing I do when I arrive here is catch up on the cut film. Because of the time pressure, my main concern at this point is to work on a second cut while the editor works on the first cut. I'm going through the first three reels and revising the structure, trying to make the scenes work a little bit better. That way, when we wrap, we can be six weeks ahead of ourselves."

"The problem is simply that in the first part of the film we have some exposition," Kershner says. "Every film has this problem, [laughs] almost every film, and I'd like to bury the exposition as much as possible. So George is working on that."

"Our problem in the first part of the film was to make the information clear," Hirsch says. "When I had finished with the first three reels, they were assembled in script order. I hadn't gotten to the next step, really. So George took the next step to analyze the problems and rearrange a few things, move a scene here, eliminate some things, and he added some miniature shots that we hadn't had. Then we looked at what he'd done. Some problems became evident at that point."

"There has been some disagreement about the reassembly of the first part of the picture," Kurtz says. "But that's natural. We always knew that there was a problem in the first half hour because a tremendous amount of expository material tended to slow the picture down."

“Always in the beginning of the movie you have to explain what’s going on, what’s happening, and where we are,” Lucas says. “It’s counter to being entertaining. There are scenes that are developing ideas that will be paid off later in the movie, so what I’m trying to do now is to get through that as gracefully as possible.”

“George is not real generous with praise, you know,” Hamill confided to Arnold.

“Neither of them are—Gary, anyone,” Arnold replied.

“No.”

“You don’t really know how you’re doing, do you?”

“Well, I’ve just adjusted to the fact that if I’m not doing it right, then they’ll tell me,” Hamill says. “But the one thing that I’m excited about is George has seen the swordfight dailies. That was the thing that was worrying me the most. So he’s seen the swordfight and he said that it’s terrific. He said it’s going to be the ‘Battle of the Century.’ ”



Editor Paul Hirsch talks about the evolution of the storytelling as the first reel of Empire was cut, discussed, recut, and so on, while at Elstree Studios. (Interview by Arnold, 1979)

(2:27)



Luke is stalked by Darth Vader in the Reactor Control Room set.



Kershner directs Hamill.



Hamill then duels with Prowse.



Vader holds on to avoid being sucked out of the room.





Stuntman-gymnast Colin Skeaping performs the jump forward, then backward, through the circular window.

Between July 13 and July 20, Billy Dee Williams (39 days worked), Carrie Fisher (68 days), and Anthony Daniels (50 days) had completed their roles. The ailing young actress was probably relieved to return home, as her mother had telephoned a few days before with news that somebody was out to kidnap Fisher. For her last days in England, she was assigned bodyguards.

"Then Carrie and Harrison were finished and went home, and it was just me left," says Hamill.

On July 23, Luke's training montage on the bog planet was shortened, with nearly all of the before-and-after lessons cut out, including the sequence in which he first fails and then succeeds in cutting a metal bar into several pieces with his lightsaber. Nearly all of the Yoda–Luke scene had also been reworked by this date and new pages inserted into the shooting script, as Lucas continued to confer closely with Kershner, Hirsch, and Kurtz, often working in the former's office and having lunch with all three.

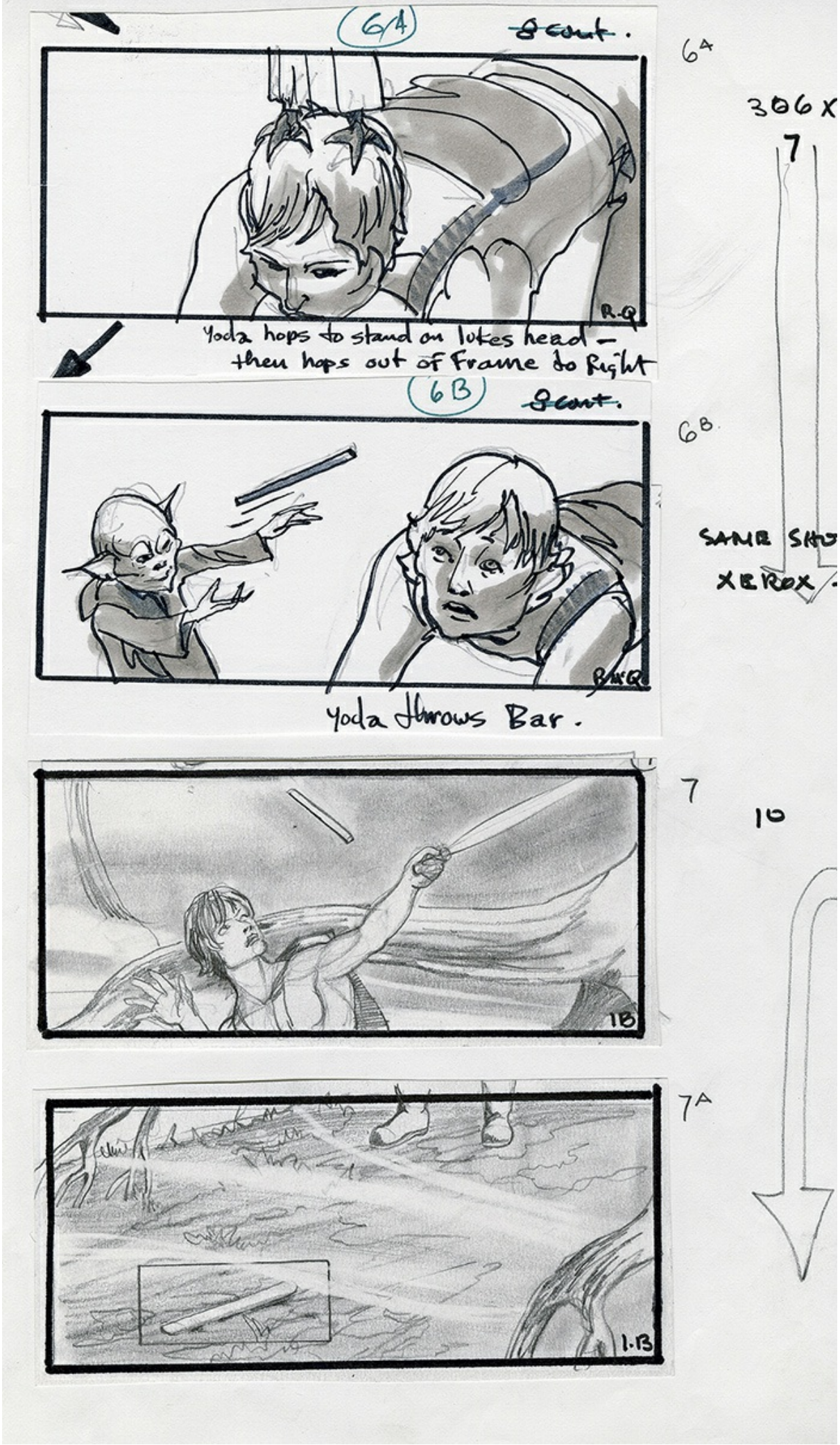
"Over the last few weekends, because the bog planet is going to be so difficult, I've rewritten it," Lucas says. "Kersh and I have worked on how he's going to do it and what the setups are going to be. I've been spending part of this week going through and updating the storyboards, redoing them and getting it down to a reasonable number of shots that we can actually accomplish in two and a half weeks. Kersh understands that we've got to get the film finished and he doesn't want to work any more than anybody else does. There's no sense in shooting a lot of needless stuff that we will cut out in the editing room anyway."

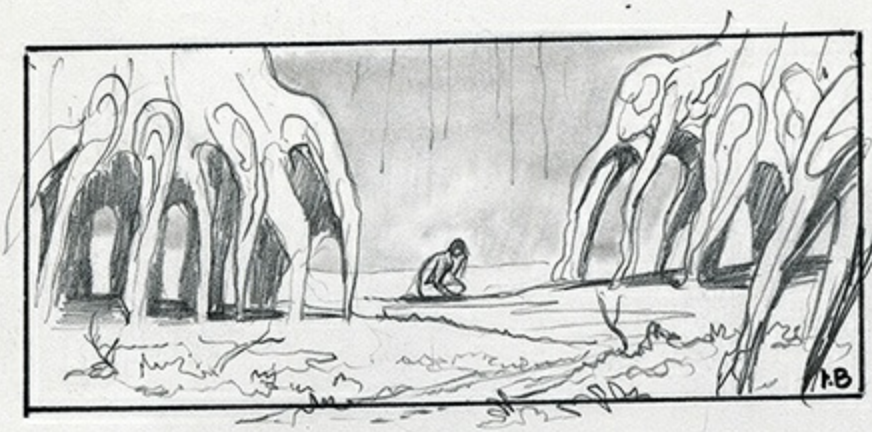
"We got together and asked, 'Now that we've seen the picture up to this point, what do we really need?' " says Kershner. "We agreed almost immediately that we needed compression on the bog planet. Right from the beginning, while we worked on the script, I was concerned that there was a change of mood and tempo in this particular sequence. The film moves so rapidly and is so full of varied images that when you suddenly come to a stop and have to deal with naturalistic time as opposed to montage time, there could have been a lag—and you can't afford that on the last quarter of the picture."

Lucas also worked with Kershner to speed up the shooting in general. "I'd say, 'Do this overall master,' " Lucas says, referring to a standard kind of setup in which the camera is able to take in the whole set, all the actors, and the complete scene (usually followed by two- and three-shots and then close-ups of the actors). "And Kersh would say, 'But I'm not going to use that shot. Why would I do it?' And I'd say, 'You do it because it gets everybody on their toes. It gets the makeup done more quickly, it gets the set lit; everything is done more quickly and everybody knows what's going on. They'll watch the scene and think, *Okay, now we're going to go in and cover this.*' Kersh is more artistically inclined than I am, but, personally, I think that if you have a group of people trying to work on one creative concept, it's better to have everybody clued in to what's actually going on."

One item still not resolved per the bog planet was whether it would feature the ghost of Obi-Wan or not. "It's up in the air at this particular point in time," Lucas says. "We're not quite sure what Alec's situation is in terms of his health, but we're hoping that he'll do the picture. We could find somebody who could do his voice with makeup. Ben Kenobi can still be there without Alec Guinness, it's just that we prefer to have the real thing."

Storyboards by Beddoes, February 1979, show several of Yoda's tests that Luke must pass: a bar that he must learn to dice with his lightsaber; a bog over which he has to jump; and attacking seeker balls. These sequences were cut from the film in July 1979.


6A
~~8 cont.~~
6A
306 X
7
R.Q
Yoda hops to stand on lukes head –
then hops out of Frame to Right
6B
~~8 cont.~~
6B
SAME SHO
XEROX
R.Q
Yoda throws Bar.
7
10
1B
7A
1.B



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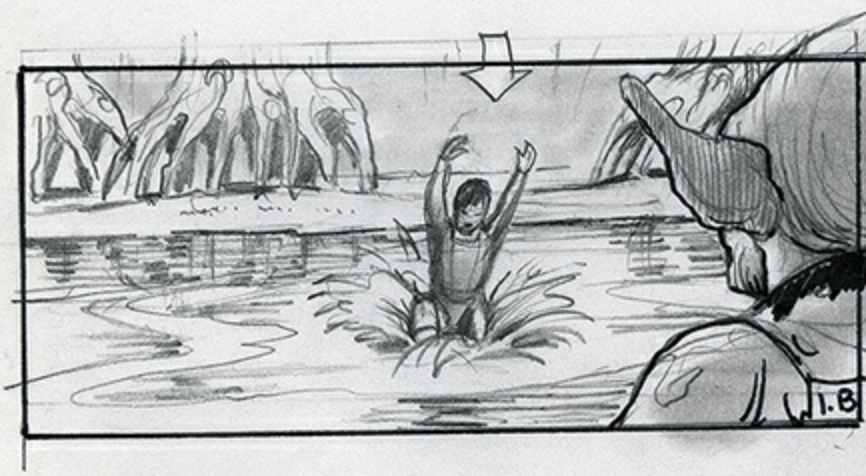

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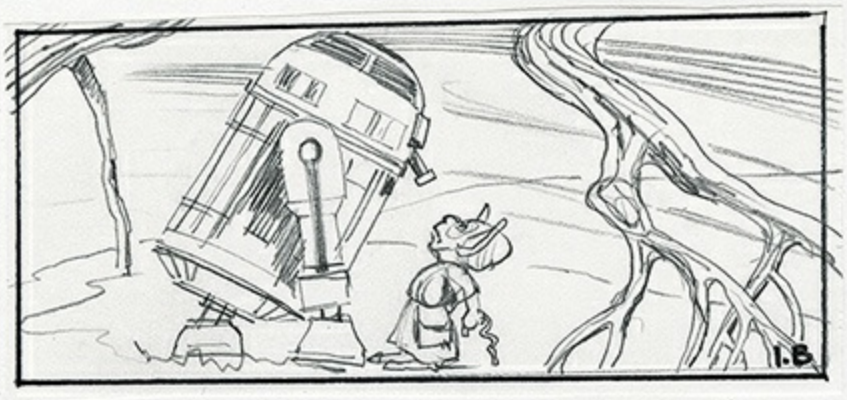

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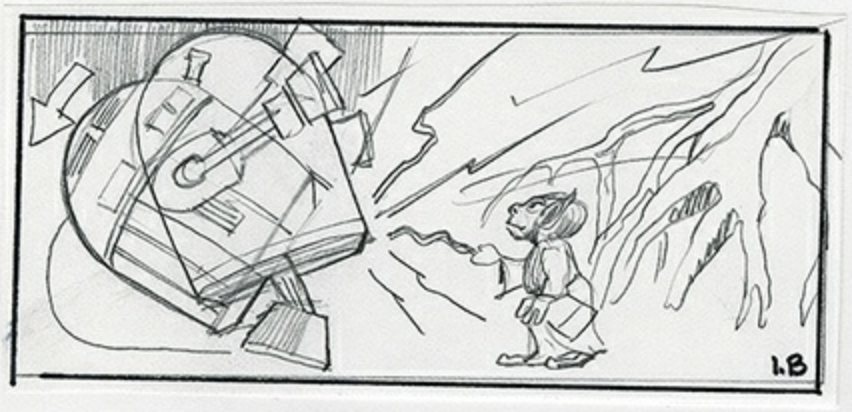

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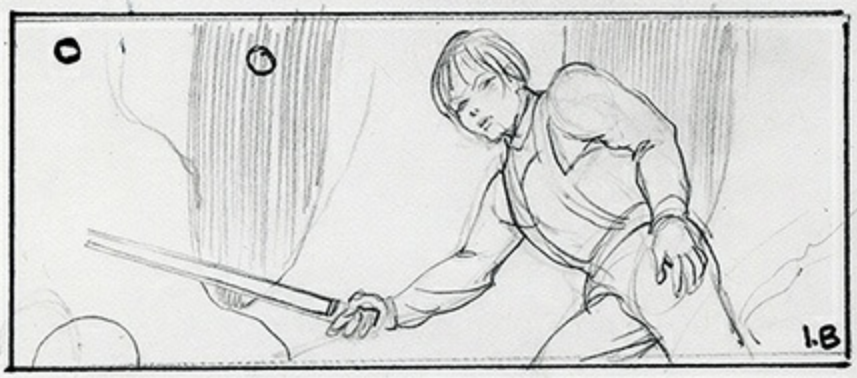
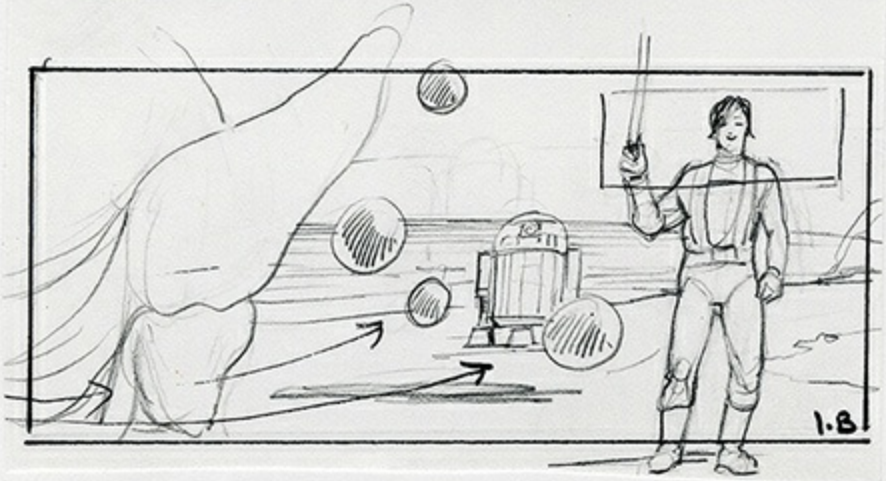


16

16 A
KERSH



17



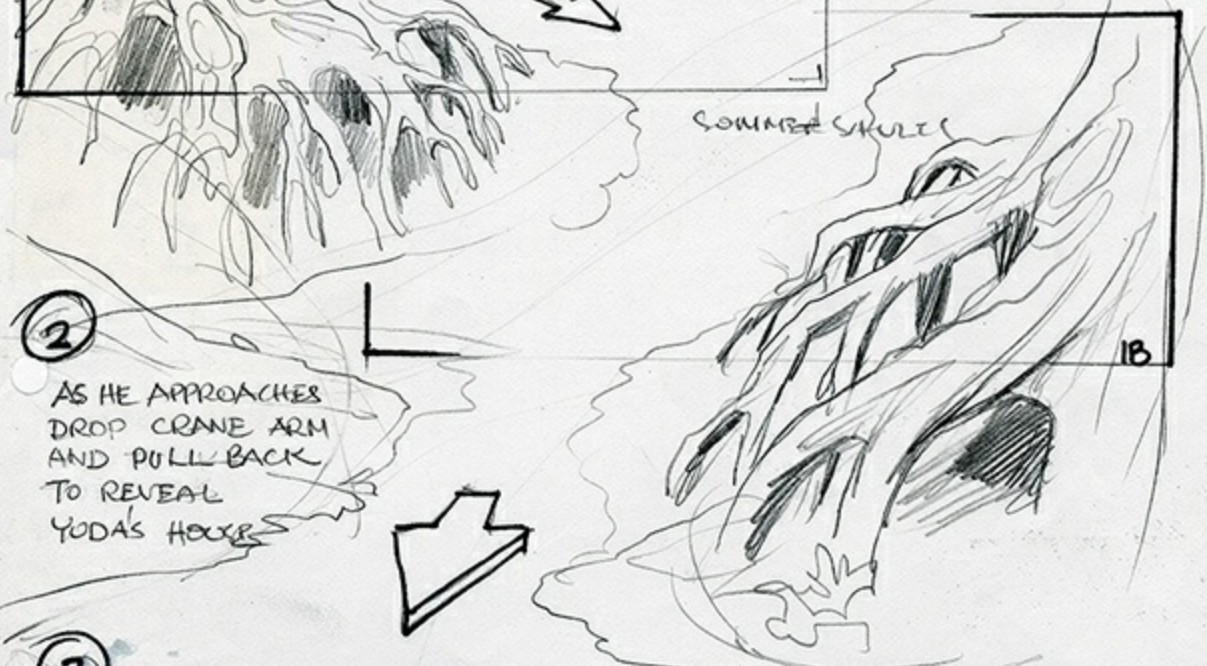
K

63



1

ACTION DEPENDS ON THE SET — BUT START ON CRANE - LUKE IS RUNNING WITH YODA ON HIS BACK.



2

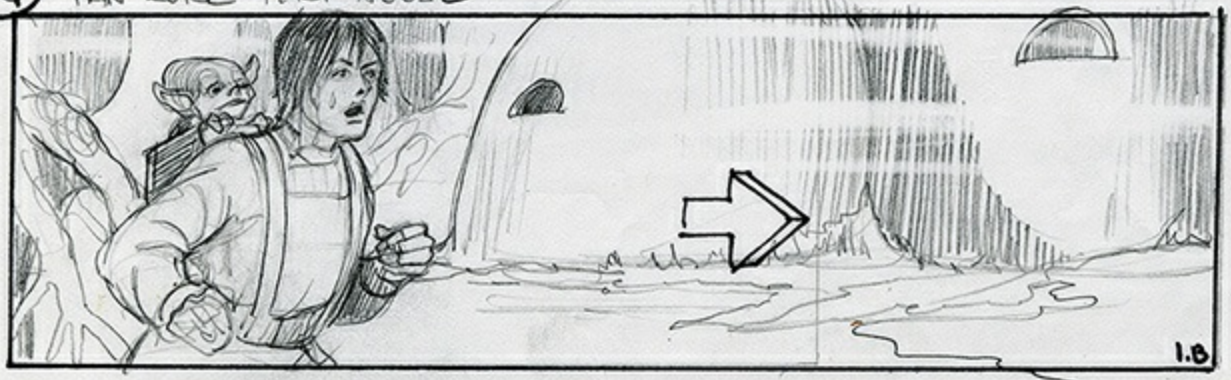
AS HE APPROACHES DROP CRANE ARM AND PULL BACK TO REVEAL YODA'S HOUSE

3 AS WE REACH NORMAL CAMERA HEIGHT - PAN RIGHT



A-340

4 PAN LUKE PAST HOUSE





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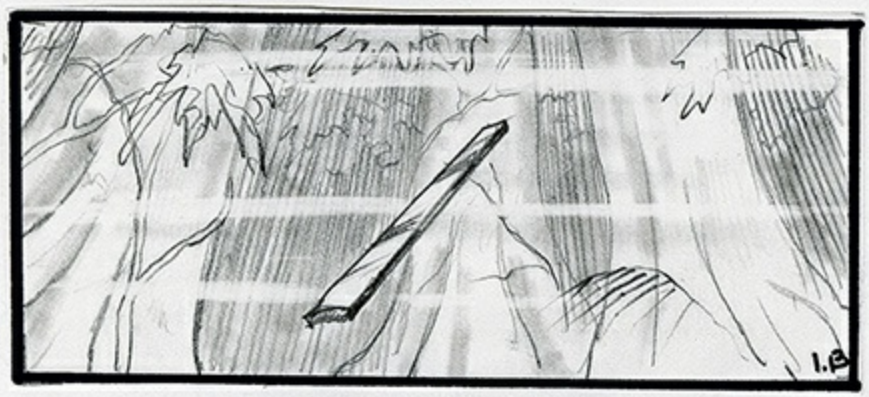
3



4



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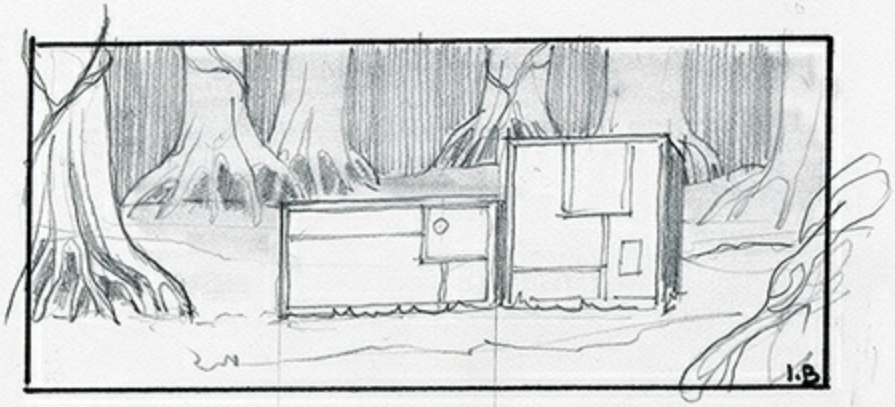
6



More storyboards by Beddoes reveal more tests for Luke—for example, lifting objects with his mind—along with the moment in which Yoda surprises Luke with seeker balls as R2-D2 watches.

78



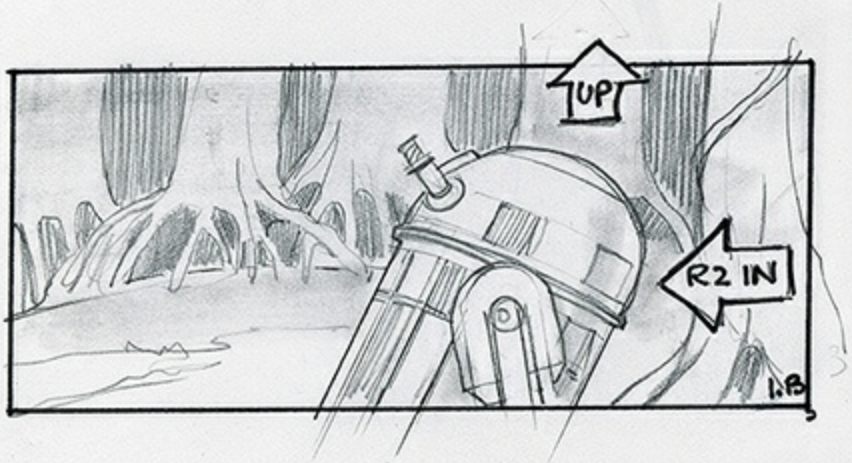
WE OPEON 2 BOXES

365



THE LEVITATE REVEALING LUKE WILLING THEM TO RISE YODA WATCHING

CONT



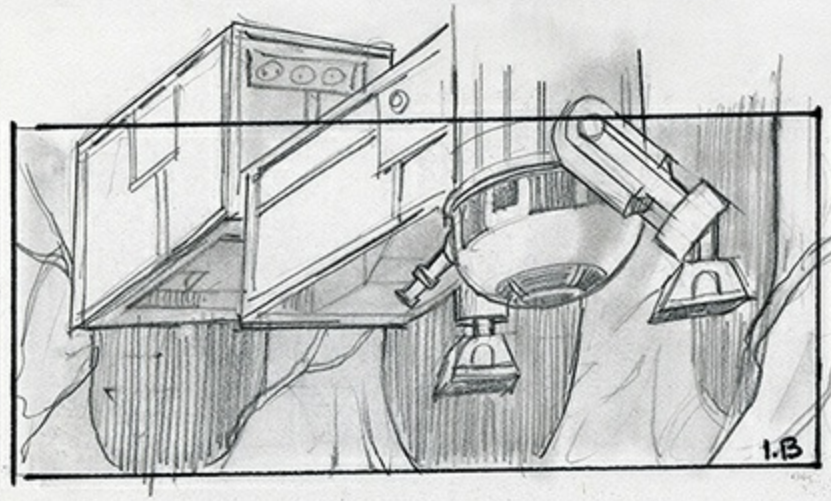
NEW ANGLE R2. ENTERS AND BEES HIS SURPRISES.

1



SUDDENLY YODA MISCHEVEOUSLY RAISES HIS ARM

2



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P93A
S/S

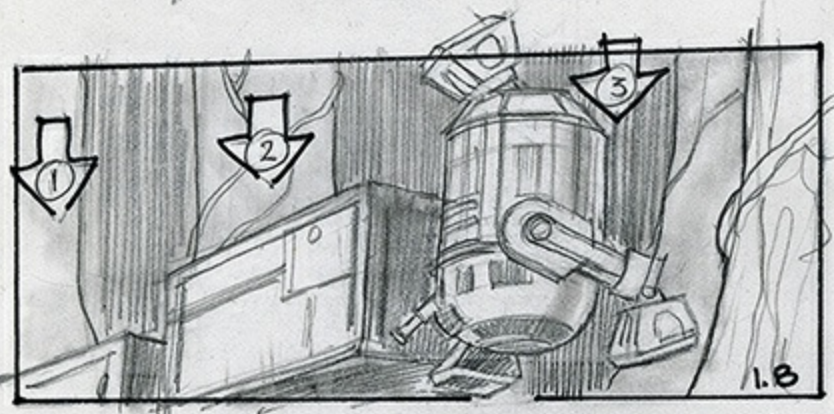
3



6

YODA LOWERS HIS ARM — LUKE IS ALARMED

4



7

508
P93B
SMALL

5



9

L.S SHOWING LUKE HAS SAVED HIM R2 HANGS & BEEPS

6

(80)



LUKE SMILES IN TRIUMPH ANOTHER VICTORY FOR HIS POWERS

365
7



THEY SMILE AT EACH OTHR - YODA CLIMBS ONTO LUKES ARM THE RISE

CONT

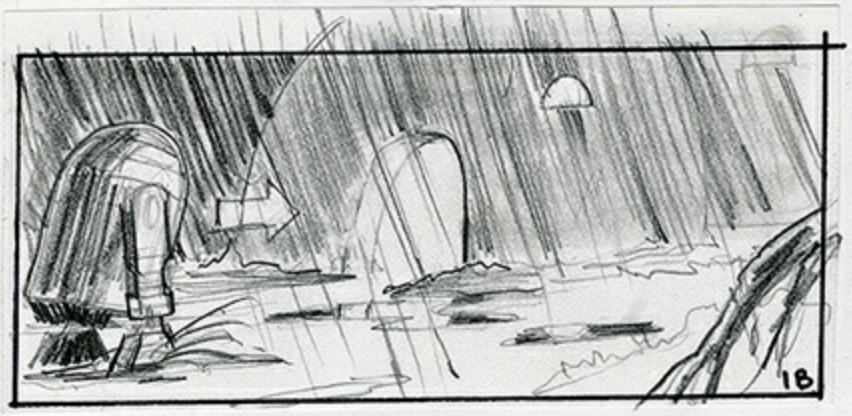


ANDI WALK OFF TALKING . LEAVING R.2 HANGING TWIRLING & BEEPING FRANTICALLY

8

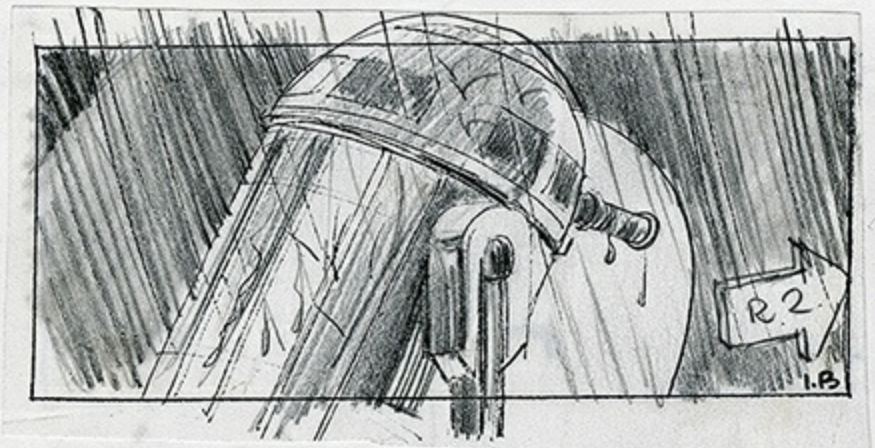


366



1

~~Mel~~
p. 78A
E. 109%



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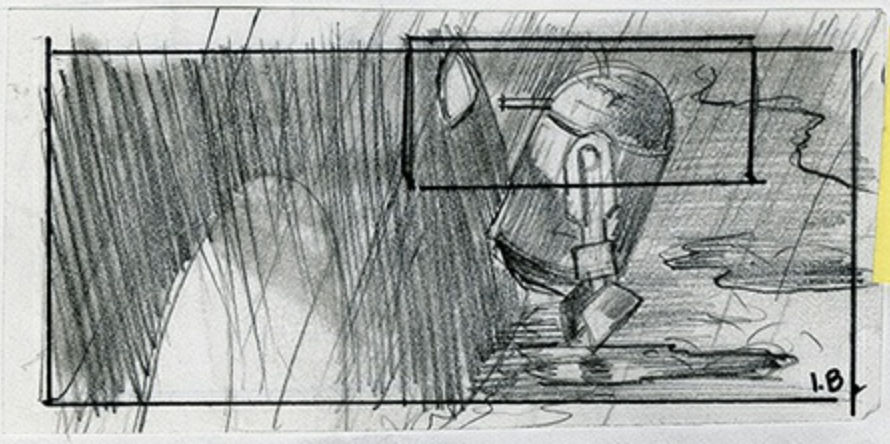
CONT



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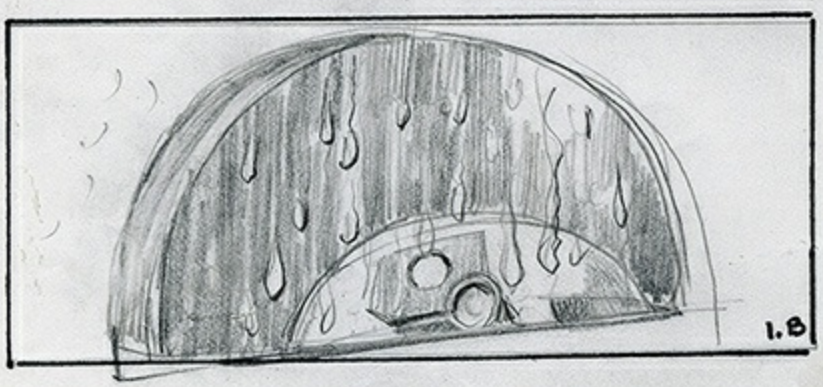
TOE
HE BEEPS
PITEOUSLY -
THE RAIN BEATS
ON HIS HEAD

366



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~~SM~~
p. 78D 49%

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366

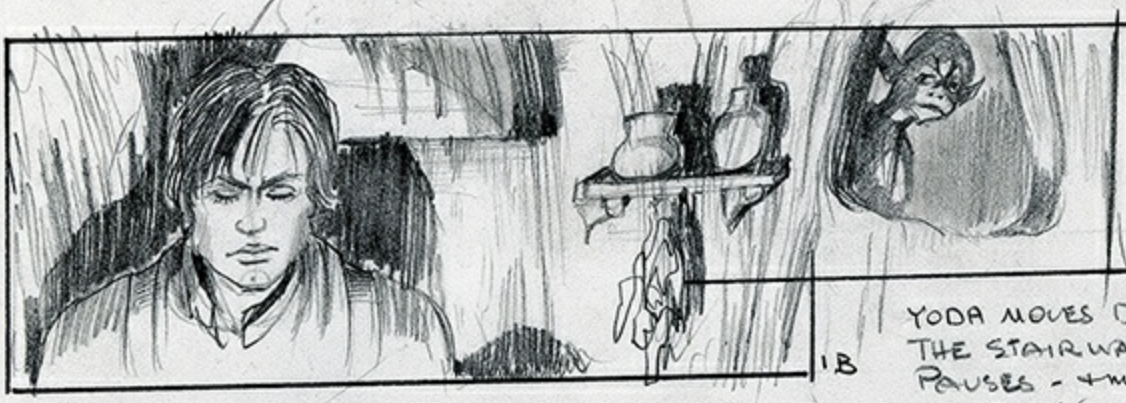
2



1B

LUKE IS FAR AWAY WHEN HE SHOULD BE COOKING
YODA LOOKS DOWN WITH CONCERN

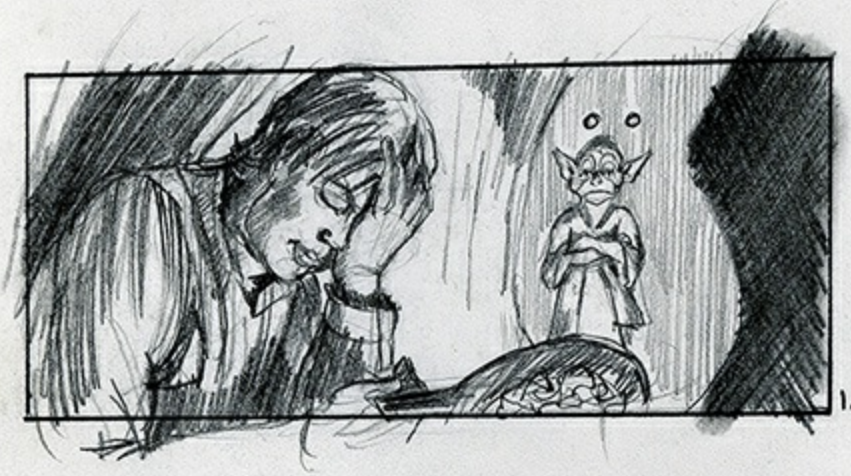
3



1B

YODA MOVES DOWN THE STAIRWAY - PAUSES - + MOVES ON DOWN

4



1.B.

AT FLOOR LEVEL YODA GLOWERS AT HIS INATTENTIVE PUPIL WHOSE MIND IS BEING TORN BY INNER MESSAGES FROM HIS DISTANT FRIENDS. SUDDENLY YODA TWO STUN-GLOBES APPEAR

5



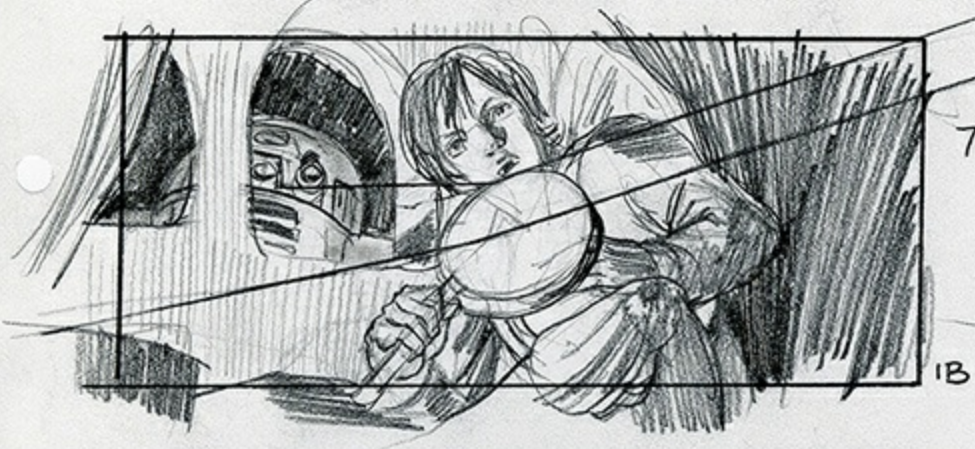
1B.

YODA IS GOING TO TEST THE PUPIL JEDI.



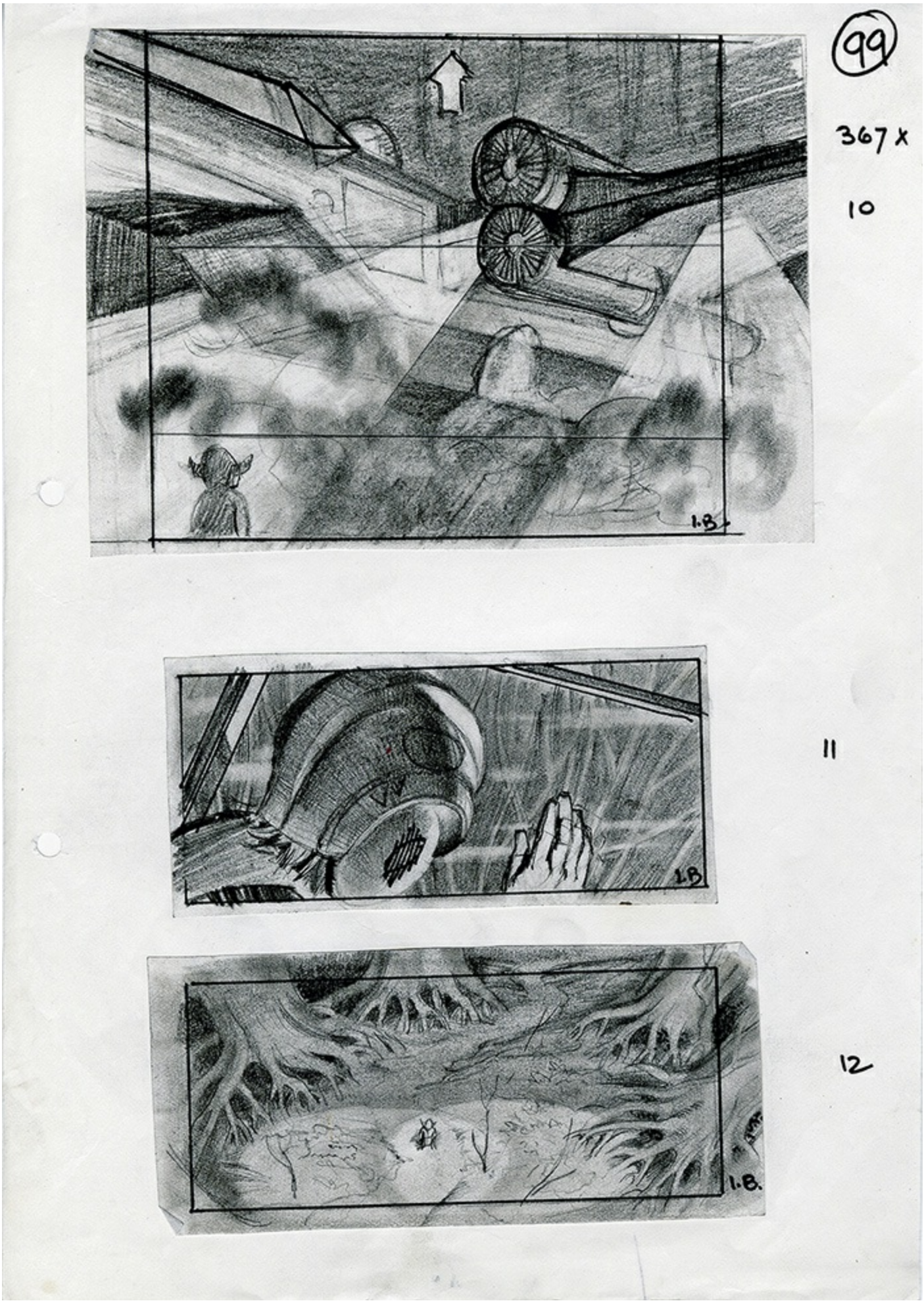
AT A GESTURE THE STUN GLOBES DART FORWARD BUT THE YOUNG JEDI'S INSTINCTS WARM HIM & HE WHIPS ROUND

CUT



INSTINCTIVELY LUKE RAISES THE PAN FULL OF COOKING WHICH SPILLS ALL OVER HIM + ONE BALL HITS & is DEFLECTED. THE OTHER GLANCES OFF THE RIM & SPEED OUT OF THE WINDOW & HITS THE WATCHING R2 A STUNNING BLOW - THERE A LOUD SCREECH-BLEEP & R2 VANISHES. A BEAT & WE HEAR AN AWFUL METALLIC CLUNK

Luke bids adieu to Jedi Master Yoda in a Beddoes's storyboard.



REPORT NO. 99: TUESDAY, JULY 24: STAGE 9—INT. TREE CAVE, 341 [THE TEST]

Suddenly the film's financial footing improved. "I called up George and said, 'I know people at the Bank of Boston,' " Weber says. "By Friday, I think we can have the credit. So I called up Bill Thompson, who flew out on a Wednesday, and we literally did the deal on the back of a napkin and he funded the payroll."

"We had to go and completely refinance the movie halfway through with a different bank," Lucas says. "We had to switch banks in a period of something like 10 days, but they were willing to go the extra $5 million."

"I was kind of on the end of a telephone about all that," says Kurtz. "That was down to Charlie's area and he kept me informed a bit about what was happening, but it was like trying to negotiate with a gun to your head, I'm sure. I'm sure that's how he felt about it, because of the time frame."

"George appeared one day in England with a banker from Boston," says Kershner. "George told me that they were trying to get some extra money and we showed them some footage. We showed them some sequences and they thanked me and I think he got the extra money."

The "revolving credit" agreement with First National Bank of Boston was signed and dated July 24, refinancing the original loan to the tune of about $31 million, with the bank loan at $27,670,000—and with Fox guaranteeing the $3 million above the $28 million in return for "principal terms of a distribution agreement between SWC [Star Wars Corporation] and Distributor [Fox] regarding the distribution rights with respect to the second theatrical motion picture sequel to *Star Wars*."

"I wanted my independence so badly, we managed to do it in a way that I paid Fox just a little bit more money," says Lucas. "But they didn't get any of the licensing and they didn't get any of the sequels. If I had to pay a few extra points, I could do that. I think Fox was just as concerned as we were that the movie get finished."

Instead, the second sequel distributor–producer split of gross box-office receipts would be more favorable to the former than it had been for *Empire*. Fox would also retain 10 percent of merchandising "participation." However, because it was borrowing the $27 million from the Bank of Boston, with no intermediary companies to run interference, Lucasfilm itself—the parent company—was now liable. It had guaranteed the loan, and if *Empire* didn't at least make its money back, Lucasfilm was now on the chopping block.



Concept of man and tree by Reynolds (no. 30), circa August 1978. A storyboard by Beddoes, from February 1979, reads, "There has been three or four conceptions of the tree of evil."

VISCIOUS VADER

REPORT NOS. 100–102: WEDNESDAY, JULY 25–FRIDAY, JULY 27: STAGE 9—INT. TREE CAVE, 341; STAGE 2—INT./EXT. SNOW WALKER, 173, 174 [LUKE THROWS BOMB INSIDE]; STAGE 1—INT. GANTRY PLATFORM AND PINNACLE, 398, 400 [VADER CUTS OFF LUKE'S HAND]

On Thursday, July 26, Day 101, production moved to the Gantry Platform and Pinnacle on Stage 1. Now 39 days over, Kershner, Hamill, Prowse, and company would spend nearly a week on scene 400, in which Vader tries to seduce Luke to the dark side of the Force.

"The most frightening thing I had to do was to back away from Darth Vader along a plank nine inches wide, 30 feet above the ground, with two wind machines going full-blast," Hamill says. "I said to them, 'Fine, guys, but do you realize that this may mean delaying the film—I'd say this is an eight-weeks-in-the-hospital type of fall.' 'Yeah, yeah,' they said. 'Just get up there.' "

"For the last week, we've been working almost 50 feet up off the ground," Kershner says, "which is no fun, climbing up and down ladders to talk to an actor, screaming through loud-hailers [megaphones]. I don't like heights particularly, but I just had to go up and down these things."

"Mark has really done about 95 percent of the actual fight himself," Diamond says. "Obviously, if we had said yes, he would have done all of it, but under the circumstances, some things were, in my opinion, too dangerous for him to undertake."

"I fell one time," Hamill says. "But I was able to tuck and roll like I was taught. I was later made a member of the British Stunt Union—not just a belt buckle, but a full membership."

"You say in the film that Vader triumphs, but I don't know whether he triumphs because they haven't given me a copy of the script," Prowse said to Arnold. "I've got my speeches, but I haven't got a clue as to how my speeches fit into the rest of the script or what's happened prior to me arriving in the picture or what happens after I depart from the picture. I don't know what's going on."

While Prowse, given his penchant for revealing secrets, was kept in the dark, Hamill was debriefed by Lucas and then Kershner, who called over the actor not long before cameras rolled: "I met with Mark, and said, 'Uh, you know that Darth Vader's your father.' 'Wha—?' 'David Prowse will be saying stuff that doesn't count, forget it. Use your own rhythm compared to what he's doing.' "

"They took me aside and said, 'This is what he's going to say,' " Hamill says. " 'You don't know the truth, *Obi-Wan* killed your father.' "

"I told Mark, 'Don't tell anybody—especially don't tell David Prowse—but I want you to be able to know, to be able to act appropriately,' " Lucas says. "And then Kersh worked the scene with him."

"I love when Darth Vader says, 'The only way you'll ever beat me is with hate,' " Kershner says. "It's a lie and the kids know it. The last thing Ben says is, 'Remember, don't use hate.' It's the most important thing in the film."

"I didn't know if James Earl Jones was going to do the voice again," Prowse says. "I think they established a precedent with the first movie and there's no way they can go with my voice, but they did go into a sound studio to re-record my lines for guide-tracks. It's funny—I found the recording sessions difficult because it was hard to sound as villainous as I did when I was wearing the Darth Vader costume. I tried to sound as much like James Earl Jones as I could."

"At the time we filmed *Star Wars*, I had no idea Darth Vader was my father," Hamill recalls. "I don't think Alec Guinness did, either, because in the scene where I ask him who my father was, he hesitated. I don't know how George made him do that. I didn't hear him saying, 'Maybe you don't really want to tell him.' But it's tricky. I remember very early on asking who my parents were and being told that my father and Obi-Wan met Vader on the edge of a volcano and they had a duel. My father and Darth Vader fell into the crater and my father was instantly killed. Vader crawled out horribly scarred and, at that point, the Emperor landed and Obi-Wan ran into the forest, never to be seen again. Now I wonder if it's true? Remember the Clone Wars? They could have cloned my father. It's all speculation at this point …"



Luke is stalked by his fear of Vader.





Special effects crew work on the specially rigged Darth Vader costume, for the moment Luke decapitates his dark-side double.



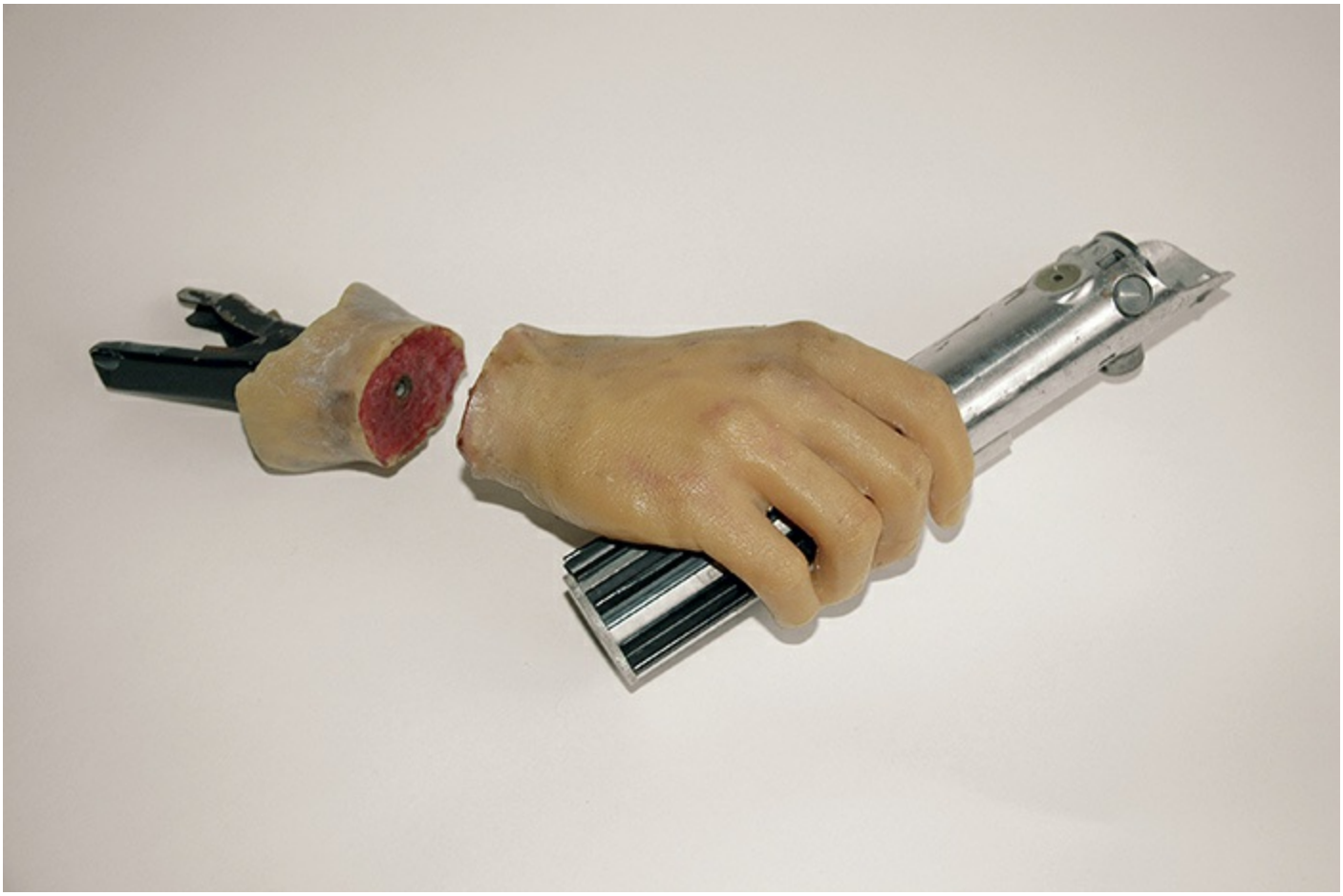




Vader's decapitation was made possible by a specially rigged mannequin. His symbolic "unmasking" was filmed in inserts thanks to a mold taken of Hamill's face.

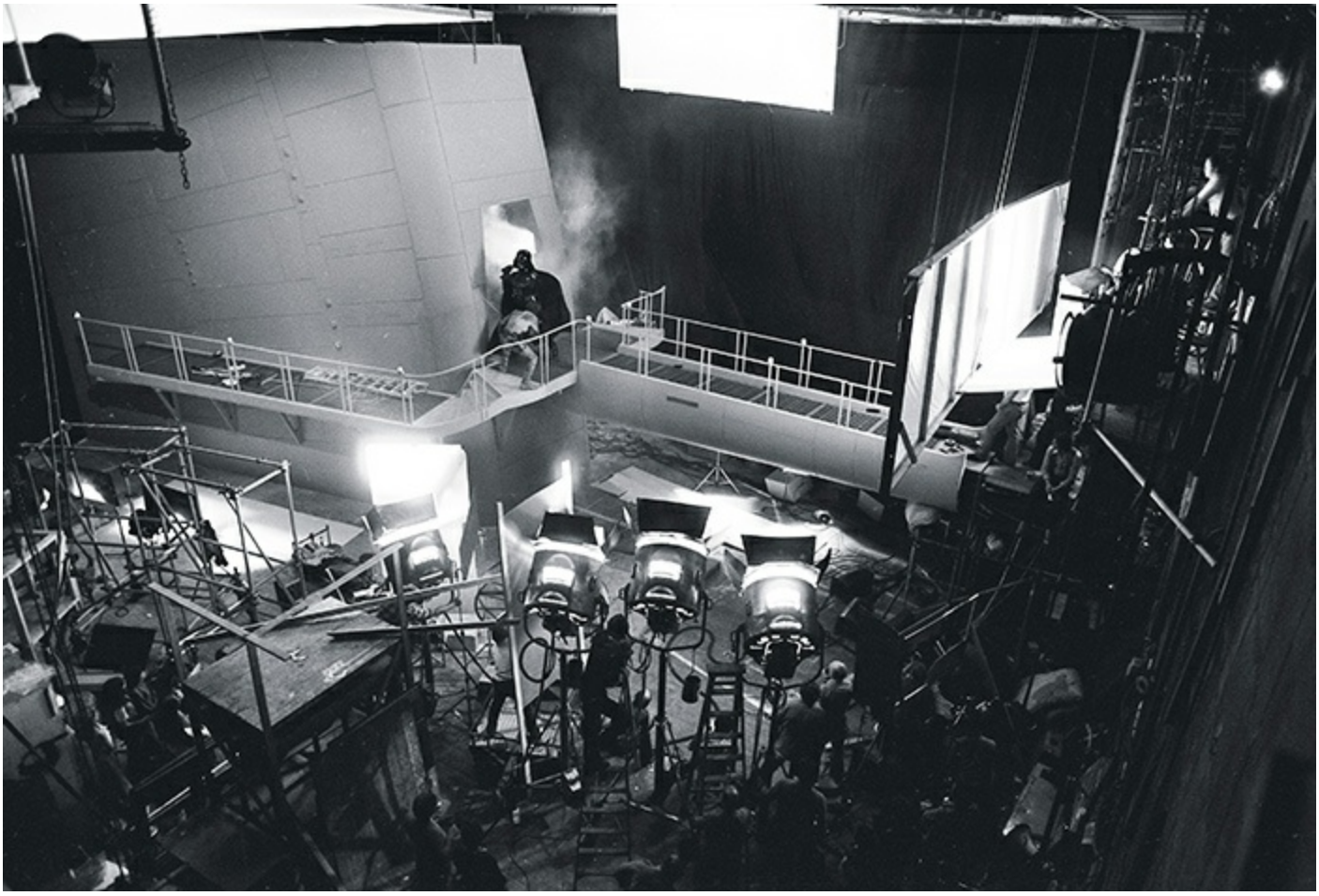


Hamill jokes around while a cast is taken of his hand for the scene in which Vader cuts it off.



The finished, special effect cut-away hand.





The first setup on the gantry set, without pinnacle: Vader presses his attack.

HEADACHES

REPORT NOS. 103–104: MONDAY, JULY 30–TUESDAY, JULY 31: STAGE 2—INT. JUNK ROOM S360 [CHEWBACCA FINDS C-3PO PARTS]; STAGE 1—INT. GANTRY PLATFORM AND PINNACLE 398, 400

On Saturday, July 28, Charlie Weber arrived because the budget had continued to escalate. "Bank of Boston called me and they said, 'What's goin' on?' " he says. "I said, 'I'll go check in London.' I flew over and George showed me that production was not moving fast; it was nobody's fault, but the direction, everything, was just slow. But the bank was calling me and asking, 'How high is this gonna go?' We assured them it wouldn't go too high, but it was a scary month or two and it shifted my role from being the umbrella businessman to jumping into operations earlier than anticipated."

On Monday, while working on the Junk Room set, Kershner was hit in the head by a cable gun; the resultant headaches gave him problems over the next few days. On the other hand, solutions were found to the early exposition problems.

"We screened the first three reels a third time," Hirsch says. "There's still a lot of polishing to be done yet, but, practically, it works. We've simplified and streamlined the information, so we aren't distracting the audience with a lot of information that really doesn't matter."

Problems of sustaining suspense and believability were solved, for example, by delaying Luke's escape from the wampa's lair. Originally, it had occurred earlier in the script between Han and Leia's argument in the ice corridor and C-3PO's delivery of Leia's message to Han; those two scenes, originally separated by Luke's escape, would now appear back-to-back.

"By some changes of placement, I think we're solving it," Kershner says. "George came up with an

idea for a bridging sequence, which is really like 15 seconds, so I said, 'Why don't you shoot it?' It was Mark putting on some of his flying gear and talking to a robot. It's a cute little sequence that starts off a major sequence."

"We shot an extra scene the other day of Luke recovering," says Kurtz. "We moved the medical center scene up earlier, and by doing so we realized that it was the last time you saw Luke until he runs out and jumps into his speeder for the battle. So we felt we needed a little piece of him leaving the medical center to indicate the buildup to the evacuation."

"For some of the second unit in the snow creature's ice cave, they shot thousands and thousands of feet of film, taking days to shoot stuff that was no good, that we couldn't use," says Lucas. "I had to go back and reshoot it all. It was grim."

"At this point we're thinking of opening in space," says Hirsch. "We'll see an Imperial ship dispatching a sort of probe to a planet below and when the probe lands, we encounter Luke."

B



~~Public Address System echoes~~ -

VISTAVISION

60-40

60-40

DOLLY IN -

~~TIGHTEN UP AS THEY TALK~~

~~Under your friends will never escape and neither will you.~~

you are beaten it is useless to resist ...

I. coming towards stairs

AFTER RAIL CUT #2 - WIND comes up -

TIME WIND - From visto opening - go thru scene KIND where winds subsides — (stairs?)

starts again before cutting pods

Kershner's detailed notes on photocopies of Beddoes' storyboards indicate, among other things, when the studio's manufactured wind should start and subside.

C

3/4 BACK
FOOT OF Stairs

Luke answers
by lunging —
a final desperate
effort —
Vader's cloak
is up —





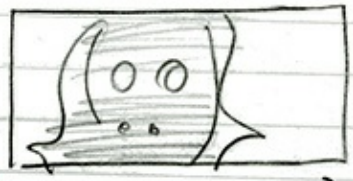




END - 398



3/4 towards Pod —
M.ed. — Vader gets NICKED



(UP STAIRS)
Vader:
Don't let
yourself be
destroyed as
OBI-WAN did.

UP Stairs — on circle

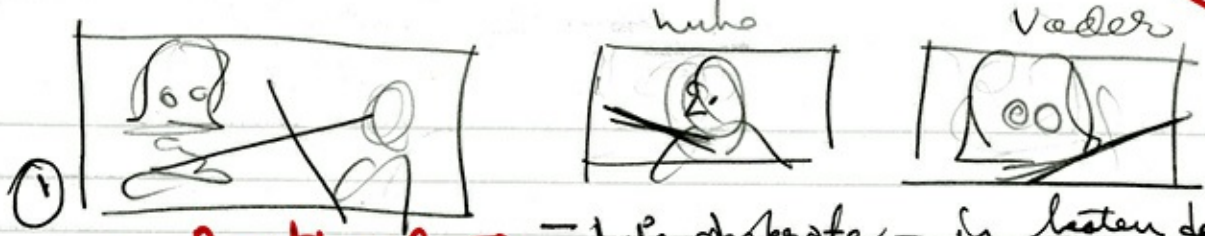
WIND stops
on

Luke
calm
be calm

More of Kershner's notes and drawings made on photocopied storyboards by Ivor Beddoes.

on Pod Circle

(1)



(1)

— Luke tired —

— Luke desperate — is beaten down

Bring up Wind
B16

400

wind on carries fire

Start Back on Pod
Vader Backing Luke up

WIND STARTS UP B16

~~can use Public address System — 2nd time~~



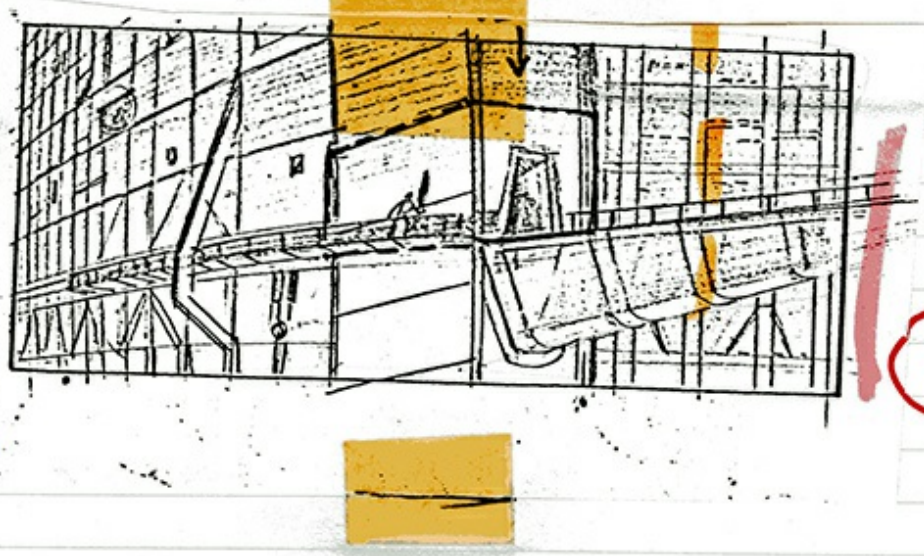
do as continuous action
cutting Vader
To cutting Pod
after attacking
Luke
viciously

piece carried up —



— Vader cuts pod —
— Luke jumps Back
— Arm up —
cut

More of Kershner's notes and drawings made on photocopied storyboards by Ivor Beddoes.



398 A

Even longer shot may be possible

address system
X-1



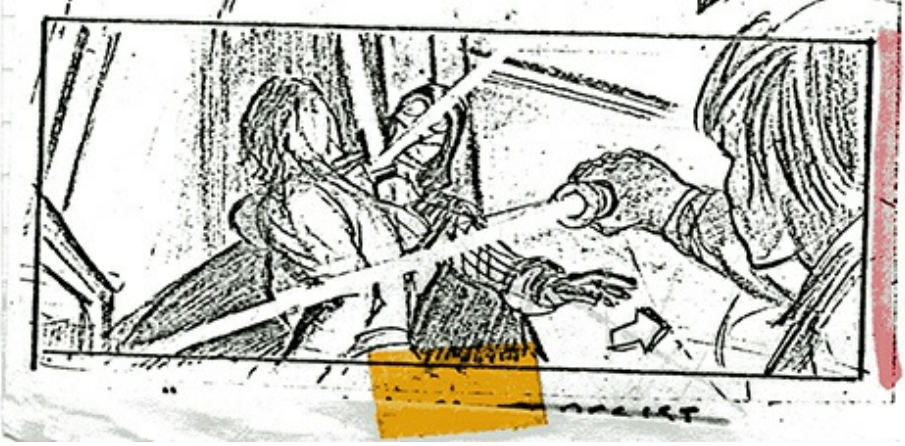
luke sees something o.s. Brings sword up

- VERY FAST TRANSITION — TO FIGHT —

vader M.S. Brings up sword (start in frame)

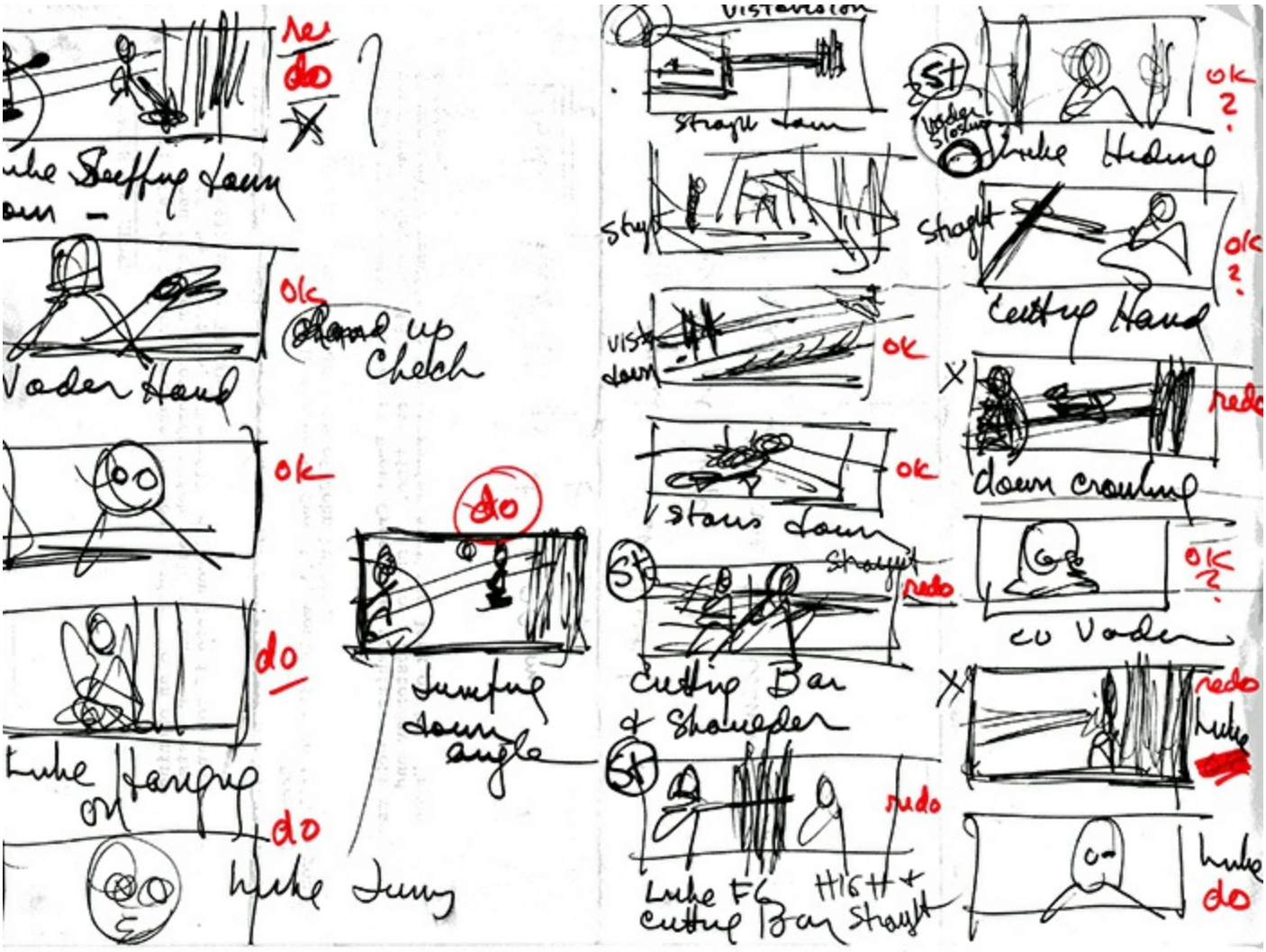


you're friends will never escape + neither will you
X-1





More of Kershner's notes and drawings made on photocopied storyboards by Ivor Beddoes.



More of Kershner's notes and drawings made on photocopied storyboards by Ivor Beddoes.



Anderson and Hamill take direction.



Anderson and Hamill then duel.



Vader vs. Luke (the animated lightsaber glows would be added in postproduction).

BAD OMEN

REPORT NOS. 105–107: WEDNESDAY, AUGUST 1–FRIDAY, AUGUST 3: STAGE 1—INT. GANTRY PLATFORM AND PINNACLE, 398, 400 [VADER CUTS OFF LUKE'S HAND]; PICKUPS [VARIOUS SETS]

On Wednesday, August 1, the previous day's difficult shot of Hamill letting himself fall from the gantry into the reactor shaft was damaged in the laboratory, so it would have to be reshot. "Part of one of the rolls of film was ruined when they had a stoppage in the bath," says Kurtz. "It usually means that the film broke, which stops the roll of the film in the developer or in the bleach. We have an insurance claim, which has a $10,000 deductible, so there's probably something we can recover. But the art department is working on such a tight schedule that it disrupts them in finishing the pinnacle, which we have to shoot on Friday. This delay forces them into working very late tonight, maybe an overnight shift of artists."

"Another dilemma is that unauthorized stills from the movie are appearing in American science-fiction and movie magazines according to Sidney Ganis, who has telexed urging us to stop issuing this material," writes Arnold. "The fact is, they aren't coming from here."

Later that day, Arnold asked Kurtz if he had any news on Guinness. "No, not yet," Kurtz replied. "He's still resting in the country. George is going to meet with him again sometime later in the month."

Weber returned to the United States on Wednesday. On Thursday, August 2, following several days of scrambling to different sets for different scenes with first or second unit, Mayhew completed his role

after 76 days worked. Meanwhile, Dr. Collins checked out Kershner, whose head was still throbbing, and Hamill, who had strained his back, continued working. Production was now 45 days over. On Friday, Prowse completed his role as Vader after 53 days worked.

Making the entire *Empire* enterprise feel even more precarious, *More American Graffiti* opened to poor reviews and even poorer box office on August 3. As Lucasfilm's first sequel, the news was bad.

"We really don't know whether *Empire* is going to turn out to be another *More American Graffiti*," Lucas says. "You look at even *Godfather II*—that sequel was popular and won an Academy Award and everything—but it didn't make that much money, especially next to *Godfather I*. If it should be a *Heretic* [1977, the sequel flop to *The Exorcist*] or a James Bond film, I will lose everything. So you just don't know. There is no guarantee."

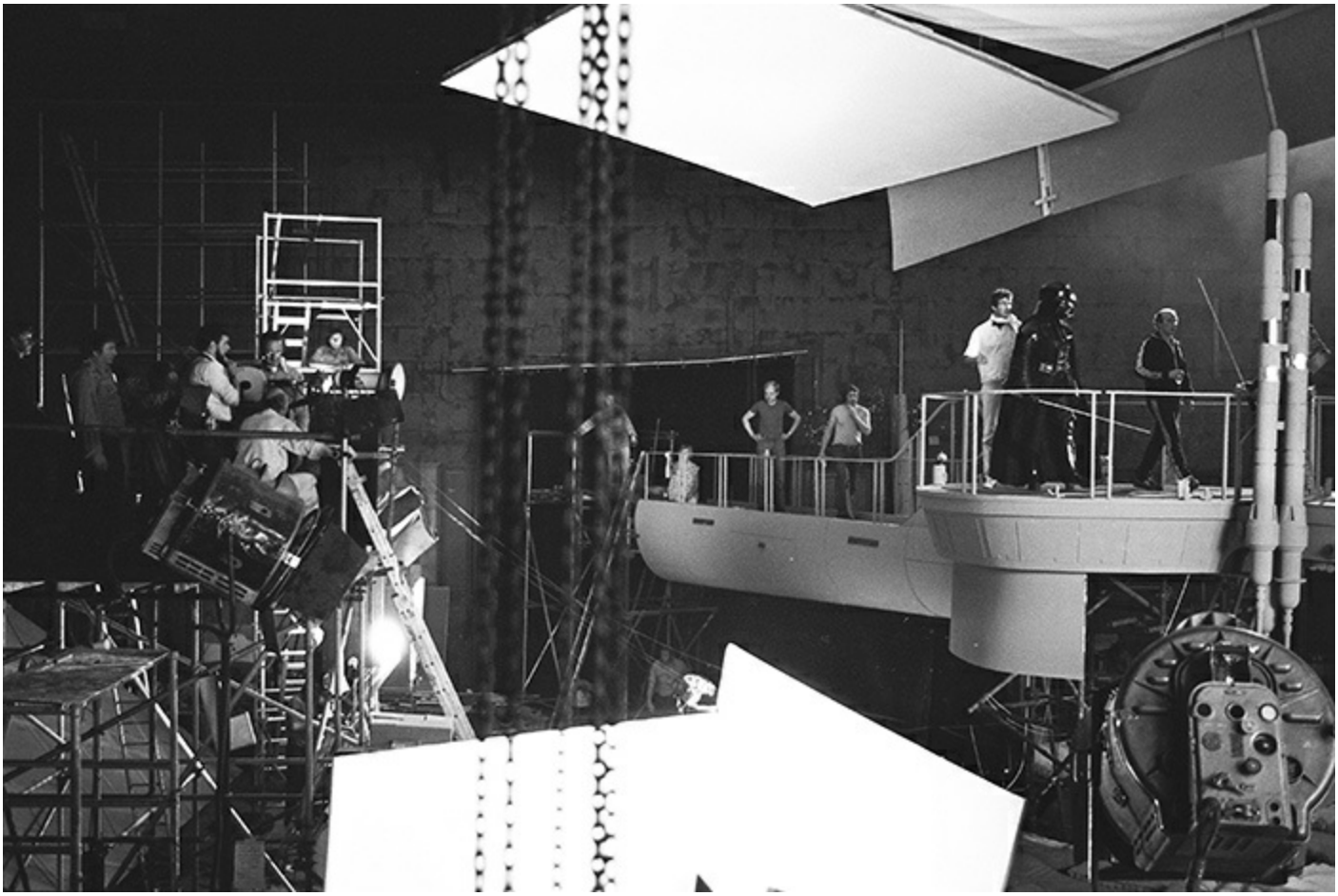
"I don't think in the history of the film business, a sequel has ever done better business than the original," says Kurtz. "Maybe it never will."

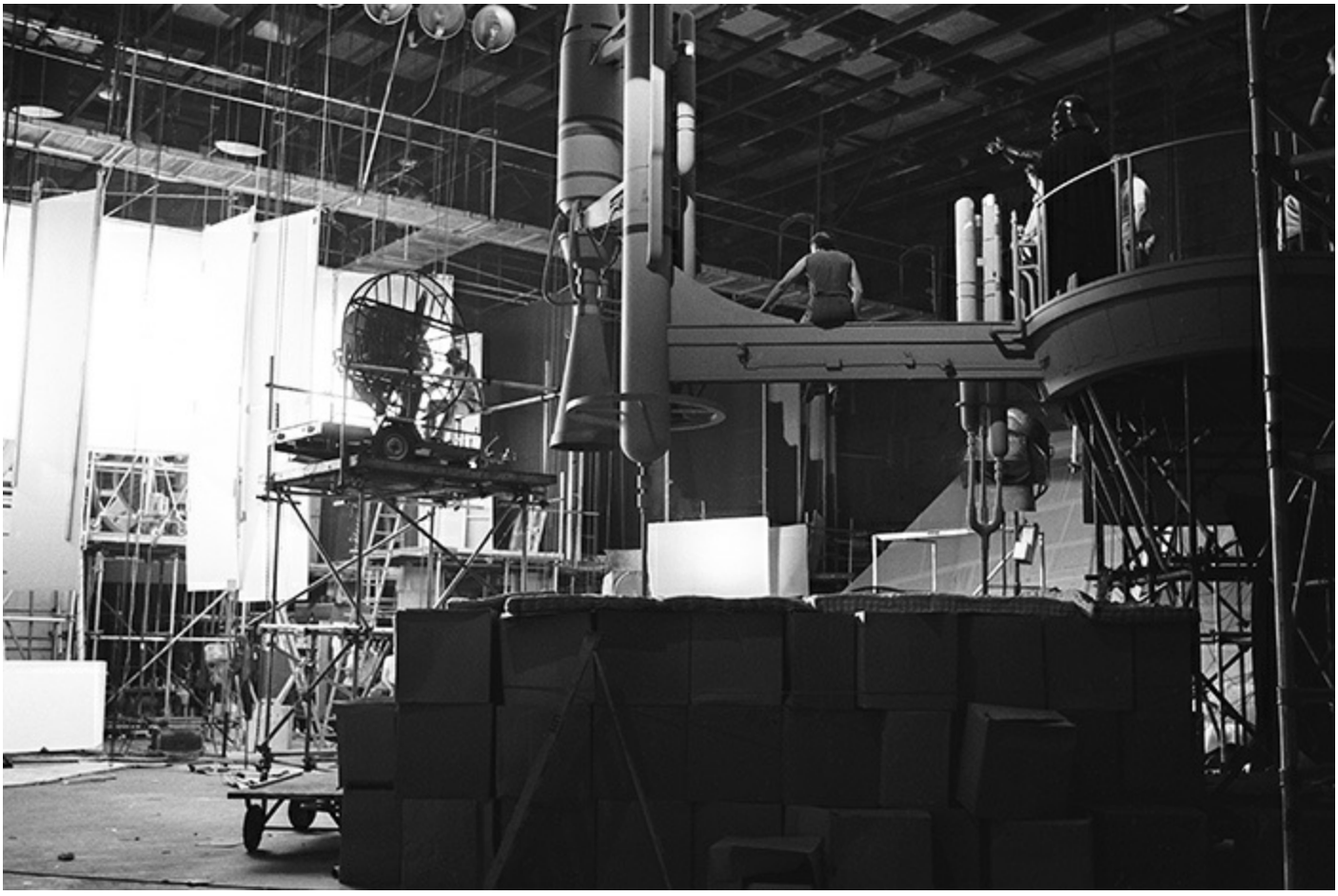
"I'm faced with a situation where everything I own, everything I ever earned, is wrapped up in *Empire*," Lucas says. "If it isn't a success not only could I lose everything, but I could also end up being millions of dollars in debt, which would be very difficult to get out from under. It would probably take me the rest of my life just to get back even again. Everybody says, 'Oh, don't worry, the film will be a huge success,' but if it is just one of those mildly successful film sequels, I'll lose everything. It has to be the biggest-grossing sequel of all time for me to break even."

SETUPS: 1,264; SCS. COMP: 230/468; SCREEN TIME: 109M 29S/130M.



Diamond (left), Tomblin (hand on rail), Kershner, Anderson, and Hamill on the gantry.







Luke screams as Vader cuts off his hand. (Although a shot would be inserted at the end of the film showing droid parts in Luke's forearm—as consistent with the script—Vader cuts off only his hand.).

LOG SHEETS

DATE SHOT	CAMERA SHEET N°	LAB ROLL N°	SOUND ROLL N°	SCENE	TAKE	EDGE N°	CODE N°	DESCRIPTION
24-8-79	09580	457	MUTE	400K	1	F12x9784999 - 5024	4000000 - 026	LOW ANGLE C/S VADER LOOKS OFF CAM R FOR LUKE
					4	F12x9785095 - 112	027 - 044	DIM "DON'T LET YOURSELF BE DESTROYED AS OBI-WAN DID
				C/SCENE		114 - 117		HE WALKS FORWARD ON 2/3 SHOT SWINGS SWORD L to R.
	09581			400L	1	F2x9463010 - 027	045 - 061	LOW ANGLE M.C.S. VADER UP STEPS - SHOTS C.S. to F.G.
					2	028 - 044	062 - 078	SWINGS DOWN WITH SWORD HITS PLATFORM - SPARKS -
				C/SCENE		046 - 051	079 -	SLASHES HORIZONTALLY EXITS CAM R.

The Log Sheet lists the shots, number of takes, and dialogue for second unit gantry work on August 24, 1979.



When Vader (Prowse) revealed his secret to Luke, Hamill was hanging onto a pinnacle above mattresses placed on cardboard boxes about 30 feet off the ground.



Vader extends his hand to Luke, who chooses to plunge into the void rather than join him.



In a moment that would not make the final cut, Vader watches as Luke is levitated above his head by the reactor's winds.

"When we were filming on the gantry, a huge wind machine was making so much noise," says Prowse. "I couldn't hear a word. All my dialogue was with gestures, so as soon as I stopped, then Mark would speak. I could see his lips moving; as soon as he stopped, I'd come back with my next line."



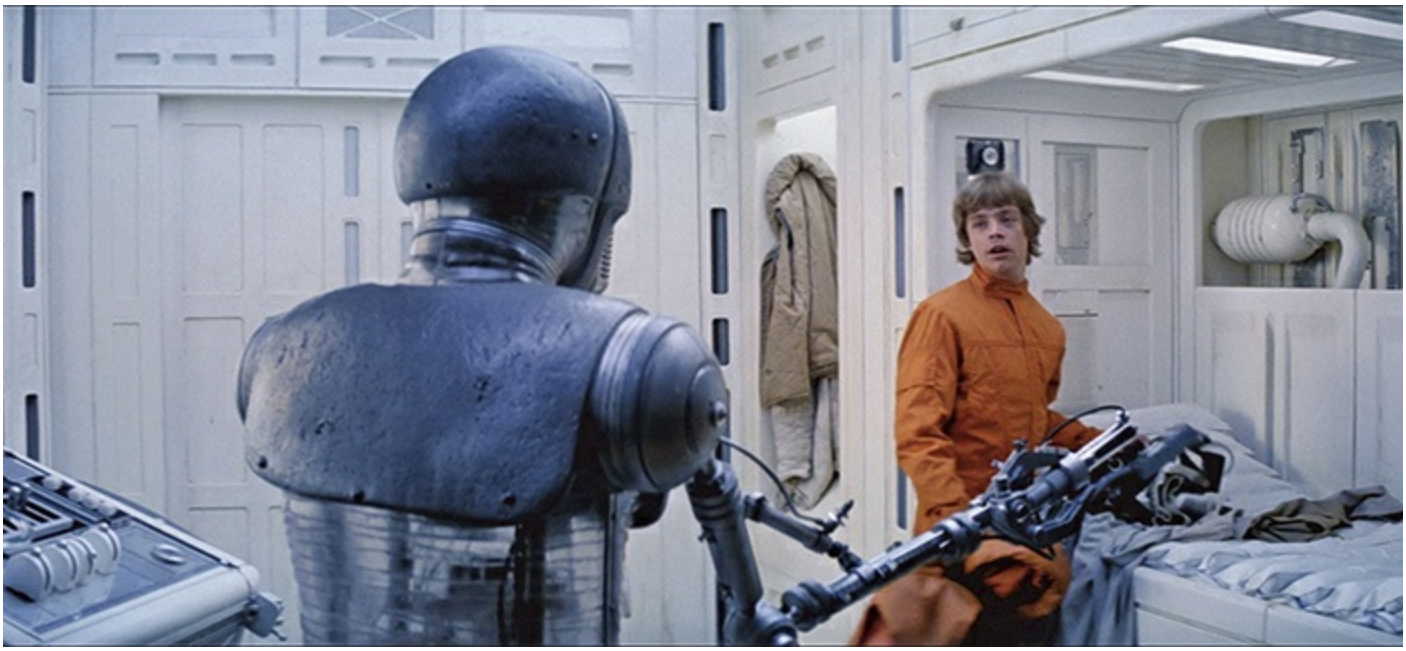
Hamill hangs below the walker's belly, as Fred Evans adjusts a piece of machinery.



Preparation for Mayhew and the hog men in the furnace room (props would sometimes be recycled: for example, the assassin droid, whose only other scene is on the deck of Vader's ship, makes a cameo behind Chewbacca. Evans is in foreground).



The filming of Mayhew and the hog men in the furnace room.



Lucas directed this new scene of Luke and the medical droid.



Kurtz and Reynolds watch as second unit films a wampa pickup at Elstree.



Des Webb operates the enormous snow creature feet.


MAX. HEIGHT
17 FT 6 INS
MAX. WIDTH
13 FT 10 INS

Mayhew with Fisher.



Mayhew in a publicity shot with R2-D2.



Mayhew with fellow tall-person David Prowse.

YODA LIVES

AUGUST TO SEPTEMBER 1979

CHAPTER EIGHT

PHOTO FINISH

REPORT NO. 108: MONDAY, AUGUST 6: STAGE 9—INT. YODA'S HOUSE, 292 [LUKE BECOMES PUPIL]

Frank Oz began to puppeteer Yoda on Monday, August 6. Two reptile handlers were also on hand as Kershner and company moved to Yoda's house interior on Stage 9, where they'd stay until Wednesday. "Very difficult—the bog planet may be the most difficult sequences of the whole film," the director says. "It's like a long-distance run. You have to sprint at the end. If you can't sprint, then you lose the race."

"I had to run on a treadmill in front of a bluescreen once," Hamill says. "That's where I got my nickname Mark Hamster. The worst part about it was you couldn't look at your feet, so I took one misstep once and went flying off the boxes. I've also been hanging from a wire and now I have iguanas and anacondas everywhere. I'm not real crazy about snakes. It's an endurance test! It's like they're trying to break me down—but I won't let them."

"Getting Yoda to the stage was a near thing," says Nick Dudman, apprentice creature maker. "I very much became aware of the pressure to get it right. Stuart's Yoda was literally down to the wire, with myself; Stuart; his wife, Kay, and son, Graham; Bob Keen; and the team being up all night, frantically trying to get it together. Trouble being, we didn't know what we were doing because nobody had ever done it before. It was a real race against time and quite scary when we first took our finished work to the set."

"We've been testing things out for the past couple of weeks and the head only went together completely over the last weekend," Kurtz says. "It's worse than working with a new actor for the first time, because you have technical support for Yoda. We're still adjusting things every day."

"We finally got the Yoda thing together, got it on the set, and I had no idea what to do with it," Kershner says. "I hated Yoda. He scared me."

"That was a real leap, because if that puppet didn't work, the whole film was going to fail," Lucas says. "If it's a Muppet, if it's Kermit running around, the whole movie will collapse under the weight of it."

"I would separate Yoda from the other Muppets, because it's a different style of character," says Oz. "I work Yoda with my hand in him, and my thumb would be his mouth and my middle finger is up on his brow; my index finger, my fourth finger, is the upper palette and the small finger really does nothing. And then somebody will work the ears, somebody will work the eyes, and somebody else will help me maybe do a hand; and that is Kathy Mullen, Wendy Midener, and a fellow here called David Barclay, who at times helps us also."

"Ben Kenobi's outfit now seems to have turned into this costume of the Jedi Knights, really," says Mollo. "Yoda wears a variant of the same thing."

"We found this raw silk from India and it was just perfect," says Kershner. "It hung nicely and it looked homemade. We had a piece left over, so I had a jacket made out of it for myself."

"As Frank started working with some of the quirks and how the character worked, it very definitely came to life," says Kurtz. "It was a collaborative thing: Frank, Wendy, and Kathy were the principal

operators. David Barclay is the fourth person to help operate Yoda on occasion, during times when four people were necessary to operate all of its various aspects." (Rachel Hunt was the hand double and chaperone for Yoda.)

"The biography I wrote of Yoda for myself is several pages," Oz says. "I had a lot of specifics about what he liked to eat and how old he was. But what hit me most was that I think he came from a more formal time when I'm sure he had many friends. The guy's probably 800 years old and somehow he wound up on Dagobah, on this planet all by himself, because of all the troubles around the universe. This was no longer his time. He came from a gentler world."

"I can remember this little voice called over to me, 'Norman, Norman,' " Norman Reynolds says. "And I actually blushed because it seemed so real, this weird, weird little thing."

Adding to the already great technical pressures, Yoda's first appearance was the longest dialogue scene in the picture. "At the moment, I'm using any old voice," says Oz. "It doesn't really matter, because I have a dozen things to think about when I'm doing him and I don't want to concentrate on the voice. So what's being heard now is not the voice he's going to have. I have a voice for him and I'll dub it in later —and whether they use my voice or some other voice they want to dub is up to them. Whatever makes the character best."

"My big problem today is I'm supposed to get angry and try to stand up, and bump my head on the ceiling of Yoda's house," says Hamill of a last-minute idea. "We must have done it 14 times. If you feel this lump on my head, you'll know I always hit my mark. You get annoyed, you curse under your breath, but you just do it. [The stage bell rings for another take.] Ugh—I'm going to go bump my head again."

"There were plenty of difficult sets, but this one was really physically awkward," says Suschitzky. "It was the house belonging to a Muppet; and, as he was quite small, they built the house to suit him and not to suit a human being. The set had three sides and virtually nowhere to conceal the lights. It had a fire going. I found it very difficult and painful to light, and I had to crawl on my hands and knees into it, as one would in a mine at the coalface."

"I'd have Yoda take three steps instead of one, because he was looking too mechanical," says Kershner. "He had to look real. So I'd work out the staging differently: For instance, I had him come around in front of the fireplace to say his lines as he was walking. That way, the audience would be looking at the fire as much as at him and it'd look more real."

"What Yoda's cooking up there, I don't know," says Hamill. "It's like a mixture of pea soup, vegetable soup, pickles, olives, red pepper, just something that looks good for camera and tastes like a gastronomic nightmare, thank you."

"You concentrate so much when you work that you forget everything around you," says Oz. "It was very physical, very exhausting work—like playing golf for the first time. You have a dozen things to think about at the same time, yet you want to be natural."

"It would take three hours of rehearsal to do one line," Kershner explains. "I'd have my television set and my headphones on, and I'd say, 'Yoda stand up.' Yoda would stand up. 'You're too straight. Hump down a little. Too much. Now look up at Mark.' But Yoda's eyes were focused on something close, so we'd have to refocus them. Then I'd say, 'Your left eye is more focused than your right eye.' So the little eyelid would lift up. 'Now start your line, take a step, and sigh. Okay, try it again.' Finally, after hours and hours of work, it started to happen."

The seriousness of the scene did have a moment of unplanned lightness. "It was a joke I had asked

Frank to do when I first met him," says Hamill. "But I wasn't really expecting it when it happened. It came on Yoda's line, 'Adventure, excitement. A Jedi craves not these things. Follow your feelings.' So Luke tells Yoda, 'I have followed my feelings …' Anyway, Frank had a black velvet bag over his arm—and Miss Piggy just popped up in her lavender gown and jewelry, clashing with the set's drabness. [Imitating voice of Miss Piggy:] 'Feelings? You want feelings? Get behind this couch and I'll show you feelings, punk. What is this hole? I've been booked into dumps before, but never like this. Get me my agent on the phone!' "

"I could joke about everything else, but not Yoda," Kershner says. "I had to keep him a living thing with feelings and imagination."

"All the crew were falling down laughing, but I noticed Gary and Kersh weren't," Hamill says. "It was so difficult getting scenes with Yoda that they hated to see even a couple of minutes lost. I would never have pulled a thing like that, but Frank did."

"It was frustrating," Kershner says. "We'd finish a scene and wouldn't know if it worked. So you wait and sweat, and look at the rushes the next day and say, 'That doesn't work but that works. Maybe if I can cut away from that?' "

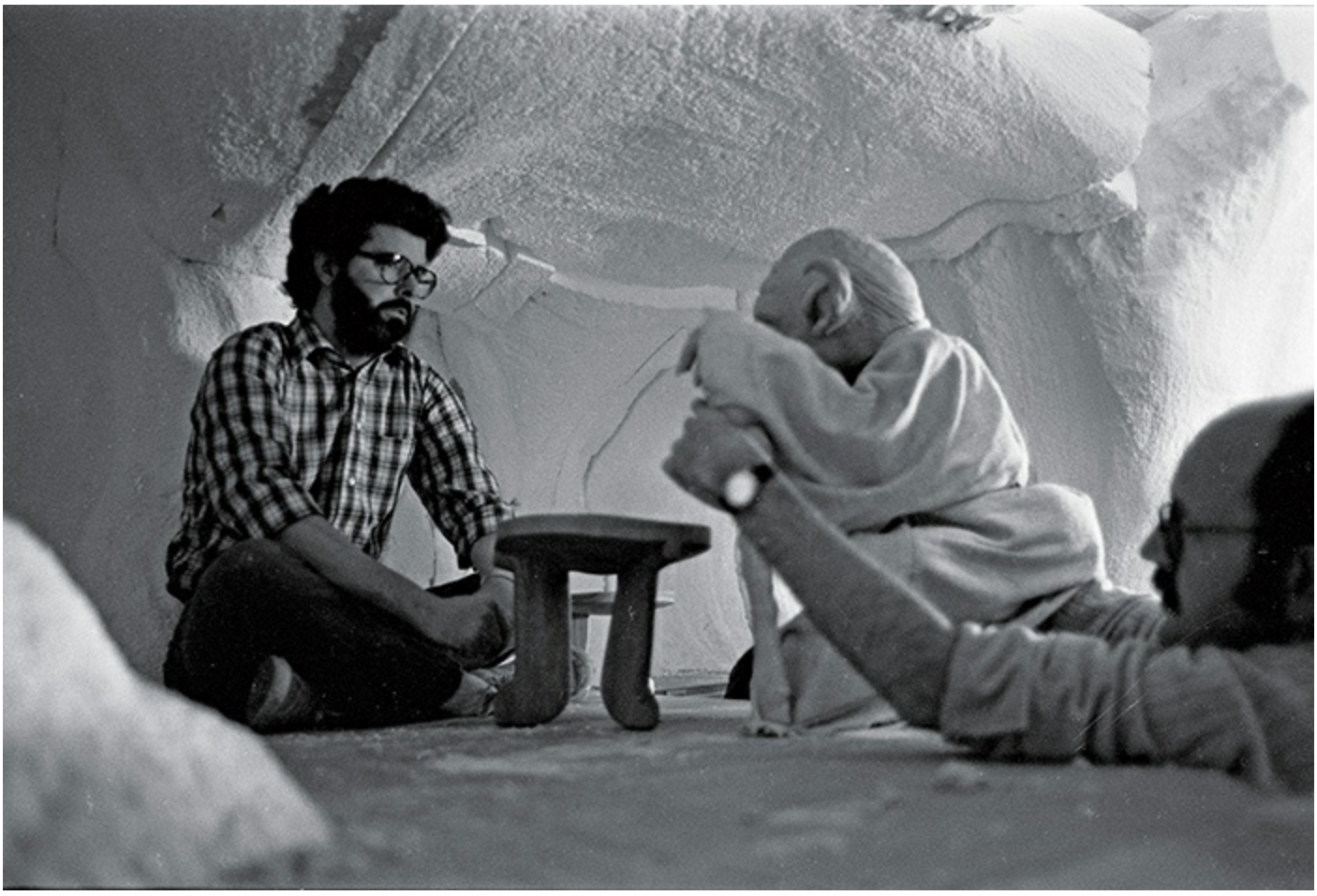
"Right up until the moment where he was on film and talking, it looked like it was going to be a disaster," says Lucas. "It was really when he got on the set and we shot the first scene that things started to change. We didn't know until we saw rushes from the first day and said, 'Hey, that really works.' But you still don't know whether you're kidding yourself, whether it's actually working. But people would come in, the studio and other people, and they would all say, 'Oh, that's really amazing.' "



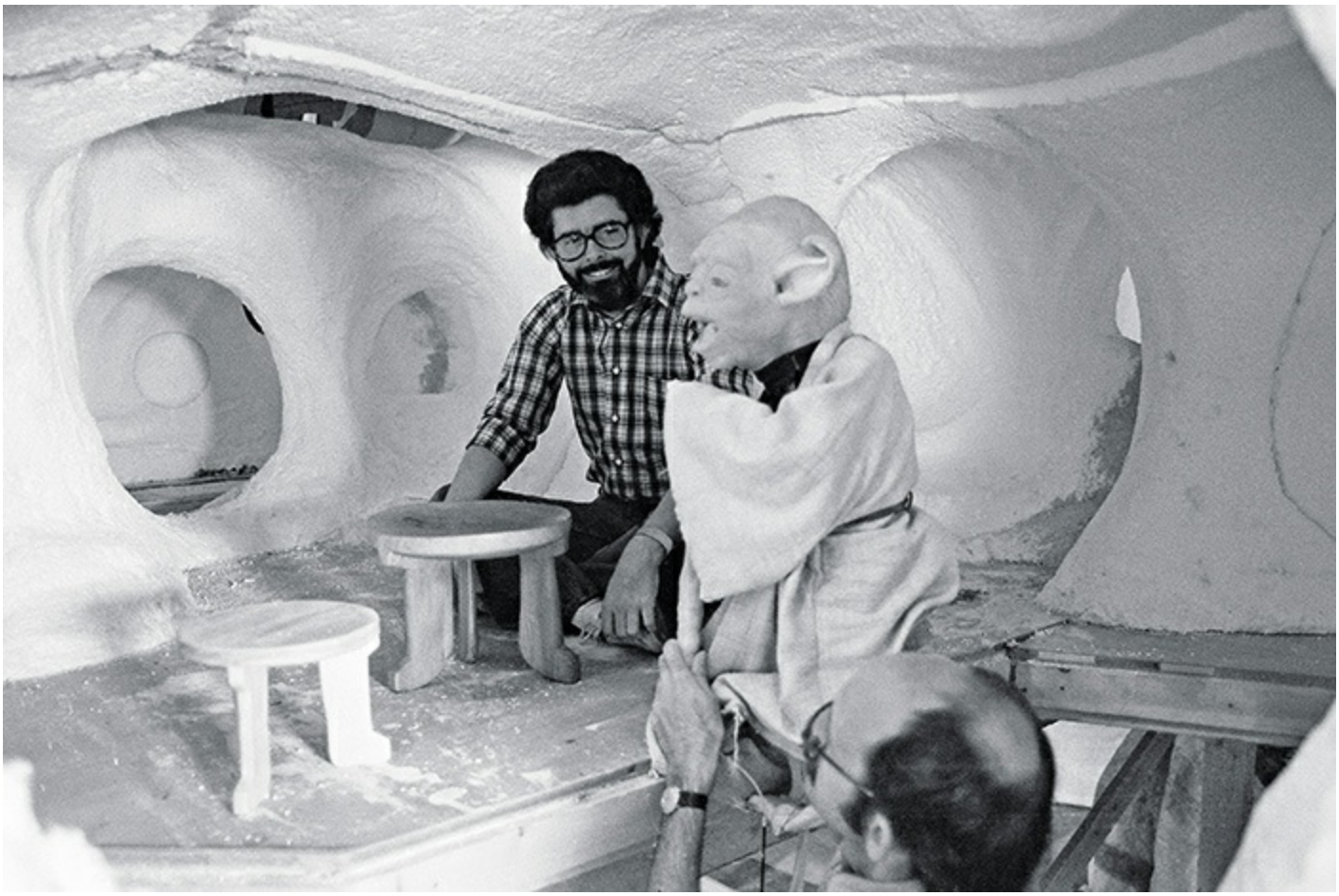
The Yoda team: Graham, Kay, and Stuart Freeborn, Barbara Ritchie, and three other crew; behind Stuart is Bob Keen and Mike Lockey.

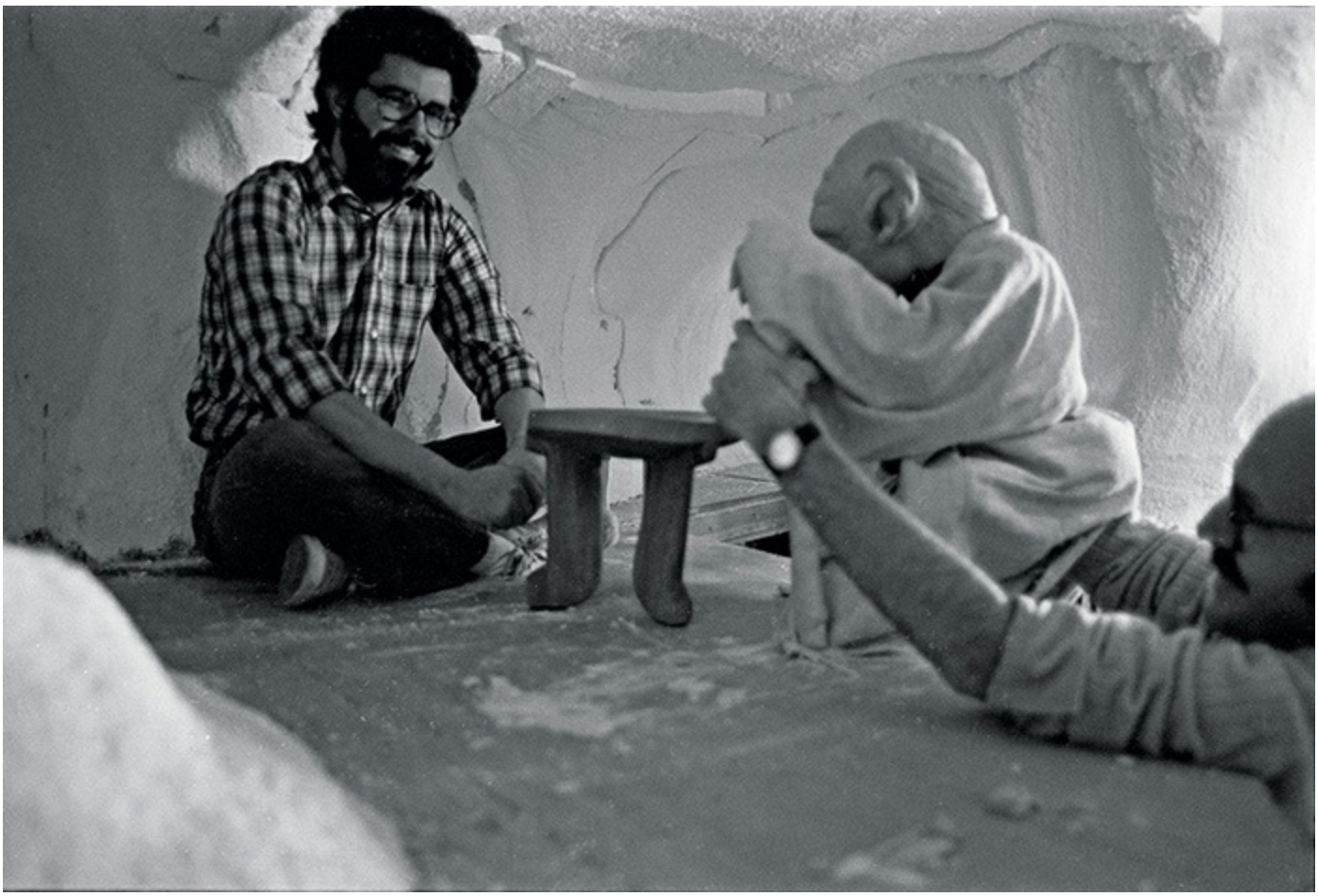


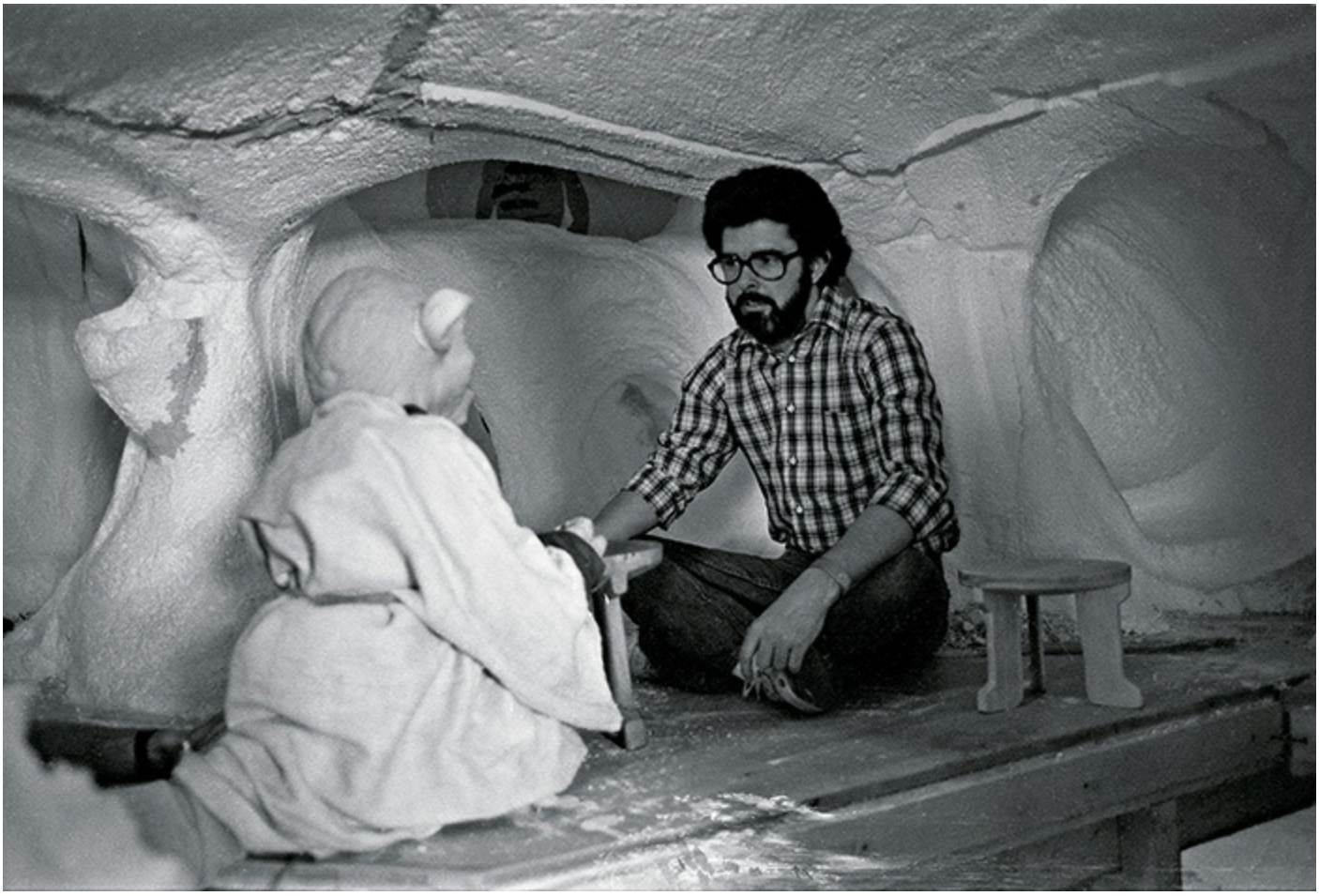
Kershner and Freeborn confirm that Yoda's final features do resemble those of his sculptor's.

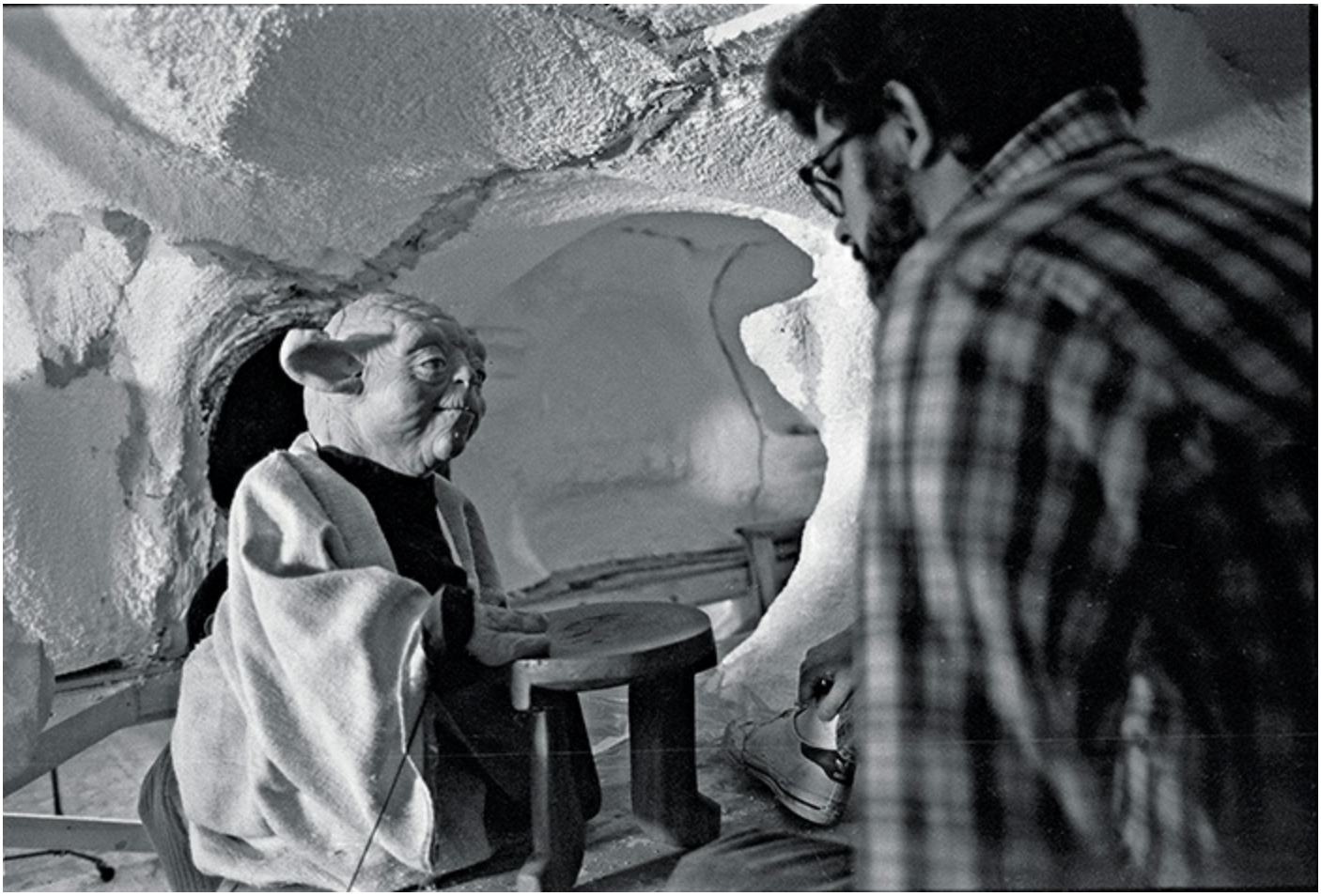


Lucas gets to know Yoda.











Kershner prepares to film the interior of Yoda's house, on Stage 9, August 6, 1979.



Luke hears the voice of Ben Kenobi.



The Yoda puppet and Hamill.

SNAKES AND HUNTERS

REPORT NOS. 109–113: TUESDAY, AUGUST 7–SATURDAY, AUGUST 11: STAGE 9—INT. YODA'S HOUSE, 292; STAGE 8—EXT. EXHAUST PIPE AND WEATHER VANE, S407 [LUKE FALLS OUT OF CHUTE ONTO VANE]; STAR WARS STAGE—EXT. BOG CLEARING, 283 [LUKE MEETS YODA]

On the second day of the scene, "Muppet technician" Wendy Midener had to be treated for a rash. Between setups during which the mechanics of Yoda were constantly worked out, second unit filmed Hamill on the weather vane.

"We had the continuation on the unipod, which is meant to take place below Cloud City," Diamond says. "This, once again, was exceptionally dangerous, because it meant that the artist was hanging over a space about 30 or 40 feet up. Unless we took precautions, he could have fallen and injured himself very badly or indeed he could have been killed."

"Mark was literally killing himself at times," Kershner says. "He was hanging far over the floor of the stage, attached to a tiny safety wire in case he fell off, which would have broken had he fallen—and he knew it."

On Wednesday, they worked toward the end of the dialogue in Yoda's house. "There was a take where a snake was on Yoda's table," says Hamill. "I'm pretty good with that particular king snake; I've been petting him a lot, but it started to go off the table. It went toward Frank Oz's head and then made a turn—and started going up my leg during the take, but I didn't cut it. I say, 'I won't fail you, I'm not

afraid,' and Yoda says, 'You will be, you *will* be.' That's the last line of the scene, so they say, 'Cut!'—and I say, 'I'm *already* afraid! I *am* afraid! I've got a snake on my leg!' "

"They're not dangerous," animal handler Mike Culling assures Hamill. "They make excellent pets."

"I don't keep pets there," Hamill points out.

"We've got a 10-foot African boa constrictor and some South American king snakes, which are about 2 foot 6," says Culling, whose livestock supply company was called Animal Actors. "In the house itself, there are some lizards, which are about a foot long, and an iguana, which is about five feet long. The boa is called Basel and we've got Peter the Python. We've gone through something like a hundred creatures, ranging from spiders, scorpions, giant toads, rats, bats, about 25 varieties of lizard. You name it and Kersh has had a look at it to see if it's going to fit in that set."



Hamill in conversation with Alan Arnold, recorded circa August 7, 1979, tells a story about an unscripted snake crawling up his leg during a scene with Yoda in the latter's hovel.

(0:49)

Later that day, Arnold again asked Kurtz about Alec Guinness, but there was still no word. That evening, Welch once more ordered a night shift to hurry up on construction of the bog planet. The next day, production was finally back on the Star Wars Stage—but again, Kershner and company were filming on only a partially complete set.

"The bog was the most difficult set to both design and construct," says Reynolds. "We started by making up a skeleton of the tree from tubular steel and literally building the plaster to trunk and roots, and so forth. We used these great vines, things that are known locally as old-man's beard. We had prop people out scouring the various woods and forests around the studio in an area something like 20-odd miles, and we had lorry load after lorry load of these vines shipped into the studio. They actually helped to make the thing that much more believable."

"The swamp wasn't finished when we actually started shooting," Kurtz says. "We had to start in the back corner with some of the smaller scenes and work our way out to the tank part where the lake was. That was probably our worst single problem with the bog, coupled with the fog and the environment, trying to keep the lighting consistent throughout the daylight and night scenes."

"The bog planet was built to be like shooting on an actual location," Watts says. "The ground was real earth, real mud, real water. We did not float the trees except one, therefore you shot around and worked within them as if you were in a real jungle. It was extremely muddy and we used a lot of smoke for fog and mist, which, although it doesn't in fact damage your health, is not very pleasant to work in."

"We had a real river running, with real animals and everything," says Kurtz. "We had a lot of snakes—and some of them got away and started inhabiting the set. Birds flew through the doors of the sound stage and, because of the grass and dirt that was brought in, we had bugs and spiders and things. It became a real place."

"I always wonder when I walk onto these sets what new playground they have for me," says Hamill. "Because even though it is difficult for me and aggravating at times, when the moment actually comes when they're filming, there's that moment when you're really there in your mind, believing it—that's the most fun, when it all becomes real to you. I can't get over that. They give you the outfit, guns, and

hardware—it's like being a kid again."

"Our stage was so large that we actually generated massive temperature inversions," says Kershner. "We'd get ready for a scene by shooting oil into the air for fog effects, but it would just hang in the air because of the inversion; it was horizontal to the floor, so we'd have to wait until it dispersed and started to look like actual mist."

"The smoke drove me crazy," Hamill says. "They'd yell, 'More smoke—get it in the background!' Frank was able to wear a mask to protect himself from the vapors of the mineral oil that was being sprayed. So did Kersh. But I couldn't, since I was being photographed."

"We've got some pythons in the swamp," Culling says. "They're about 22 feet long and weigh about 200 pounds. And we've got an anaconda, which is about 24 feet long."

Hamill and Oz's first scene was Luke's encounter with the strange creature after crash-landing his X-wing in the swamp. "Prior to each setup, Kersh stalks the undergrowth like a peripatetic hunter seeking a secure encampment, with Kurtz at his side pressing for a decision," Arnold writes. "For there is understandably an air of urgency on the set now as the movie struggles to reach completion. This tall, sparse man moves like a pliant giant through the jungle undergrowth, which is surrounded by that unique miasma of cables and equipment that seems inevitably to place a movie set on the edge of chaos."

"Our most serious problem is, of course, the time that we have left to finish the picture," Kurtz says. "We have a fixed release date and every day more we go into shooting takes away from postproduction time. And our postproduction time is very carefully calculated to be ready by that release date—we have no leeway on the other end."

"Frank Oz had to keep reminding Kersh that it took a while to work the movements out," says Brian Johnson.

"The pressure was extreme, because I was taking too much time, and the reason I was taking too much was this was the first time this has ever been done," says Oz. "But I'm having a great time with Mark. We just clown around and talk about California food and how much we miss it."

"As we were filming, I came to adore Yoda," Kershner says. "He was completely real."

"Frank Oz and his crew were there, but they'd be buried down underneath the ground," says Hamill. "I had an earpiece, so I would hear, 'Luke, many years have you …' but if you turned your head the wrong way, you'd pick up Radio 1 and the Rolling Stones singing 'Fool to Cry.' I shouted, 'Hey, I got the Stones,' and Kersh goes, 'Cut!' And he's way across the bog saying, 'You know, if that happens again, just pretend you don't hear it.' "

"The whole floor was about four feet off the ground, so I could be underneath and hold my hand up through a hole or whatever," Oz says. "I remember Kersh would talk to me, but he wasn't talking to me, he was talking to Yoda. So I'd say, 'Kersh, I can't hear you—I'm down here under the floor.' "

"I was the only one who could hear Yoda's voice because I was wearing earphones," Kershner says. "Mark couldn't hear his voice. We'd rehearse it with a speaker so Mark could get the timing and then he'd have to do it blank with nothing coming out of Yoda's mouth. He did a good job."

"Yoda gave me no lines while we were shooting," Hamill says. "For a number of reasons, the earpiece never worked, so it was abandoned. Frank was in a pit with the others and they were off at the end of cables and wires. So that whole relationship with Yoda had to be developed without dialogue."

"Mark also acted major sequences with a tin bucket," says Kershner. "I'd be standing beside that bucket off camera, going, 'Squeak, squeak' and 'Beep, beep,' and Mark had to be relating to that."

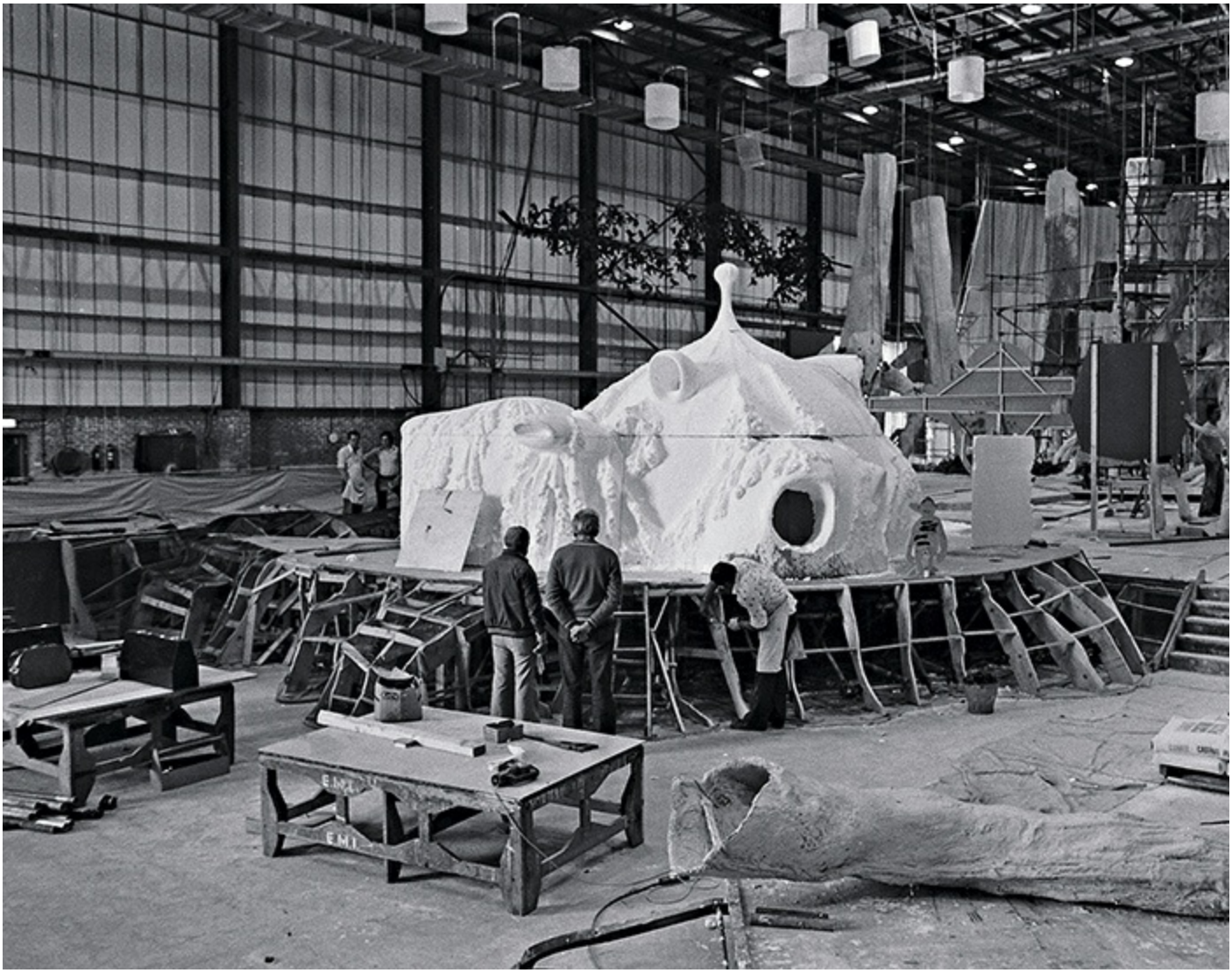
“There were so many Artoo units and they all looked the same,” says Hamill. “It’s very confusing when you’re doing a scene to know if Kenny is inside or not. I remember several times saying hello to the radio-controlled robot and then noticing Kenny over in the corner sitting with a newspaper and drinking tea.”

“I found myself forgetting about Luke, who was standing there emoting all over the place, and watching the robot to see if its performance was going properly!” Kershner says. “That happened time and again, so I would have to pull myself back and concentrate on the actor. Without him, nothing was going to happen. But it’s hard to admit that my directing talent may be judged by the performance of an inanimate object.”



A printed daily from mid-August 1979 of Luke on the Dagobah set with Yoda, voiced by Frank Oz (and puppeteered by Oz and his team).

(0:51)



On the Star Wars Stage, the exterior of Yoda's house: "Yoda's house is perhaps a hangover from Tunisia, where there are some buildings that are built in this sort of way," says Reynolds. "We've adapted it and molded it and changed it slightly. What you're looking at really is an accumulation of a lot of talking with George Lucas and thinking and so on. It seems to be in character with the little man, with Yoda."



Hamill poses with Miss Piggy and Kermit the Frog; the former had made a surprise appearance the day before inside Yoda's house, courtesy of Frank Oz (who had created the character for Jim Henson's *The Muppet Show*).





Hamill on the camp site setup.



Frank Oz works with Yoda, as crew prepare for the shot (Frank's sister, Jenny Oznowicz, was a production assistant at ILM).



Yoda waits for the cameras to roll.







R2-D2, Frank Oz (with Yoda puppet), Kershner, and Lucas on the Dagobah camp site set.



Kurtz, Lucas, and Kershner in conference as crew prepare for another shot on the Dagobah set.



SKYWALKER'S CHOICE

REPORT NOS. 114–119: MONDAY, AUGUST 13–SATURDAY, AUGUST 18: STAR WARS STAGE—EXT. BOG CLEARING, S368 [LUKE LEAVES DAGOBAH], 314 ["THAT IS WHY YOU FAILED"], 312 ["DO OR DO NOT"], S311 [LUKE TRIES TO RAISE X-WING], 359 [LUKE HAS VISION]

From Monday to Wednesday, August 15, Kershner and crew tackled scene S368—Luke's decision to leave and Yoda's revelation that "There is another." Over the weekend, the night shift had moved the set around, taking the full-sized X-wing and placing it on the shore, though the scene of Yoda raising it from the swamp had not yet been filmed.

"We were able to cope by changing over and putting the fighter in overnight, taking the fighter out, then later putting one in water, and so on," says Welch. "We were able to not ever disrupt the unit and kept them going by working late into the evening, until eleven o'clock, plus Saturdays and Sundays."

"Overnight, the crew would move the trees, move the water, and set up for the next day's shooting," says Kershner. "It was so complicated because nothing whatsoever was shot in proper sequence."

"We used thousands and thousands of turfs, turned upside down on the floor to create the ground, which worked very well for us, because we had to change the background for various sequences," says Reynolds. "Because time was against us. The voice behind Yoda, Frank, he was with us for just a short period, so we had to exploit that time."

"This is a film of life and death, of great urgency," Kershner says. "There is a great deal at stake and as Shakespeare said, 'Tell the story of a king or queen and the death of one of them is of great interest to everyone, including the chimney sweep.' In this one, we're dealing with kings and queens and emperors.

Its philosophical content is talked about in this scene between Yoda and Luke. It is *the* great dilemma of the entire film. In making his decision to rescue his friends, Luke reveals his character flaw *or* his character strength. This element of ambiguity makes it very rich. His decision is a moral decision and a political decision: He leaves his training before he's finished—at the expense of a greater vision for the good of all, let's say. Yes, he'd love to save the entire galaxy from the Empire, but he feels it's more important to save his friends at this moment."

"It's one of those things that's risky in terms of storytelling," says Lucas. "Basically, he screws up and everything turns bad because of his emotional decision, where he knows that he's not ready but goes anyway. His attachment makes for a very selfish decision."

"I was supposed to pick up this king snake at the moment Ben said, 'You would become an agent of evil, like Lord Vader'—it was heavy symbolism," says Hamill. "Well, this snake, which was as thick as my thigh, was shedding its skin, which made it blind; so every time I touched it, it would flinch. And they wanted the snake to writhe around, you see, but it was about the fourth take and he'd had enough. It whirled 'round and bit me."

"Sometimes under the lights they get very hot and they're handled a lot, so it makes them a bit temperamental," says Culling. "They can have a nip, but they certainly haven't got great big teeth."

"The trainer tried to tell me that it hadn't bit me, that it was more of a nip than a bite, but I don't really see the distinction," says Hamill. "Those little snaky lips put me off the whole thing and I got crazy. But we had to do it four more times, so we went eight takes. Kersh would say, 'Please, can you just do it one more time?' "



Oz pops up from his concealed hole where he and his team operated the Yoda puppet (with the aid of video monitors, which Maurice Arnold studies).



Hamill and the snake that bit him when he had to remove it repeatedly, while filming, from the X-wing.



Kershner and Yoda puppeteer Kathy Mullen.



Kenny Baker (R2-D2) discusses a scene with Hamill and Kershner.

THE OMINOUS OTHER

"There is a strong emotional effect of saying good-bye to this little creature," Kershner says. "Not only is Luke saying good-bye to Yoda, but the audience is saying good-bye to him. It's toward the end of the picture, so you know you're not going to be seeing him again, and it's kind of sad because you like him. He's an extraordinary man. To me, Yoda is a Zen master."

"Kersh did a great job with Yoda," Lucas says. "He never thought of him as a puppet. He had a real connection with Yoda and believed in him as a character and in what he was saying."

"So I tried to heighten the emotion and the drama with lighting effects and the slight motions of Yoda," Kershner says. "The wind comes on and the plane takes off, which you don't see except in the light moving away—because the special effects had determined how I'd shoot the scene. I couldn't move the camera; I couldn't do anything because Ben will be added to the scene later. Also, we had terrific focus problems, because we were at a very low light level. I did about 16 or 17 takes, more than any scene I've done—with about 50 people with boots on, all hovering around a little board, with water running under our feet and mud all over the place."

"It didn't sit so well with me at first," Hamill says of Yoda's cryptic mention of "another." "I told George that people would think I was pulling a $5 million holdout or something. But he said if anyone suggested that, he would tell them I wasn't. I've never asked for exorbitant sums or script approval or anything, so I thought it made me look bad. But George insisted it had always been part of the storyline, though he never told me who it might be. Somebody suggested it might be the Princess, but I think that would be a letdown. She has too much power already. I mean, it's like she's the only woman in the

galaxy. If you don't hit it off with her, you become a monk."

"Do you feel you, too, could be written out?" Arnold asks Hamill.

"Well, look at what's happening to Harrison," Hamill replies. "I think George is very clever in the sense that he's not going to make any of us do another one in the series against our will. This is very classified information, but Harrison isn't sure if he wants to do the next one, so they found a way of doing away with him and yet keep him. 'He's in a perfect state of hibernation,' says Billy. So let's hypothetically say that I gave them a lot of trouble and they didn't want to use me—they could very easily discover a long-lost sister or brother of mine residing somewhere in another part of the galaxy, and then just refer to the fact that Luke is off searching for Harrison."

"The problem with these kinds of movies is if you have a hero that can't be killed, then where's your drama?" Lucas says. "What I've done is I've said, 'Well, this guy can be killed—don't worry, he's not the important one. There is another.' It's a cheap trick, but it works."

Although Kershner was anticipating the insertion of Alec Guinness as Obi-Wan into Yoda's farewell shot, his participation was still in doubt a day later. "The question, of course, is who will portray Ben Kenobi?" Arnold writes. "The distinguished actor, it seems, is recuperating from an eye operation. I am puzzled that it's Sir Alec's health that's the issue because two weeks ago he led a protest march to 10 Downing Street to petition Prime Minister Thatcher to cut the newly imposed taxes on theater seats."

"I spent last evening with Alec," says Lucas. "I've had several meetings with him going over the part and the script, trying to get it cut down so there's not that much strain on him because of his illness. I think we've worked it out; I think he'll do the picture. I was very concerned that he be the one, because he *is* Ben Kenobi and I wanted to have the real thing."

According to production's 119th Progress Report, which also noted that *Empire* was 49 days over schedule, Hamill and Oz continued their scenes through Saturday, when the latter went on to fulfill another commitment after 12 days worked as Yoda.



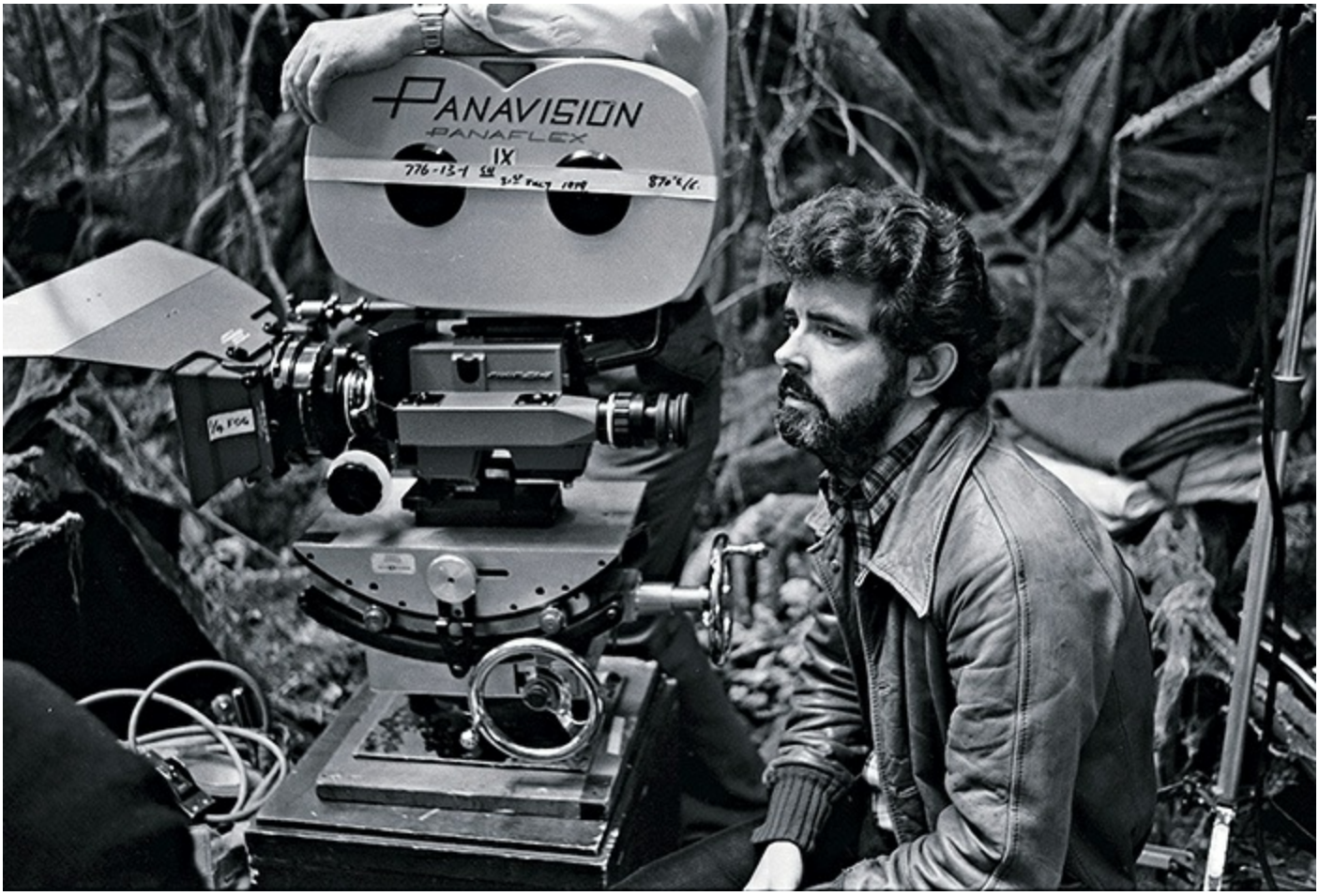
Hamill on the clever expendability of *Star Wars* characters, in conversation with Arnold, at Elstree Studios; Hamill, at one point, imitates the voice of Frank Oz as Yoda. (1979)

(1:04)



Hamill with Yoda in Luke's knapsack.





Lucas, who was now on set frequently.





Final frames of Yoda as lit by Kershner and Suschitzky, for the moment in which the audience says good-bye to the Jedi Master.

X-WING IN POSITION 2

REPORT NOS. 120–122: MONDAY, AUGUST 20–WEDNESDAY, AUGUST 22: EXT. BOG SWAMP WITH X-WING, 271 [LUKE CLIMBS OUT OF COCKPIT], 272 [LUKE LOOKS FOR R2 IN SWAMP], 275 [R2 SPIT OUT]



Kershner directs Hamill on the now submerged X-wing.

After resting on Sunday, cast and crew met on the bog planet for the scene in which Luke steps from his

vehicle into the swamp and R2 falls into the same. For Hamill, having only one day off was probably not enough of a break.

"I cannot leave the film at the studio," he says. "I work in this factory and then I go home and constantly analyze what I did today and how I could have done it better. I also have this terrible habit: I can't just read a scene. I always have to—even if I don't read the whole script—I have to flip through from the very beginning, back to Hoth, back to the battle to see how the scene relates to the whole."

After several weeks of existence, the bog swamp was now treacherous. "I have to say, you wouldn't want to fall in that pool," says Reynolds. "It's full of all sorts of wildlife and bugs. It was absolutely foul after all those weeks." (At least one crew member did fall in.)

"I told the trainers that in the future I'd like to work with the animals first, so I could get used to them," says Hamill. "They asked me, 'How do you feel about going into the water with an alligator?' I mean, is that a trick question?"

Shortly afterward, while Hamill was in the studio cafeteria having a beer, two animal handlers entered carrying a six-foot-long alligator. The men nonchalantly walked over to the actor and set the reptile on his lap. "This is your co-star for the next scene," they explained. "He won't hurt you. Just pet him."

"I could feel the muscles in the alligator's stomach relax as I stroked it," Hamill says. "But they didn't even use it in the end, after they changed the script."

For much of the week, Kershner and Hamill worked on Luke's lines to Yoda. "They'd had to get rid of Frank so soon that we'd first done all of Yoda's close-ups over my shoulder onto him," Hamill says. "Now they've got the Moviola up there for reference and we're backtracking; I'm doing scenes I did weeks ago and I'm trying to remember just how I positioned myself. So the last couple of days, the concentration has had to be so strong. One day, Kersh complained about my matching. That was sort of a blow to my professional pride, so I said, 'Okay, if matching is what you want, matching is what you'll get.' And since then, he says I've improved 100 percent. Now I'm catching Kersh in matching mistakes—but see, Kersh knows. He'll say, 'Oh, well, it's not important that we match that because I'm not going to use it anyway.' "

"I would say that Kersh responds well to pressure, especially when George is around," says Hirsch. "As the schedule has become tighter, I don't think the work has suffered. It may be that he feels that had he had more time, he could have done even better—but I think the material that's been coming out lately has been, toward the end of the schedule, among the best stuff in the whole film."

"If you're going to make any picture, big or small, you're going to reach a point where the pressure becomes excruciatingly intense," Kershner says. "It's a part of the game and the secret is to find techniques of living with it. I no longer get palpitations, boils, or stomach problems. I deal with it through deep breathing, by thinking certain thoughts, by closing my eyes and floating away for sometimes 30 seconds—which makes a *huge* difference. No matter how many people there are, no matter what the situation is around me, I find that I can rise above it, literally rise above it, as if I'm sitting up in a corner of the studio looking down at this thing: *Look at all these men running around. Look at all this activity just to put a little image, a shadow, a little light pattern on a piece of film.* And I almost chuckle to myself."

"When I get home at night, it's about nine o'clock," Hamill sighs. "I drop through the front door and I'm asleep at 10:30. We don't go out to dinner; we don't see movies. It's very difficult. Nathan's last feeding is at like midnight, then the baby will sleep until five. But there were a couple nights, in fact last

Sunday, when it's all night long. Even though Marilou says, 'Go sleep on the couch and forget about it,' you still can't get a good night's sleep."

"Luke is so beautifully in character throughout the film," Kershner says.



One of the swamp/tree monsters that didn't make the final cut.



Hamill in the stagnant water.

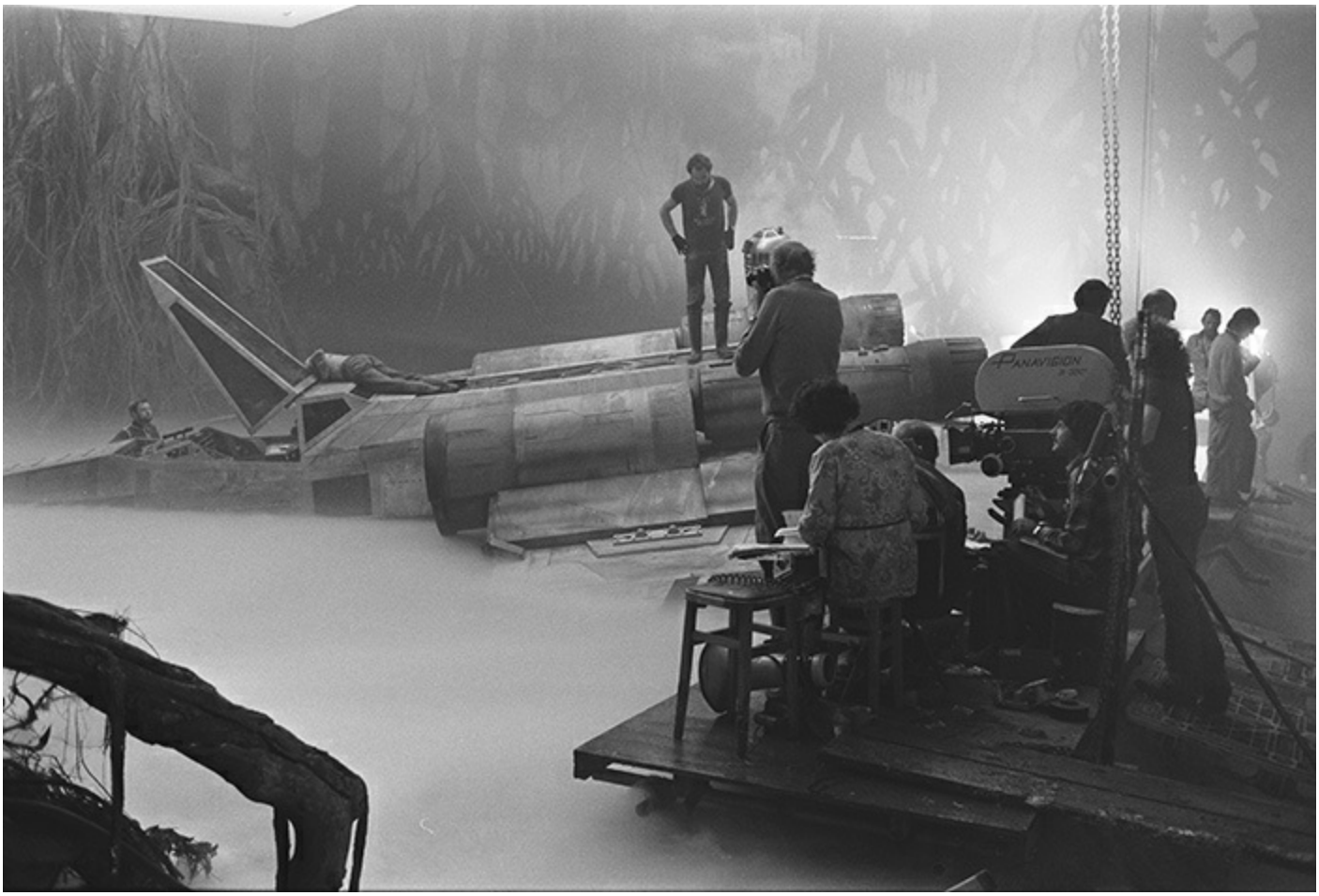


Hamill on camera.



A rare panoramic photo of production's difficult job of filming scenes around the partially submerged X-wing.


PANAVISION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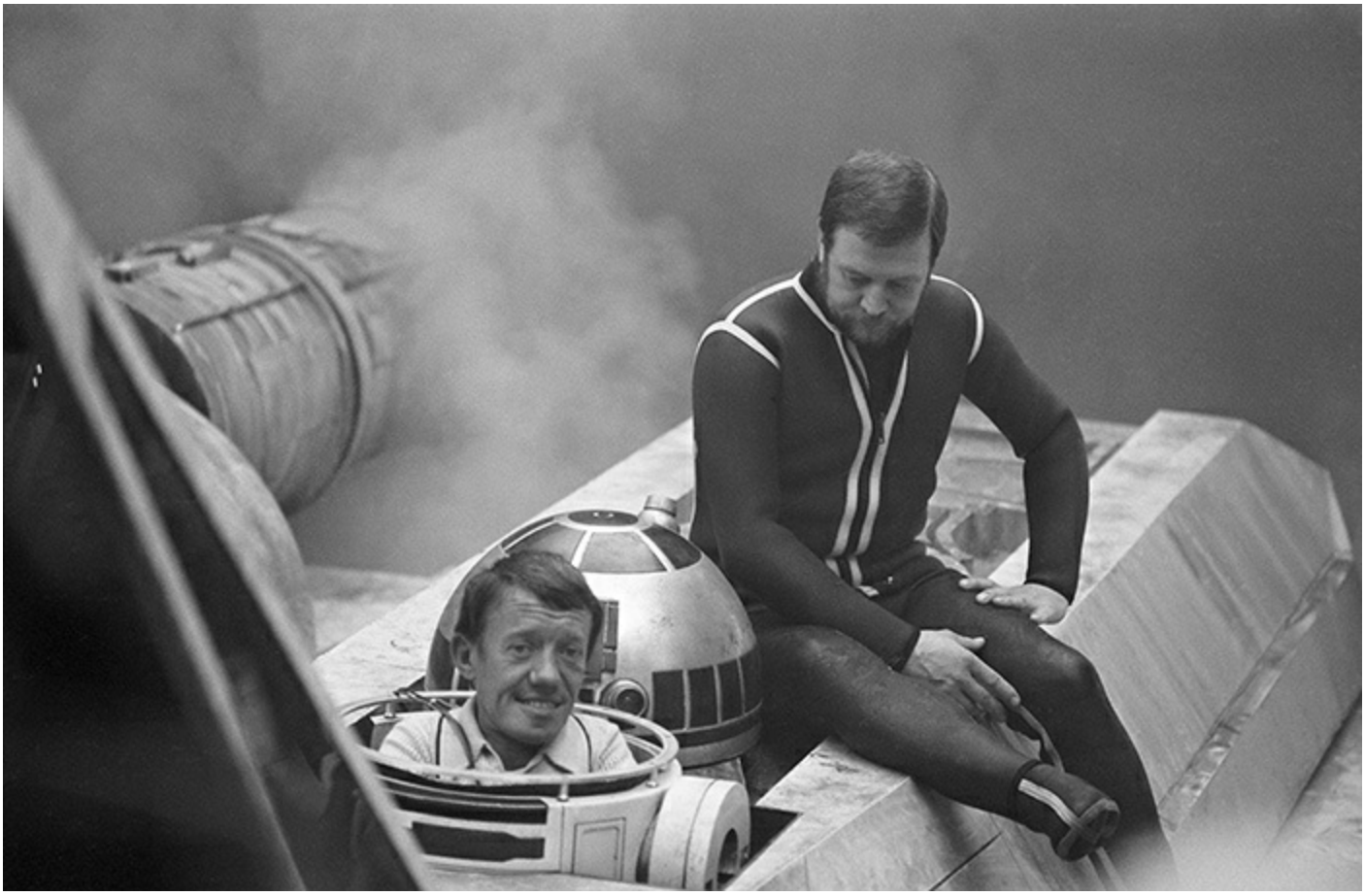


Kenny Baker in his R2 shell and a diver (divers operated the underwater R2 shell).



Behind-the-scenes panoramas of the X-wing mired in the lagoon of the Dagobah set. Divers puppeteer an R2 unit, rehearsing a shot. (0:26)

A FOUL WIND CHANGES

REPORT NOS. 123–124: THURSDAY, AUGUST 23–FRIDAY, AUGUST 24: EXT. BOG SWAMP, 275 [R2 IS OKAY], 311 [LUKE TRIES TO LIFT X-WING]

On Thursday, Jeremy Bulloch finished his role as Boba Fett after 19 days worked, shooting his last scene in the cockpit of his ship with second unit. On Friday, August 24, Sir Alec Guinness confirmed that he would reprise his role as Ben Kenobi. "As is sometimes the way in the film business, I found out by chance," Arnold writes, "by noticing in the production office newly printed nameplates intended for his dressing room."

"I spent last evening with him," says Lucas. "He told me that his doctors say he is getting better every day."

"I really need him for just some shots against bluescreen, not on any set," Kershner says. "That's about it. He's playing exactly the same character he played in the first film, so it should be quite easy for him to find the meaning in his lines."

"It was clear that if I could help them out of a difficulty, I must do so," says Guinness. "It was as simple as that."

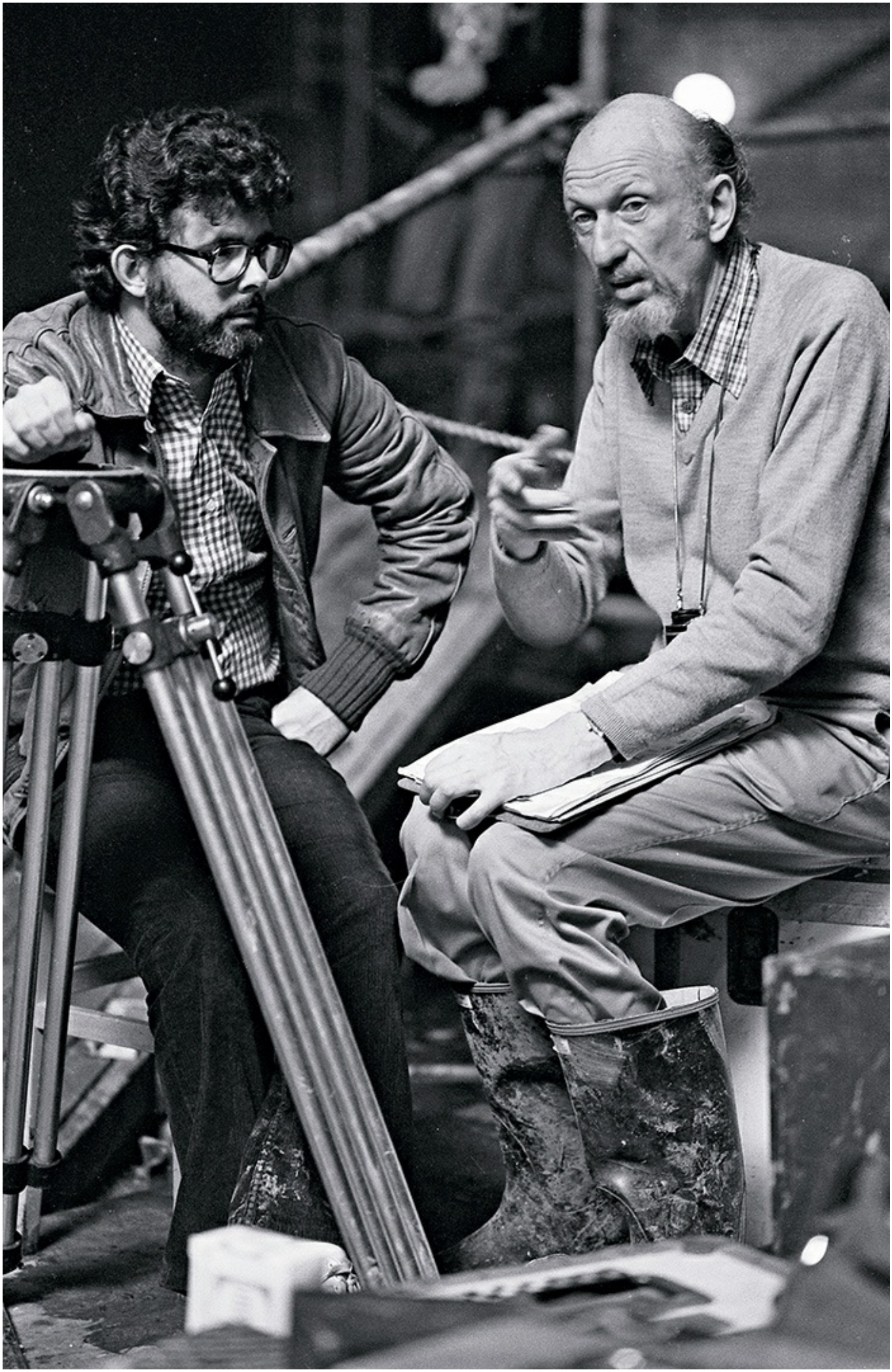
New script pages were issued that shortened his role; some lines were cut and some—"Only a fully trained Jedi Knight, with the Force as his ally, will conquer Vader and his Emperor"—were given to Yoda.

With the first bit of good news in a long while, production breathed a sigh of relief. "And we have a three-day bank holiday," Hamill says. "Marilou wants to go to France or to Greece or something. I'm going to sleep and gear up for next week; that's all you can do. Every moment you have off is used to store up energy to complete the next day's shooting."

Lucas left that Saturday, having secured Guinness's participation and supervised Yoda's scenes, to oversee ILM's progress back home. Paul Hirsch departed the same day. Production was now 52.5 days over, so as they flew back to the States, another emissary arrived.

"I went to England the last two weeks of filming," Kazanjian says. "We were over budget, the bank was upset, and, basically, Gary was taken off of the movie; he stayed there, but he was taken off the movie. I was reporting to the bank every day, as was Charlie Weber. So I took over the last two weeks of the film and I redid the budget, which was very easy to do 'cause I knew how much had been spent and I knew we had a year of postproduction and what it was gonna cost. But every day, for the first month or so, I had to pick up the phone and call the Bank of Boston and say, 'We're on schedule and we're on budget.' "

"I put Howard on the picture, but I didn't really take Gary off," says Lucas. "Bob Watts and Howard Kazanjian were the ones that actually did most of the work from that point. This was all-or-nothing. I had to get the film made and that was all I really cared about at that point—making it as good as I could while getting it done."



Lucas discusses a shot with Kershner (who wears rubber galoshes, for protection on the bog set).

AUGUST ILM: TRASH TRAWLERS

On August 6, according to Herman's notes, the bottom of Vader's Star Destroyer "is ready and can be shot. Top needs plating and some paint … Crater hole has been shot … Still arranging with lawyers an official announcement re: Name change back to ILM. For now, we are ILM, a division of the Kerner Company … August 13: Construction of stop-motion stage is finished." By August 16, ILM had completed shooting Vader's ship, the *Executor*, and had scheduled the Rebel transport, *Slave I*, and cloud car photography for September and October.

"We built Vader's six-foot-long ship, which had about 150,000 lights in it," Peterson says. "George wanted the ship to play a much bigger part in the film, which justified spending more money on it—George wanted it huge."

"The Kerner building was still in the process of being constructed during the shooting of Vader's ship," says Ralston. "But the way the ship was built, its neon lights needed some god-awful 20-second exposure per frame or something. The next day in dailies, you could just see the sawdust flying through the air with those lights sittin' out there. It was like, 'Dammit!' And I'd have to reshoot the whole thing because of that."

That month's notes also included several theft concerns: "There is a definite security problem in this area … It gets especially bad on nights and on weekends. So far there has been at least two gas-siphonings … Security guard to arrive next Sunday … Film should not be thrown outside into the trash. People are digging in our trashcan."

"There were power outages all the time and no security," says Ralston. "I got stuck doing the night crew with my assistant, Sel Eddy, and we'd have all the big doors open because, especially in the summertime, we couldn't have the air-conditioning running—and there would be people out in the trash cans, scarfin' up stuff!"

While the model shop and other departments had been up and running for some time, *Variety* ran an article on August 10 announcing that Harrison Ellenshaw—the esteemed painter who had done the mattes for *Star Wars*—would be leaving Disney and heading to ILM to oversee its matte painting shop (Harrison is the son of legendary Disney matte painter Peter Ellenshaw). Ellenshaw reported that he'd be using front projection for the mattes, a first for him, and was scheduled to begin on October 1.

On August 27, the "animated probot has been omitted; George wants to shoot the full-sized probot against snow … [In July, the probe robot had been shipped from London to San Francisco.] Building of big walker needs to be pushed ahead before weather gets wet and windy …" "I began to organize the walker sequence," Muren says. "There wasn't much time to test out shots."

Another item in the minutes was of particular interest for the future of visual effects: "If we use computer-generated animation, we should talk to Ed Catmull …" Back in July 1979, Lucas had established the Computer Research and Development Division as part of Sprocket Systems. Under the direction of Ed Catmull, the department's mission was to explore new uses of computers for digital imaging, electronic editing, and interactivity through the development of four products: a picture editing tool, a sound editing tool, a high-resolution graphics workstation, and a laser printer.

"We hope to be using a thing we call the digital film printer," Johnson says, "which is a method of transferring onto a very high-definition cathode ray tube certain elements, which have been shot in

VistaVision, then combining those elements in a computer and then rephotographing the final result onto film. What we gain by that is, the digital film printer definition is better than the grain structure of color film. Therefore, we shouldn't have any loss when we make our generations of intermediates.

"Up until this point, if you wanted to photograph a model, you had to make a three-dimensional model and photograph it to get any form of realism," Johnson adds. "With our digital film printer connected to the computer, it is possible to produce, on a flat television screen, a very close likeness to a three-dimensional model. By calling up a series of numbers, just a digital sequence, you produce a picture. Ultimately, we will be able to start with a clean sheet of paper and make a three-view drawing, and then go to the computer and instruct the computer to build the model. Then the model will be built electronically in the computer.

"It really is quite incredible and the examples I've seen so far are just very thrilling. Of course, we're a long way yet from actually doing a moving model, but I think, ultimately, it will come. With regards to *Empire*, it might be possible to include one or two shots, I don't know. It's something we're hoping to do."



The probe droid arrives at ILM, as witnessed by Bruce Nicholson, model maker Wesley Seeds, and Paul Huston.



Model maker Ease Owyeung works on the Rebel transport (or “tuna boat”), which was finished by August 31, 1979.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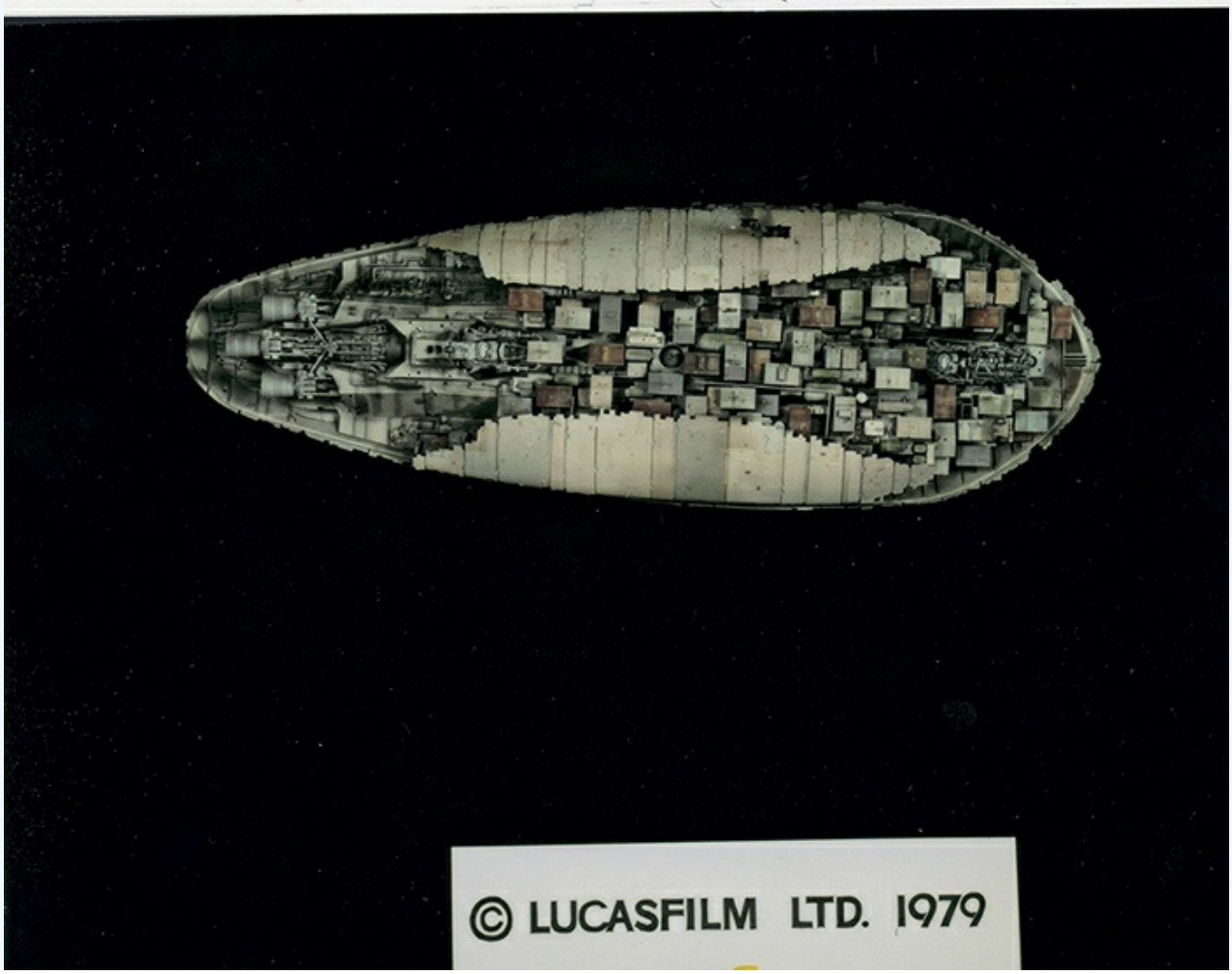
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Gawley sent Polaroids with color swatches from ILM to Black Falcon for licensing reference.

A BOG BASH

REPORT NOS. 125–128: TUESDAY, AUGUST 28–FRIDAY, AUGUST 31: EXT. BOG SWAMP, 340 [LUKE APPROACHES TREE], S307 [LUKE RUNS WITH YODA IN BACKPACK]; COVER [VARIOUS SCS.]

On August 28, the 125th shooting day, Kershner filmed Luke approaching the dark side tree and more of his dialogue with Yoda. "It was almost like two separate films were being made," says Hamill. "We all join up at the end, but I felt left out. I got nostalgic for the grand old days on the Death Star, when Harrison, Carrie, Chewie, and I were all together in the trash compactor."

On Friday, spirits were lifted with a party on the bog set, though filming would continue on Monday. "The lagoon area of the vast set has been spanned by a platform," Arnold writes, "and this in turn had been covered with nylon *lawn*. Tables festooned with candles and sprays of tiger lilies were set against the backdrop of the forest, while at the water's edge the little house of Yoda gave a charmingly folksy touch."

"A wrap party was held but, par for the film, it was not a very conventional affair," says Kershner. "We had it on the worst set of all. [laughs] The bog planet. We cleaned it up a little bit and put runways over the bog so people wouldn't fall into the water. We actually had 12 people walk into the swamp because you couldn't see where the land ended and the water began. It was a great party; it was like Armistice Day: 'The war is over! We have triumphed!' "

"I have a label on every day, under my shirt, that is counting down: '9 Days, 8 Days, 7 Days,' " Hamill laughs.

"I've got a label on as well," one crew member says.

"We won't tell you what it says," implies another.

"You can tell me something: Has Mark been a headache?" Arnold asks the two.

"Dreadful, dreadful!" the first says. "I can't tell you how awful this boy's been."

"Get my whip!" Hamill cries.

"Oh, yes, he's been lovely!"

Earlier that day, trade and local papers announced a deal that had been close to final since May: a joint venture between the Robert Stigwood Organization (RSO Records) and Lucasfilm. Stigwood was extremely hot, having recently distributed the two largest-selling soundtrack albums in history, *Saturday Night Fever* and *Grease* (1978).

"The Robert Stigwood relationship started when we went around to each of the record companies trying to get a large advance for the record rights to *Empire*," says Weber. "I was able to strike a very good deal with Robert Stigwood and part of the deal as an outgrowth was to start a record company and other things for Lucasfilm."

"The initial Stigwood/Lucas venture is expected to produce a record outlet for Lucasfilm projects," said Fred Gershon, president of the Stigwood Group of Companies.

"A variety of other Lucasfilm projects are on the boards, which involve joint endeavors in the fields of computer technology, digital sound communications, and audio/visual entertainment," Weber said in the same press release.

Because Stigwood and Mick Jagger had been seen talking on several occasions in France, including at the film festival in Cannes, a rumor resulted from the announcement that was duly reported by *Daily Variety:* "RSO Records president Robert Stigwood has been meeting with Mick Jagger in an effort to

convince the Rolling Stones' vocalist to write the score for the sequel to *Star Wars*."

RSO denied the report.



The bog set was converted to a wrap party site on Friday, August 31, 1979, though filming was not yet complete.

THE RETURN OF OLD BEN

REPORT NOS. 129–131: MONDAY, SEPTEMBER 3–WEDNESDAY, SEPTEMBER 5: STAGE 4—EXT. EXHAUST PIPE & WEATHERVANE, 407 [LUKE CALLS FOR BEN], T408 [LUKE CALLS FOR LEIA], 418 [LUKE FALLS FROM VANE]; BLACK VELVET (BEN KENOBI), V31 ["LUKE, YOU'RE OUR ONLY HOPE"], S368 ["I CANNOT INTERFERE"]

On Monday and Tuesday, Kershner and Hamill finished scenes on the weather vane beneath Cloud City, while second unit did pickups and inserts on the bog planet. By this point, Kershner had perhaps finally reached his own private breaking point.

"The bog planet is an extraordinarily difficult set and I feel dissatisfied, greatly dissatisfied, with what I could do," the director says. "The terrible thing is, here is this expensive, really quite almost insanely expensive picture, and yet I have to compromise all the way down the line. I had to compromise with every shot with the character that we created, the Yoda. I had to leave things for the second unit to do that I wanted very much to do and which is never the same in my eyes as when I do it. I'm sure that the audience won't know the difference, but in my eyes, it's quite different. I'm *very* dissatisfied."

"I tried to make sure that Harley Cokliss [second-unit director] and Kersh always talked at great length and drew up little sketches and things so that Harley was familiar with the way Kersh thought," Kurtz says. "But there wasn't always the time to do it exactly the way that Kersh would have done it, so there had to be compromises, but we really needed someone who saw how to do it maybe a little

simpler."

"The sequences that I shoot I will try and keep in the style that Kersh has set," Cokliss says. "We have Chris Menges, a very talented cameraman, lighting it, with our complete camera unit; sometimes we have sound, many special effects men, as many electricians as we need, stagehands, everything. It's a huge unit when we need it to be."

On Wednesday, September 5, at 8:30 AM, a limousine brought Sir Alec Guinness to Elstree (his contract, for one-quarter of 1 percent of *Empire*'s gross receipts, is dated September 10).

"An hour after arriving, Sir Alec was ready on Stage 4, looking benign in his Franciscan-style cloak and cowl," Arnold writes. "When Mark arrived, they reminisced for a minute or two and then went into rehearsal. Kersh had two cameras pointed toward a black velvet backing before which Ben would give Luke Skywalker wise counsel."

"I get exhausted whatever I do," Guinness says. "I'm not as passionate about it anymore. A long stage run is the most exhausting of all. The shorter the contract, the better these days. As T. S. Eliot once said about writing, 'Every sentence is a struggle. You know you're not going to get it quite right, but you have to go ahead and try.' That applies just as much to acting."

"During the rehearsal, Guinness raised a hand to shade his eyes from the harsh light, fluffed twice, and winced when a camera gear slipped noisily," Arnold adds. "But during the takes, his gaze was unflinching, the eyes strong and steady, and a speech that in itself had no great profundity was given the ring of wisdom."

"That's the magic of it," Kershner says. "I noticed that between takes, Alec Guinness would sit in his chair and study a little book that he had. I asked him at one point to change a reading, so he said, 'Can you give me a few moments, please.' He sat in the chair and opened up his little book. So I looked over his shoulder and saw that he had every line printed out by hand with little markings over the words where he wanted to change inflection or emphasis."

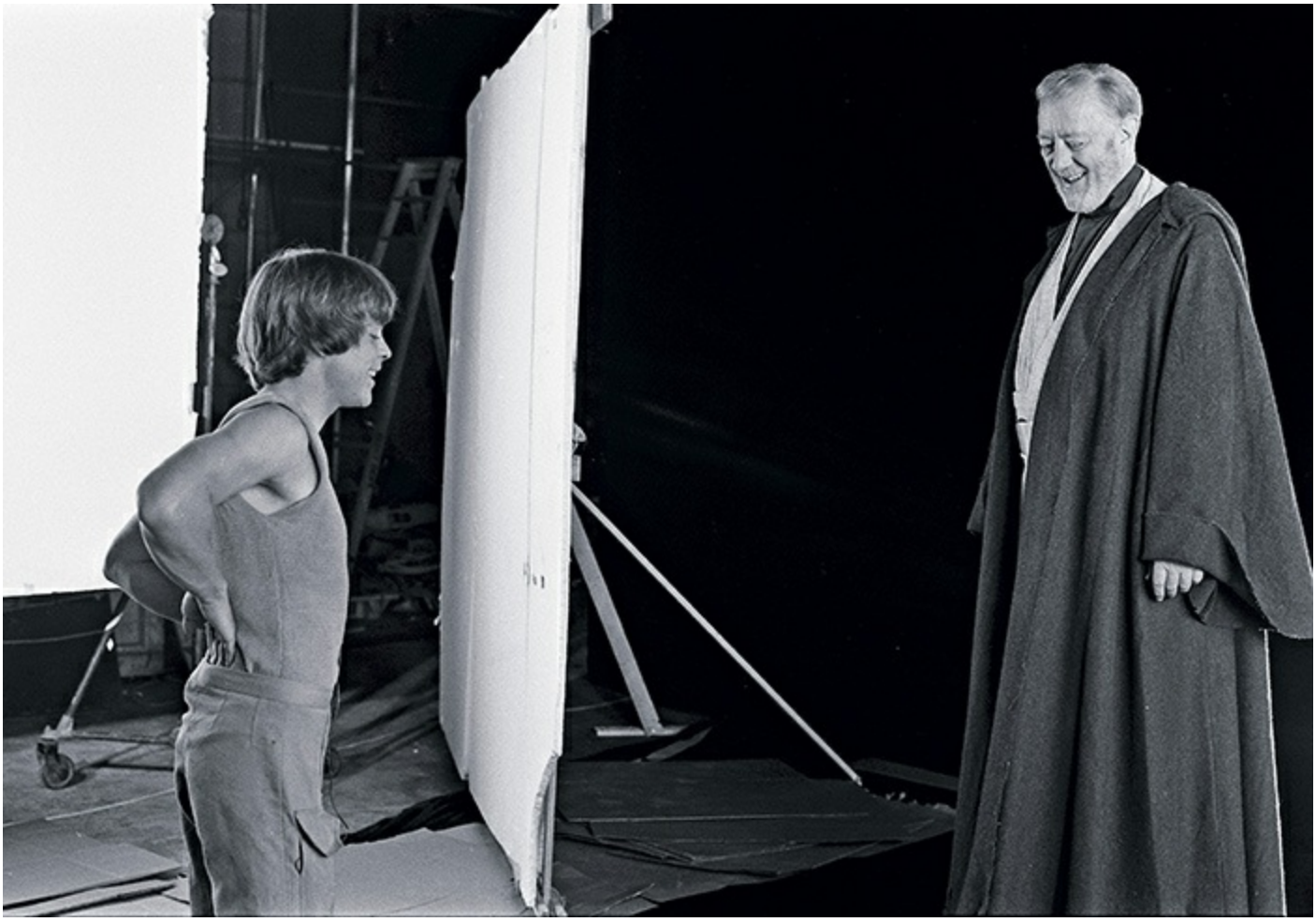
The director wrapped Guinness's performance at 1 PM, and two hours later the limousine drove him home. "His important contribution to the film had taken mere hours," Arnold sums up. "And now the last human element of the jigsaw has been slotted in … In less than a single day, he had earned a small fortune—but at the price of a lifetime of experience."



Kershner expresses his frustration toward the end of the shoot on having to hurry with the scenes on Dagobah, recorded on the set.

(Interview by Arnold, circa September 3, 1979)

(1:24)



On September 5, 1979, reknown actor Sir Alec Guinness (Ben Kenobi) arrived at Elstree, where Hamill greeted him. Though not on camera, Hamill would feed Luke's lines to Guinness.



Hamill as Luke slices perhaps a metal bar (in a scene that would be cut from the film).

S368 EXT BOG - X WING FIGHTER CLEARING - DUSK - DEGOBAH

#7

Leaving

The fighter's lights come on. Luke is in the process o lifting a heavy case into the belly of the ship. Artoo is on top of the ship settling down into his place. Yo stands nearby on a log.

as Luke hits ground

master

YODA

Luke, you must not go.

on ladder - Bottom

LUKE

(to Yoda)

I can't keep the vision out of my head ... My friends ... they're in trouble ... and I feel that ...

cut Back over

Over Yoda Shoulders

Luke

~~YODA~~

... ~~you must not go!~~

CU

Luke considers

LUKE

~~But~~ Han and Leia will die if I don't.

Luke walks CU. at Bottom

Walks LADD

~~BEN (OS)~~

You don't know that. OS

Luke looks over

Luke looks over in amazement. Ben has materialized as a shimmering image near Yoda.

BEN

Fade in

over Back of Luke

BEN (Continued)

Even I cannot see their fate.

LUKE

But, I can help them!

BEN

You're not ready yet. ~~You still have much to learn.~~ The training has just started. the force is something that

LUKE

But I feel ~~The Force.~~ ~~ready~~

BEN

~~But~~ you cannot control it. This is a dangerous stage for you, Luke. You are now most susceptible to the temptations of the dark side.

MIDWAY ALONG NOSE

YODA

Yes, yes. To Obi-wan you listen young one. The tree. Remember your failure at the tree! Heh?

Luke Standing

LUKE

I've learned much since then. ~~And I'll return to finish~~ ... I promise to return ~~that, master.~~

at wheel

BEN

You underestimate the Emperor. It is you he wants ... that is why your friends suffer.

Luke Clean engine

LUKE

AT NOSE

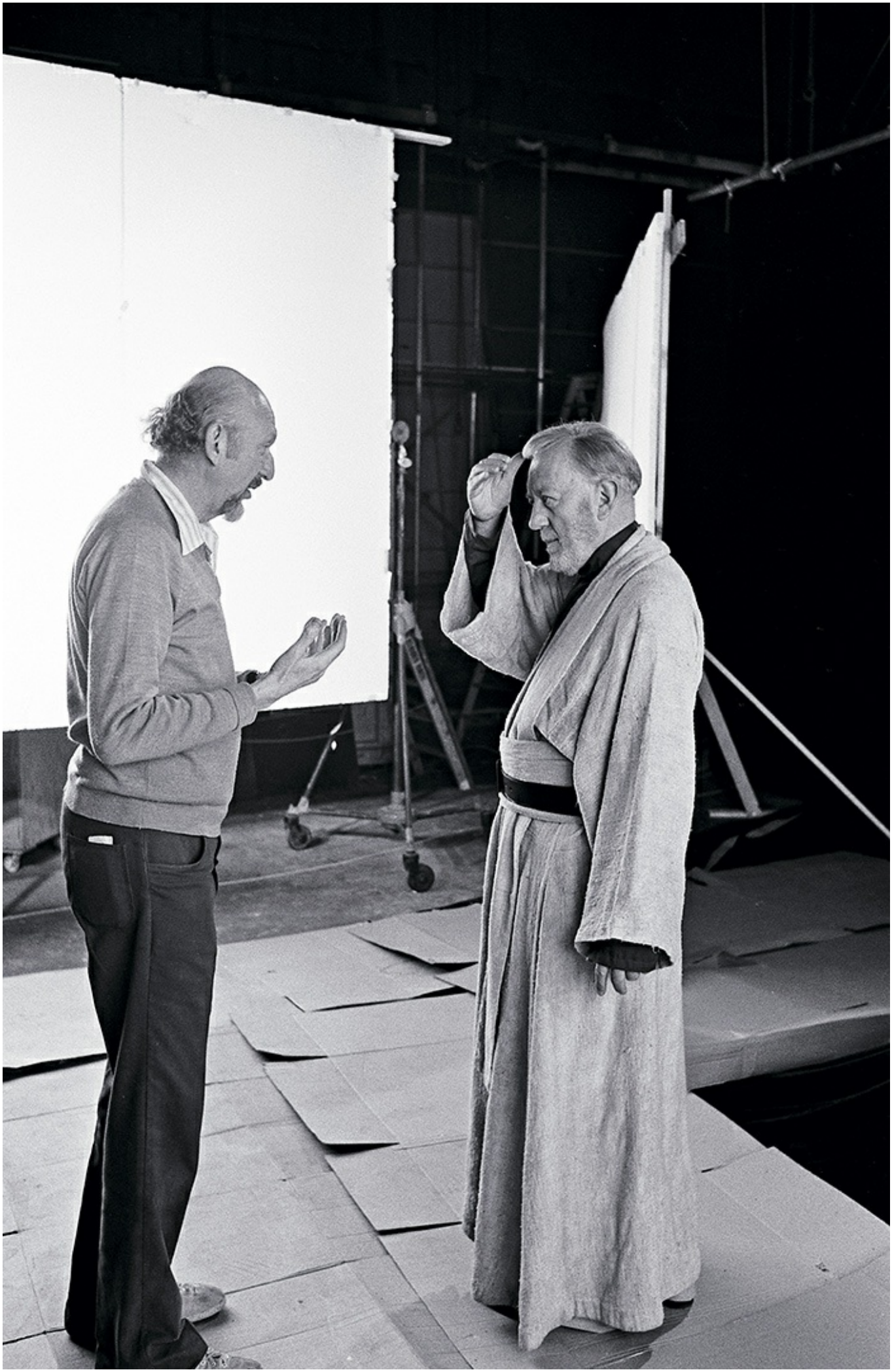
~~And~~ that is why I must

A script page for scene S368 shows how dialogue for both actors, and Yoda, had been revised by Lucas and Kershner on August 24, 1979.



Kershner directs Sir Alec Guinness.











KERSHNER'S 6 1/2

REPORT NOS. 132–133: THURSDAY, SEPTEMBER 6–FRIDAY, SEPTEMBER 7: EXT. BOG PLANET, S310 [LUKE STANDING ON HANDS], X313 [X-WING RAISED FROM SWAMP]

Ironically, as Guinness completed his single day, Hamill happened to finish his 100th, which was also the official end of principal photography. The next day, however, second unit carried on and, given that Kershner was still directing, it was really a case of linguistics made for budgetary reasons.

On Friday, 55 days over, the crew worked into the evening hours to record the last shots with Hamill as the X-wing was raised from the bog. "Kersh told me he had come to be 'swamp oriented' after so long in this jungle of the mind," Arnold writes. "The crew has dispersed; sets once so intricate and bold have been dismantled; props, costumes, and hardware are being crated for the warehouse; and new faces crowd the walkways, replacing those that had become so familiar. The names of Jack Nicholson, Diane Keaton, and Warren Beatty [for *Reds*, 1981] have replaced those of Mark Hamill, Harrison Ford, and Carrie Fisher on dressing-room doors."

Into this partial decay walked John May, who would write for the film's *Official Collector's Edition* magazine: "We climb six steps up and wander into the forest [...] Behind one tree, a crew member sits reading *Variety* in a garishly striped deckchair. Behind another, steaming blocks of dry ice wait to be fed into the machine. Gradually, the set begins to resemble more an ordered operation as the principals begin appearing to begin a day's work. Irvin Kershner huddles in his sheepskin jacket and consults with his crew, issuing his instructions in a dry husky voice. Kenny Baker, the smallest member of the crew, sits in the director's chair with his feet off the ground and a big smile on his face.

"Various groups of kids are led in for a quick peek. Mark Hamill puts his face about and quips, 'I'm under contract and overexposed.'

"In the lake, a crewman wearing waist-high waders and a cap at a jaunty angle, with a cigarette hanging out the corner of his mouth, dips his brush into a small tin pot and flecks the X-wing with mud. A water spray is fixed over the top of the plane as Kersh consults with his photographer. 'Put more mud on its head.'

"The craft is fixed to a block-and-tackle arrangement so that two crewmen can pull it up slowly by rope. But before the take, the scene must be set. Giant searchlights, half submerged in the water, are switched on, giving the water a glow. The dry ice produces a mist which floats mysteriously on the lake's surface. 'Start the river,' yells a voice, and an artificial river begins rippling through the glade.

"They go for a take. The crewmen, mud-covered from head to foot, slowly haul the spacecraft upward and the cameras roll. As usual, it's not right and they need to film it again. The problem seems to be that the water is not dripping off the craft properly as it's hauled out. More instructions. 'Stand by.' 'Once more.' 'Down to number one with the ship.' 'Keep the water going.'

"It's still not working. The intercom blares out, 'Spare special effects man at the front.' 'More water off the nose.' The extra hand focuses a high-pressure hose on the nose of the craft. This seems to be going on for hours, all for a sequence that might last a few seconds on the screen."

"I spent eight or nine hours on the bog planet one day, for six and a half seconds of film," Kershner says, amazed. "Six and a half seconds took the whole day. That's the nature of that particular place."

DEEP MINCH

REPORT NOS. 134–144: MONDAY, SEPTEMBER 10–MONDAY, SEPTEMBER 24: STAGE 4—EXT. EXHAUST PIPE DOORS;

Kershner returned to the States on Sunday, September 9. "We saw as much as we had shot assembled on the day that Kersh left," Kurtz says. "There are certain scenes that are still very rough without the miniatures, but the beginning of the picture is looking very good. Even the 27 weeks doesn't really seem too bad, although it did increase the budget quite a bit."

"I think by the time I leave, I will have gotten all the little pieces that I consider of prime importance," Kershner says. "Although every piece is important in this picture, so how can you say one thing is less important than anything else? The second-unit stuff has been quite important: close-ups of Artoo, a creature with its mouth open, a claw swishing through the air."

On Tuesday, September 11, Hamill completed his role after 103 days worked. His last scenes were bluescreen work and, on the bog planet, shooting "extra cover." The Hamill family left for home on September 13. "By the time the picture was nearing completion, Mark was the last actor before the cameras," says Kurtz. "Boy, was he glad to see this movie end."

Later that week, Kenny Baker was still on hand as they did R2-D2's underwater effects work and pickups that continued with extras on the Command Center, Transport Bay, and other small partial sets. Baker completed his role on September 14 after 60 days worked.

On September 17, second unit filmed more of the bog planet. For a few days, actor Deep Roy was filmed in the "Perspective Yoda" suit, walking on his knees, for long shots. Second unit also tried to get the ice creature right, redoing a shot on the studio back lot. Finally, the last day's pickups were completed on Monday, September 24, with an insert of Luke on Hoth and coverage in the haunted tree, with Joe Gibson doubling for Hamill. Crew wrapped at 4:40 PM.

"I met Irvin Kershner about a year before we started shooting and we immediately struck up a good relationship," says Suschitzky. "I feel that we have kept that up throughout the production period—which, I must say, I feel very happy about. After about six months of shooting and a year and a half of preparation, to come out the other side and feel that we are still friends is very pleasing."



Production tricks help Kershner film Hamill standing on one hand.

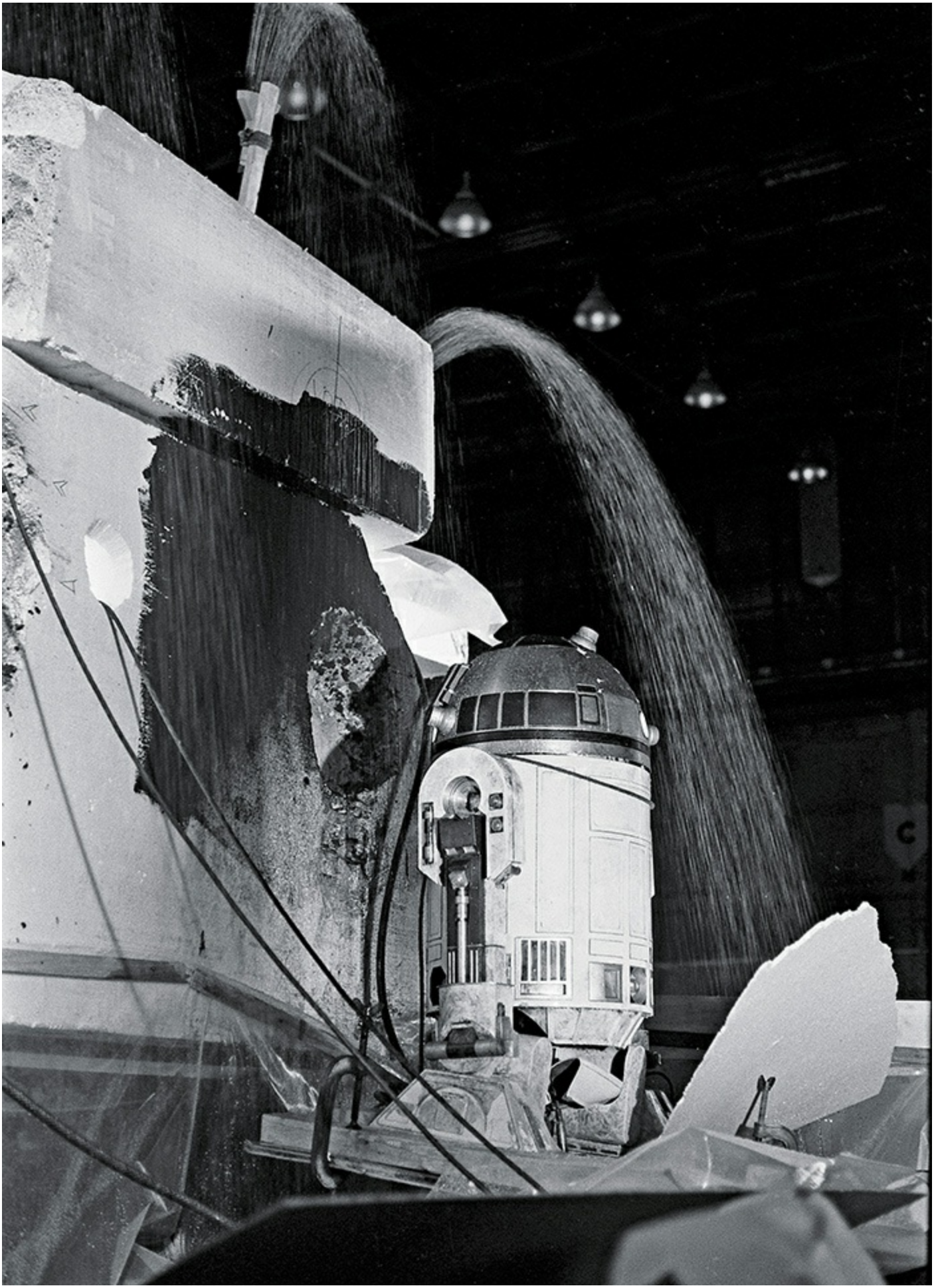






It took over six hours to film the X-wing being levitated out of the bog (final frames).





"My favorite moments are always very esoteric," Lucas says. "Artoo peeking through a window warms the cockles of my heart." The idea was Kershner's, who had them create a special rig and work all night so that R2 could get on his "tippy toes." (ABOVE: Rehearsals

for that moment.) “There’s also a point when Lando’s driving,” Lucas adds. “Something goes wrong with the ship, and Leia and Chewie turn and look at each other. It’s just a very funny little moment for me, between woman and Wookiee” (BELOW).





Deep Roy puts on a Yoda costume.



Deep Roy performs on his knees for several second unit shots of the diminutive Jedi Master walking or standing in the open.





“One thing I liked about this particular picture was that it was a happy crew, certainly a very good crew,” says Watts. “I think everybody, when they were leaving, was saying how happy they were working on the show. But I think, more important than anything else, it wasn’t a political picture. Very often you find on a film that two camps form, wherever they may be, and politics emerge.”

“Robert Watts was a wonderful, wonderful man,” says Kershner. “Whenever he had a problem he came to me. He knew what he was doing and we had a lot of problems and he just sat there quietly and solved them. I loved him. In fact, I wanted to use him on films that followed and he was never available.”

“Movies are by their very nature temporary,” says Lucas. “You work on a production and then you move on. Sometimes you form great relationships and stick with the same group, but the norm is not that. The norm is that you walk off—everybody. In this particular case, I knew I was doing more than one movie, but that doesn’t happen very often.”

“Physically, it was very difficult,” says Kershner. “But you know what? The actors were fantastic. Mark was a gem. Harrison was terrific. He always wanted to talk about ideas on the script and he was wonderful. Everybody was just great. Everybody was trying their best to please me and to make the picture good.”

“Our postproduction time has been getting squeezed,” says Kurtz. “But we’re way ahead on the miniatures. Two major sequences are already completed and that’s a big help. But in the optical composite work, that’s where you need the time. You have to have the time to do it over and over again. So we probably will be doing things right up until the deadline.”

“We have a storage facility which we had built to store set pieces, machinery, props, wardrobe, and special effects items for the shooting of the next film,” says Watts. “We’ve obviously got the *Millennium Falcon*, which was constructed to break down into sections, and the X-wing fighters. It’s anticipated that we’ll certainly maintain two of the offices at the end of the corridor until it’s time for the next one.”

“I understand that we have today printed about 400,000 feet of film and film runs at the rate of 5,400 feet per hour,” says Hirsch. “So that would be about 80 hours of film. Since we’ll end up with about two hours ultimately, we’re shooting 40 hours of film for every hour used, a ratio of 40 to 1.”

With 21 extra scenes filmed and an average of 11 setups and 55.5 seconds of screen time per day, principal photography, in all its forms, was over. The footage exposed actually measured 541,584 feet with 274 sound rolls used—yet 204 scenes remained to be completed by ILM.

“With *Empire*, since I am a step away from it, I didn’t expect as much, yet it’s turning out much more like I imagined than the first one,” says Lucas. “I had much higher expectations of the first film and we were working under much greater duress. This one turned out to be a real collaborative endeavor between Kersh and I where he had a lot of freedom to direct the film in terms of what he felt it should be and I tried to support him.”



Kershner on how editorial will unfold in post, as dictated by what he shot, interviewed on set by Arnold toward the end of the shoot (circa September 3, 1979).

(1:01)

SETUPS: 1,571; SCS. COMP: 264/468; SCREEN TIME: 132M 57S/130M.



Lucas and Hamill.



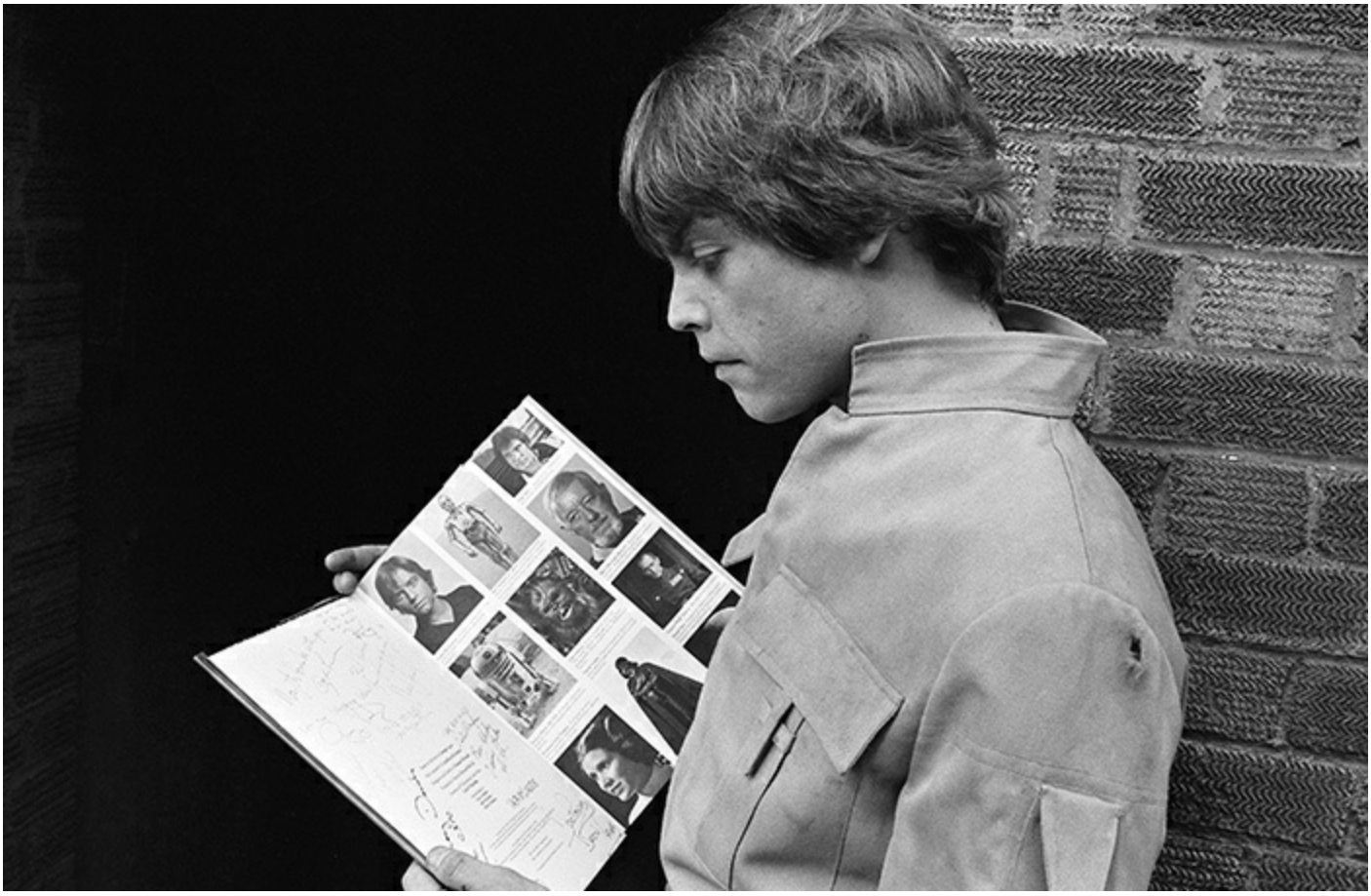
Vader (Prowse) and Kershner.



First assistant director David Tomblin flanked by his second assistant directors, Roy Button (LEFT) and (RIGHT) Steve Lanning.



Editor Paul Hirsch flanked by editorial trainee Paul Tomlinson, Duwayne Dunham, and assistant editor Phil Sanderson.



Hamill looks at a book signed by many of the cast and crew, including Lucas and Kurtz. .

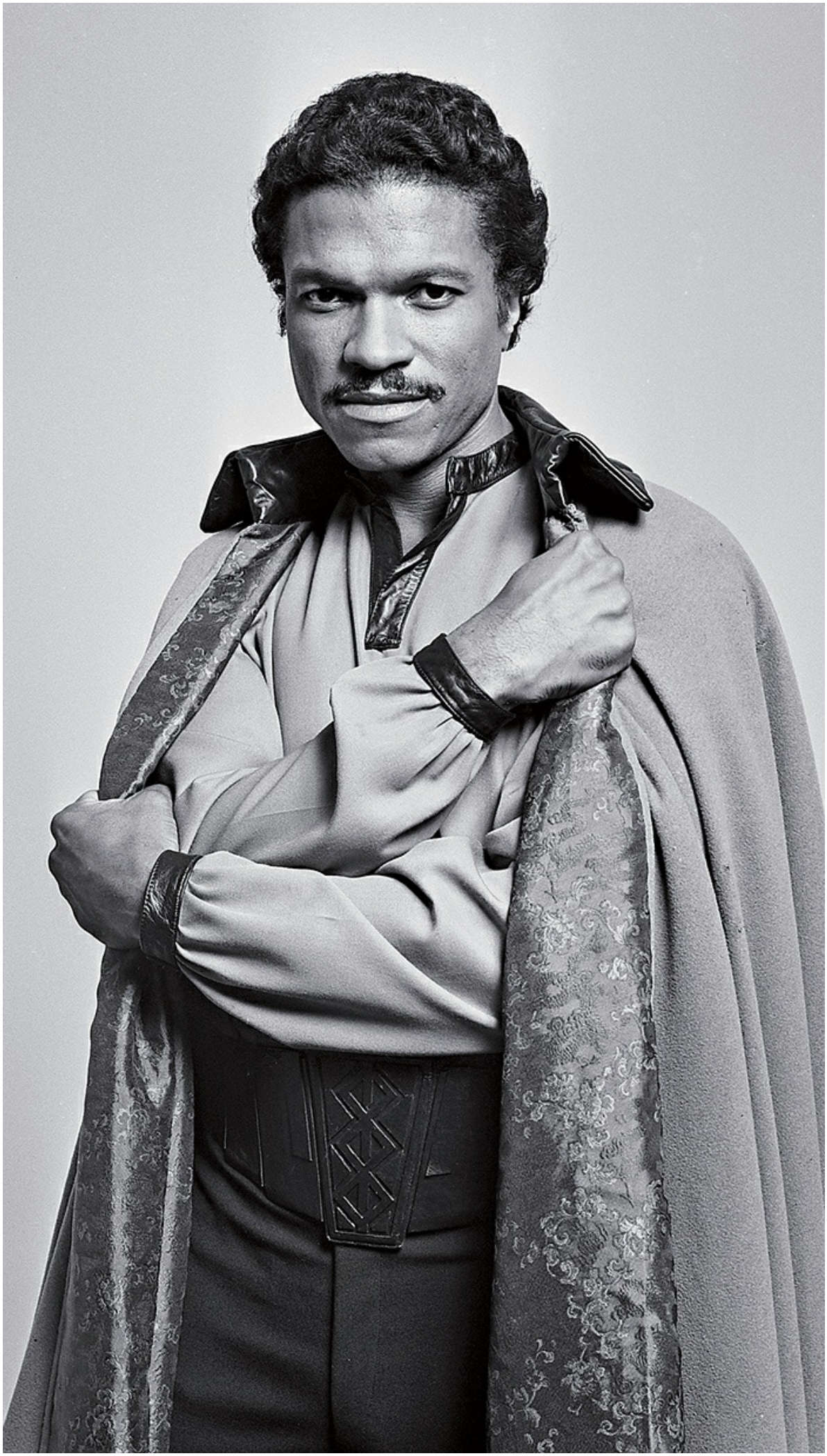


Fisher is interviewed by the French documentary team (on the right is director Michel Parbot) in Kurtz's office at Elstree, which was

entirely filled with *Star Wars* products: cookie jars, lunch pails, action figures, and newspaper comic book strips on the wall.



Ford on set.



A PR photo of Williams.



Lucas.



Daniels with the C-3PO costume.



Hamill at EMI Elstree Studios, where two *Star Wars* films had been photographed, as of September 1979.





Fisher, interviewed by behind-the-scenes director Michel Parbot, discusses acting in *Empire*, at Elstree Studios. (1:48)

FILM DANCE

SEPTEMBER TO DECEMBER 1979

CHAPTER NINE

"When *Empire* was heading back from England, the editing was gonna be done in San Anselmo," says Steve Starkey. "Duwayne and I had become fairly close and he was jockeying to have me on as the first apprentice editor. Simultaneously, Sprocket Systems was growing as a division of the company and they had asked me if I wanted to run this division and build a huge sound facility down at Kerner, with editing rooms and equipment. I was really in a quandary, so I took a drive with Hal Barwood and he said, 'You're making this more complicated than it is. Just ask yourself a simple question: *Do you wanna work on movies or do you wanna work for a company that supplies stuff to people who make movies?*' I said, 'Well, I want to work on movies.' He said, 'Case closed. Boom!' "

"One of the things Lucasfilm does ultimately is mentor a lot of young people and move them into the film business in all aspects," says Lucas. "We can't finance everybody's movies, but we can train them in a way that allows them to go off and make their own movies and exist in the real world of the film industry."

"When I first came here, Lucasfilm had a real small company atmosphere to it," says Jim Kessler, who started in September as head of Sprocket Systems. "It was like you worked for some mom-and-pop shop. George was very generous to everybody; there was always food in the refrigerator and always something to drink. I had never worked for anybody like that. I mean, it was so humbling, because he was so nice to everybody and it was real casual. Everybody seemed to have a tight connection. All these people formed a very committed workforce and worked really hard; there were some very creative things going on and it was kind of carefree."

"I would say within two weeks of the end of shooting, we will be able to have a rough-cut screening," says Hirsch. "George draws a parallel between making a film and building a house: The screenplay is the blueprint; the shooting is the assembling of the raw materials; but the editing is the actual construction of the house."

"My job was to set up editing and sound editing rooms for the people that were working on postproduction," says Kessler. "I was told to set up all the benches and everything in the big basement of Park House, the company's main facility."

"I have to go over all the rushes with Paul Hirsch and pick the good takes and then transfer to him all my notes that I've been making since he's been gone," says Kershner. "In other words, I have a pattern, which changes once we cut it, but at least this is the pattern that I shot to as if it were going to be cut in that particular way. Now, when we get to cut it, sometimes we do it exactly the way I want, though most of the time it changes, but at least there's a pattern."

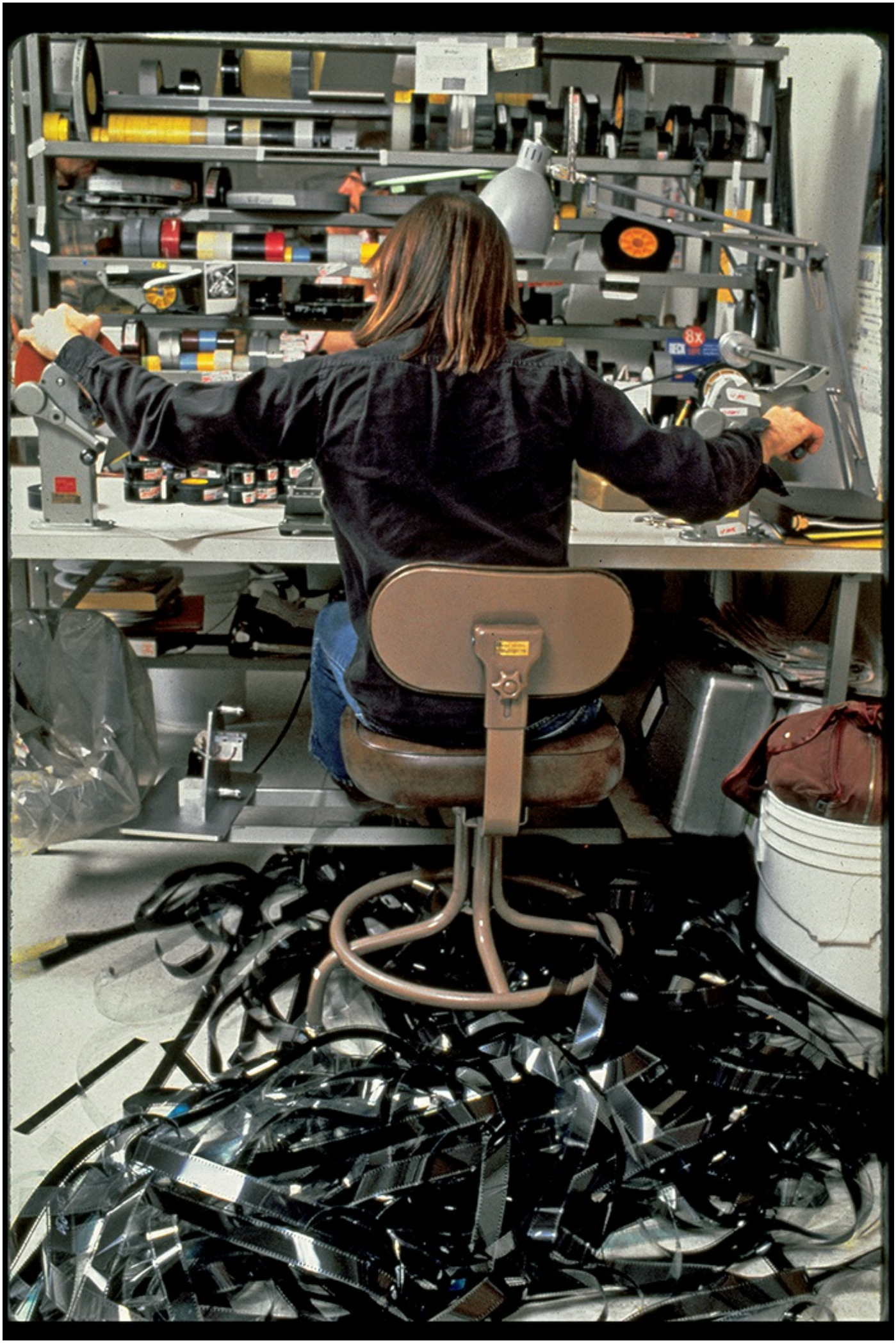
"The film came back from England and we had to deal with making a transition from an English system into an American system and put the film together," says Starkey. "Paul Hirsh was the editor and he had an assistant, and George was editing with his assistant, Duwayne. I was kind of assisting both of them."

"Editing is perhaps the only one of the film arts that has no historical antecedents," says Hirsch. "Editing is the choice of the images, their succession, and their duration. An editor is dealing with time,

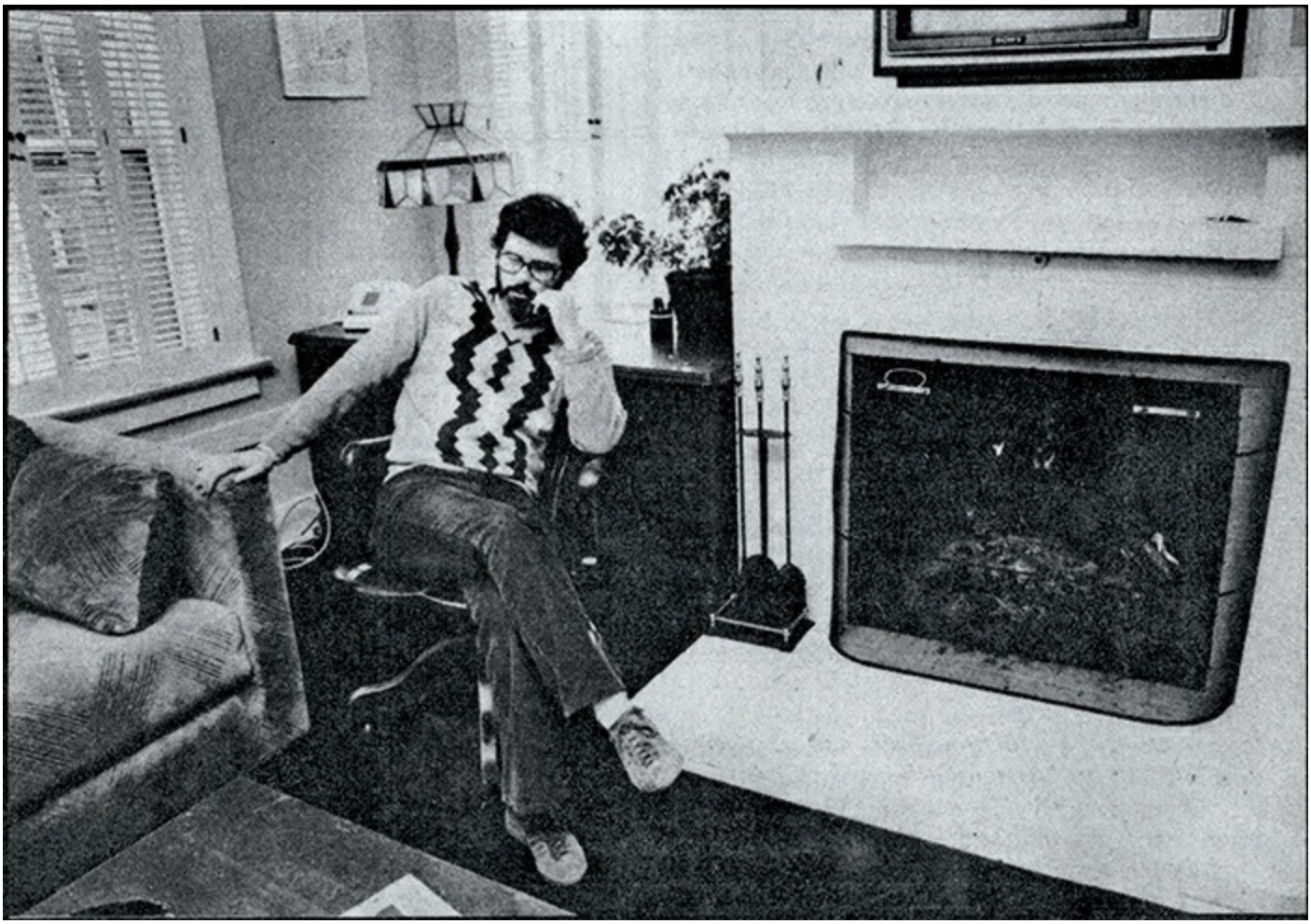
which is more of a concern in the musical arts. Only film and music require that an audience comprehend the details of a work of art over a given period of time. You can read a novel in one sitting or you can take six months to read it. You can look at the edges or at the center of a painting; you're not compelled to experience it in any order."

"Paul was on from the very beginning," Kurtz says. "So we had a rough cut of the picture, of all the elements that we had shot in England anyway, about a week after we had finished shooting."

"This was the first time I attended a rough-cut screening," says Starkey. "I watched this movie at Park House and I came out and I was confused. 'What is this? It's a mess!' The fights in space and stuff were just little black-and-white scratchy things representing gunfire and planes flying. It was hard to even make sense of it, let alone emotionally know if the edit was correct and we should move forward on this huge movie. I remember walking home with Ben Burtt—we were walking off our steam 'cause we had been working night and day to make this screening deadline date—and he just said, 'Look, Steve, I was there on *Star Wars* and it's probably feeling really rough to you, but I promise you this has got all the goods. This movie is working.' "



At ILM, assistant effects editor Howard Stein surrounded by celluloid.



Lucas sits in his San Anselmo Avenue editing suite.



Lucas's San Anselmo Avenue editing suite is where Kershner examined edited footage of the rough cut on a KEM with Marcia Lucas. It was here, with a team of assistants, that Lucas, Hirsch, and Kershner would add ILM's shots and edit the film.



Steve Starkey in ILM's editing room where reels and reels and reels of visual effects footage were stored.

LOS ANGELES EXPLOSION

"I think the city got enough complaints from the neighbors to file a petition to say basically that this is a residential area and you can't run a business here," Kessler says of editorial's exile from Park House. "So the city threw us out and we had to go find another place to set up business, which was a building at 321 San Anselmo Avenue where George had his office; Duwayne Dunham and Steve Starkey moved over, and Ben Burtt and Gary Summers were in that same building."

"I remember setting up the editing rooms on San Anselmo Avenue," Starkey says. "This was under the direction of Duwayne Dunham, because I didn't know the first thing about editing equipment. You know, 'Put the bench there. This needs a splicer and a synchronizer.' "

"Downstairs was the sound department, the sound editing facilities, library, and a little mixing room," says Burtt. "And upstairs was the picture editing department."

A reporter would describe the two-story converted apartment in downtown San Anselmo as being "decorated in white and buff with a dark green carpet. Upstairs are small editing rooms, dominated by a clock the size of a coffee table, a fireplace with a blazing log, a TV set above it, a Betamax in the corner, and several houseplants. In the bathroom were white towels imprinted with Artoo-Detoo."

"We spend a couple of million dollars a year in Marin County," Lucas says. "I look at my main community effort as my films, which I feel are a social responsibility."

Lucas also expanded his facilities in Los Angeles, opening the Egg Company building for business that fall. "The Egg Company went through a very extensive remodeling program," says Richard Tong. "I think it originally was budgeted for around $200,000 and the ultimate bill came to over $2 million. I remember going to a meeting with Charlie in his office; he had a nice fireplace and a really nice executive suite, very comfortable and luxurious. Because George was involved, everything was done first-class. It was beautiful."

"George renovated it to his specs," says Weber. "Everybody in the creative group was up in Northern California and the business was to be in LA, which was merchandising, publishing, some of the marketing, too, because they had to deal with the studios every day."

"I was still working either on the lot at Universal Studios or in San Anselmo when the Egg building came in to being," says Alsup. "That was during a period of time when Lucasfilm was growing. I thought the building was attractive, but I wasn't there enough to feel at home. The Egg Company was the beginning of bringing in, unfortunately, unfriendly authoritarian nonfilmmaking executives. Our original, delightful, casual Lucasfilm was fading into a big-deal corporation."

"There was this *us* and *them*," says Bloom. "There's production and then there's corporate. But it was very nice, you know. All the production people used to joke, 'Well, it's all about us, because without us there would be no corporate.' "

"What changed is that the LA office kind of exploded and a lot of people got hired down there and they were then the ones who were pretty much telling me what to do," says Lucy Wilson. "And all of a sudden I didn't have access to George anymore and that was a big surprise. The person that I used to be able to say hi to and chat with—I couldn't talk to him unless I had an appointment. And I never had a reason to have an appointment, because I wasn't doing anything that serious. So here was this big thing that I was part of, but, in a way, I was less a part of it than I had been before."

"George became more and more isolated from the day-to-day interaction with people," says Burtt. "And for people like me, who started out with a different ambience in the company, I found that hard to live with. But nothing stands still and the success of the company after *Star Wars* led to a lot of changes."





Interiors of the newly designed and restored Egg Company building, or Lucasfilm South, in Los Angeles, where much of the company's merchandising, publishing, and marketing was handled.



Production coordinator Miki Herman, Jim Bloom, and Kershner in front of a wall of storyboards at ILM.

FOCUS ON ILM

According to a cost breakdown report, ILM had upward of 600 shots to complete, 265 for the snow battle. Edlund's count was lower, at "roughly 440 shots." Either way, ILM was going to be hard-pressed. On the other hand, the effects facility already had about 66 shots in the can—a significant improvement over *Star Wars*, for which, at the same point in the postproduction cycle, ILM had completed 1 or 2 shots of its 360. Another comparison with *Star Wars* is significant: When principal photography wrapped on that film, they had about 138 scenes to complete—*Empire*, as stated, had 204.

"The system that we have is capable of a very high rate of production in that we can program a shot in, say, 15 minutes, if it's very simple," Edlund says. "A really complex shot may take two hours to get the motion program down. Then we can photograph a black-and-white test, develop it in-house, and look at it immediately. If it looks good, then we go on."

"We had a whole production plan about how we were gonna go about doing the movie and what would be the most difficult stuff—and, of course, that all turned out to be totally backward," says Warren Franklin. "That's part of the whole process of visual effects, which is what keeps it exciting: You don't really know how certain things are going to be done."

Storyboard changes naturally persisted, and ILM's in-house notes tell an ongoing story of odds and ends coalescing. On September 4: "High-speed camera is going out for anodizing in a few days … New design for Rebel cruiser approved … Body for big walker being built … Will wait till slug is finished to determine look of asteroid tunnel shot … snow chipmunk puppet for snow planet sequence has been drawn up."

"I got to work at ILM because when we came back, Gary and I moved our offices into the ILM building itself," says Alsup. "And that was extraordinary fun being right there with these creative special effects people."

The new plant at this point consisted of the main offices in front, followed by a long corridor that branched off on the right to a projection/conference/meeting room equipped for VistaVision and four-perf film projection. A camera room, the art department, and the film editing room were located farther down the hall; an L-shaped stage had three motion-control camera tracks. In the back of the building were the stills lab, optical compositing department, model department, and engineering shops. In the reception area hung a colored plaque showing a figure in top hat and tails waving a wand.

But the building still had drawbacks: The air-conditioning in the front offices wasn't working and, Herman notes, the "music is too loud in various departments. Please turn it down a bit and occasionally give it a rest."

"It was kind of a madhouse," says Tom Smith, who had been hired to help run the facility. "People wearing dirty clothes and a wildness everywhere; people crazed from overwork. In fact, that was one of the big challenges, dealing with all these eccentrics. Jim Bloom really did most of the managing, although I did some managing, and I got to see how it all worked."

"Even when we moved up here, I maintained my contact with the union in LA," says Peterson. "I thought, *Well, it's gonna be a one-shot deal. We're gonna come up here, do* Empire, *then move back to LA*. But within six months or so, I started to realize, *Hmm, that's not necessarily gonna be true; we're gonna be here for a while*."

"I remember saying to Dennis Muren, 'Well, geez, should we top ourselves after *Star Wars*?' " says Steve Gawley. "I think we ended up saying, 'Well, let's just have fun.' And I think that really showed in the work."

The film had to be completed by March 31, 1980. Editorial, however, needed the "bulk of effects material mid-January." Two technical roadblocks stood in the way of that deadline: The "Empire camera still has bugs, but nothing fatal," and the Quad optical printer's progress had stalled.

"For us in the optical department, which is where we're putting everything together at the end, the most vivid memory I have is sitting around waiting for the printer to be built," says Franklin. "It was over in the corner of the room for the longest time; but we needed it to finish the project because we were doing these composites in VistaVision format, which we really couldn't use in the final film. George would wander in and look at this thing over in the corner, so it was becoming a really pressurized situation—we were way far behind and we were trying to build all this new equipment at the same time."

"It did become very obvious after a while that some crews were taking a long time, because they were designing equipment," says Lucas. "Right from the very beginning of ILM, I was always saying, 'Look, I don't care if you have to use a black curtain and put ships on sticks. I'm not interested in getting a technical award. All I really want to do is get the movie made and I don't care how we do it as long as it looks good."

For the director, the worst was over; the burden was now on ILM, though he would be advising them. "Kersh will be here Friday," Miki Herman's notes read. "Decisions should be run through George. George will be here at four o'clock daily. See Miki if you have questions for George."

"The pact was: We would never congratulate ourselves on having done a great special effect," Kershner says. "In *Star Trek*, they do a 10-minute sequence in which they're looking around going, 'Ooh,

aaah, isn't the ship beautiful?' We'll literally throw away those shots. As a result, the story becomes paramount."

"A special effect without a story is a pretty boring thing," says Lucas. "I'm worried about the shots, what they look like, what the quality of the work is—is it telling the story?"

Kershner's contract had noted that he "shall receive credit on all positive prints of the Picture (herein called 'screen credit') as the Director thereof in first position at the end of the Picture, subject to waiver by the Directors Guild of America, Inc." Yet the official request for having the director's credit at the end of the movie—the waiver—seems to have been neglected as the months ticked by.

Kasdan had also made a move to receive a director's credit, as reported by *Daily Variety* on September 26, which stated that he would "direct his own original screenplay, *Body Heat* [1981], for 20th Century–Fox." "Alan Ladd asked, 'What is it that you want?' " Kasdan says. "And I said, 'I have a story, which is called *Body Heat;* I'm going to write it and I'm going to direct it.' And he said, 'Well, I'll make a deal for you to write it for me.' "



The first ILM logo, by Pangrazio, for which Jon Berg posed (above). After being sent to Black Falcon, the logo was later modified by Drew Struzan (below). The logo hung in the front office.





Gawley, Tippett, Ease Owyeung, and others joke around—pulling Jon Berg to some horrible fate (and keeping the idea of fun paramount at the effects facility).



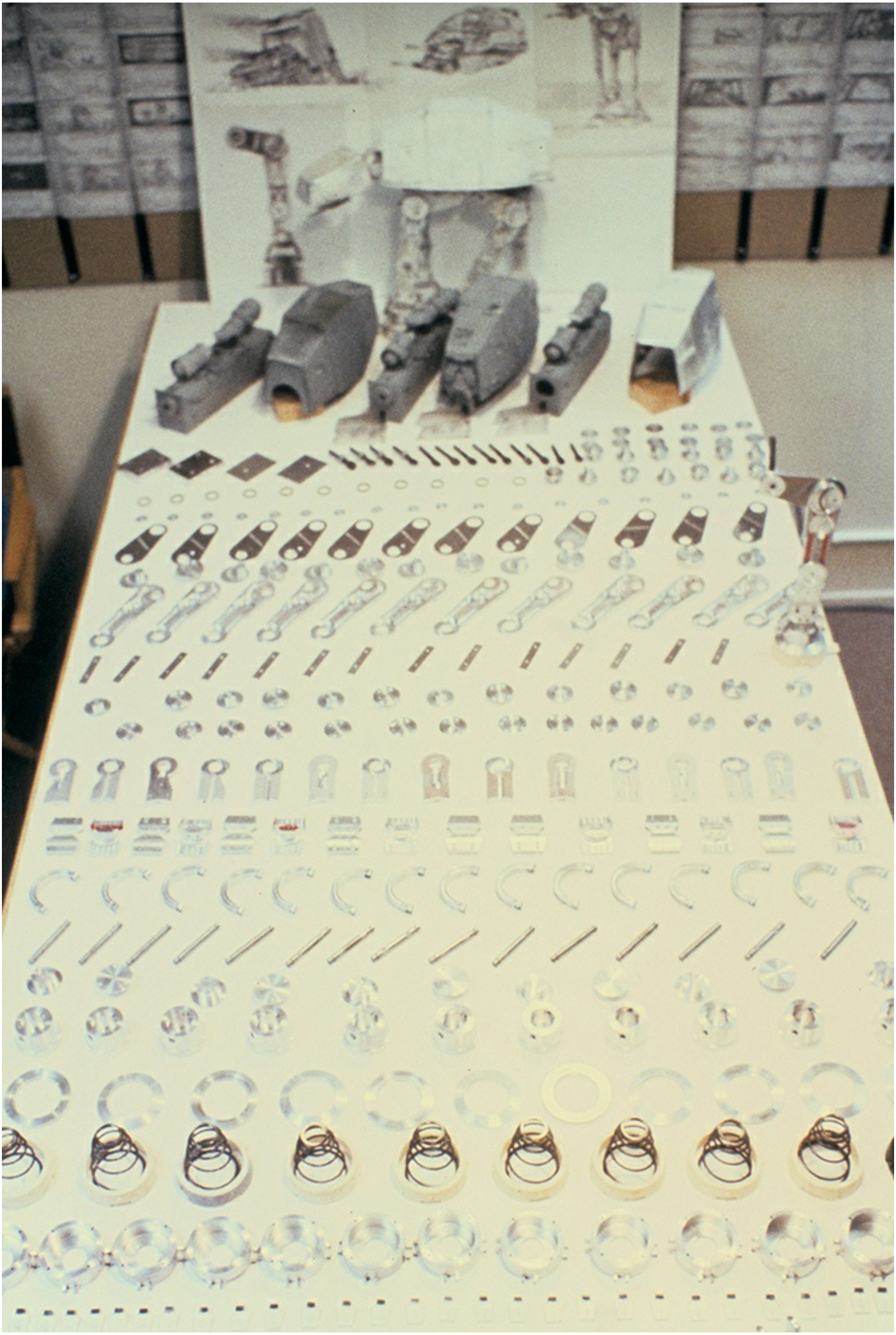
Edlund and Howard Kazanjian at ILM (on the wall is an enlarged still from a Kurosawa film).

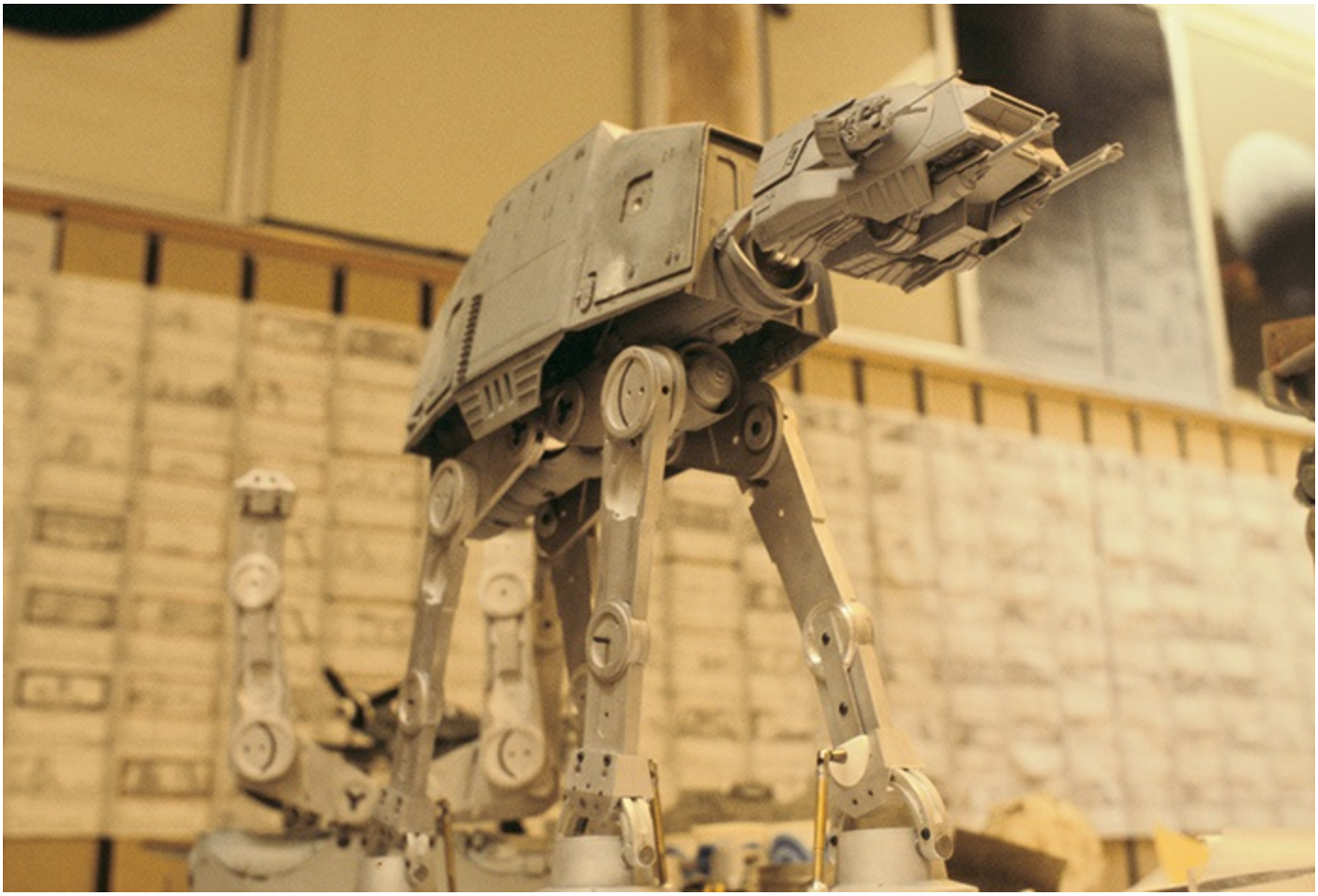


Stage technicians, or grips, William Beck and Edward Hirsh sprinkle microballoons to simulate snow on the Hoth miniature.



Jon Berg and Johnston. “From the prototype, we built the finished walkers,” says Berg. “Tom St. Amand worked for many months to get the parts manufactured.”





MECHANICAL HANNIBAL

"For *Empire*, I think George had more confidence and he really wanted to raise the level of the work," says Franklin. "The shots in the snow were very ambitious; no one had really tried to matte things over snow before."

Consequently, preparation for the walker shots had taken 10 months. "Once we had that prototype, we found out what the problems were," Berg says. "Then we shot a lot of videotape and some film to find out how the thing would look most effectively and believably. A thing that's 50 feet tall is going to move awful slow. So we shot a lot of test footage to work out our system for making it not only a machine but also a character. It is very anthropomorphic in its design."

While Muren had started planning in August, intense work on the walker shots would last through the end of the year and well into 1980. After the bluescreen tests had proved disappointing, the solution for many of the walker shots was to use, ultimately, about 15 different background paintings as snowscapes. Ralph McQuarrie created the first landscape for a key shot of five walkers stalking toward the Rebel base. Mike Pangrazio, whom Muren had recruited from the matte painting department and who was being mentored by McQuarrie, then took on snowscape duty; his largest panel would be 35 feet wide (Pangrazio had started in late 1978, just after his 21st birthday).

"I animated on four or five shots that contained three walkers," Doug Beswick says. "For the five-walker shot, the two background ones were just mock-ups, photo cutouts that move infinitesimally on a track. The legs of the cutouts had some small articulation to them."

"We could retouch a photo in 20 minutes, or take four days to build a model," says Muren. "The choice was clear. But there was still real aversion to our final approach of using painted backgrounds, because people associated them with *Green Acres* [a 1965 sitcom] and *The Beverly Hillbillies* [1962]. But

that's just because they didn't have the right artist to do it. One of the big issues was that Mike Pangrazio insisted on working from transparencies or photographs. He didn't want to use his imagination. He said, 'Every time I try to create something, it doesn't look real. It looks interesting and takes on a style—but as a result, it usually looks artificial.' "

"There were the technical problems with getting scale snow to look correct and not fly around," Peterson says. "But there was a material called microballoons, which I'd encountered while we were doing Mount Hekla for *Galactica*. It's an industrial material, hollow glass spheres measuring 26 microns —and there's 10,000 microns per inch—so they're incredibly small. You can't actually see them. If you have a few of them, you can feel them with your fingers. So it's a very good scale material for miniature snow. But the world makes only so many microballoons a year—they only came from 3M—so we bought just box after box after box of the stuff. Eventually, I had a person call from a company and say, 'We wanna buy some of your microballoons.' [laughs] We had bought up the United States' supply for that three-month period."

"It took a full day for each shot, four to six hours," Beswick says. "The time on the screen lasted four to six seconds. That's one second an hour. The increments for the walker movements were so small, they could hardly be gauged!"

"If somebody said that I was going to be doing stop-motion animation, I'd probably commit suicide!" says Johnson. "It's a very taxing medium to be in. Phil Tippett and Jon Berg obviously gave it a great deal of thought before they got into it."

"It's long, tedious, difficult, strenuous …," Berg says.

"I thought, in order to relieve as much of that tension as possible, the animator should only be involved with animation," says Muren. "He shouldn't have to worry about the camera or the lights or anything else. That means that the setups are done in such a way that he can easily walk into them and walk out without tripping over anything. That leaves him free to concentrate his attention on the things that will help the animation."

The principles of stop-motion of course go back to George Méliès, Willis O'Brien, Ray Harryhausen, Jim Danforth, and Ladislav Starevich (or Wladyslaw Starewicz). Tippett and Berg had also worked with Jim and David Allen, "another very fine animator," Muren says. "I've got an extensive stop-motion background, having come up through Cascade Films and having been associated for a long time with Phil Kellison, who worked with George Pal on the *Puppetoons* [1932]. A lot of the guys here—Jon Berg, Phil Tippett, Ken Ralston—came up through Cascade and we've all been friends and doing stop-motion for 15 years."

To capture most of the painstaking work, Muren and his crew utilized "a field-usable motion-control system," says Edlund, "with a reflex VistaVision camera, a special Mitchell gear head, and tape data storage recorder. We have Jon and Phil, two animators who have knocked their heads against a wall for years and years, and have really learned their art; they are truly adept men."

"We came up with two methods," Muren says. "One is to shoot with black-and-white film, develop it instantly in-house, and see the result 15 minutes after the end of shooting. The other approach is to use the Lyon-Lamb Video Animation System, which involves a videotape that is played back at 24 frames per second electronically. We used a Sony system similar to this at Cascade 10 years ago, but it ran at 30 fps."

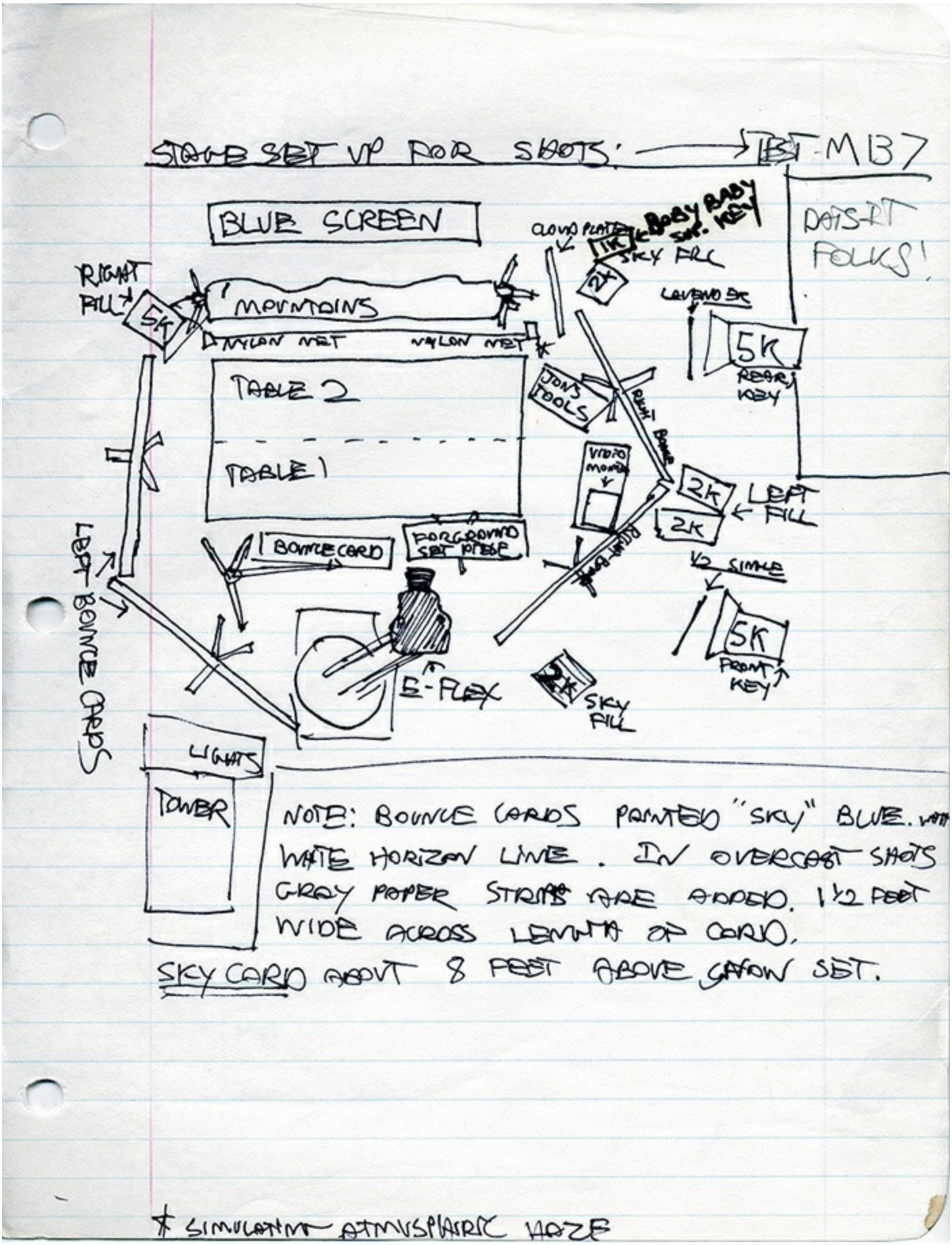
To meet its nerve-racking deadlines, as of October 3, ILM had to have "Camera crews work alternating Saturdays beginning this week through Thanksgiving."



Johnston, Tippett, Tom St. Amand, Nilo Rodis-Jamero, Berg, and Doug Beswick pose with the three final full-sized walkers.



Berg works in a setup similar to that of shot M-137, coming up through the trapdoor among the carefully positioned lights and bounce cards.



A detailed diagram, completed after the fact for re-creation (if necessary), outlines the setup for shot M-137, which Muren had

photographed on September 14. The shot would last only a few seconds and featured a walker and a set backdrop, with Chris Anderson as operator on the Empire camera. For this fairly typical setup, which would later include Wedge in his snowspeeder, Muren filmed three takes and exposed 30 feet; four days later, he exposed another 50 feet; and on September 26, an additional 46 feet of the background only. The set, which would be used for two more stop-motion shots, was torn down on September 27, with the lights left in position for the next setup.



McQuarrie works on a giant backdrop painting for the Hoth battle.



Matte painter Michael Pangrazio created most of the large background paintings for shots of the walkers during the battle of Hoth.



Tippett and Johnston work on a stage miniature for the Hoth battle.



Some shots required a walker not much larger than a quarter.



Animator Sam Comstock holds the tiniest walker made.



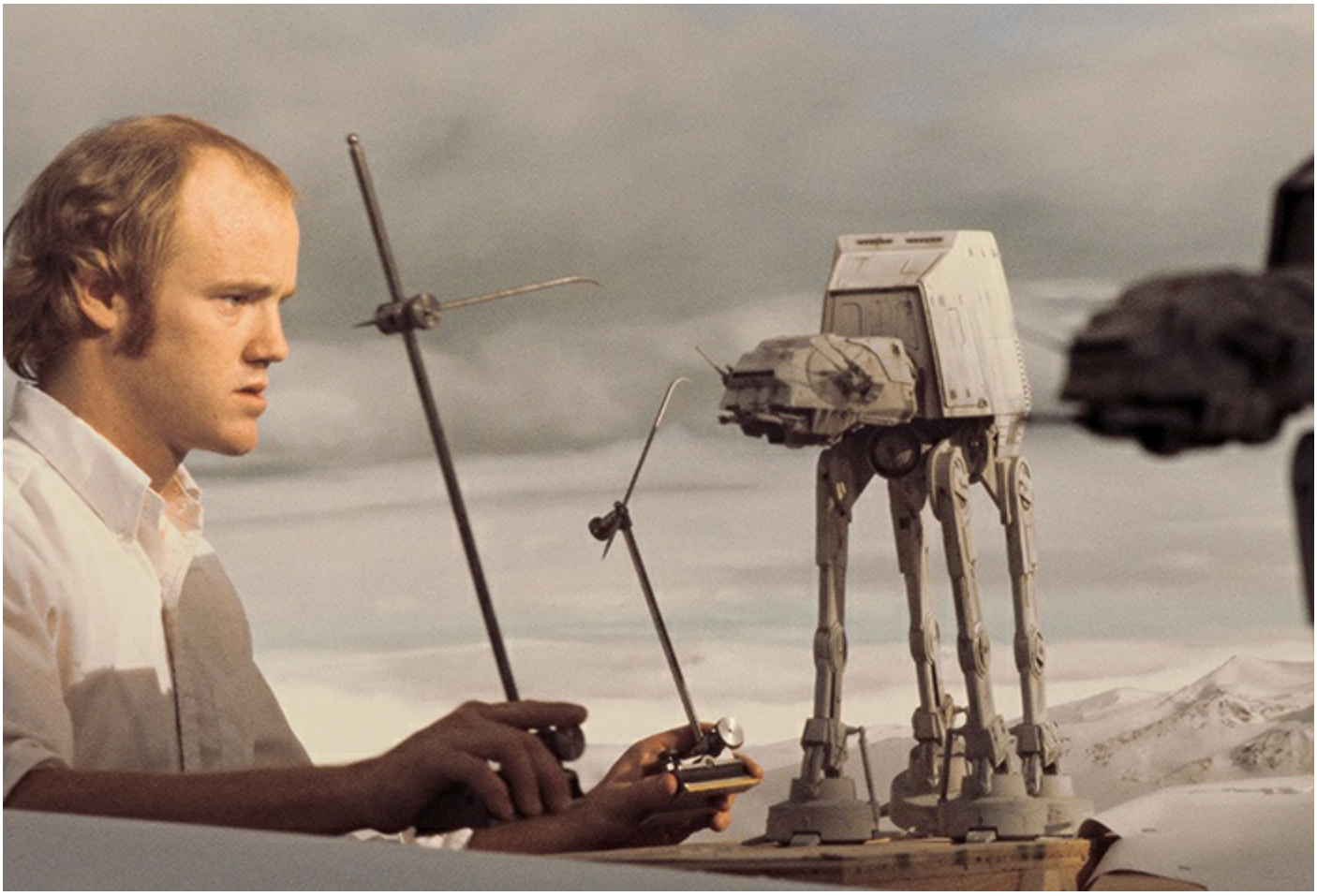
Tippett and Berg stop-motion animate a shot with all three walkers (the background walkers are cutouts). Originally, the plan had been to photograph the walkers against 4 X 5 Ektachrome transparencies shot in Norway; when these didn't work as planned, Pangrazio copied select Ektachromes onto large scenic backings.



Tippett at work with the walkers.



He consults a Lyon-Lamb Video Animation System from time to time to check the work.



Tippett at work with the walkers.

COSMIC CUT

On October 15, an internal memo outlined *Empire*'s planned promotions with licensees—including Coca-Cola, Kenner, General Mills, Topps, and Nestlé—which would be rolled out from May to December 1980. Lucas's ranch project moved forward as well, winning approval from the Marin County Planning Commissioners for "a creative retreat where filmmakers can meet, study, collaborate, write, edit, and experiment with new filmmaking ideas." The *San Francisco Chronicle* reported that the final okay had been granted for this "last stage in a complex series of Marin governmental approvals that have taken more than two years [sic]." Lucas hoped to start construction in the spring of 1980. "He also states that the complete project, which is a longtime dream, will be built in stages and will require five years or longer to finish."

While no doubt happy about the county's decision, Lucas devoted most of October to the film's first cut. Trying to lock the film, he decided a new ship was needed, so the medical frigate was added to the model shop's agenda on October 1.

"Some people think of editing as the physical act of cutting," Hirsch says. "But that's a misconception. The French use the word *montage* for editing, which means 'to build.' And I think that is a more precise description."

"I was trying to keep the convention that George Lucas had set up," Kershner says, "where you stay with no scene very long, where you have a constant shifting of scenes, and where the editorial rhythm is in a way more important than the camera moves or the actors saying their lines."

"It was kinda terrifying, because now I was gonna be responsible for running a chunk of the editing

room," Starkey says. "Anytime you're around George on a daily basis, it's exciting because he has so many projects, though he's always been just one of the guys. Wherever the ideas come from and however you get there, it gets divided up among the different players doing their different jobs. All you are is a group of people attempting to achieve one specific goal."

"I showed the cave sequence to my son, who is now 12 years old," Kershner says. "I asked him, 'What does this sequence mean?' He says, 'Well, Luke's being tested.' 'Right. When he goes into the cave what does he find?' 'He finds what he fears the most.' I said, 'Very good. What does he fear the most?' 'Well, it's Darth Vader.' I said, 'Right. Is Darth Vader really there?' 'No, not really. It's in his own mind.' 'Right. Should he have taken the weapons in?' 'If he takes the weapons in, he's going to have to use them.' 'Aha.' Therefore he's setting up a structure that's going to feed back on him. You build an atom bomb, you deal with the fact that you may have to set it off."

Hirsch says he learned the "pi factor" from Kershner: "It has to do with never cutting two images together that are the same size. If you're cutting shots of people, for example, you try to avoid cutting from medium shot to medium shot if the figures are in the same position. The effect is monotonous and flattening."

The director's often complex interlocking masters did pose challenges for editorial. "Kersh would stage it in pieces," Lucas says. "You stage the first half and the next day you stage the second half—but then you realize the two halves don't go together, because you never ran it through from top to bottom to know exactly what had to happen. But I've worked in documentary films and so has Kersh, so we both knew how to make film work when you don't have the right material put together quite the way it should be. It was challenging at times, but I screw up, too."

"Using the complicated master idea was one of the things that did prohibit some of the editing that George would have liked to have done," says Kurtz. "Since George came out of documentaries, he liked to have lots of footage so that it could be rejiggered in the editing room. If you had three or four shots of one thing, then you could build the scene in the cutting room rather than trying to plan it all out on the set. That's just a different way of working. Kershner wanted to plan it all out on the set and that would force the editing to be a particular way, and George didn't really work that way. In the end, the editing, I thought, worked out pretty well as a compromise between the two styles."

"There are many, many ways of putting together the filmed units," Kershner says. "Anything will connect up in film, with the right sound and music. But the emotion won't be there. The credibility of action won't be there. It will all add up to a kind of meaningless contiguity."

With all parties contributing, the first cut was completed by October 17. Of its 12 reels, the last half very closely resembles the finished film, while the first half has many small and some key differences from the final cut. It opens with Luke on the tauntaun (in animatics), and the probot, after landing, zaps a snow squirrel or chipmunk. While Luke is healing in the bacta tank, an extended shot has Han, Leia, and C-3PO watching their friend and worrying. During the Battle of Hoth, Vader enters the base *before* Luke crashes his snowspeeder, and, just as General Veers reaches the Rebel generator, he is killed in Hobbie's snowspeeder death run. When the *Falcon* attempts to take off from Hoth, snowtroopers succeed in blasting its hyperdrive.

Some special effects shots were already in place—most of the asteroid sequence and the simpler walker shots—but nearly all of the material that would include multiple elements, such as the walkers and snowspeeders, had yet to be completed.

During three screenings of the first cut, on October 15, 25, and 31, Lucas dictated 31 pages of editorial

notes to Duwayne Dunham. His alterations ranged from shortening and lengthening the heads and tails of many shots and the placing of wild dialogue to reordering sequences, creating new shots for ILM, and deleting whole scenes. One of his first changes was to "Remove probe zaps snow squirrel," while others were: "Perhaps Luke cuts wampa arm off … Search outtakes of Yoda throwing can … Double-print entire sequence [of dark side tree] … Play some of Yoda line, 'You will destroy all that they have worked for' over Luke … Add new wide shot Cloud City before Leia in VistaVision plate … Remove Vader line, 'You have less power than you think' … CS Vader with fist, 'If you only knew the power of the dark side' … Vader hollers, 'Luke!' when Luke falls … Extend head of Chewie growl to play over off-screen Luke line, 'May the Force be with you.' "

"What's the screen direction of the object flying past you; was it coming toward you or away from you?" Lucas says. "*Empire* is a completely cinematic, editorial way of making a movie, which is where I come from. I come from the raw idea of making movies using Eisenstein's philosophies to actually move people. When I was in film school and afterward, that's the thing that I cared about. I don't just cut stuff together—I really think about it and I really work on it over and over and over again."

To help the editors, Kershner performed for Burtt a guide-track of Vader's dialogue with several new and amended lines. By October 29, the editing was going well enough so that Lucas could say, "Now that we've finished the fine cut on *Empire*, I'm leaving for Japan. I'm executive producer of a film being directed there, *Kagemusha* [1980], by Kurosawa."

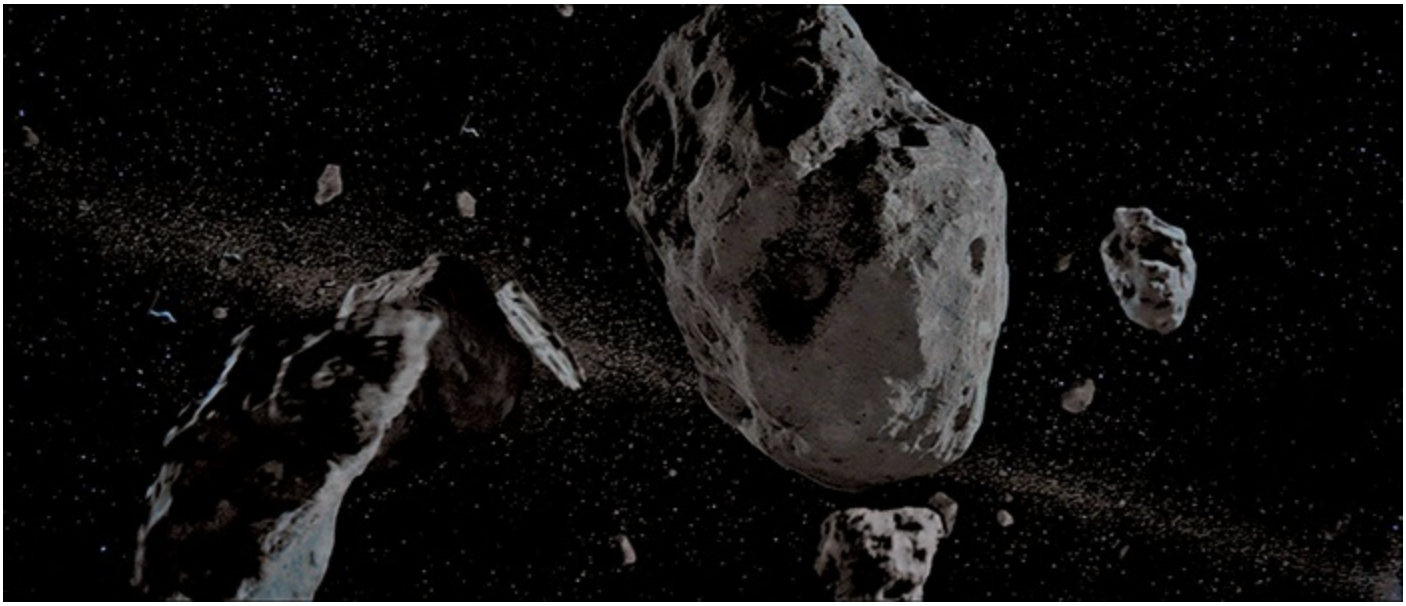
"We're going through the cutting copy that George is now working on, which involves a lot of live-action foreground with blue backing," Johnston said two days later. "We'll go through and design the sequences that involve special effects, as far as frame composition and continuity. Then we'll come back and do storyboards from those sketches, and distribute them to camera crew and model builders for them to work from so they'll know what angles of a particular model need to be photographed. They can then emphasize those angles and the camera crew will know what moves a miniature has to make."

Selected final frames from the asteroid chase, most of which was completed by October 1979. The editing and shot composition of the sequence is notable and contains some esoteric moments, such as the *Falcon* leaving the frame before plunging into the worm hole (shots of the *Falcon* and TIEs in the asteroid field would have to go through the optical printer sometimes four times before all the color timing was correct and the matte lines eliminated).

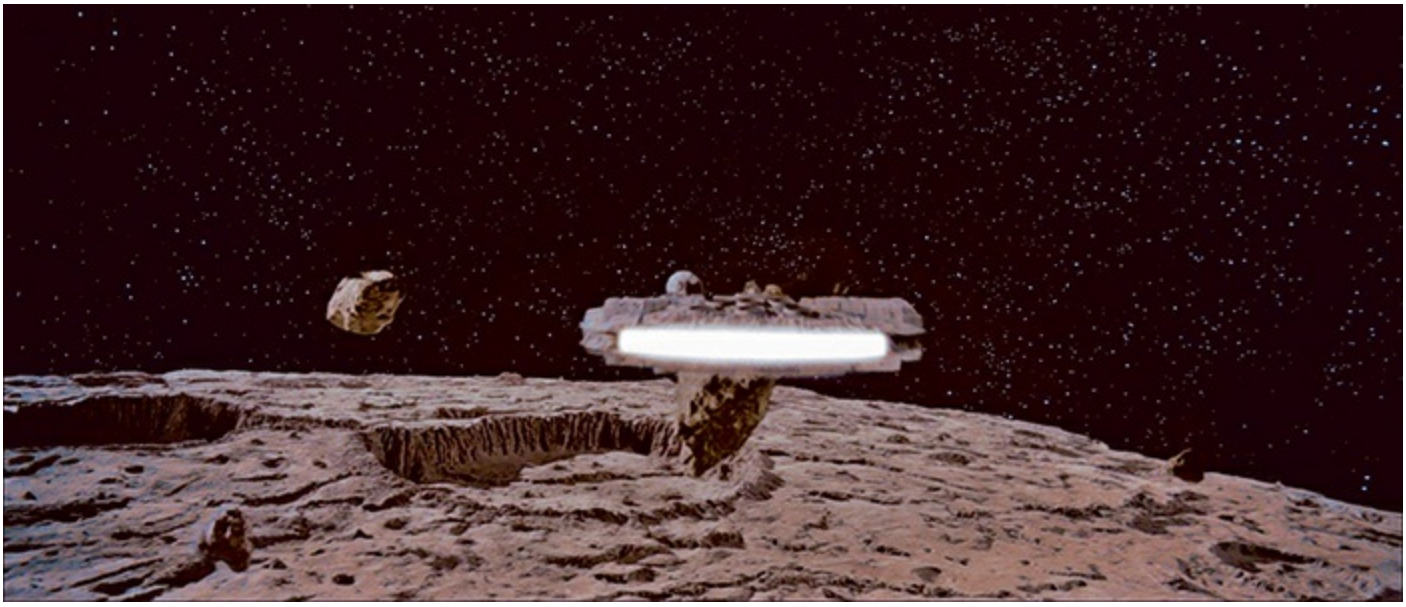


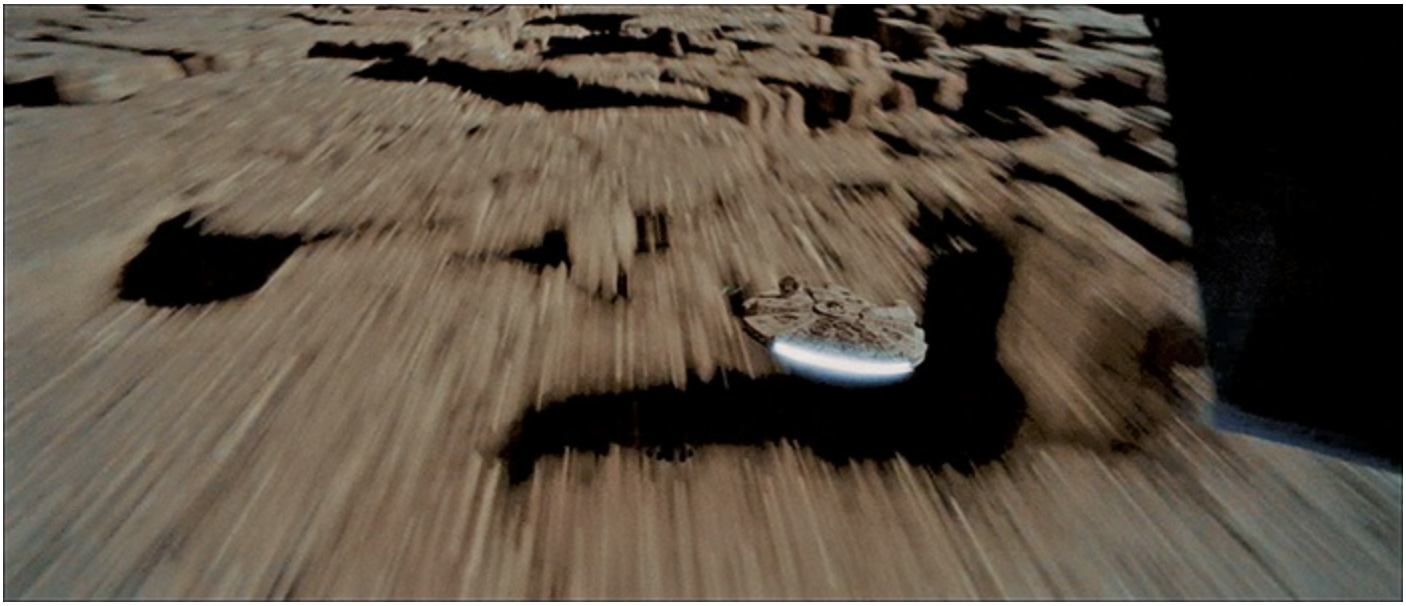


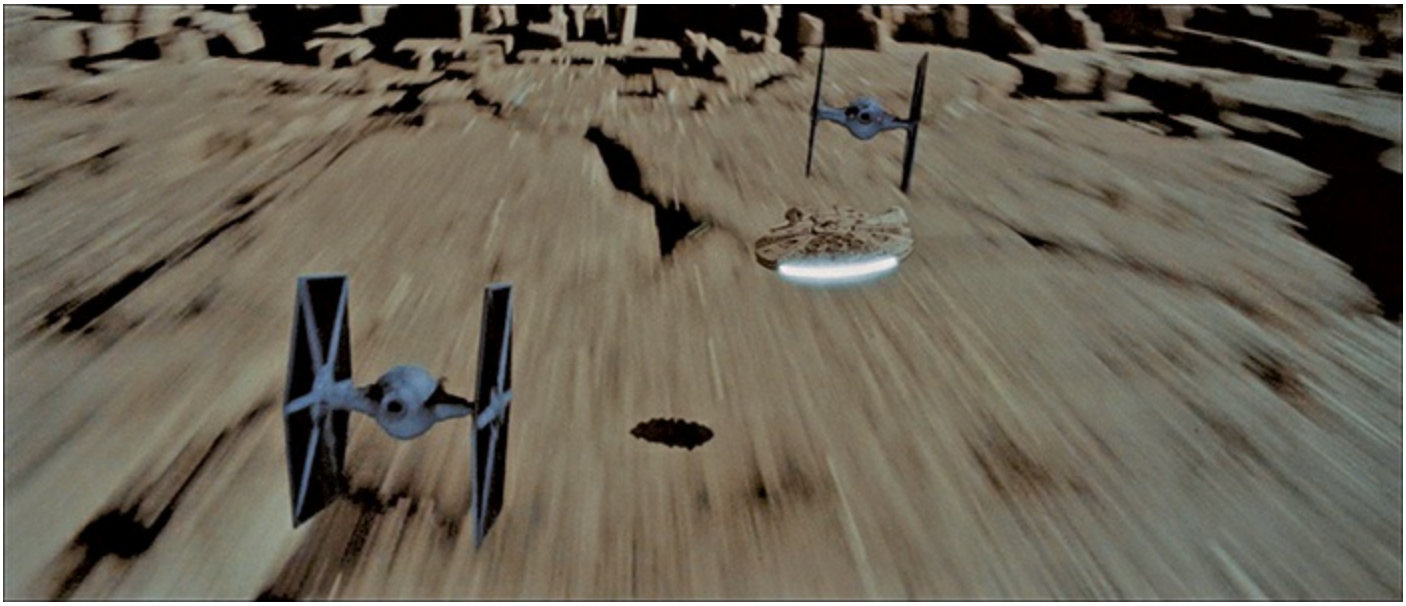














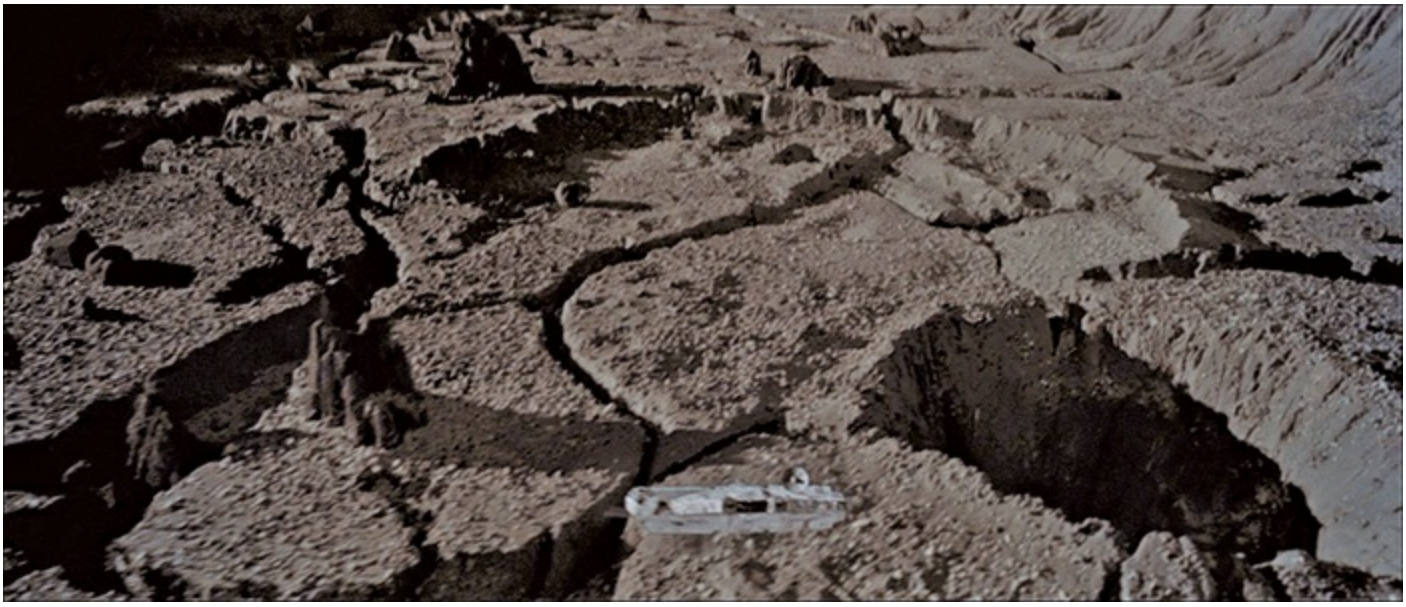


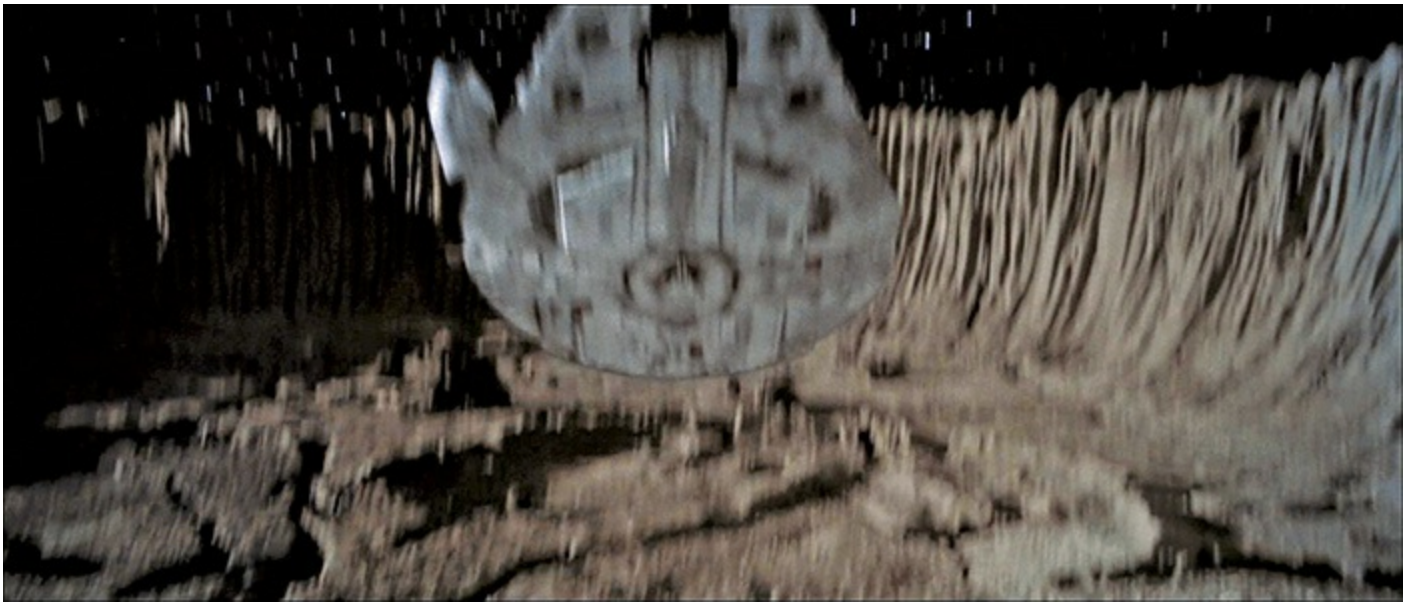




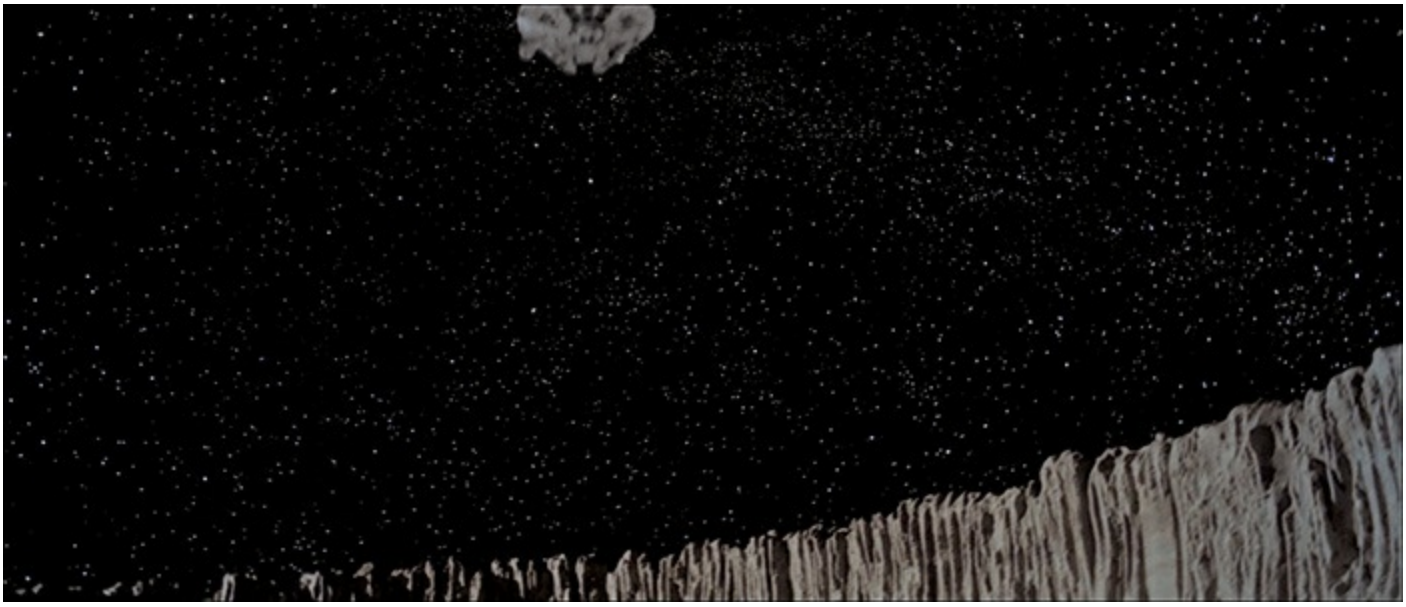










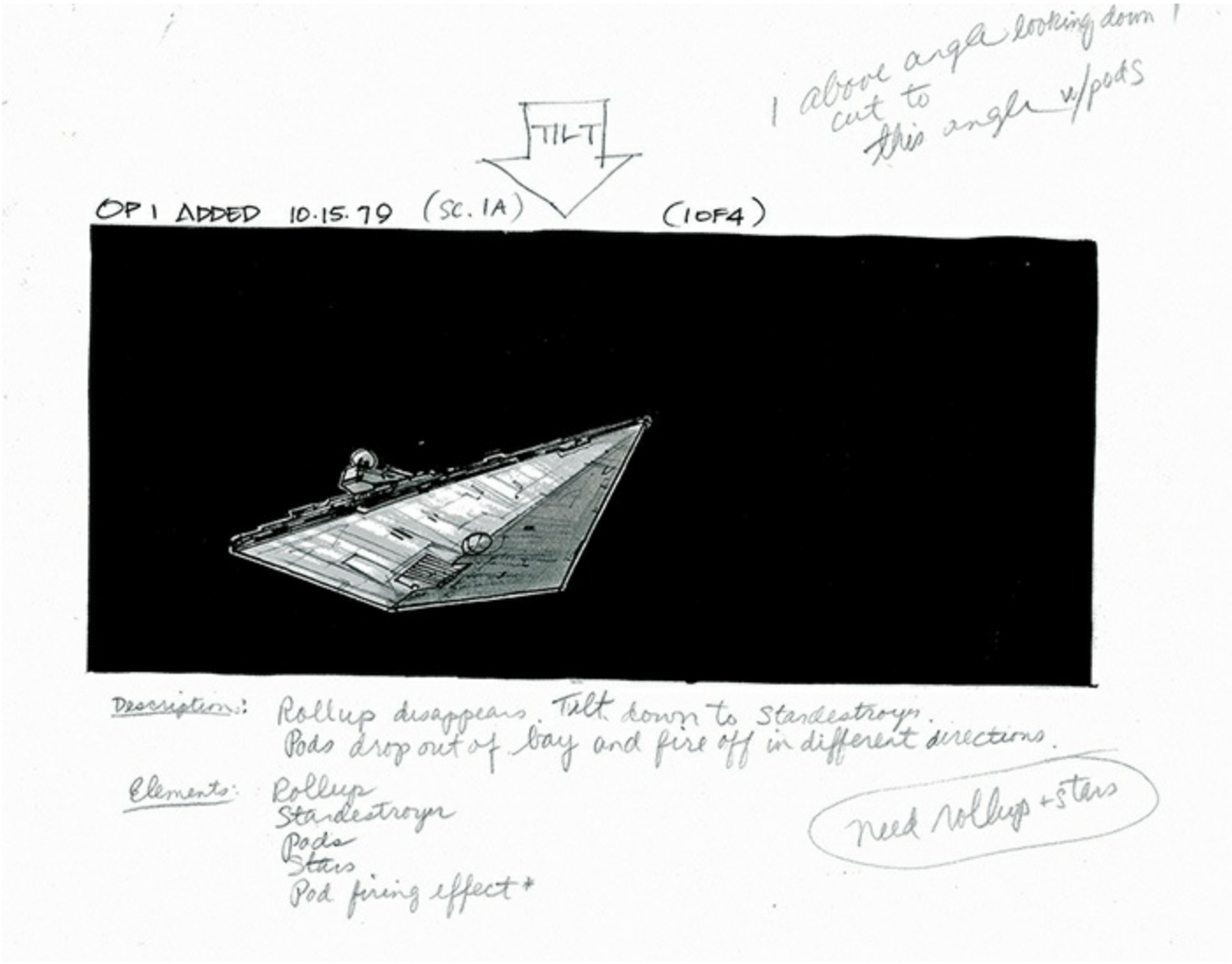







PLEASE
DO NOT DISTURB
EXCEPT IN
EMERGENCY.....
STORYBOARDING
IN
PROGRESS!

A note of warning on the door to the ILM art department.



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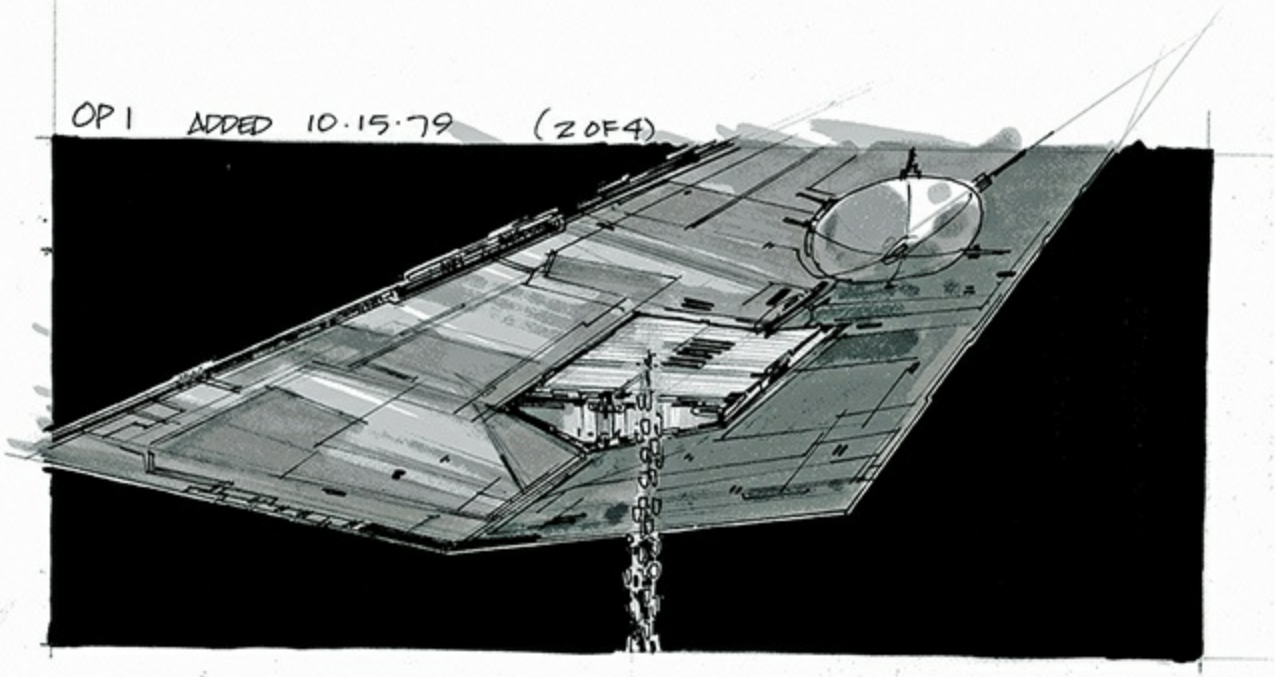

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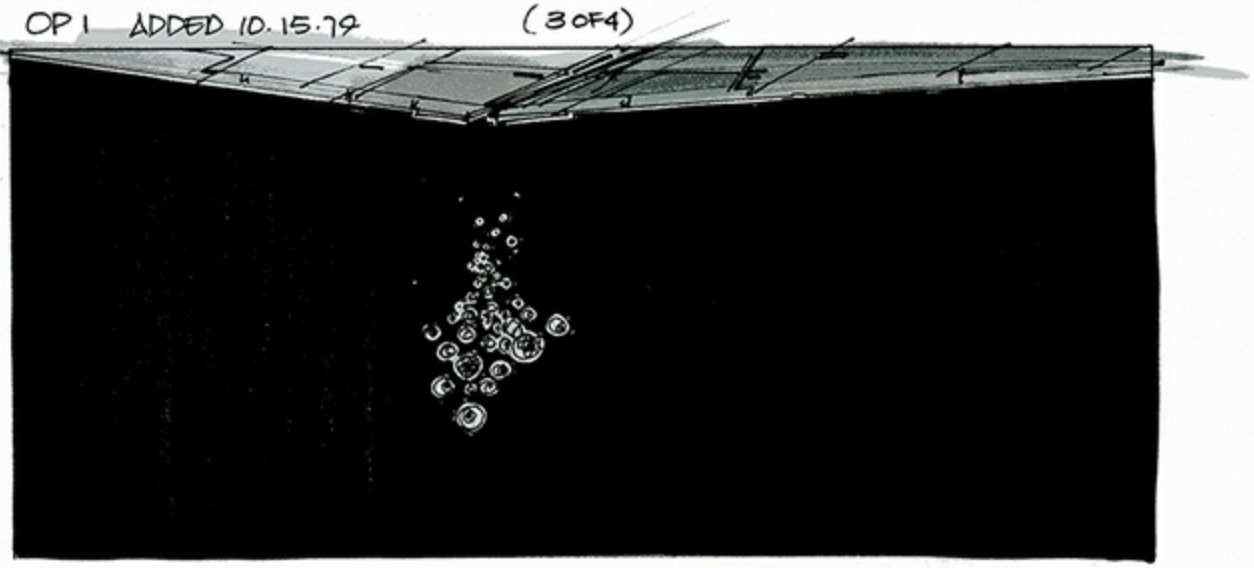
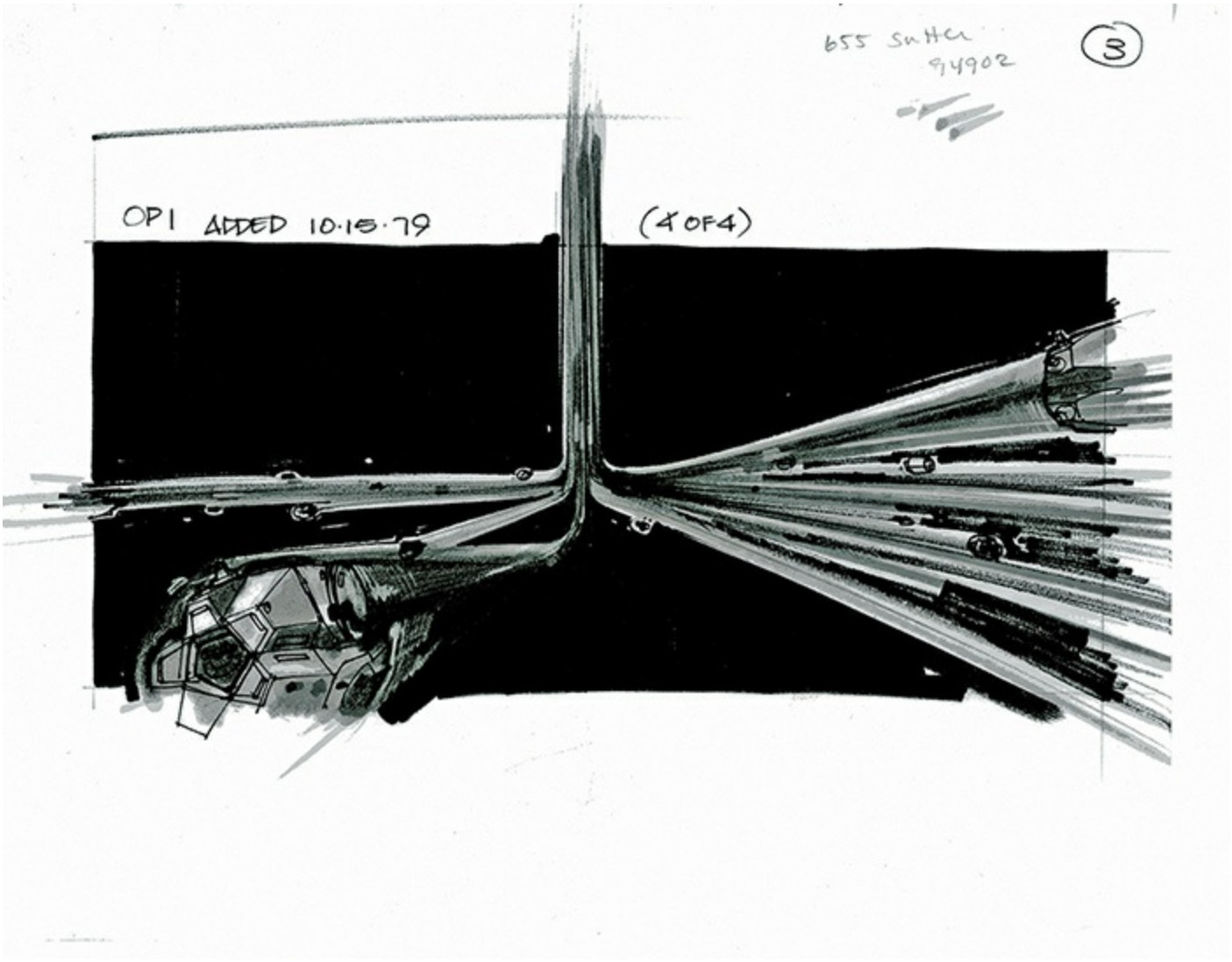


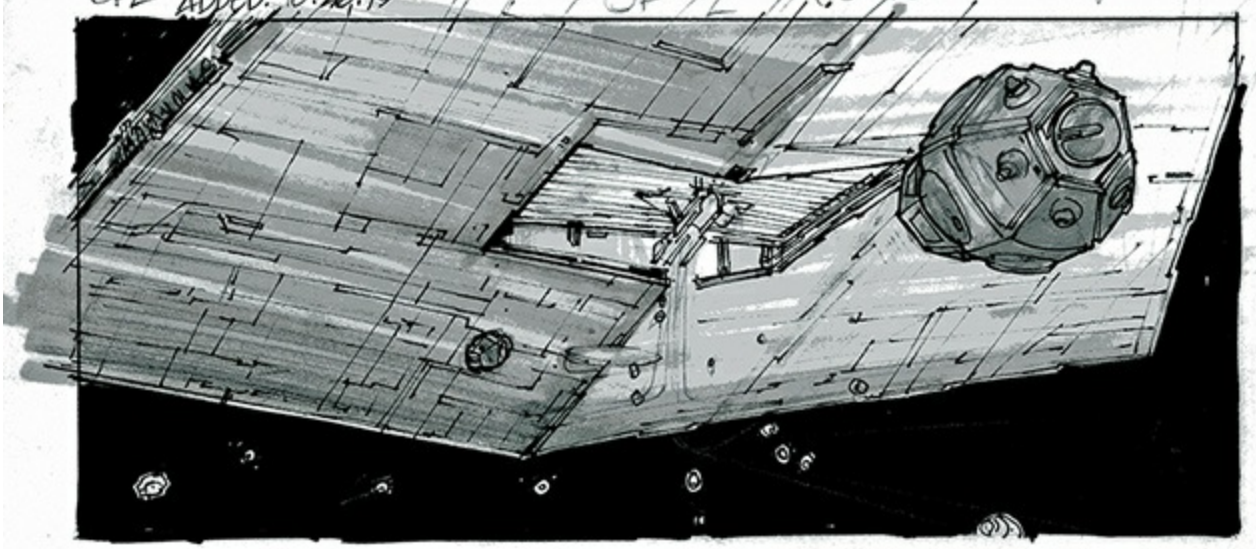


A sequence of four storyboards by Johnston, October 15, 1979, reveal the new opening for *Empire*, in which a Star Destroyer unleashes a barrage of probe droids.

EXT. SPACE - STARDESTROYER - PODS

BOTTOM VIEW OF STARDESTROYER WITH PODS COMING OUT AND FIRING OFF IN DIFFERENT DIRECTIONS.
PAN AND TILT DOWN WITH ONE OF THE PODS.

OP2 ADDED. 10.26.79 OP 2 (SC. 13) 1 of 2

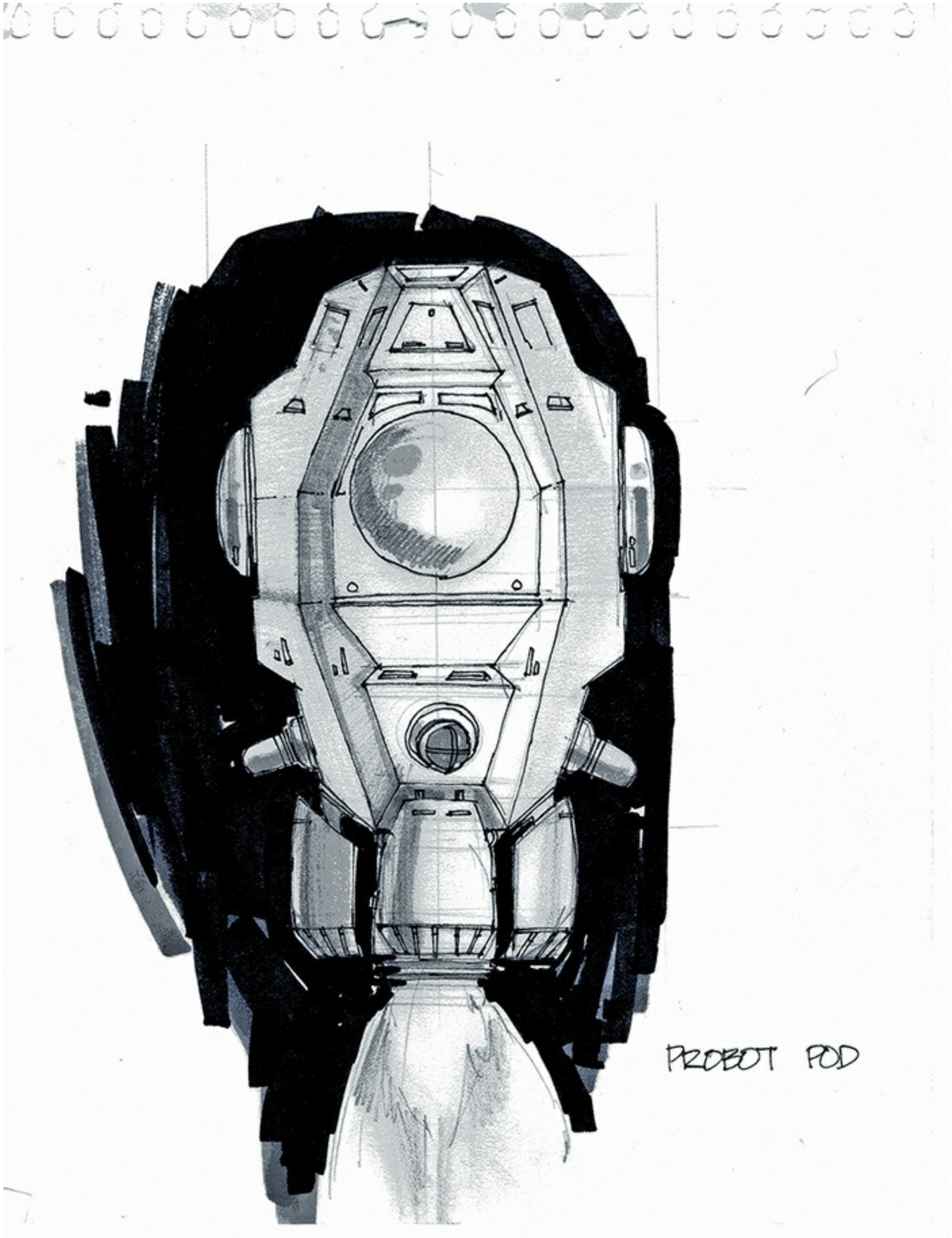


ELEMENTS:

STARDESTROYER
POD #1
7 OTHER PODS
POD ROCKETS
STARS



The opening was revised again by Lucas and Johnston on October 26 and November 12, 1979 (the latter contains a note: “To be done much later”).



A Johnston concept sketch of the “Probot Pod,” late 1979.



The practical model of the "Probot Pod."



An early cut of Empire (a black-and-white dupe) exhibits animatics in place of yet-to-be-completed visual effects shots, as well as a moment that won't make the final cut—the death of Commander Veers (Julian Glover).

(1:19)

OPTIMAL OPTICAL

While preparing the *Empire Collector's Edition* booklet in October, John May was given a tour of ILM

by Brian Johnson. "Turn any corner in the building and you're in for a surprise," May writes. "Upstairs we walk into a workshop packed with nuts, bolts, cogs, bits of engines, wires, motors, transformers—everything electrical and mechanical is built and repaired there. Next door, there's a small room where all the computer programs for the camera systems are written. Then there's a studio where all the matte paintings are done on huge sheets of glass by Harrison Ellenshaw and his team."

"I came in with approximately six months left," Ellenshaw says. "I finished working on *The Black Hole* [1979] on a Friday and Monday I was here, ready to begin."

"Through another door is a room that would be a kid's paradise," May continues. "The shelves bulge with model kits of tanks, planes, lorries, helicopters, spaceships, and cars. The kits are cannibalized in the model shop where there's a constant atmosphere of creative chaos. On one table, there's a half-completed Rebel cruiser. In the corner, covered with dust, stands the original model of the *Millennium Falcon*. Next to it is a small speeder model, with two tiny figures inside it. Brian explains: 'They have little stepping motors, so their heads turn, which is great fun.'

"He takes me to the other side of the room. 'That's a bigger snowspeeder that we're going to crush. One of the walker's feet comes down and squashes the thing.' "

"I would say that 7 of our 12 people are full-range model makers, ones that can both initiate a project and bring it to an end," says Peterson. "There's some people who work better on the bigger scale and some who work better on the two-inch size. Some people find it just intolerable to work on something three inches long; their muscles just can't do it. Some have art backgrounds, some industrial design; they divide up things according to their expertise."

An ILM cost sheet broke down the model shop's expenses: *Executor*, 250,000 lights, total cost $42,000; 10-foot Star Destroyer, $55,000; walker, $80,000 to $100,000; Boba Fett ship, around $15,000. Small *Falcon*, 18 inches diameter, about 13 pounds, $10,000.

"I stood and watched for five minutes while the animators carefully manipulated a walker as it stood on artificial snow in front of a beautiful matte painting of an icy landscape," May notes. "It's time-consuming, fiddly work and the animators were much too busy to talk. The final secret of the *Empire* trickery lies in the optical department, which is dominated by a large piece of equipment called the optical printer."

"The basic flow," Peter Kuran says, "is that it goes from the stage to the editorial department, which gives it to us, animation/rotoscope; we give it back to editorial and they in turn give it to the optical department."

"The editing staff are actually taking the selected takes and doing trial runs on them to make sure that everything is in sync and then handing them to the optical department, where they put them on the optical printer," says Johnson.

Designed by Edlund, the new optical printer, the Quad, was finally up and running, with camera and projector movements by George Randle; special optics designed by David Grafton; and an electronics interface by Jerry Jeffress and Michael MacKenzie.

"We were able to design a printer for doing bluescreen work and it has the finest possible optics that could be achieved within the time frame," Edlund says. "We designed what is actually a four-headed, optical beam-splitter printer. It takes two pairs of VistaVision projectors, each pair with a relay lens that is distortion-free between it and an anamorph that then takes the VistaVision image and reduces it to a two-to-one anamorphic ratio suitable to intercut with the film, which we shot in Panavision. This lens has exceeded our expectations. In about 30 to 40 percent of the shots, we have actually had to degrade

the image in order to make it look real."

"Initially at dailies, George would find some of the composites from the Quad unacceptable because the image appeared too sharp!" says Nicholson. "We would then have to de-saturate to achieve the look he sought."

"It was going to produce a better quality negative, which it did," says Franklin. "But it really required ultraprecision lining up—if it got bumped or got moved or whatever, there was a huge process in getting it back into realignment. It was a very cumbersome piece of equipment to work with ultimately."

"*Empire* presented the optical department with the problem of having to composite 415 shots in less than one year," says Nicholson. "We utilized an Apple computer to help streamline our lineup system. When a new shot came into optical, all the lineup persons had to do, supervised by Warren Franklin and Mark Vargo, was to take his sync counts from his work prints and original negative, noting any crossover information, feed it into the computer, and his count sheet would be printed out."

"Many of the shots we dealt with had so many elements in them that a beam-splitter printer was considered to handle these complex shots more conveniently," says Edlund. "Some of the asteroid sequence shots had as many as 25 separately filmed elements in them. Using separation positives (three records per element), this would constitute 75 passes through the camera. However, with the beam-splitter arrangement, the number of passes was halved, with one set of separations and their respective mattes run on each axis."

"We would have lost crucial time had we not processed our intermediate elements in-house," Nicholson adds. "We purchased a Treise Processor. With their help and expertise, we were able to set up a black-and-white processing lab adjacent to the optical department, which gave us better control over our printing elements."



Muren and Lucas at ILM during the visit of legendary director Michael Powell (*Black Narcissus*, 1947; *The Red Shoes*, 1948) to the effects facility; Lucas showed him around and introduced Powell to Muren, Edlund, Ellenshaw, Tippett, and others.

For most of the matte work, ILM used 5302 (Kodak black-and-white release print stock) and 5235 (separation stock). "The high-contrast stock produced a hard edge," Muren says. "The other black-and-white stocks were much better. But the trade-off was the transparency."

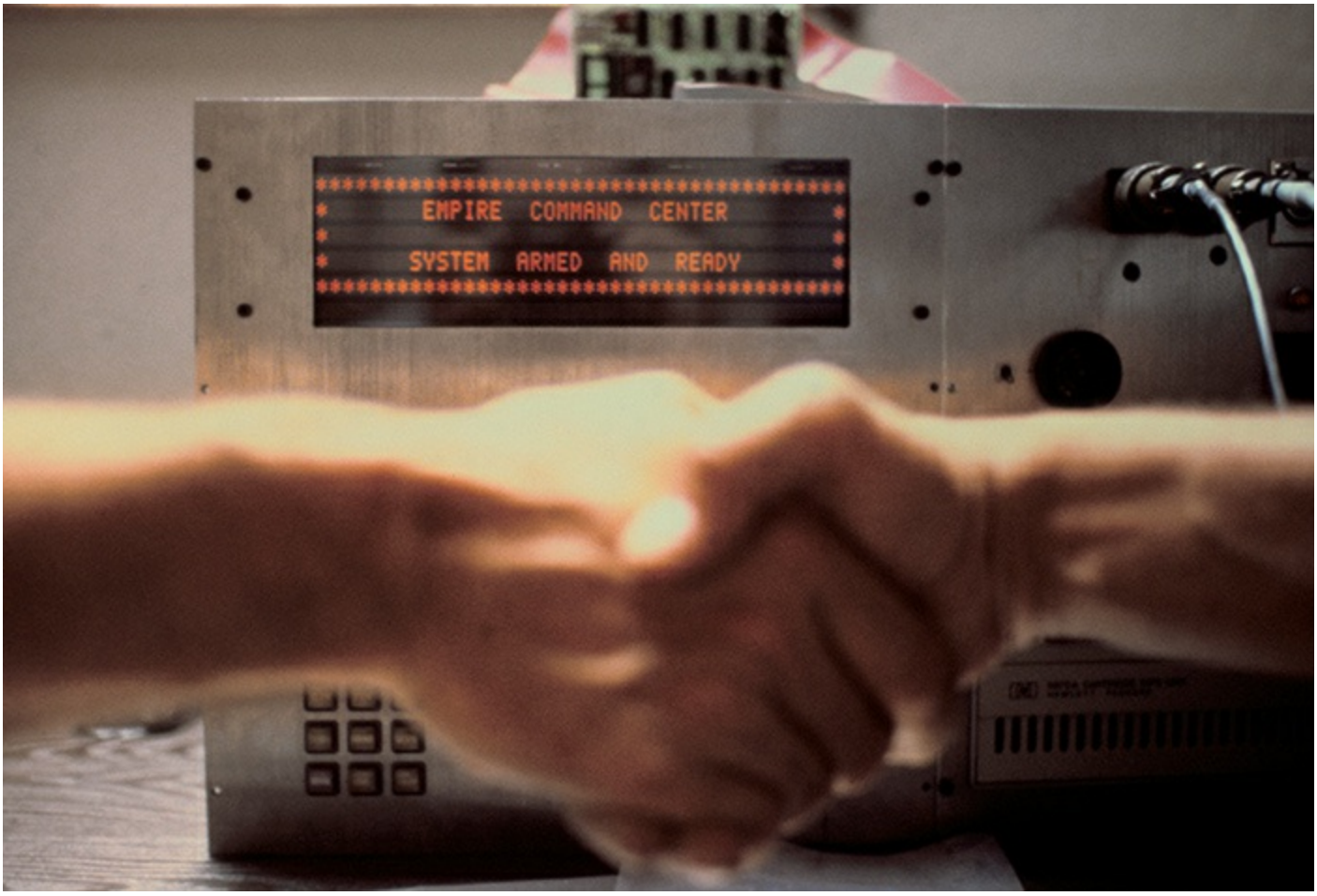
"Our goal was that any artifact of the compositing process would be invisible," Nicholson says. "I'd learned different approaches and I used all of them wherever I thought appropriate. Plus, the people that we had in compositing also brought some experience and they were making suggestions. There was a lot of thought put into making these shots seamless. Our optical printer operators—Dave Berry, Ken Smith, and Don Clark—did an outstanding job of utilizing the printer's capabilities."

"There are so many different ways to generate mattes that the solution for us was to use almost every technique in the book," Johnson says. "Bruce Nicholson and his team were primarily responsible for this area."

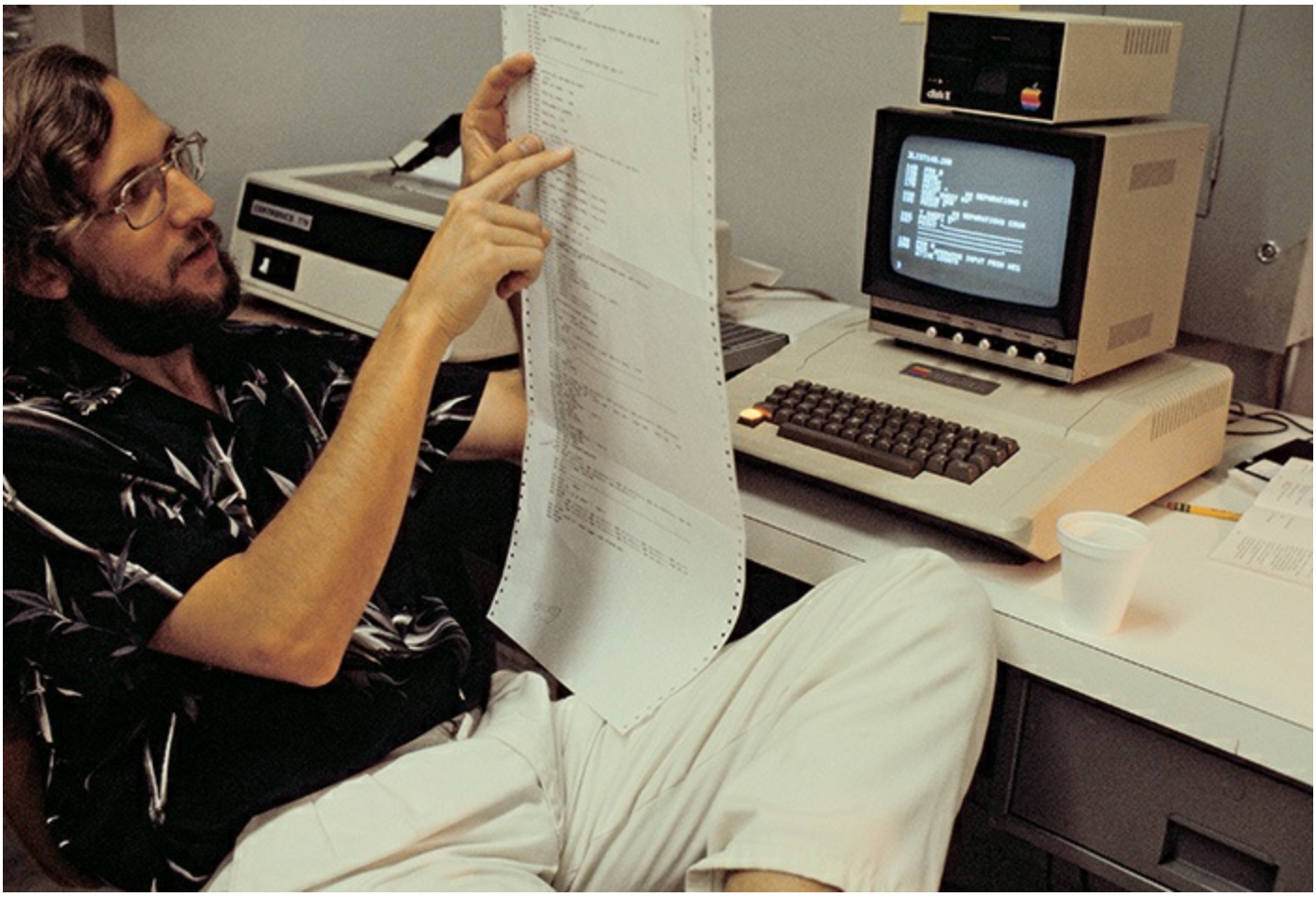
"It's only this week in late October that we saw the first composite elements come out of our new optical printer—and they look very, very good," says Kurtz. "We're very encouraged by that. All of that work should be done by the end of February. But I'm allowing for some slop-over into March to cut in material at the very last minute if it goes like it did last time on *Star Wars*—which it probably will."



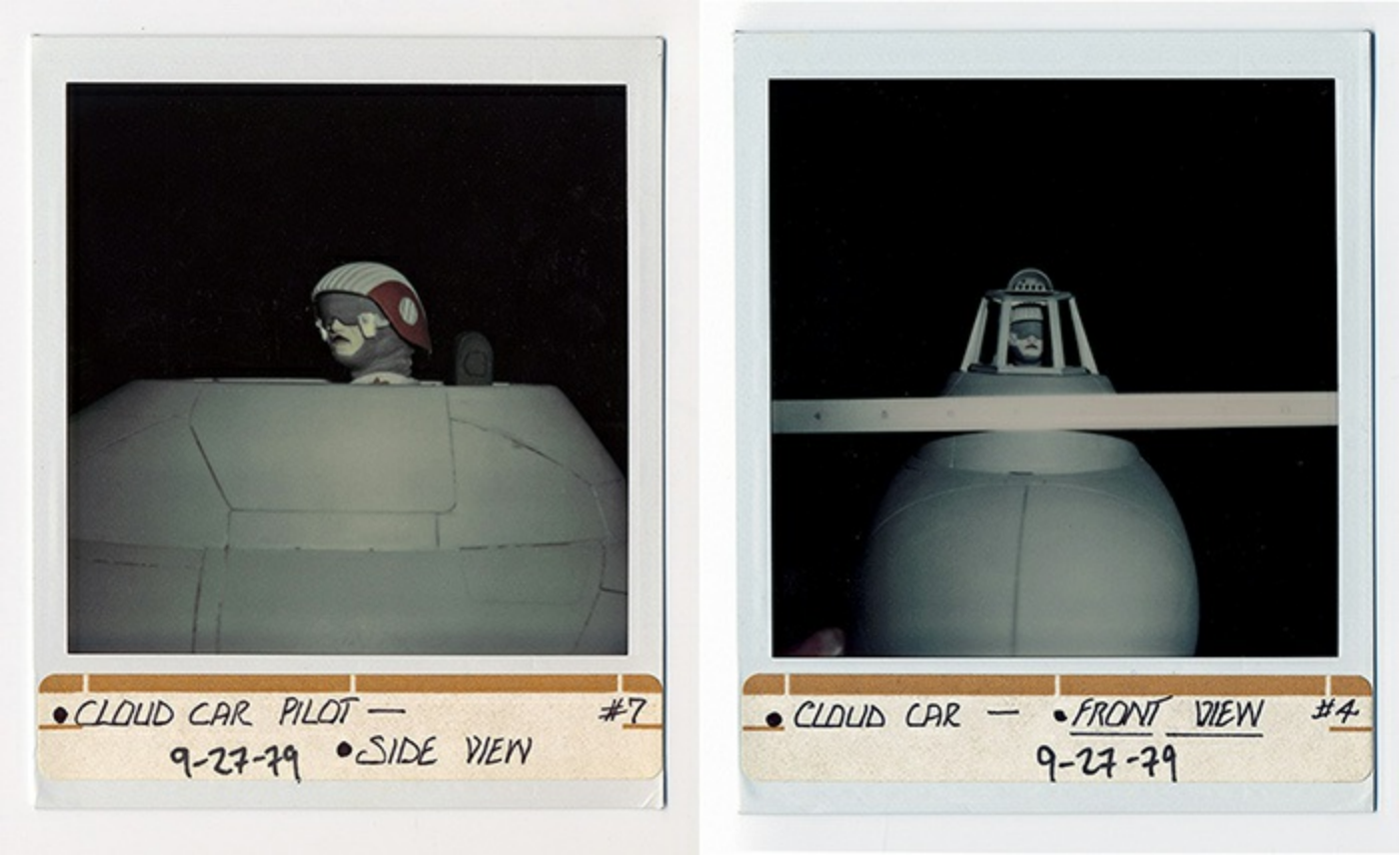
Operator Kenneth Smith works with one of the optical printers.



The Empire Command Center—possibly, the original controller for the Empire or motion-control camera—is “armed and ready.”



Optical printer operator David Berry with an Apple computer printout of a “count sheet”; the Apple computer greatly facilitated work in the optical department.



Two reference Polaroids of the unpainted cloud car: “Cloud Car Pilot” and “Front View,” both taken on September 27, 1979.

YES, WE CAN

As October rolled into November, the ILM facility really hummed. It had a locked film, more or less, and its staff of inspired artists and craftsmen could really attack each shot. “Getting people to work together is very much the nucleus of a special effects supervisor’s job,” Johnson says. “You don’t pick people because you like them, you pick them because they’re good at their jobs. Then you spend a lot of time listening to all of the personal problems that crop up and you try to do something about them. But the secret is teamwork.”



A sped-up walk through the ILM facility on Kerner Boulevard in San Rafael, California, takes the viewer through editorial, into various departments—and finally to the stage where model maker Jon Berg discourages further filming. (No sound)

(0:43)

"There were rivalries between departments, between the camera guys and the model guys, but I think, overall, there was a really strong team feeling," says Huston. "There was competition, but also an intense group awareness of the things that we needed to do and the personalities of the people involved."

"There was a big vacant lot next door," Ralston says, "so Joe Johnston and I would go shoot stuff off out there illegally, or make helium-filled zeppelins filled with rockets and send 'em off and blow 'em up. It was fun."

"Last time, we had one person doing the mechanical effects and one person doing the special effects," says Lucas. "Brian Johnson is really overseeing both of them. The directors of photography, who really did most of the work on the first film, I brought back: Richard Edlund and Dennis Muren are the ones that actually do it every day on the set. They are the ones who are actually making the creative decisions."

"There were a lot of interesting management problems I had to face, and most of it just involved discipline," says Muren. "You can take something as far as you can and then say, 'I think we ought to shoot it.' But then you stop and say, 'Wait a minute. Maybe with just a little more effort—and only another 10 minutes, but a lot of thought in that 10 minutes—we can make it better.' So we'd stop and run into the projection room. We'd analyze it and have roundtable discussions as to what we could do to make it better. And often we'd come up with a nice degree of reality that didn't come from a hurried, cluttered atmosphere."

"George was usually there with Irvin Kershner," says Johnston. "The people at ILM had all worked with George first; George was the big boss and Kershner was second in command. But you can't be a

backseat director; if you want the film to be exactly the way you want it, then you better direct it yourself. I think George knew that. I think he probably grumbled about some stuff. I know he did, 'cause I heard him."

"I feel that George Lucas is a conceptual artist in a very profound way," says Kershner. "That doesn't necessarily mean that his work is profound. I wouldn't attempt to judge it. But he is an artist; he is unique in what he does."

Kershner's directorial contribution was "enormous," according to Johnson, "He developed the characters as he went along, and even George Lucas says that he did a better job with the actors. But, ultimately, it's Lucas's vision. He designed and wrote the film, and directed the special effects in California. Lucas created the storyboards, so we would have a guide of what each shot should look like. Kersh made some changes, but it was George's picture: No one can doubt that the movie is stamped with his personality."

"In the visual effects, when the film moved into postproduction, the director was much less involved in the process," says Patricia Blau. "And of course, George loves to play in the editing room. That is definitely his medium, to go in and start letting his imagination fly."

"George will want an 11-frame cut of something," says Ralston. "How much work do I put in that? Not much. You get the basic bold move and a big lighting gag going on, and you're done with it. You can noodle something to the point of it becoming just a vapid experience with no energy. I don't care if there are some flaws in a shot—it's the energy I want."

"The movement in the animatics gave me a precise frame count for the special effects," says Lucas. "Because I was doing probably 10 times more shots than anybody had ever done before, I had to figure out a way of making them cost 10 times less. The way I could do that was to say, 'Cut it precisely; this will be on the screen 12 frames, half a second, or 18 frames and that's it.' By doing that, I could tell the guys, 'Don't worry, it's going to go so fast, you can barely see it.' And they'd say, 'Oh, yeah,' and they wouldn't fuss over it."

"The whole production concept is just doing what George wants," says Johnson. "George is the man with the vision and he tells everybody what he is expecting. Sometimes it's a matter of just doing it and waiting for George to say, 'I'll take it,' or 'I think we should add a little bit of this and that.' At the same time, though, he's open to a lot of input from us. Things do get changed around and we can surprise him with little tricks. It's a very good working relationship. He is basically a storyteller and has an innate sense of timing."

"The best directors, like George or Steven Spielberg, are very collaborative," says Tippett. "They say, 'You know what you're doin', right? So here's what I need editorially and dramatically. Now, you go do it.' If you went back to them with details, they'd go, 'Isn't that your job?' "

"We shot little crummy models on sticks, flying cardboard X-wings all over the place and doing video shots," says Ralston. "Then we cut it together with sound effects just for laughs; we ran this thing for George and he just cracked up. He loved it. Unfortunately for me, George really stuck to how long the cuts were on it. It was like, 'Okay, I'll try to cram everything into this brief moment.' And that became the sensibility—being right in the middle of the action."

"Most of our spaceship motions are made by hand with a joystick, instinctively, by the cameraman himself," says Muren. "It's fast and allows the cameraman freedom to add his style to the shot. Ken Ralston, for example, is also an artist and an admirer of the old Warner Bros. cartoons by Tex Avery and Chuck Jones. His maneuvering of the TIE ships and the *Falcon* show his great understanding of the need

for timing, motion, and life within the shot."

"I wanted to bring my animation background into it," says Ralston. "I wanted to speed up and slow down the action to get a certain kind of emotion out of it. So I had 'em build a small *Falcon* instead of that big monster that you had to move with a forklift. So then, in the scenes like the escape from the Star Destroyers, this *Falcon*'s doing big acrobatic jumps and falls, and the TIE ships are like bees or flies. They're just like, *Bzzzzz* … I wanted to start getting character into these inanimate objects. I was trying to put the audience more in the driver's seat—the space battle had a choreography to it that you hadn't seen before."

"The system that we have now is not a computer system," Edlund says. "It's a solid core memory system, and the electronics very precisely remember what you've done in programming a shot. It's all done by humans and not by computers. When a mathematician programs a move, it comes out in a perfectly mathematical parabola and the shot is so perfect that it's not interesting. On the other hand, if you enter the human element into it—to give something the look of a guy out there with a handheld Arriflex shooting it—then you have a certain suspense."

"The thing that I've always been weak on and that George is good at, is coming up with the ideas," says Muren. "Between him and Joe Johnston, they come up with the art direction and some really neat shots."

"I have a lot of faith in my films," says Lucas. "I'm convinced they're going to be great, or at least I will like them, or I wouldn't be doing them. And once I decide I'm going to do something and this is going to happen, I just don't let anything stop me. You know, I plow forward no matter what happens. When I'm making a movie, I'm just like any other crazy artist. My father said, 'Never make your hobby your profession.' But I'm willing to do stupid things to make it great, which most people won't do."

"George never micromanaged anything, which gave me freedom to do what I wanted," says Ralston. "Now, I don't know if I earned it or if he did it with everyone, but I think George was able to feel out who was doing what he wanted. Then he'd just let you go off and if you did some cool stuff, he would get real excited about it."



Tippett and a desk on a forklift, as the ILM facility was constantly reconfigured (note the giant calendar on the wall).



Johnston, Edlund, and Lucas (with the prototype for the twin-pod cloud car model).



Muren, Johnston, and Pangrazio with the Empire Flex camera.



Visual effects supervisor Ken Ralston adjusts the model of Boba Fett's ship for one shot and a miniature Luke for another.



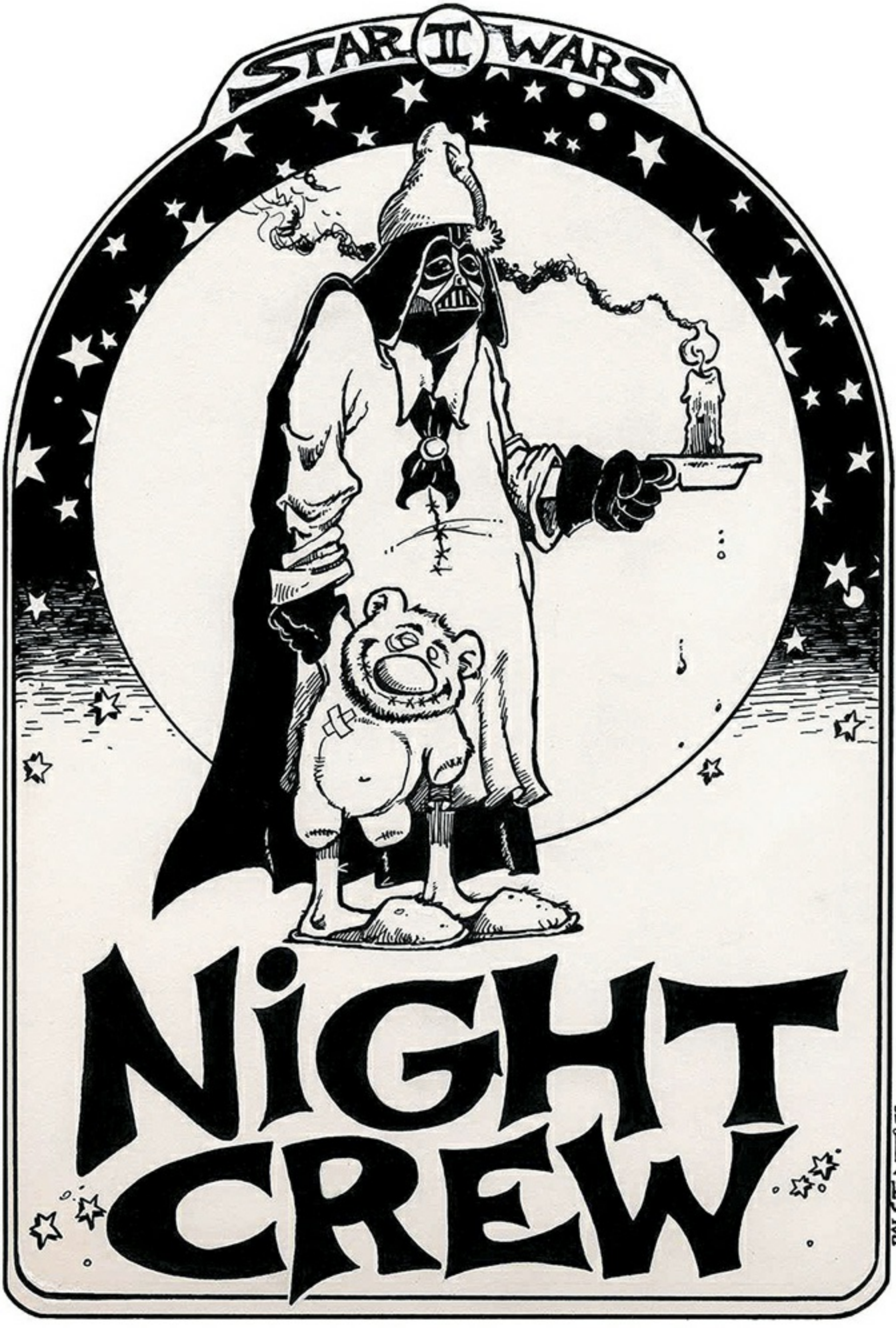
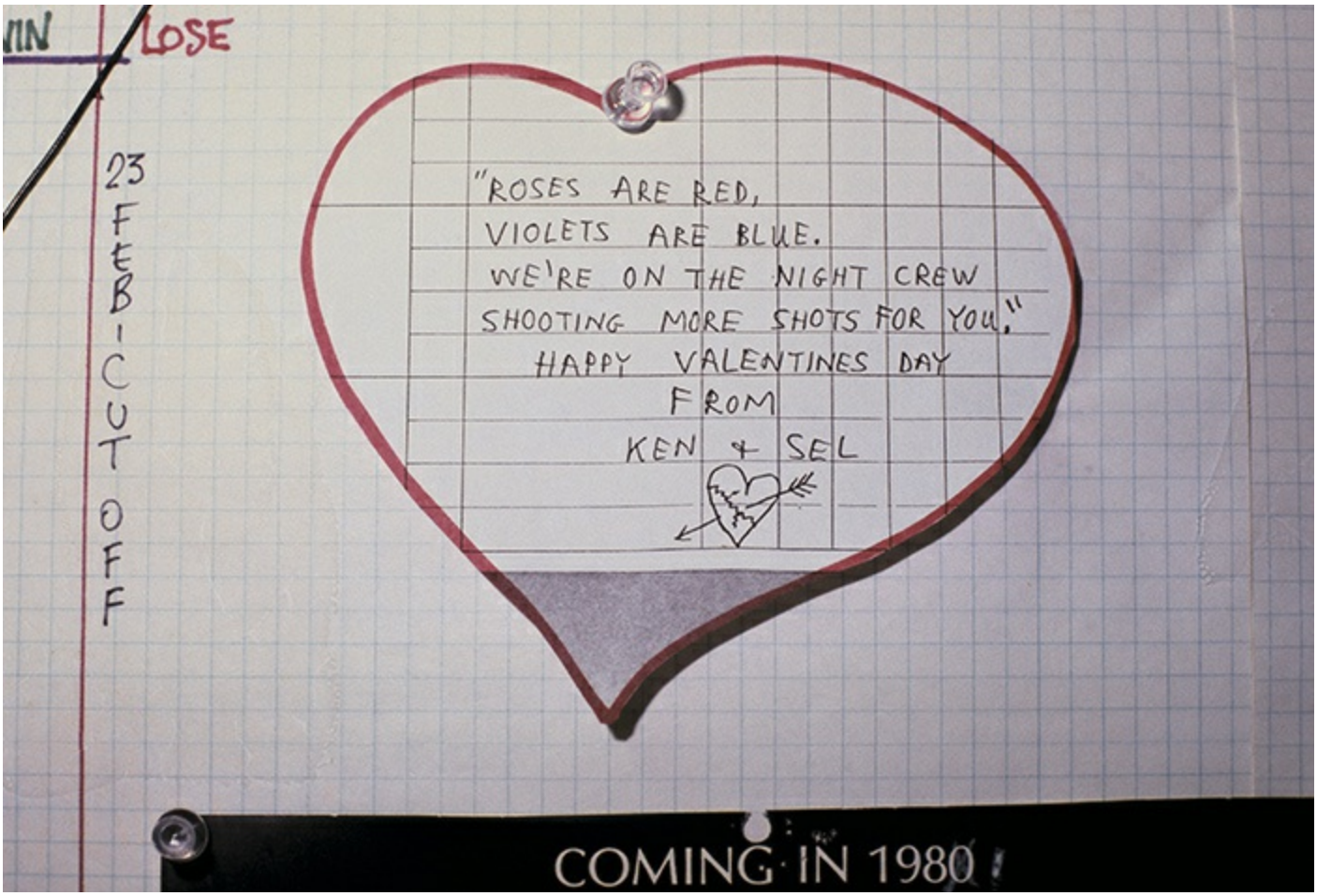
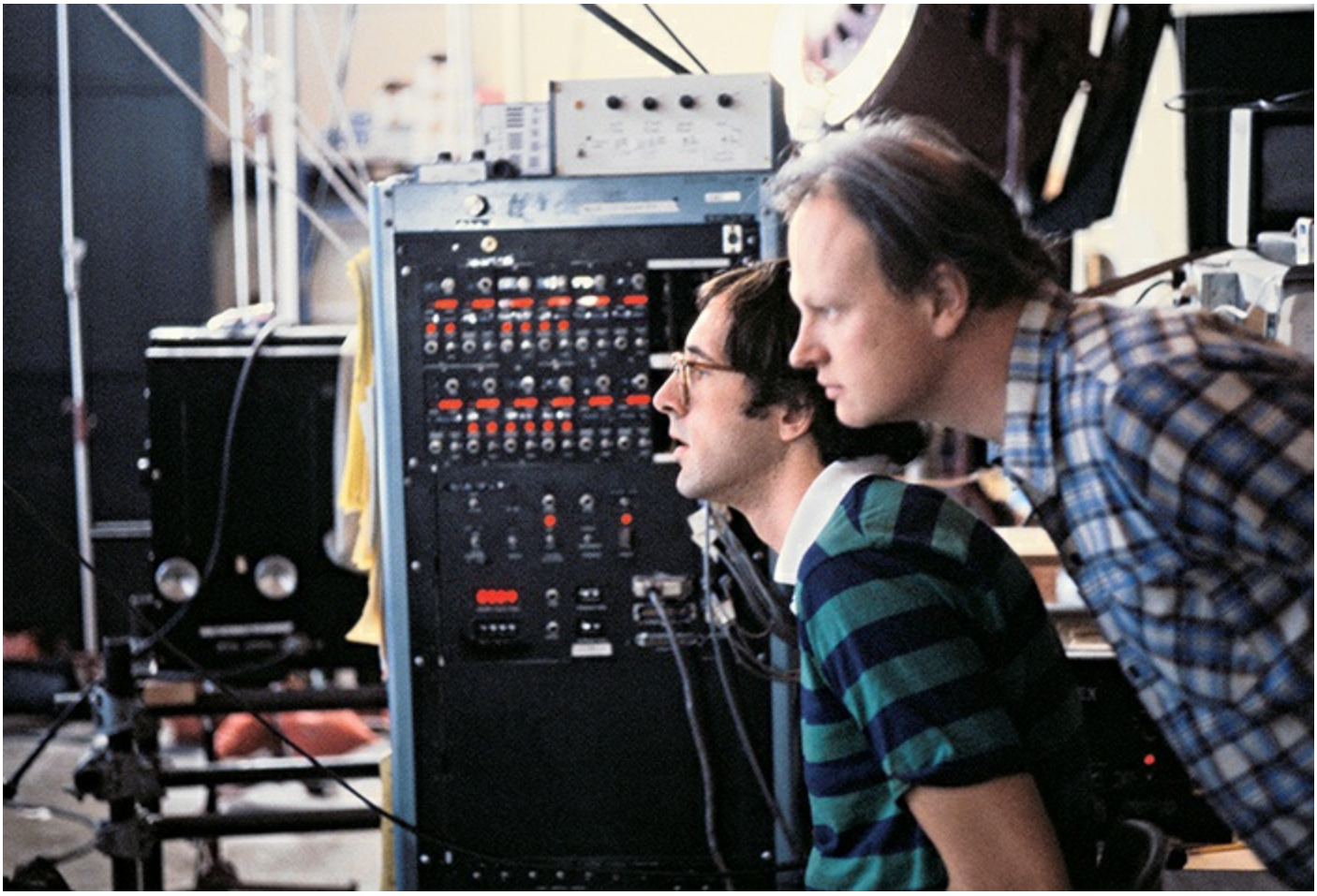

STAR II WARS
NIGHT CREW
RALSTON '79

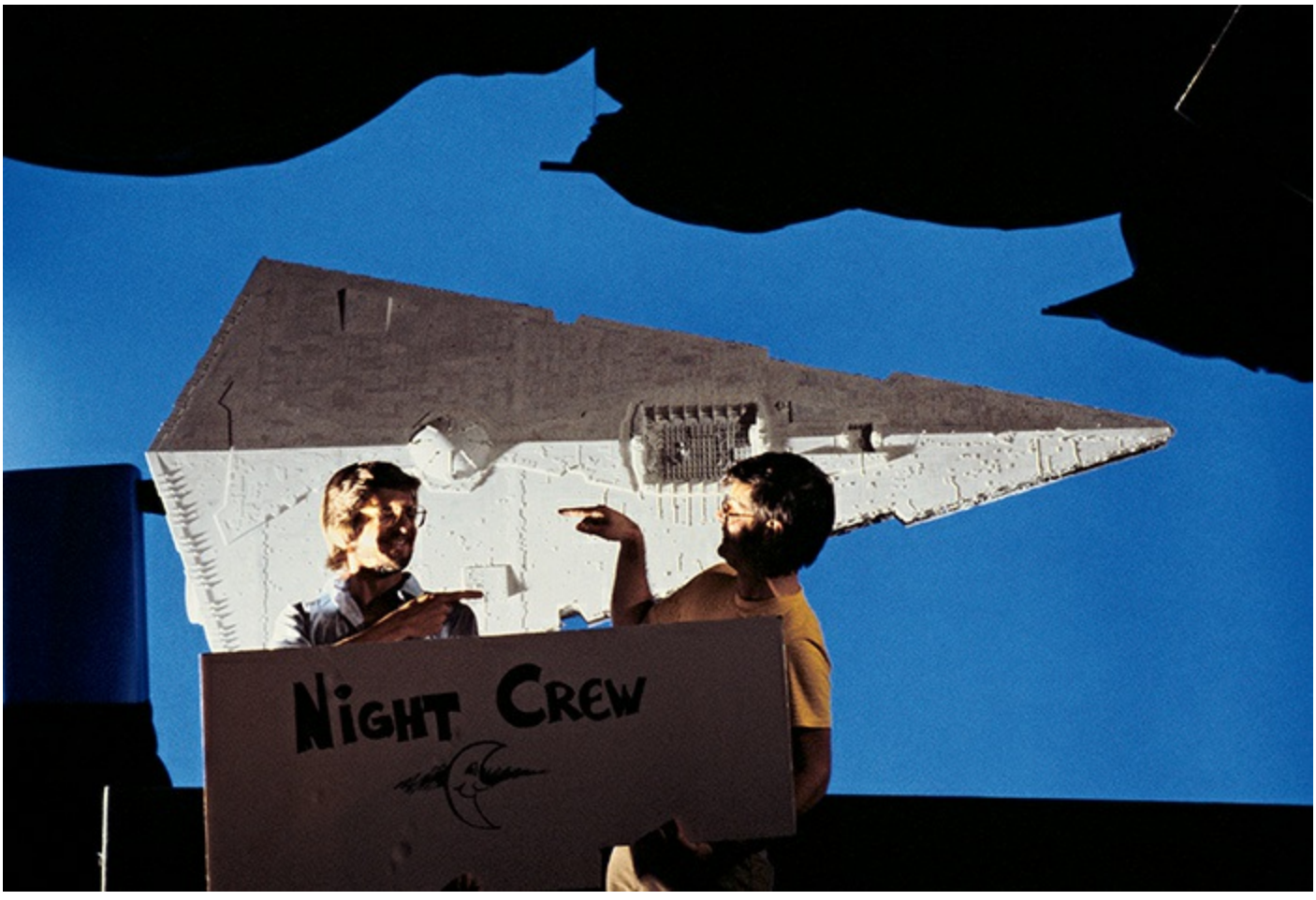
Illustration by Ralston for the “Night Crew” T-shirts.



A little rhyme written by Ken Ralston and Selwyn Eddy III—two of the night crew—for the day crew.



Huston and Muren.



Posing with a placard saying "Night Crew" are Ken Ralston and assistant cameraman Selwyn Eddy.

LIBERATING THE MIND

"We're going to show the picture to Johnny Williams to get him started because the music composition must begin on the first of November," Kurtz says. "We're scheduled to record the music just after Christmas, but the sound effects people have already started. They've gathered together a lot of sound recordings and they're cutting the robot dialogue right now. And then in January, the re-recording starts, the mixture of the soundtracks, which carries on into February, when the lab and negative cutting goes on."

On Friday, November 2, Arnold witnessed Kershner rummaging around his Marin County house, "picking out one LP after another from the shelves that framed the stereo. He played only bits of them, and, as the pace of his selection grew more frenzied, my musical sensibilities were treated to a most unfeeling assault. In the space of minutes, he had played and rejected snatches from Stravinsky and Shostakovich, Hindemith and Copland, Prokofiev [his scores for Sergei Eisenstein's films] and Bliss. Recalling the strain he had been under, I began to wonder if Kersh had become a shade unbalanced."

"I'll use them to make a temp track," Kershner explains. "You see, John Williams is coming in from Los Angeles to view the film, so I want it to have a temporary music track when he sees it. It may help him to know where we feel music will be most effective."

Not long afterward, Lucas, Kershner, and John Williams sat down to view the fine cut and spot the music. "Howie Hammerman was the projectionist at Park House," Jane Bay says. "George had built this great movie theater in the back of the house in a separate building that was called the Carriage House. It had long couches that you sat on, with huge ottomans."

"I'm beginning a little further ahead of myself than is usual, because the score will reprise some music from *Star Wars*," Williams says. "With that as a basis, I want to try to develop material that will wed with the original and sound like part of an organic whole; something different, something new, but an extension of what already exists."

On Saturday, November 17, Arnold flew to Los Angeles, where he rang the doorbell "of John Williams's pleasant, unostentatious home. Williams himself opened the door and took me to his study, a comfortable room with many plaques on the walls testifying to best-selling records, and trophies and awards on every shelf and surface … He showed me other rooms, including a music room with a white grand piano."

"*Empire* will require 107 minutes of underscore," Williams says. "You could say it's the equivalent of several Lisztian tone poems. There is a new theme for Yoda, which begins in a kind of piquant way and develops into a more profound, nobler piece. There will be a Love Theme developing from the love interest between Princess Leia and Han. There will be a new piece of music for Darth Vader, who plays a more important role in this film. In *Star Wars*, he had what you could call a musical fragment, but in the new picture there will be a Grand Imperial March."

"I've detected influences from the English school in your music," Arnold says.

"I have always been enormously attracted to the English school, especially to the moderns such as William Walton, Arthur Bliss, Vaughan Williams, and Benjamin Britten," Williams agrees. "My influences, like those of all composers, come from a wide range of sources and I acknowledge them freely.

"I suppose the unconscious mind works all the time on one's problems," he adds. "Sometimes themes come very painfully after hours of holding my head in my hands at the piano. Days can go by and I'll think it is never going to come. Then I'll sit down at the piano and it sort of pops into my mind; after two weeks of frustration, it just appears out of nowhere. Other times, I might think about a theme for a character and get it straight off. It is a strange and mysterious and frustrating process, almost impossible to describe. It was like exhuming another part of myself in a way, to have to go back and continue a score that was done that long ago. But if you can just get out of the way and let it happen, not let whatever neurotic hang-ups about writing get in the way, one is free to do it."

Lucas and Ralston brought their love of animation—the twists and twirls characteristic of director Tex Avery, for example—into the photography of the *Falcon*, and TIE fighters, which plays out against the strong graphic formalism of the three Star Destroyers.

Muren and his team found it difficult at first to create the feel of the Star Destroyers' enormity. Utimately, Muren made use of a star as a light source, using its light and shadows to give size and definition to the craft.

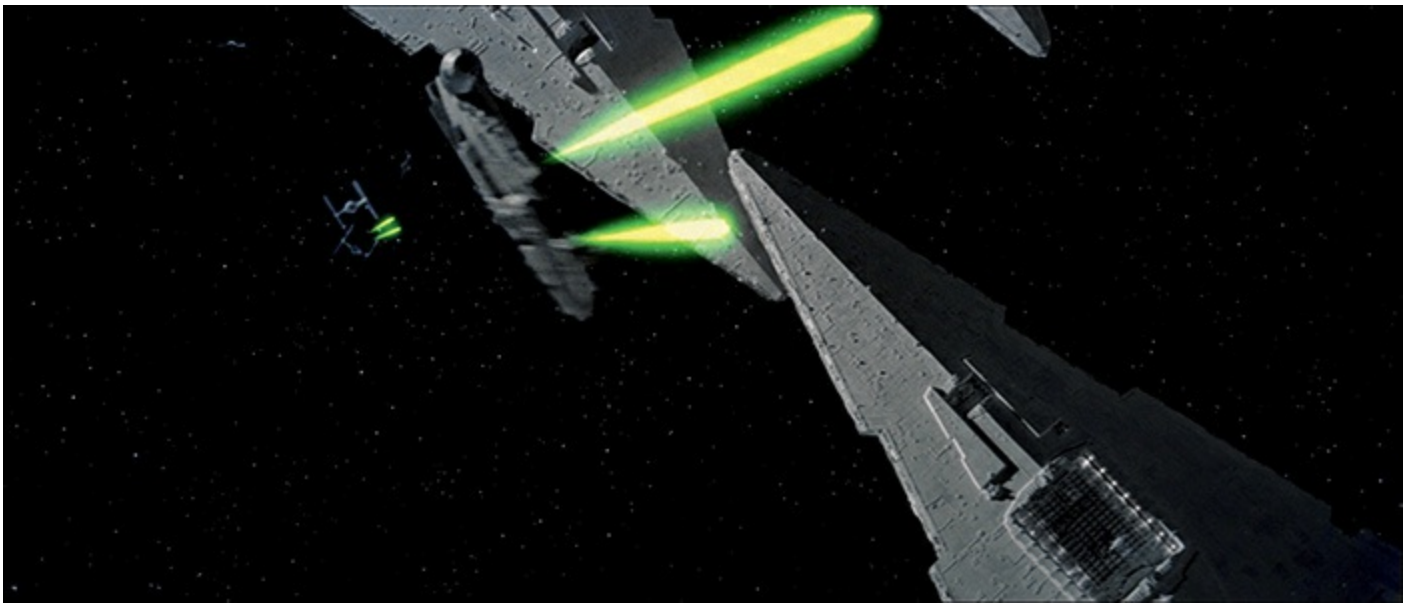
"The Warner Bros. cartoons really taught me a lot about timing and energy," Ralston says. "I always tried to remember what Chuck Jones said about how one frame can make a scene funny—or not. Each frame is important."



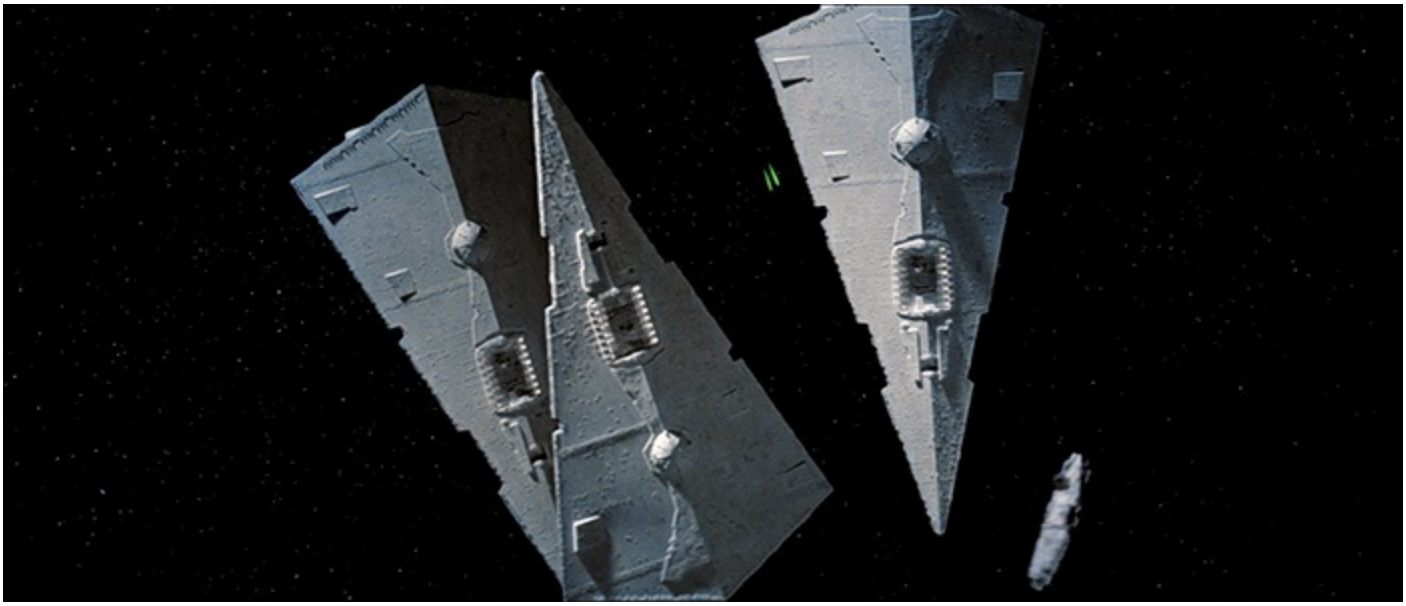


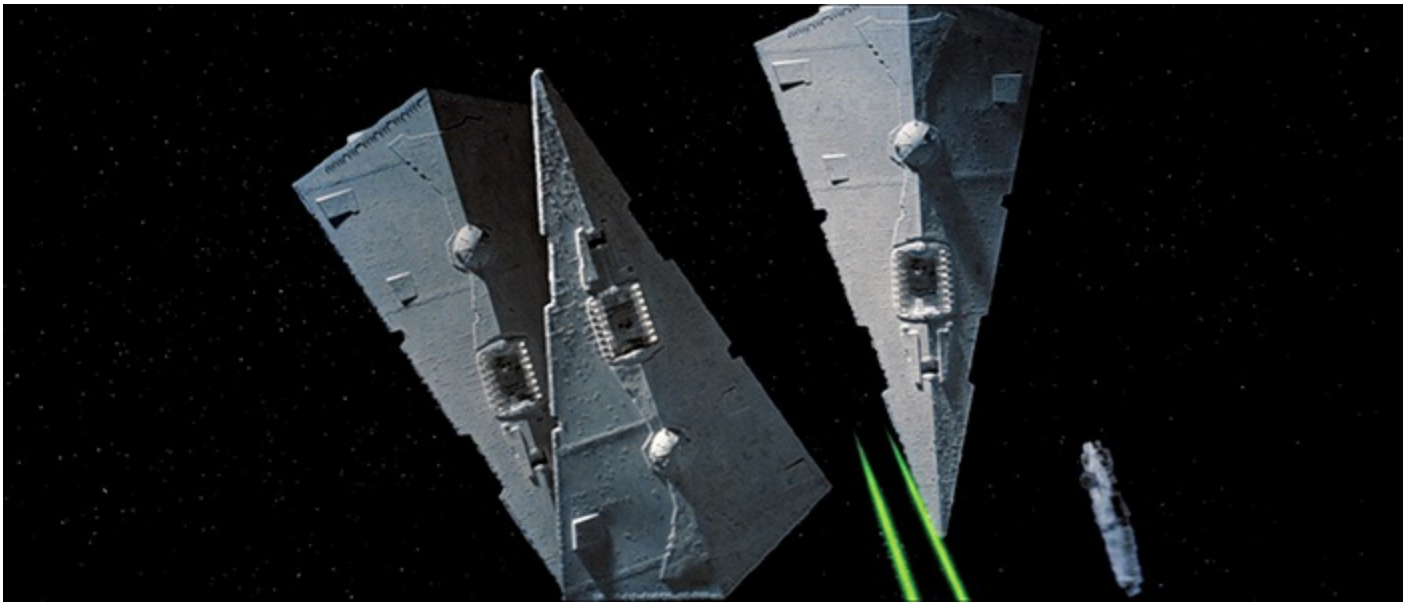


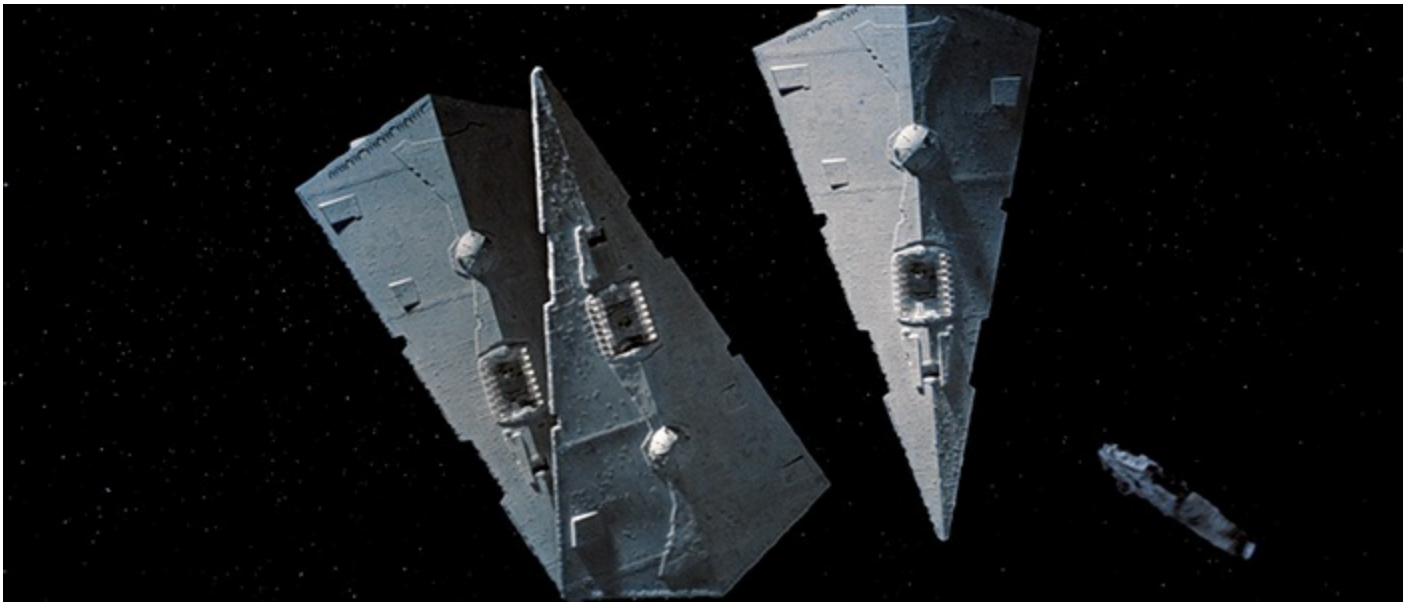


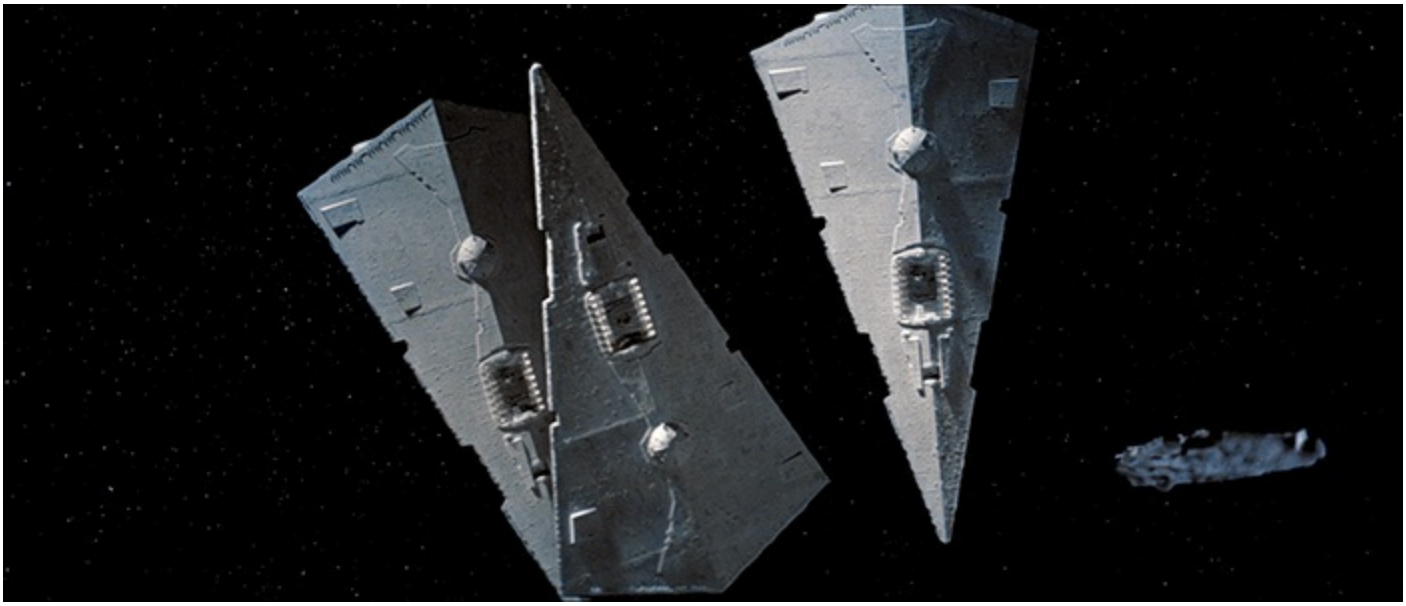


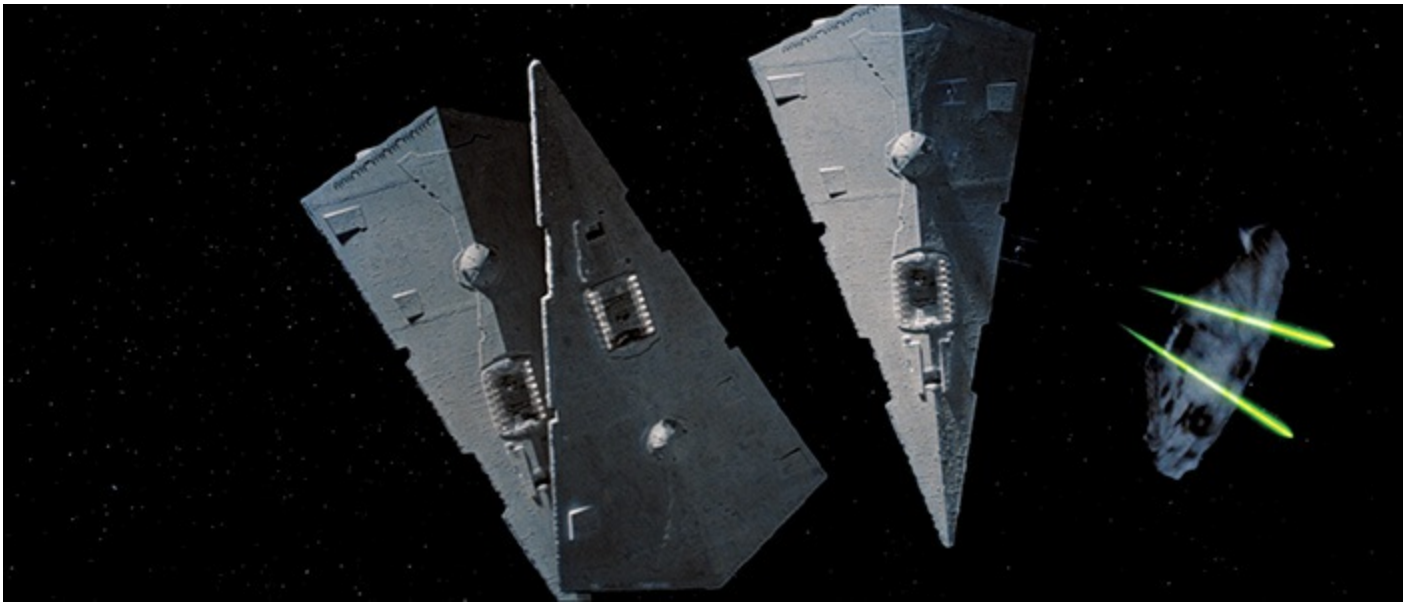






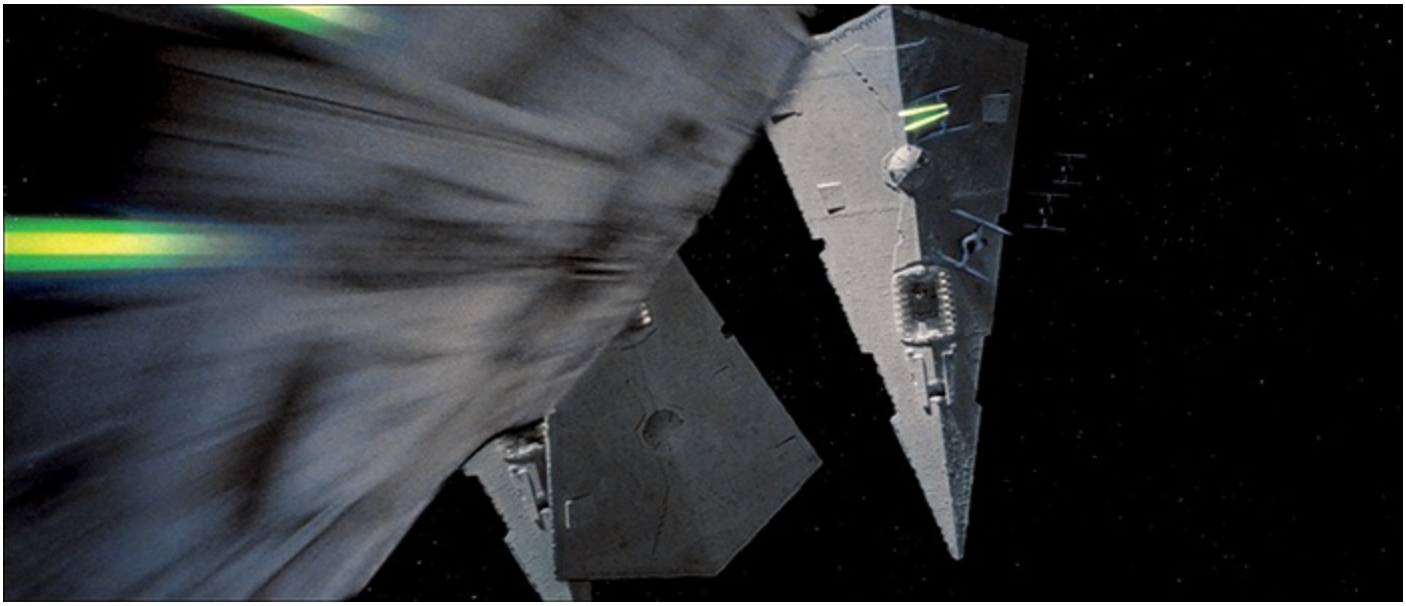


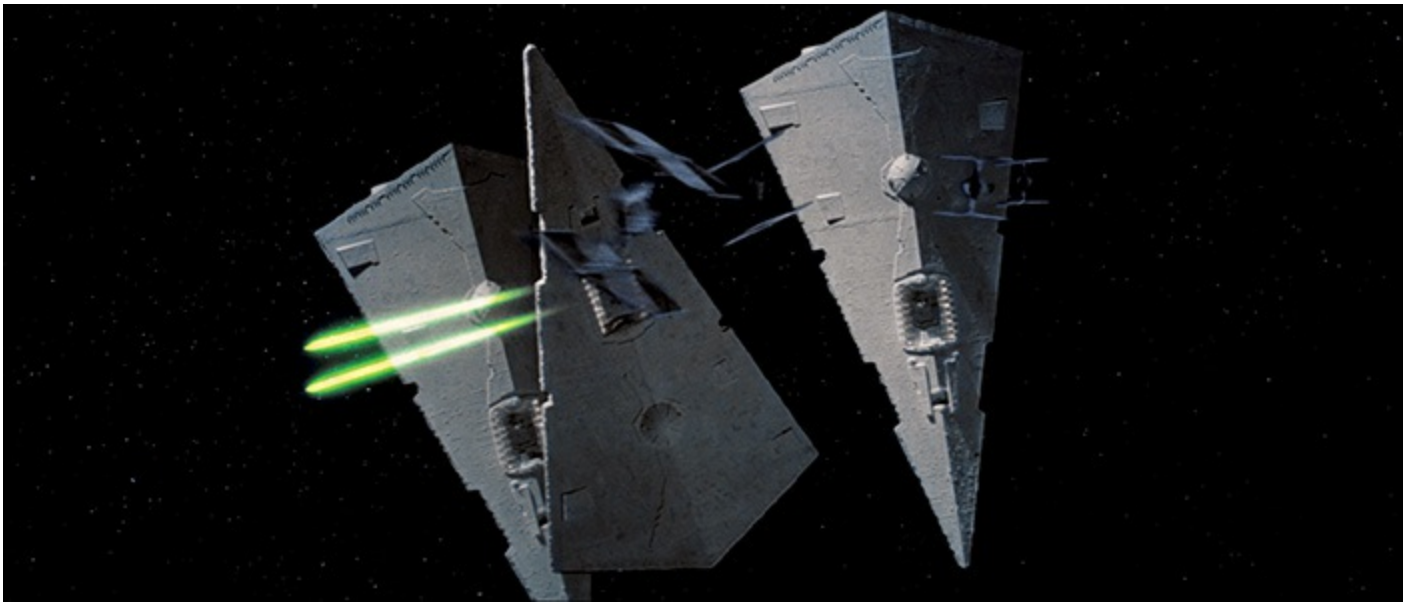














Music editor Ken Wannberg, music supervisor (uncredited) Lionel Newman, composer John Williams, and Kershner during the spotting of the music for *Empire*, in Marin County, early November 1979.

NOV 5, 1979

KEN –

R1 music cue change:
Cue has been delayed 31 seconds.
Instead of cue hitting on C3PO: "... considerable danger." The cue has been delayed to hit after Han out of cave on Taun-Taun: "Then I'll see you in Hell."
Music cue to end at cut (pix change) to R202.

R2
continue long line of music continuity thru Luke in Snowfield - Rebel base - Han searching for Luke.
Transition to Han searching for Luke to hit on Luke fall in snow.

If you have questions regarding these notes, or need assistance of any kind, phone the editing room in San Anselmo.

Regards,
Duwayne Dunham

(415) 4574301
323 SAN ANSELMO AVE.
SAN ANSELMO, CA 94960

P.S.
Reel 7 -(Tree cave - Luke fights Vader)
Pix change in the works.
Will send Dupe of Revision - ASAP.

Notes concerning Lucas's editorial changes to music cues, from Duwayne Dunham to Wannberg, November 5.

PRODUCTION 521 "EMPIRE STRIKES BACK" DATE 11/3/79

REVISED

12/4/79

COMPOSER JOHN WILLIAMS

MUSIC EDITOR KEN WANNBERG

MUSIC NOTES

CUE R1 - PA STARTS: FOX I.D. - LONG VERSION.

ENDS:

NOTE:

CUE R1 - P1 STARTS: AS TITLE COMES ON.

ENDS: AS CAMERA STARTS TO PAN DOWN (SEGUE TO R1 - P2).

NOTE: LENGTH NOT SET.

CUE R1 - P2 STARTS: AS CAMERA STARTS TO PAN DOWN.

6:22.95

ENDS: START OF WIPE TO BARREN SNOW.
(SEGUE TO R1/2 - P3/1).

NOTE:

CUE R1/2 - P3/1 STARTS: ON START OF WIPE TO BARREN SNOW.

3:22.3

ENDS: WIPE TO REBEL HANGAR (SEGUE TO R2 - P2).

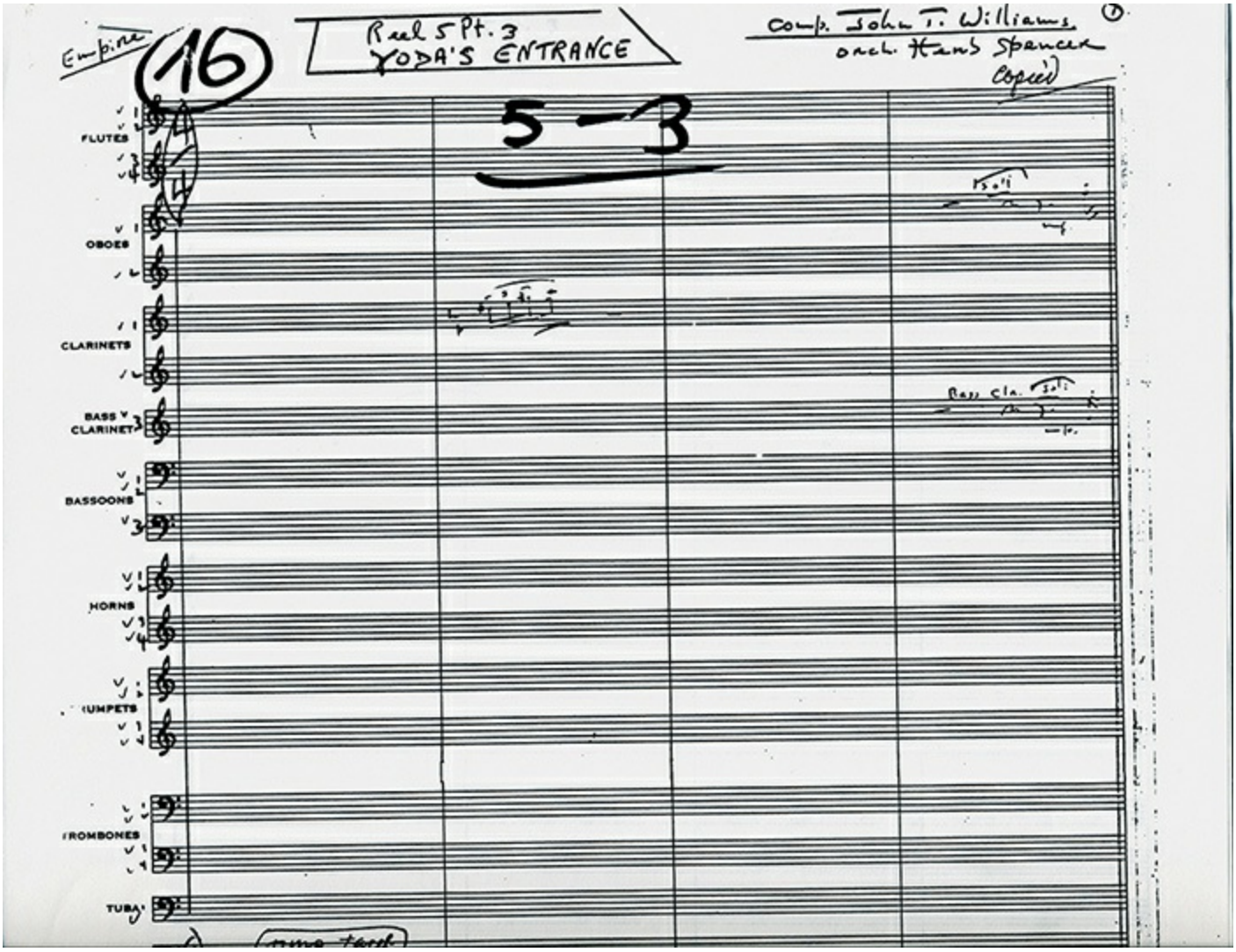
NOTE:

CUE _____ STARTS:

ENDS:

NOTE:

Revised music notes per the film's opening, December 4.



A page from the orchestration of Williams's music by Herbert W. Spencer for "Yoda's Entrance," reel 5, oboes, clarinets, and bass clarinet.



Lucas, Kurtz, Kershner, editor Paul Hirsch, and composer John Williams spot the music in Marin County, early November 1979—here taking a look at the carbon freeze scene.

(1:25)

SHOOTING THE TAUNTAUN

By mid-November, Tippett and Muren were ready to start the stop-motion photography for the tauntaun shots. Although they numbered only a few, these sequences, along with the walker shots, represented some of ILM's most ambitious work and would take weeks, then months, to perfect. To facilitate the job, the completed tauntaun model was fitted with a motorized brace.

"We have a way to clamp the model to the table, which will give the illusion of maintaining balance in any position you put it," Tippett says. "If the leg is to move forward or the head is to move to the side, we move that maybe a tenth of an inch to a quarter of an inch; photograph that frame, go back, move it again, and just repeat that process until we've accumulated a sufficient number of frames to simulate the action. A shot that's two or three seconds long could take us an entire day or half a day."

"You're dealing with a tabletop that maybe is five feet square and it gets very crowded around us because you still have to use a lot of lights to light that up," says Edlund.

The miniature snowscapes also had to match the exteriors photographed in Finse, so Muren sometimes needed up to five hours to adjust the lights. "We'd open the trap doors, animate the puppet, go back down, and close the door," Tippett would tell *Cinefex*. "That was probably the most grueling animation on the whole show, having to be under the tables."

By December, after rotoscoping work by Peter Kuran and Sam Comstock, Lucas had approved the first stop-motion shots with the tauntaun. One sequence, however, didn't make the cut. Tippett had animated two shots in which the Han puppet, while on his taun, tosses a sentry marker into the snow,

turns his steed, and canters out of frame.

"The shot itself didn't look right," Muren says. "Phil spent two full days animating the first one. It took a long time to set up and we had a beautiful background for it, but there was something about it that didn't look real. We never managed to solve it and it didn't cut well, either, because the camera was too close on the taun. What George really wanted was a long shot, so we quickly did a replacement shot of the animal running way off in the distance."

To add a blurring effect that would make the tauntaun's movement read as realistic to the human eye, Tippett's motorized brace could move the model slightly forward while each frame was exposed. "What makes a running horse look real is the fact that the motion-picture film is inadequately capturing the information of how he moves and is causing these blurs," Tippett explains. "What we're trying to do is simulate that effect by getting blurs into the stop-motion, adding realism. So we're actually moving the taun during the frame: The shutter of the camera is opening up and the puppet is physically moving for every frame of film."

"It's a combination of blurring motion controls and stop-frame," says Edlund.

The moment in which Han's tauntaun rides up as Obi-Wan's image fades away in the blizzard "was actually the first motion-control taun shot where we introduced blurs on the puppet," says Muren. "I don't think it was entirely satisfactory. There were a lot of problems in tying down the puppet that couldn't be resolved during photography. There is a similar shot, though, of the tauntaun running up to the camera, which wasn't done bluescreen. It's the best taun shot in the film, I think. So does George. It's a very bold shot, which starts off with the taun misted out way in the distance and it gets crisper as it approaches the camera. All that atmosphere was done on stage during animation; we did superimpose a tiny snowstorm, but it was virtually insignificant. Finally the taun rears up—and the shot was *right there*."

"I had seen some incredibly complicated approaches to get blurs," Tippett says. "People would put glass up in front of scenes and paint Vaseline on the glass as the characters were moving and wipe the glass off and literally animate a blur for every single frame. It was extremely time consuming and very difficult to do. So we hooked up a stop-motion puppet to the motion-control equipment. It was quite rudimentary and the character had to be on a pylon that always had to be matched to the background. So, working very closely with Dennis, who gaffed and designed the snow walker and the tauntaun scenes, we were able to figure out how to make the motion-control setup work in a stop-motion context and began to put blurs on puppets that were very similar to what you'd actually get in the real world with real live-action photography."

"We said, 'This is pretty neat,' " Muren says. "We thought we were really on to something with the frames blurred. Then all of a sudden there was George saying, 'Hey, we want a tauntaun to run into this shot of the hangar."

In fact, Lucas had decided during production that Han arriving on his tauntaun should be added to the background that had been shot on the Star Wars Stage in England. This meant that ILM needed to shoot the taun stop-motion in front of a bluescreen and comp it into the plate, realistically.

"My first thought was, *I don't know how we're going to do this!*" says Muren. "There was haze, a lens flare, no place to put a split screen, and where would you place the ground? Would you use a miniature ground? Also, there were these two pools of light, which made it even more difficult. So, to get rid of the matte lines, we settled for a bit of transparency. In the original negative, you could see the lights ghosting through the tauntaun as it runs. The other trick was that the taun's run-in was just quick enough to give

an impression."

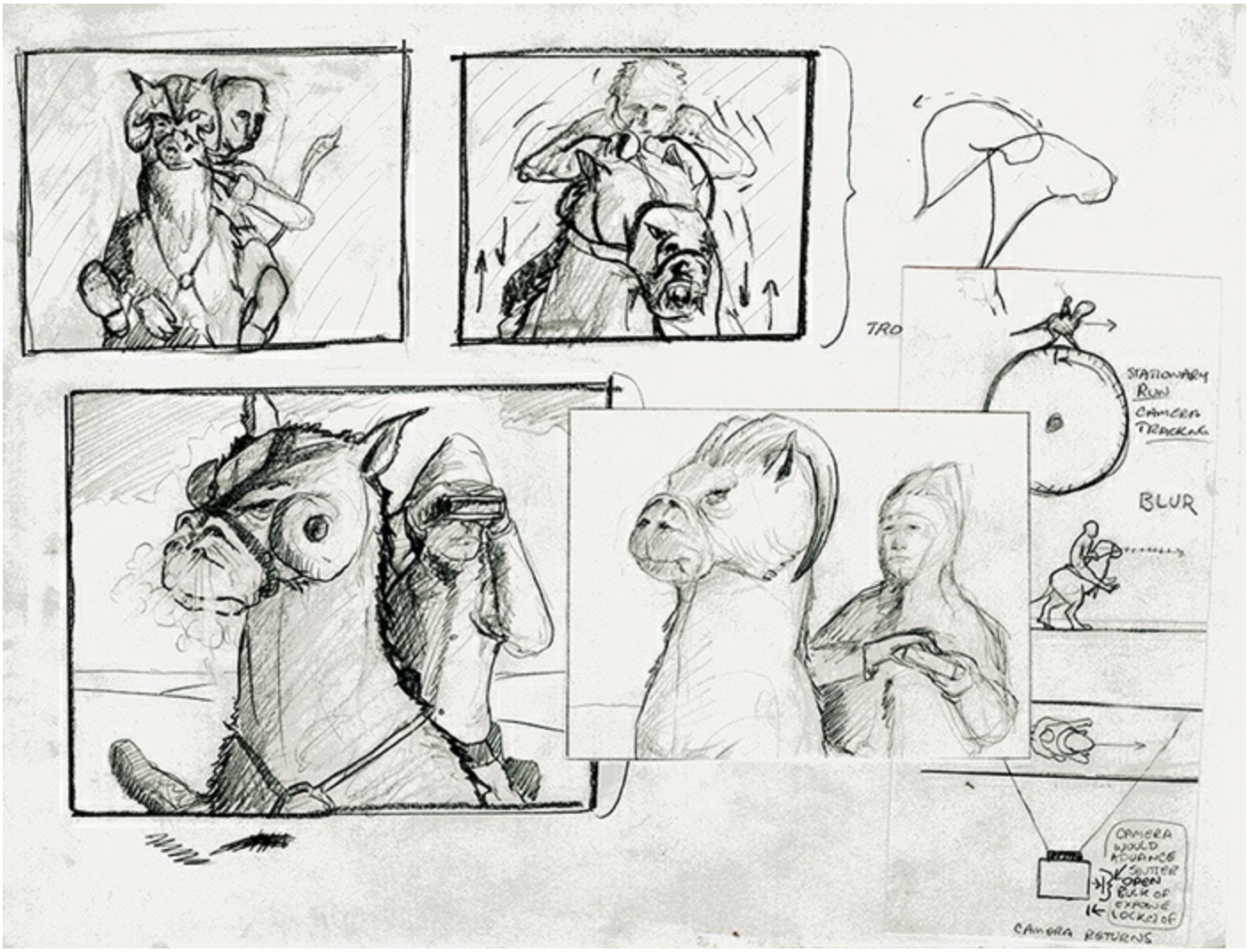
"Somebody had to run with a cutout of a tauntaun from the door through the hangar," says Kershner of the live-action portion.

"I think George initially would have preferred to have the character be a lot more free-acting," Tippett says. "But he immediately saw the advantages of hooking it up to this thing and getting blur—it takes this creature into another realm and gives it more of a photographic, visceral quality."



An early cut, without sound, has a wampa sneaking out from under the snow and attacking Luke, in a scene that won't make the final film.

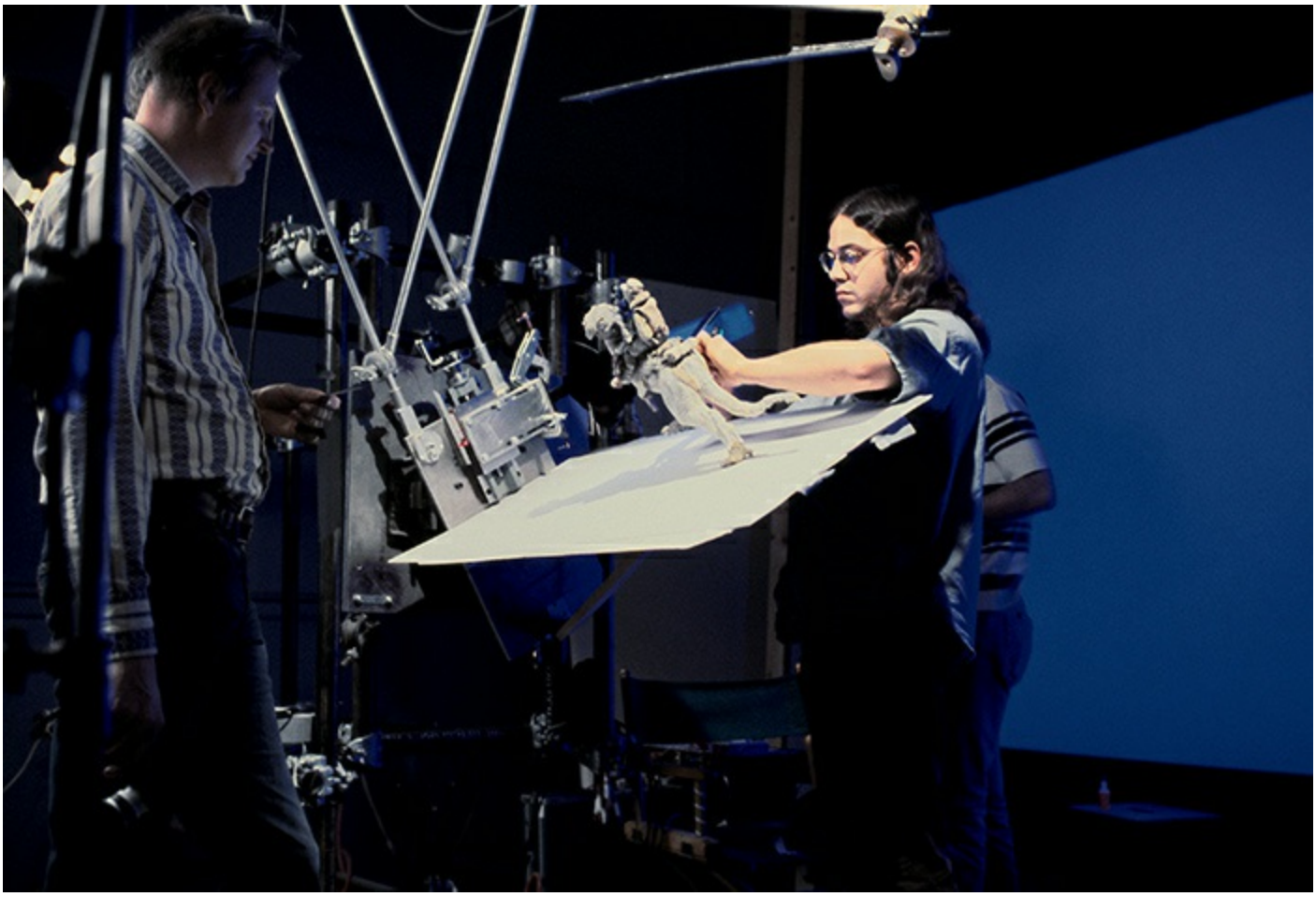
(0:23)



A sheet of drawings and diagrams by Tippett explaining how ILM might create a realistic blur for the tauntaun movement—"Camera would advance shutter open," his note reads.



Assistant art director Nilo Rodis-Jamero (foreground) and the setup for a tauntaun shot.



Muren and assistant cameraman Jody Westheimer posing the taun on a rotating platform for the film's opening shot.



Tauntaun and rider, with Tippett, who helped realize a more realistic blur for their stop-motion puppet.

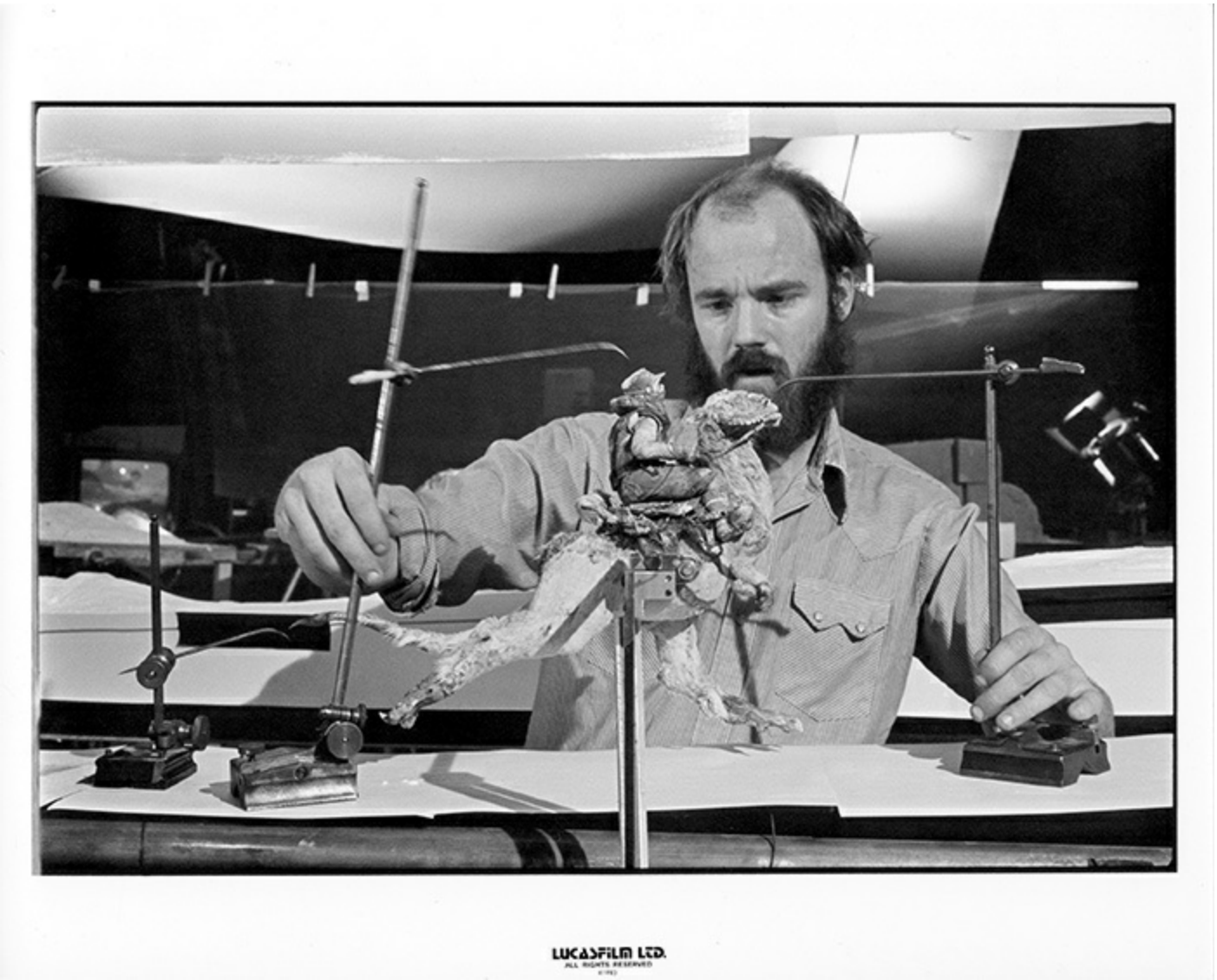




Final frames of the first tauntaun shot with motion blur.



ILM crew work on a miniature shot of the probot, filmed against a painted backdrop.



Tippett and his stop-motion figures for the tauntaun and Luke.





Johnston's storyboards.

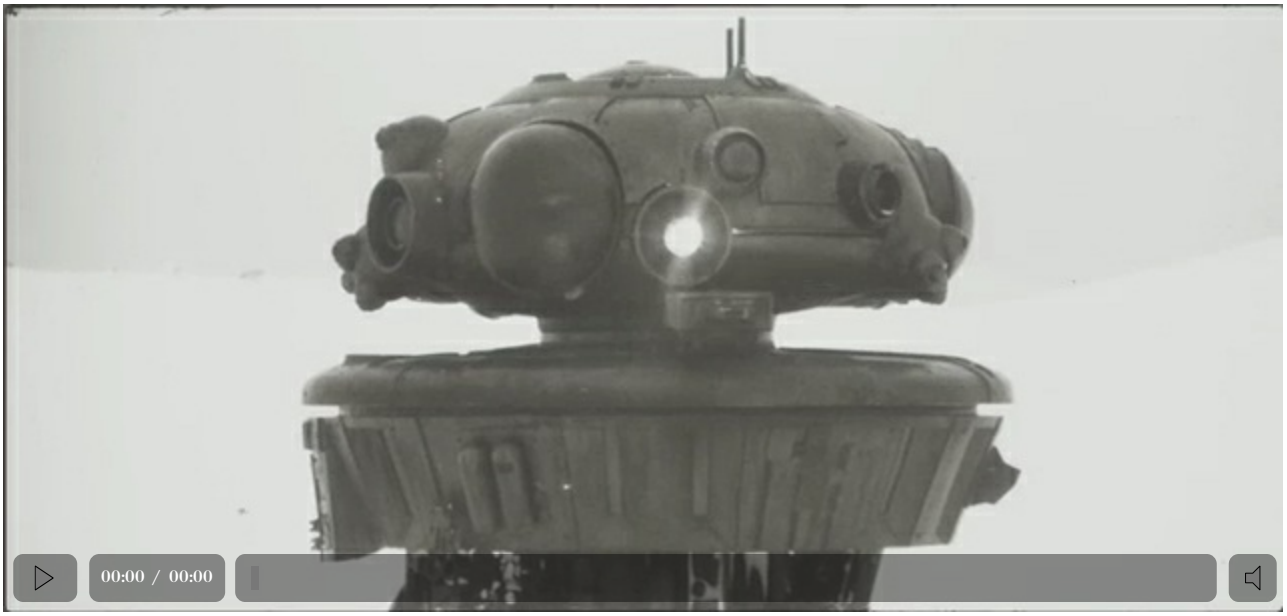








Johnston's storyboards contributed to final frames of what was considered a more successful tauntaun sequence with motion blur.



An early cut features a scene that doesn't make the final cut. The probot emerges—and blasts to smithereens a "snow squirrel," as represented by squirrelly animatics. Also seen here is the original wampa, which ILM will replace, who is cut across the chest rather than losing an arm. (Parts are without sound)

(0:55)

MATTE-LINE MADNESS

Lucas and ILMers would review all effects shots during dailies. "I was able to view some clips from a

sequence, in which the *Falcon* is flying through an asteroid belt pursued by TIE fighters, when George Lucas joined his team in the screening room," writes Arnold. "Although it seemed to me an incredible achievement, the technicians were not satisfied. The spaceship was not maneuvering to their complete satisfaction, so they talked the problem over in their complex terminology, and at the end of the discussion, they all returned to their benches and drawing boards."

"I was really amazed going into dailies and watching the evolution of some of those shots, in particular where the transport ship is evacuating Hoth," says MacKenzie. "God, it was murderous. That shot kept showing up. They called it at one point, the 'space salmon.' It was supposed to be gray against the white snow, but it just kept coming out with this slight salmon-pink color. And if they retimed it, then something else would change. I had no idea that it could be that complex. Bruce Nicholson and the optical department just worked and worked and worked at that stuff."

Dailies usually had comments coming only from the second row, where sat Lucas, Edlund, Johnson, Kurtz, Johnston, and Bloom—and from Muren, who often stood in the back. "On occasion, Dennis would speak up," says Ellenshaw. "And George had a great regard for Dennis—he liked the visual aspect of his work."

"It's much harder to hide any flaws that occur in the special effects against white backgrounds," Kuran says. Indeed, even decades later, Lucas would say, "I still remember sitting at dailies and everyone would yell out, 'Matte lines!' "

Tom Smith recounts that early snow-planet compositing was "discouraging. The ships didn't look like they were really in the picture; they looked fake and pasted on over the white snow and blue sky." Fortunately Bruce Nicholson found a solution: he double-exposed a ship flying over the planet with a section of the same scene photographed in Finse. "The trick worked. It desaturated the ship and made it look like it really belonged in the scene." When Lucas asked how Nicholson had done it, the latter replied that he'd used a "Norway Filter."

"Dailies are attended by everyone, every day," Johnson says. "Usually they consist of a mixture of shots, while some people have gone out on a limb to do something a bit extra. When it comes off, there's great excitement. Sometimes it doesn't work, but people don't say, 'Oh, God, that's a total failure!' They accept the fact that everybody's trying and working together—which is remarkable when you consider that we have been working together for so many months in such close surroundings."

"Once in a while, a tauntaun shot would come up and everyone would get knocked out of their seats!" says Comstock. "And this was just a *daily;* it hadn't gone through optical yet. Phil did an amazing number of little details for that thing; if you look at all the little bags and packs hanging on the taun—they're all bobbing up and down. Luke is also bobbing up and down as the taun breathes and gallops. Just incredible stuff!"

"It became clear that the myriad elements sent to optical for compositing were much more complex and dynamic than had ever been done on film before," Ellenshaw says. "To see completed shots of the *Falcon* in the asteroid field or snowspeeders against beautiful aerial plates shot in Norway was truly amazing."

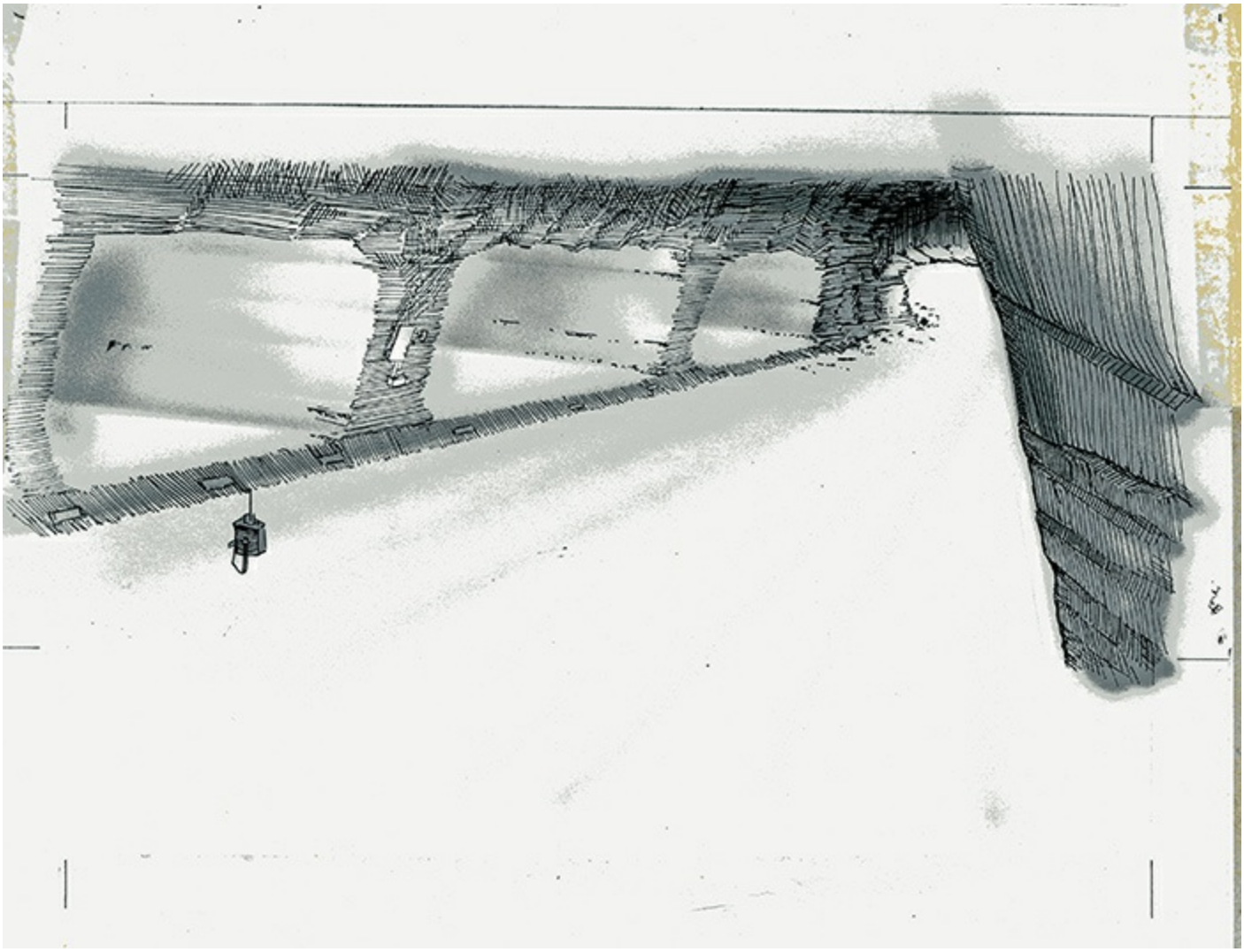


John Williams works with supervising music editor Ken Wannberg and then with orchestrator Herb Spencer, concentrating here on the mynock scene.

(1:42)

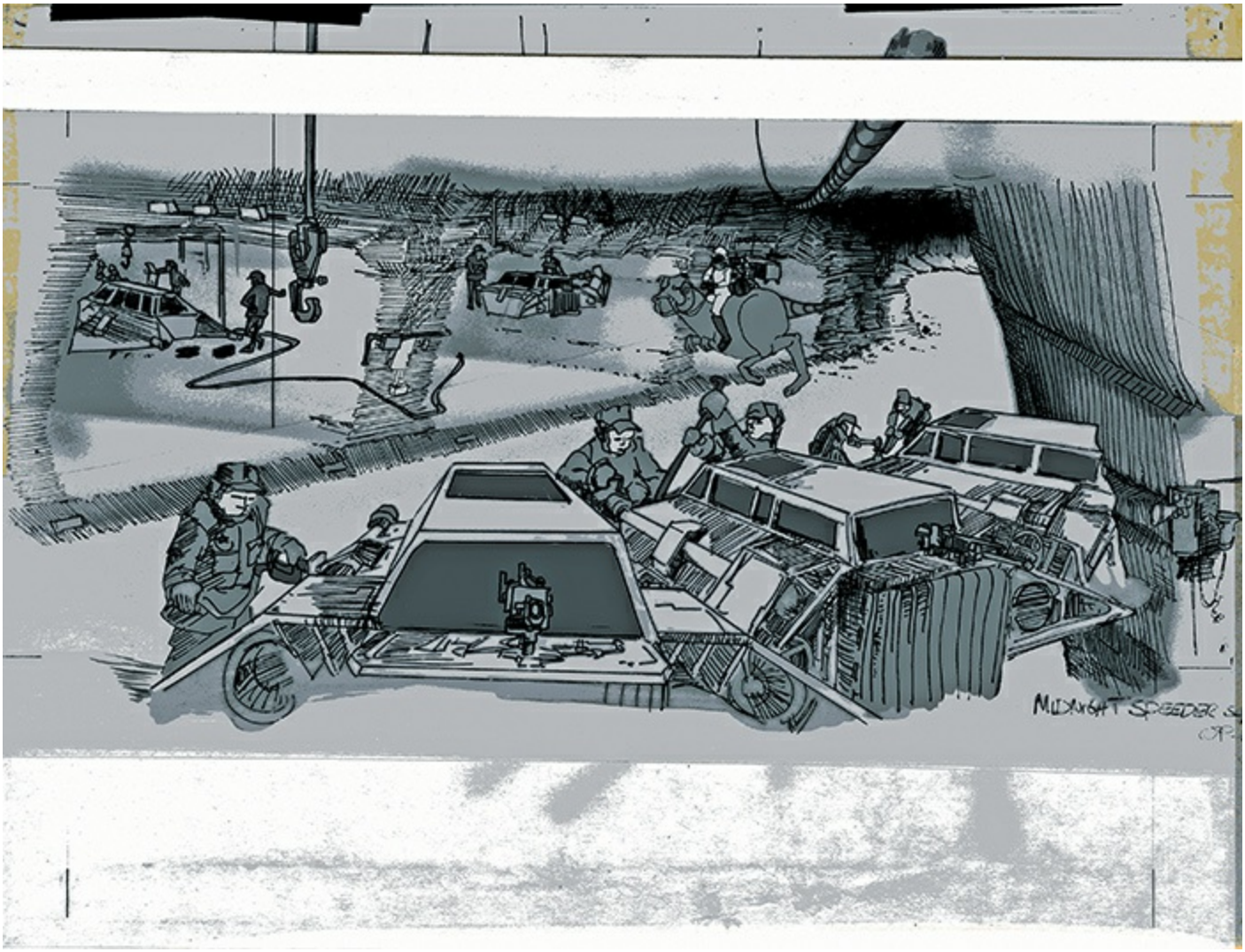


For ILM's sake, a crew member ran through the hangar with a tauntaun cutout on his head at Elstree Studios. The footage would later be used for reference.



The shot designated as “OP 17” was also called the “Midnight Speeder sequence” when re-created in layered animatics (fall 1979)—which led to a final frame of the tauntaun entering the Rebel hangar.







Final frame.

12/29/79

SNOW BATTLE:
LASER LIST - Things to check out with G.L.

NOTE: Previous note - speeders start firing in M13.

M5 - stray laser bolts? Walkers, rebels or speeders? NO
M6 - few more walker lasers (DD)
should we have rebel crossfire? or speeders? Gun turret to turn and fire laser. Add a few more walker lasers.
M7 - Walker & rebel lasers & flak?

M8 - Walker & speeders? 2-3 walker lasers. Rebel troops fire a few shots.

M9 - Walker? FINAL. or rebel crossfire? 2 lasers at head of shot

M10 - Walker & speeder or rebel crossfire? flak? yes. 1 Bolt synes to by flash and 3-4 fire at end of shot.
M11 - we have OK. ✓
M12 - " ✓

M13 - Walkers & speeders & flak. Speeders + walkers fire.

M14 - Speeders? Walkers? NO lasers

M20 - FINAL - any lasers needed? NO, final OK

M21 - 3 flak bursts to cover soft focus. Walker & speeder lasers?
Walkers fire out as Luke gets close

M22 - Any lasers required for thru the legs - cockpit shots?

M24 - flak omitted as per G.L. Lasers? NO lasers

M25 - Walkers & speeders? Rebels? NO

M26 - Walkers & rebel crossfire?

M27 - Speeder No. 1?

M28 - Walker & rebel crossfire?

M29 - Walkers & speeders fire before hit?

M30 - Walkers & rebels?

M30A - Speeders

M31 - Walker & speeders?

M32 - Stray laser bolts?

M33 - Walker or stray laser bolts? Speeder?

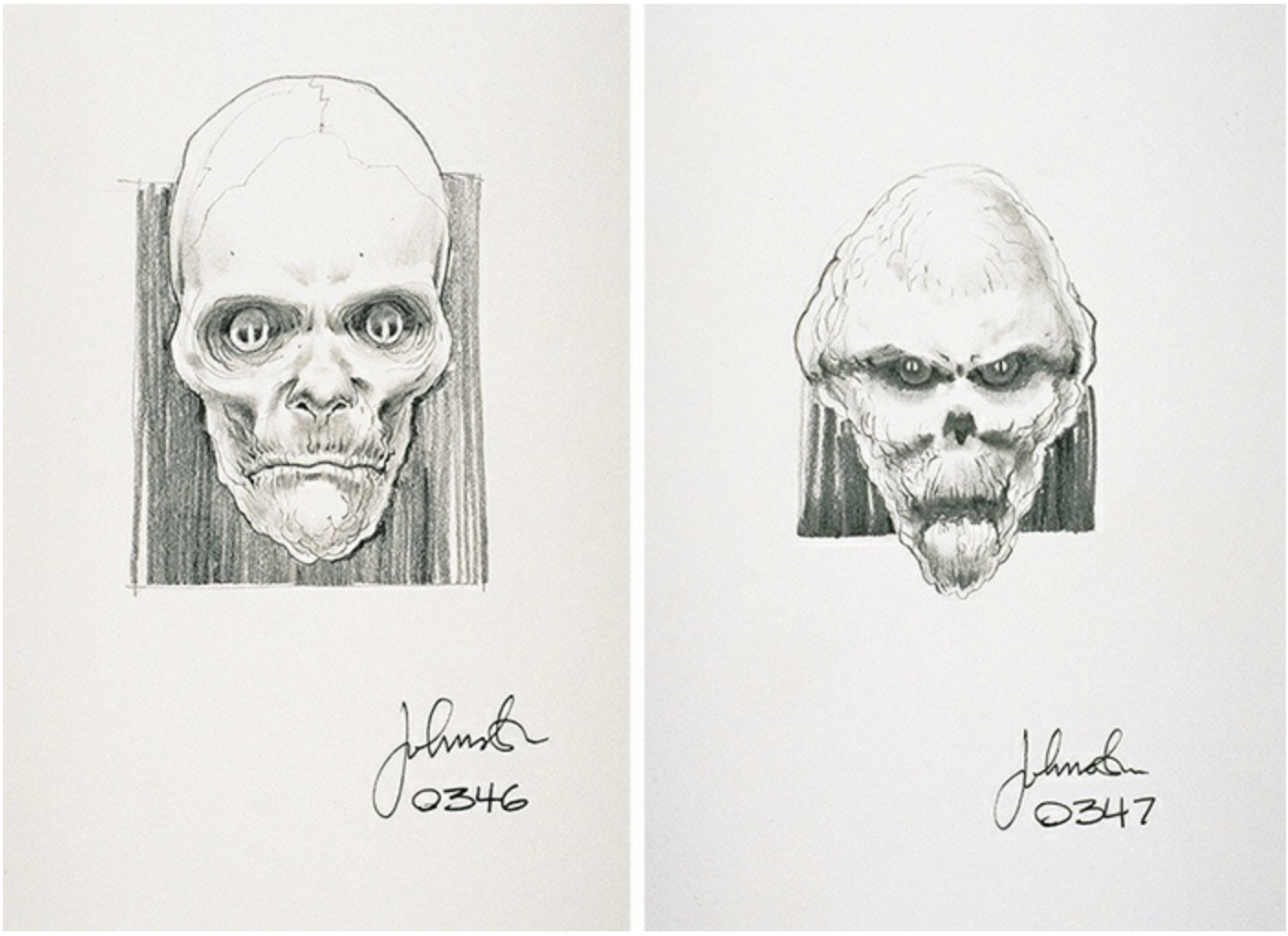
M34 - We have flak & flash. Need walker fire?

M35 - Same as above.

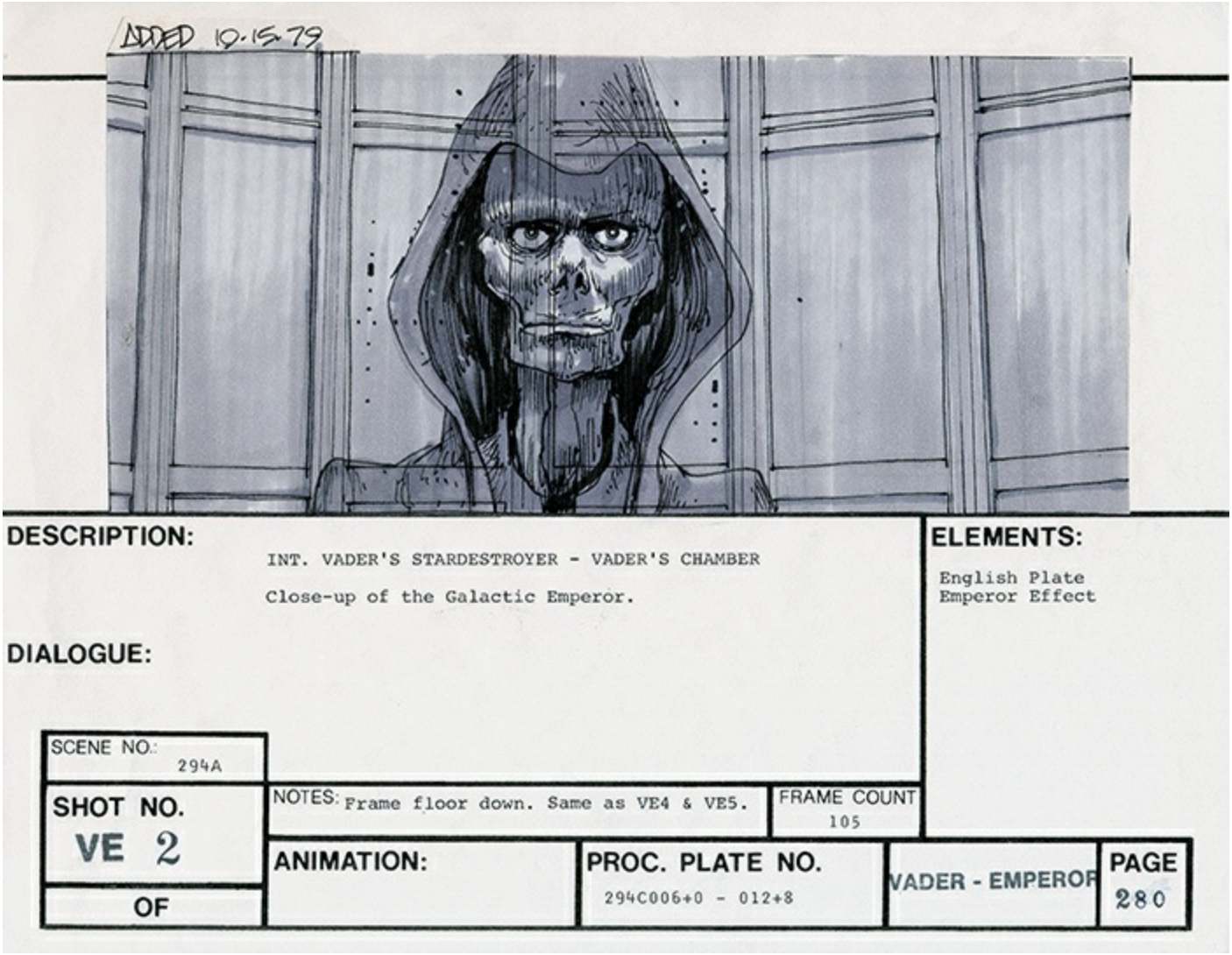
M36 - Walkers & speeders?

M37 - Has flak. Needs walker or distant lasers?
M38 - Same as above.

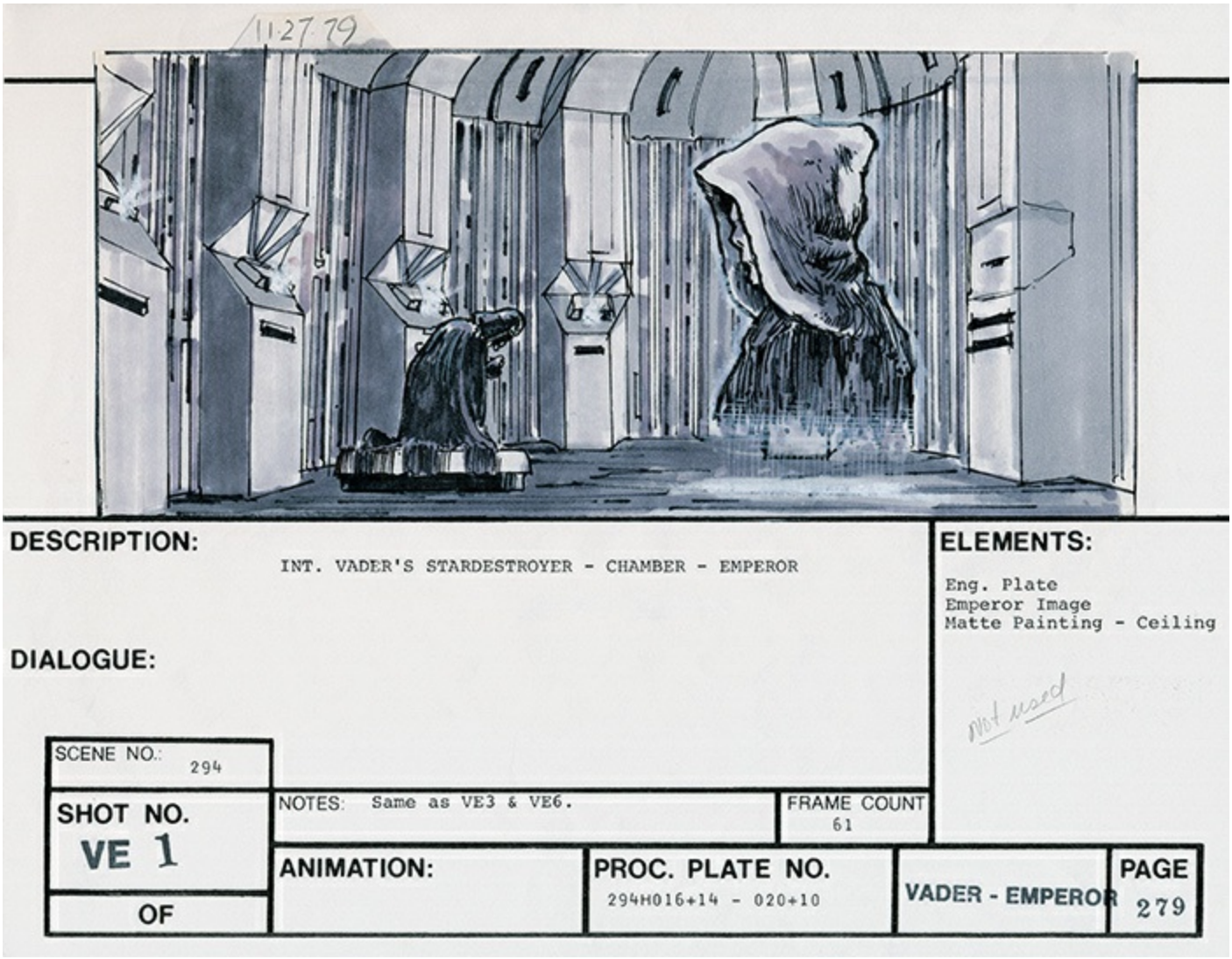
On December 29, 1979, a page was typed up of the "laser list" for the snow battle, to be checked out with Lucas, with at least some answers already written in.



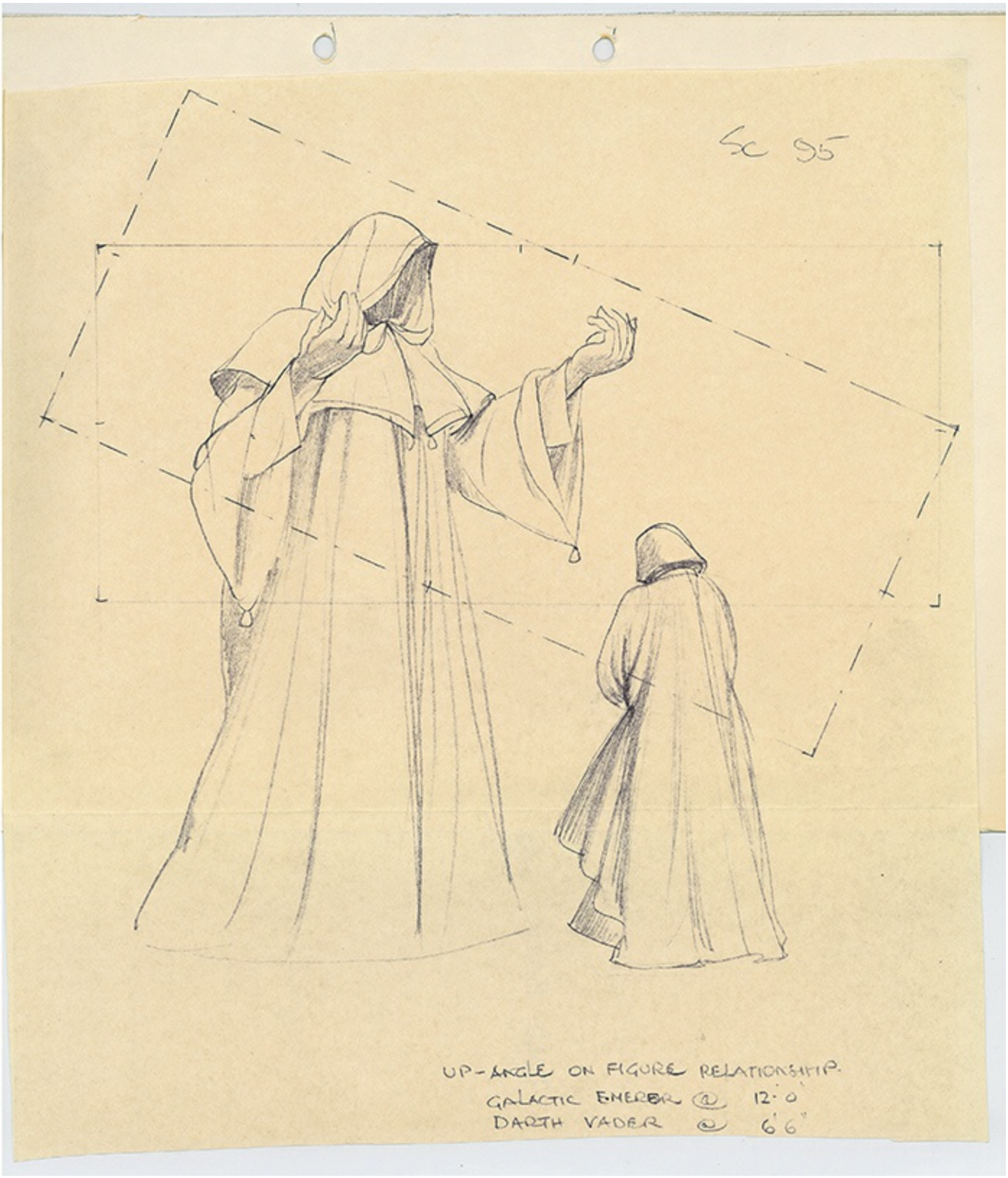
Early 1979 Johnston concepts of the Emperor (nos. 346 and 347) informed his storyboards of October 15 and November 27, 1979.



Johnston storyboard (no. 346).



Johnston storyboard (no. 347).



A production sketch of scene 95 showed the relative sizes of the “Galactic” Emperor versus Vader: 12′ to 6′.



A doodle by Ralston bore an uncanny resemblance to the Emperor concepts.

MUD AND METAL

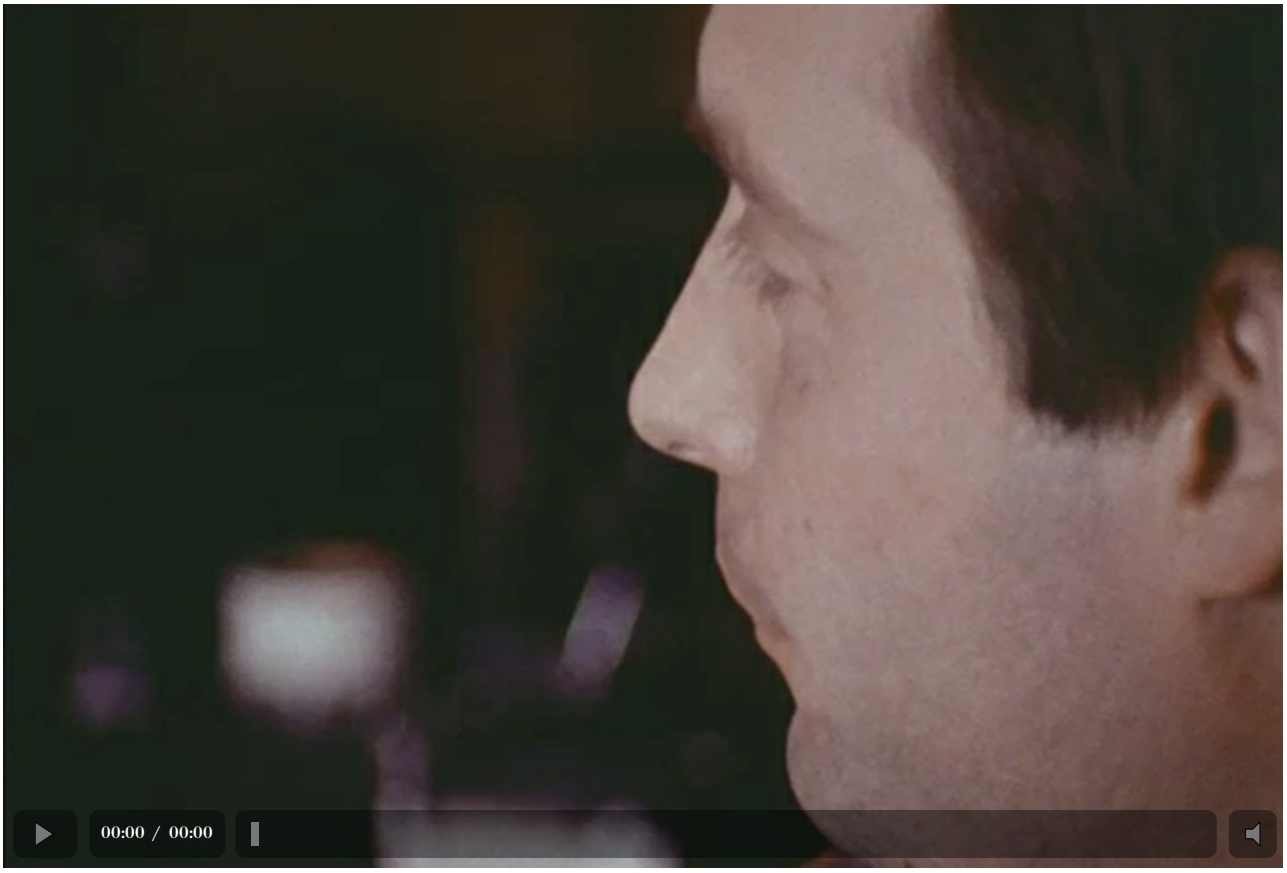
"What did we do after we'd set up on San Anselmo? We moved outta there and set up postproduction in a little commercial building at 165 Tunstead Avenue," says Kessler of the San Anselmo annex that Lucasfilm bought for $175,000. "There was Ben Burtt, Gary Summers, Duwayne Dunham, Steve Starkey, Howie Hammerman, who was the engineer, and Laurel Ladevich."

"I don't know what that building had been before we moved into it, but it was also in construction while we were there on *Empire*," says Ladevich. "And it was very cold; we would all come in—it was a big building with a concrete slab—and it was freezing cold. We would all wear our coats until about noon, when it heated up. We only had cold water to wash the dishes, which was very funky."

"In *Star Wars*, I was pretty naïve about what I could do and what technically you could do," says Burtt. "On *Empire*, I was technically much better equipped and more experienced. Creatively, I was developing a very articulate soundtrack with a lot of depth and detail in it. We had a much more vigorous and extensive laser swordfight at the end of *Empire*. And so I was able to take from the experience we had on the first *Star Wars* and elevate it to a higher level in terms of the environment, the sound, the Carbon Freezing Chamber, and all that."

In the interim between films, Ben Burtt had worked on *Invasion of the Body Snatchers* and *Alien*. "I knew what I was up against, all sorts of new ships, creatures," he says. "*Empire* was doing everything on a grander scale, with very high expectations. The innocence was gone. We felt great pressure to outdo ourselves. So we went out and did a lot more field recording."

"At the end of my work on *Apocalypse Now*, Ben called me and said, 'Would you like to work on *Empire* doing more or less what you've been doing?' " says sound effects recorder Randy Thom. "I'd spent about half of my time recording sound effects in the field and Ben wanted me mostly to go out and collect sounds for *Empire*, which I did for several months."



Sound designer Ben Burtt works with sound editor Bonnie Koehler on the scene in which the *Millennium Falcon* fails "one last time" to make the jump to hyperspace. Burtt operates the KEM editing station, indicating what kinds of sounds are needed where. Filmed at Lucasfilm's San Anselmo postproduction facilities, not far from ILM.

(1:27)

Burtt had also spent months traveling around the country to collect the 1,000-plus sounds needed, coasting down mountain roads with the car engine off to record the wind, for Hoth, and crawling into foxholes at the White Sands Missile Range in New Mexico for battle recordings. He also went to the home of Ken Strickfaden, creator of the laboratory machines used in the original *Frankenstein* (1931), and placed those legendary sounds "here and there" in *Empire*.

"Luke was in the Dagobah swamps where there's lots of walking around in mushy ground and footsteps," Burtt says, "so we did a lot of recordings in the mud at the ranch." For the bog's animal noises, he recorded gulls, terns, and other shorebirds, as well as sea lions, dolphins, and then taped a pump at a water-treatment plant.

"We recorded the sounds mostly on Nagra quarter-inch machines, just a little above consumer-grade equipment," says Thom. "I spent a lot of time going through the phone book looking for metal fabricators and metalworking companies, and saying, 'I'd like to come and record the sound of your machines operating.' And people would almost always say, 'What?!' Because people get so used to the sounds where they work, they no longer pay attention to them. So I'd have to say, 'No, really, there are great sounds there.' "

"The *Empire* sound image is more organized, more martial," says Burtt. "The ear has a certain spectrum. Volume for the sake of sheer volume is nonsense. Sound is a coloring element. It should be used with subtlety."

"I spent quite a bit of time recording metal shears, giant machines that cut sheet metal into

segments," says Thom. "They were useful because they have this multisyllabic sound. In order to come up with a really convincing, compelling sound for the walker's motion, Ben knew that we would need these multisyllabic mechanical sounds on a very large scale."

"The objective was to give the walkers a real sense of mass and weight," says Burtt. "Randy went out and recorded some of those big metallic stamping machines. Then I picked out parts of the recording I liked and made it into a rhythmic walk cycle. In addition, I needed squeaking sounds, like a knee joint. That I achieved by playing with a dumpster lid, which had been dropped off in front of my house."

"What Ben did on *Star Wars* and developed even more on *Empire* was to take real-world sounds," Thom says, "which had the kind of grittiness and physicality that we can relate to, and then process the sounds in ways that gave them a kind of exotic patina, if you will, by playing some of them backward, by altering the speed of the recordings, or by putting them through electronic circuits."

"We got the door of an old Cadillac Eldorado," Burtt says. "The motors in its door that operate the window became the motor that we used for Threepio walking. The tauntaun voice was concocted from the recording of an Asian sea otter named Mota, which we pitched down a little. And I recorded the foghorns out on San Francisco Bay, which are in the background of Cloud City's audio track."



Burtt spent a week at the Oshkosh Airshow, where a 707 jet became different vehicles, including the snowspeeders. Here Ben Burtt records the motors of a World War II B-17.



Burtt plays the twang of steel guy wires, which formed the basis of the many blaster sounds (re-creating the moment with Miki Hermann for a documentary).



Sound effects recorder Randy Thom tapes the sound of metal shears, which would be used for the walkers' marching effects. Thom visited at least two metal-working sites on October 24, 1979: Eden National Steel and Midland Ross Metal, both on 9th Avenue in Oakland, California; in the latter, he also found sounds for the "torture room doors." Later on, Thom made a trip to the San Geronimo Water facility, where he recorded pumps, doors, air hoses, hisses, and squeaks.

CHRISTMAS STAGS

In December, following the June announcement, Alan Ladd Jr. left his position at Fox (the studio's stock fell from $40.63 to $38.87 the day the news reached the general public). "While I was writing *Body Heat*, Alan Ladd got fired," Kasdan says. "When I finished it, Sherry Lansing was the head of Fox and she put me in turnaround; she didn't want to make the movie. So I took it to Laddie, who had started his own company, and said 'Now I've written the script that you supported.' And he said, 'I'll make this movie, but you have to get someone to sponsor you, a director.' So I went to George and asked him and he said, 'I'll sponsor you, but I can't put the Lucasfilm name on it because your film is too sexual, too adult; I'm trying to establish a family entertainment company.' I said, 'That's fine.' And then George did an extraordinary thing: He told Ladd, 'I'll be the executive producer'—and this was the amazing part —'and if Larry goes over budget, you can use my fee to defray the costs,' which was a generous, supportive thing to do."

That same month, Black Falcon was merged into Lucasfilm, and Kershner traveled to Tokyo, Japan, to promote *Empire*, while staying, appropriately, at the Imperial Hotel; he also visited Kurosawa on the set of *Kagemusha*. Back in the United States, ILM carried on. Muren, Tippett, and Berg continued their walker sequences, while Edlund focused on pyrotechnic walker shots that required larger models and the HSE camera (high-speed Empire).

Around this time, Johnston had the model shop build a prototype two-legged walker, designed by himself and Jon Berg—the "chicken walker" (so nicknamed due to its strut)—which would team up with the regular machines in one or two setups. Johnston had stopped Lucas outside the art department one day to show him the miniature that he'd based on the earliest walker concepts. Lucas liked it and said if there was time for an animator to build a stop-motion model, then he would find a place for it in the film.

While it did not hinder creativity, ILM did have an ongoing problem. "Everybody on the corporate level always felt that ILM was kind of like a big fraternity or something," Tom Smith says. "In fact, there were practically no women, which had a bad cultural effect on the building. It really did, because people got really raunchy. So we made a special effort to hire more women in coordinator positions. But if you look at the man–woman ratio, it was terrible."

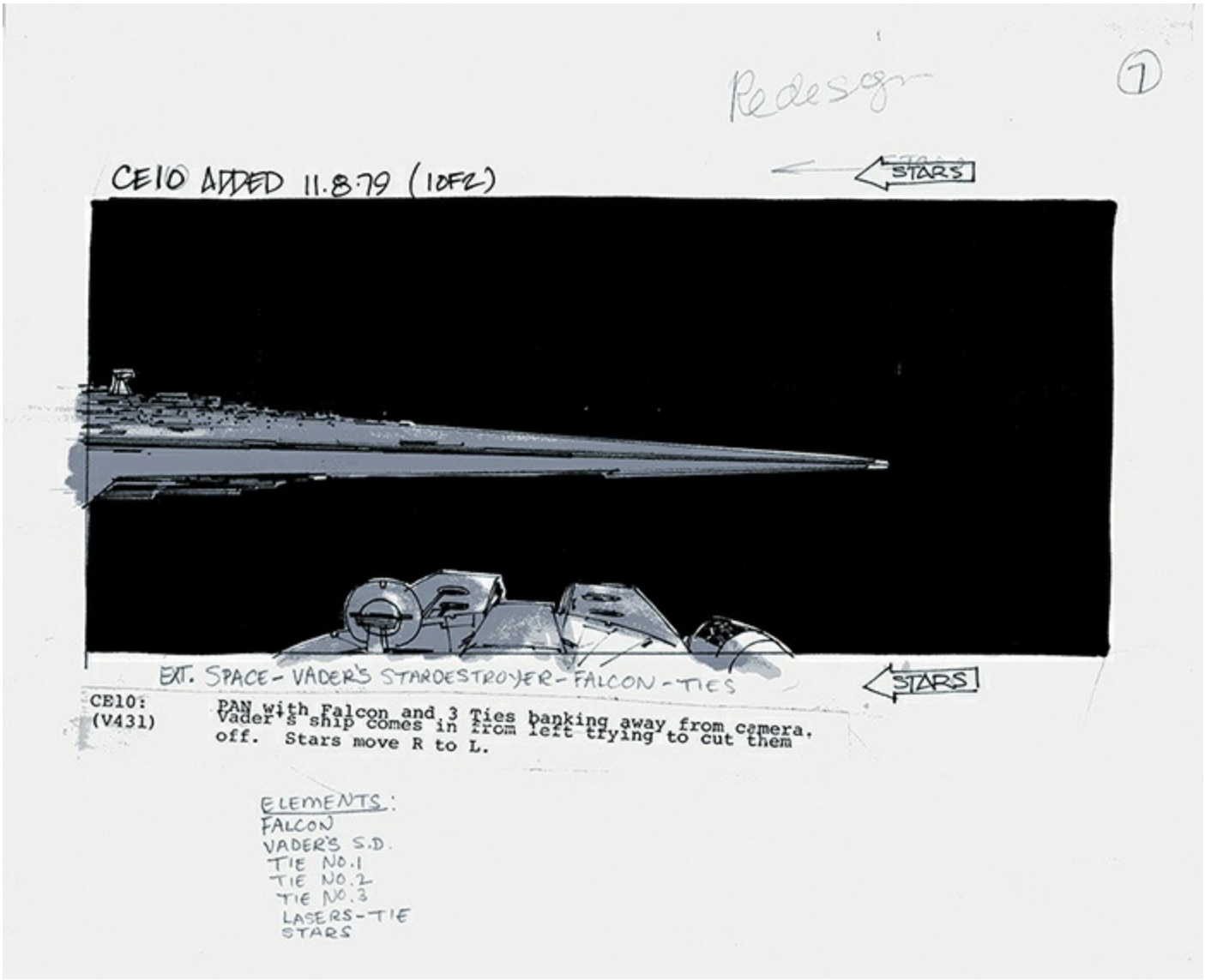
"Everyone was quite young, the low 20s, and they were excited to be working on the second *Star Wars* after this enormous hit had literally changed the world," says Patricia Blau, one of the few women on staff. "We were ready to throw ourselves in front of the train and work day and night, do whatever it took to make this the best picture it could be. George was around quite a bit and everyone was just so much of a family, it was quite inspiring. I was in the front office and the place was still under construction, so the paging system consisted of me running into the back and screaming, 'Dennis Muren, line two! Dennis Muren, line two!!' "

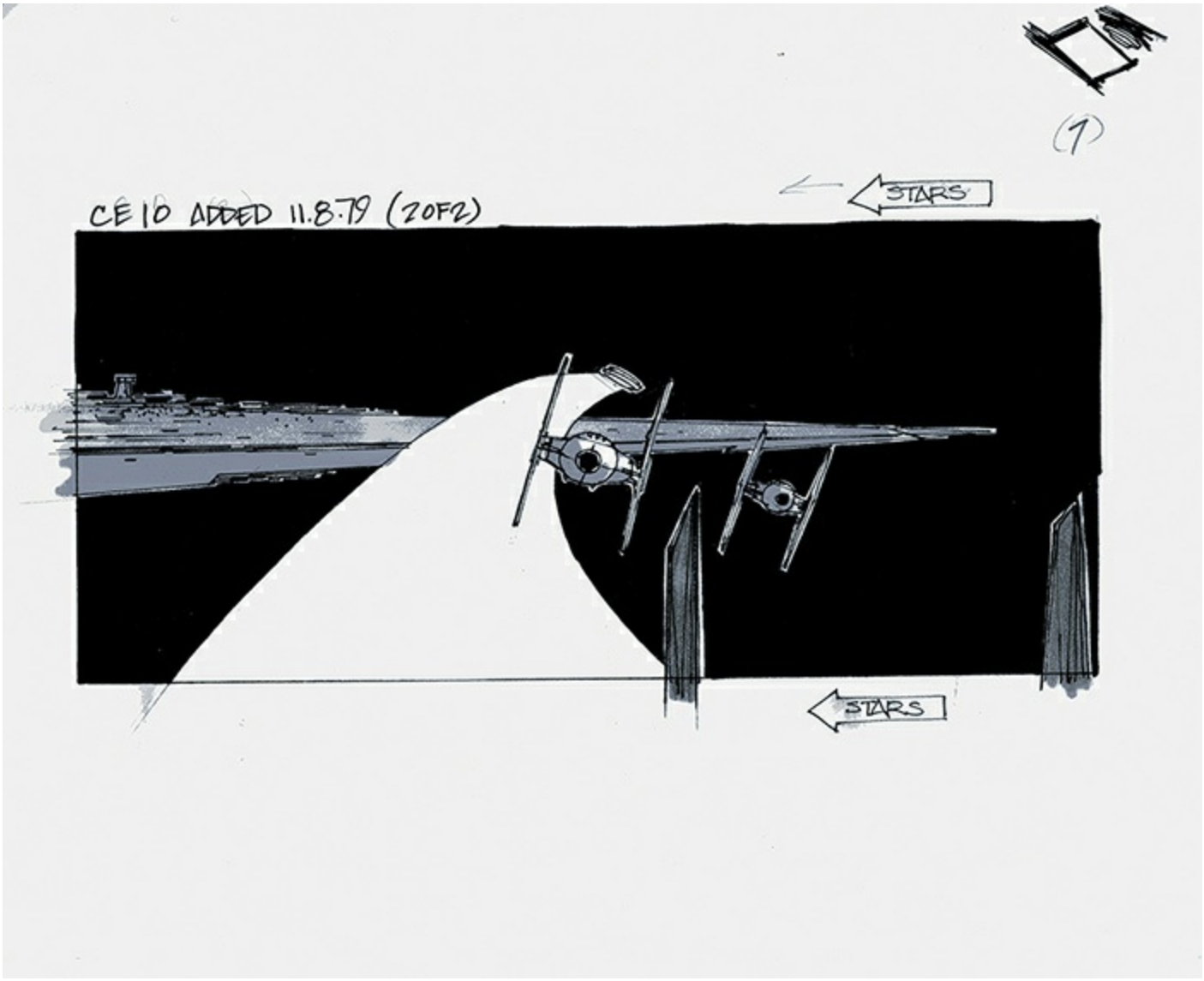
"It was a real boys' club," Smith continues. "In fact, before our Christmas party, some of these guys didn't even know any women and they wanted to take a date to the party, so some of them put ads in

the newspaper, 'Have a date, go to Lucas's Christmas party?' "

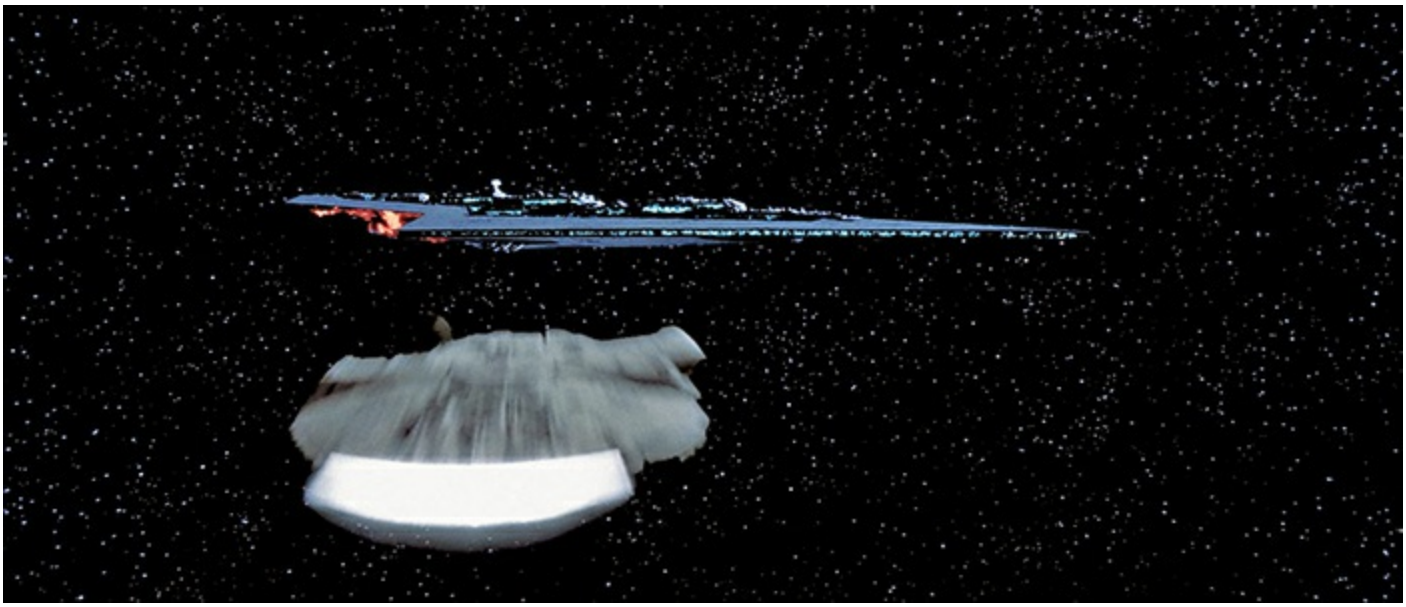
"We had a 30-something-year-old boss who was noncorporate," says Tippett. "And we were away from all the adults in Los Angeles. We didn't have to come into work until 12 or 1 o'clock in the afternoon, because the lab was in Washington and we didn't get dailies back until late in the day; then we'd work really late into the night and goof off a lot. Sometimes, we'd just stop in the middle of the day and do some other project. We'd take really long lunches, but then we'd work until three or four o'clock in the morning. And, of course, when things really started getting hot, we were working around the clock."

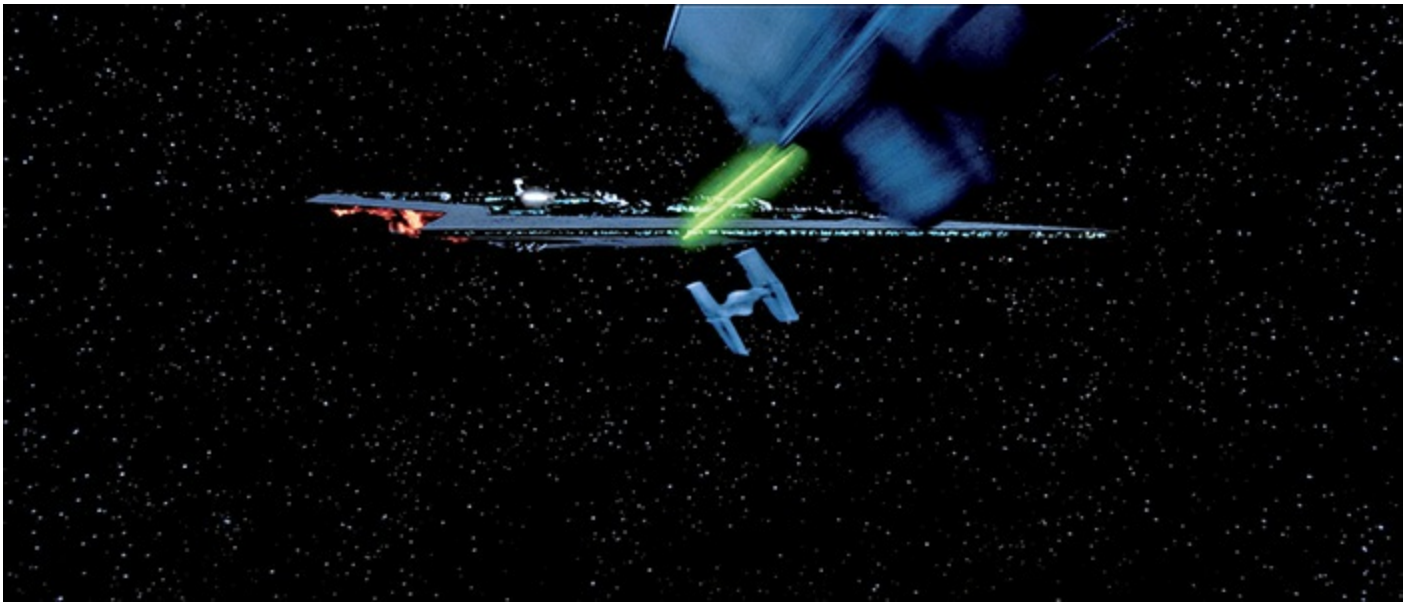
"It was a loose, relaxed environment, even though I had nine months shooting nights, which I hated," says Ralston. "I vowed never to do that much night work ever again, but it gave me a lot of freedom to do what I wanted. Without all the distractions of the daytime crew, it was great. I would write notes, draw pictures, and do all kinds of weird stuff to leave for the daylight crew. But we would always try and complete our shots, because we didn't want people taking them over—we were egomaniacal about it: 'This is *my* sequence. You can't have it!' "



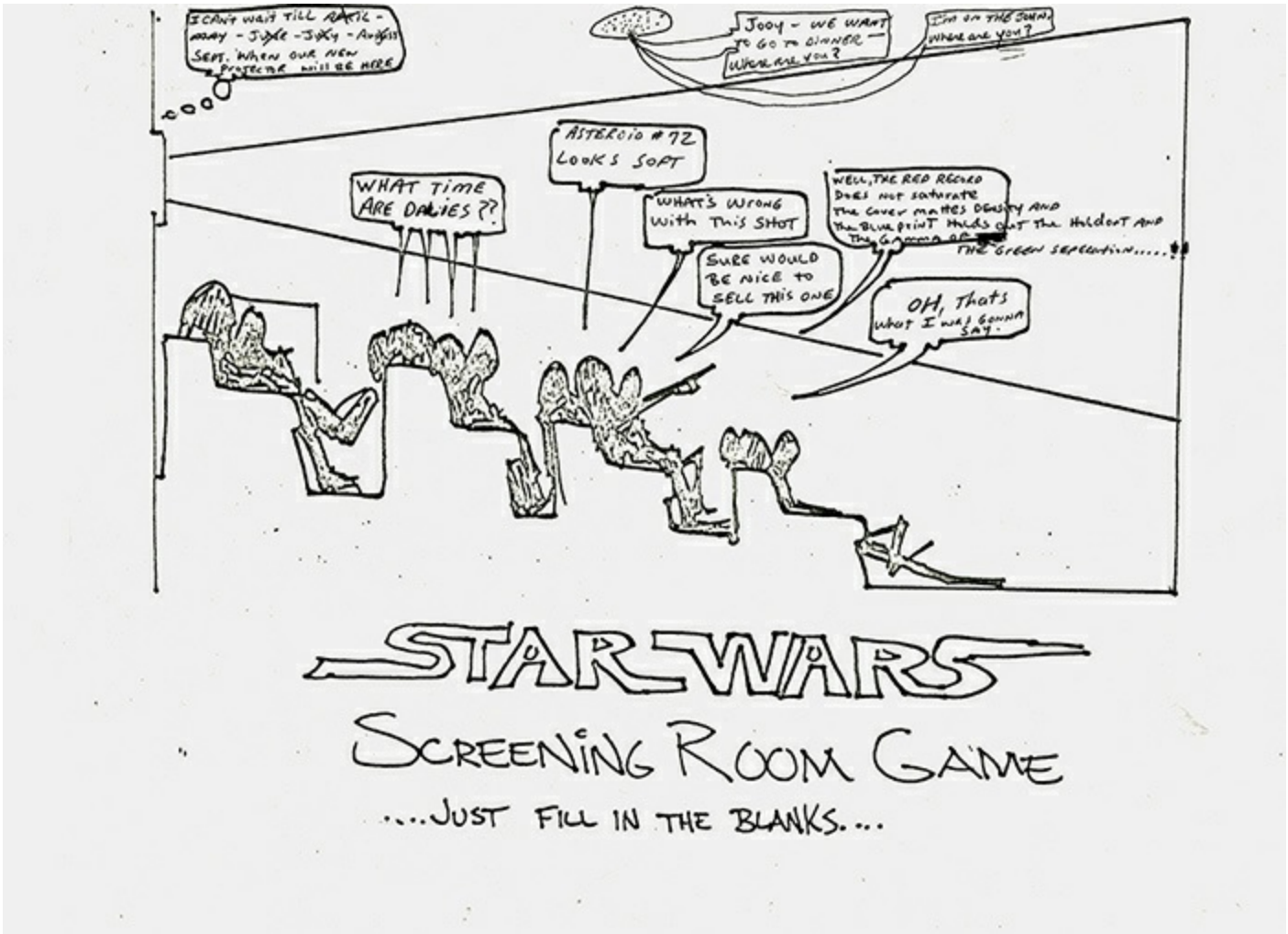


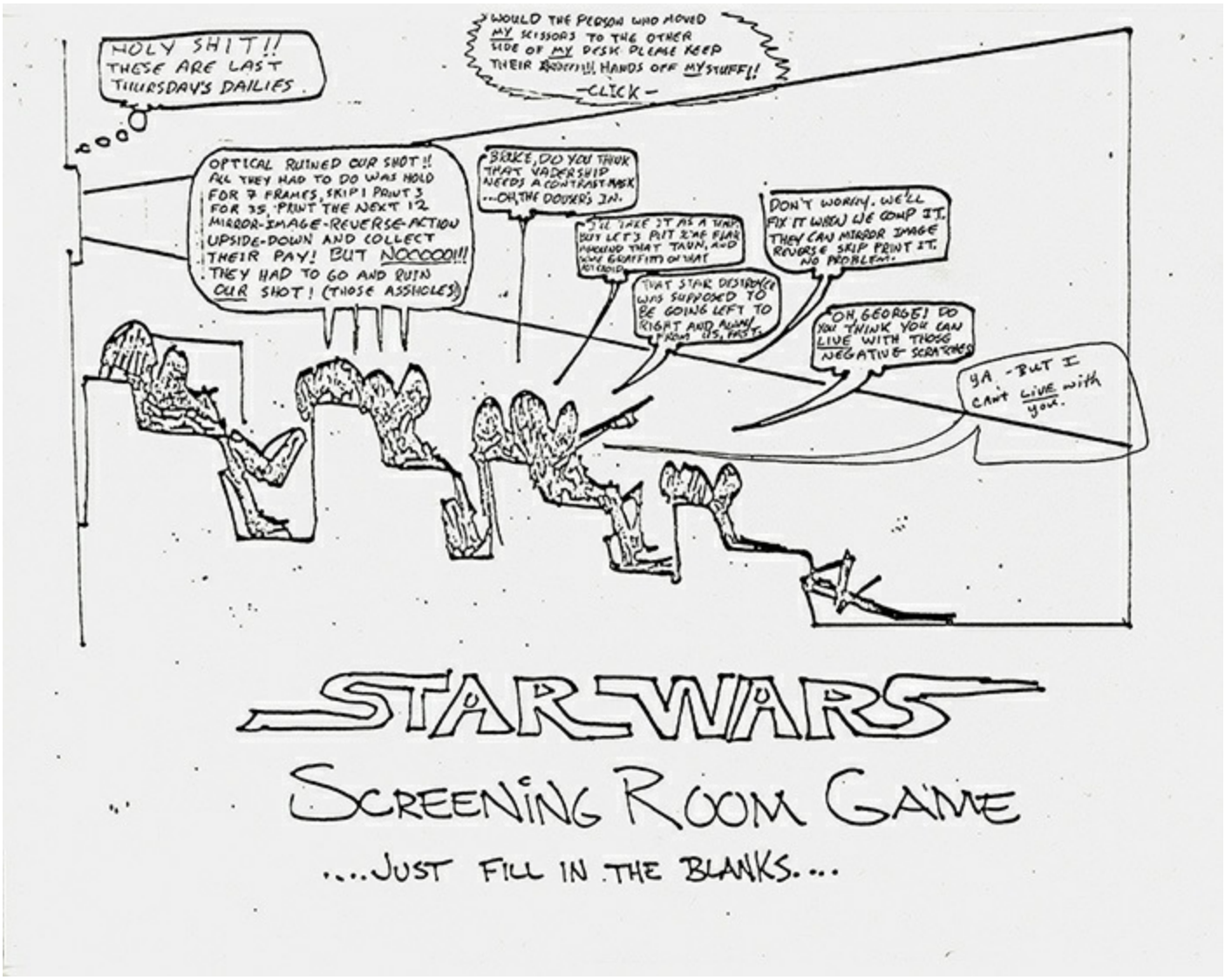
Storyboards added November 8, 1979, show the *Falcon* pursued by TIE fighters toward the *Executor* (at the end of the film).





Final frames of the same sequence.





Two examples of John Van Vliet's joke "*Star Wars* Screening Room Game," with blanks filled in by unknown ILMers (about 15 examples survive).



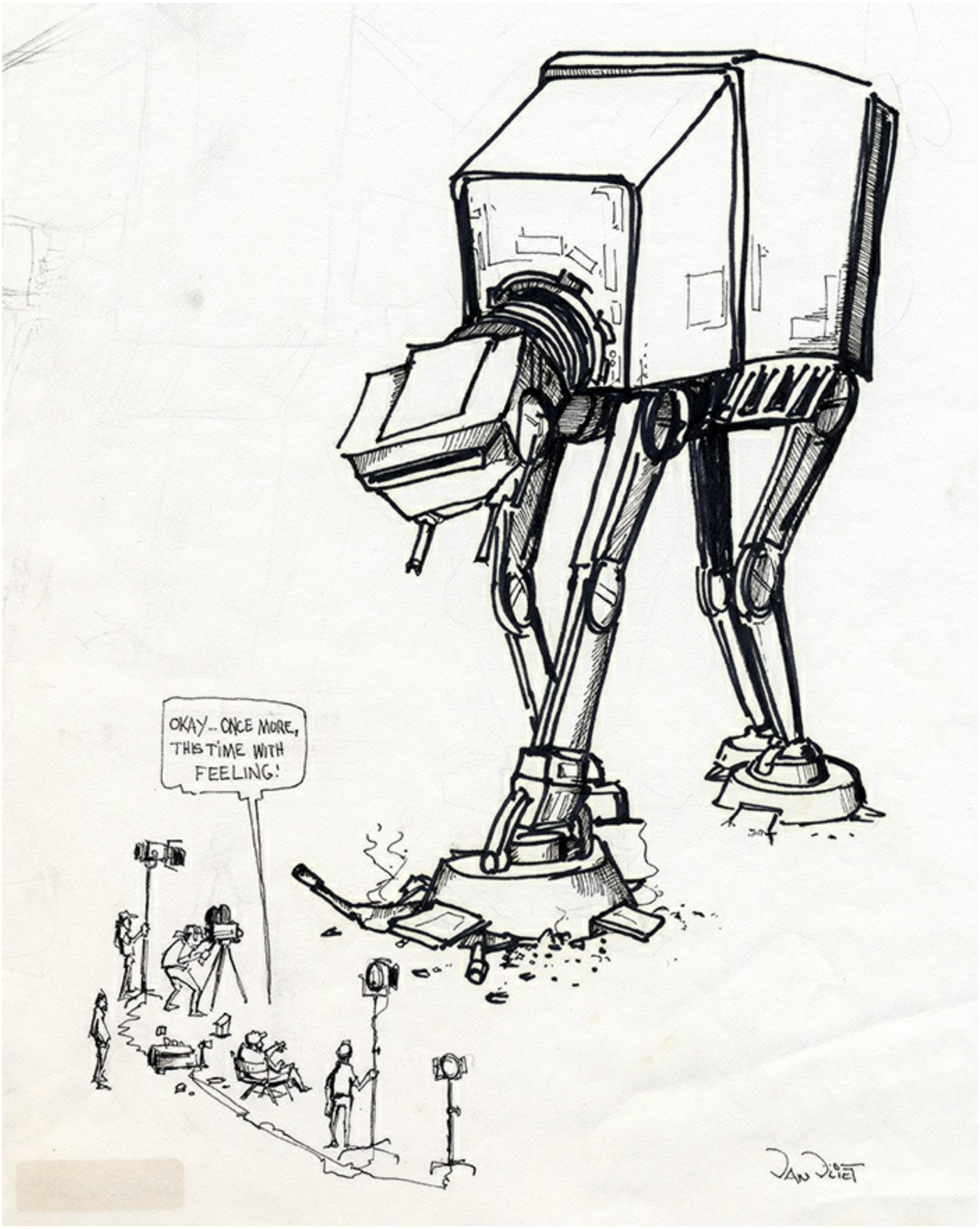
“Roto suicide.”



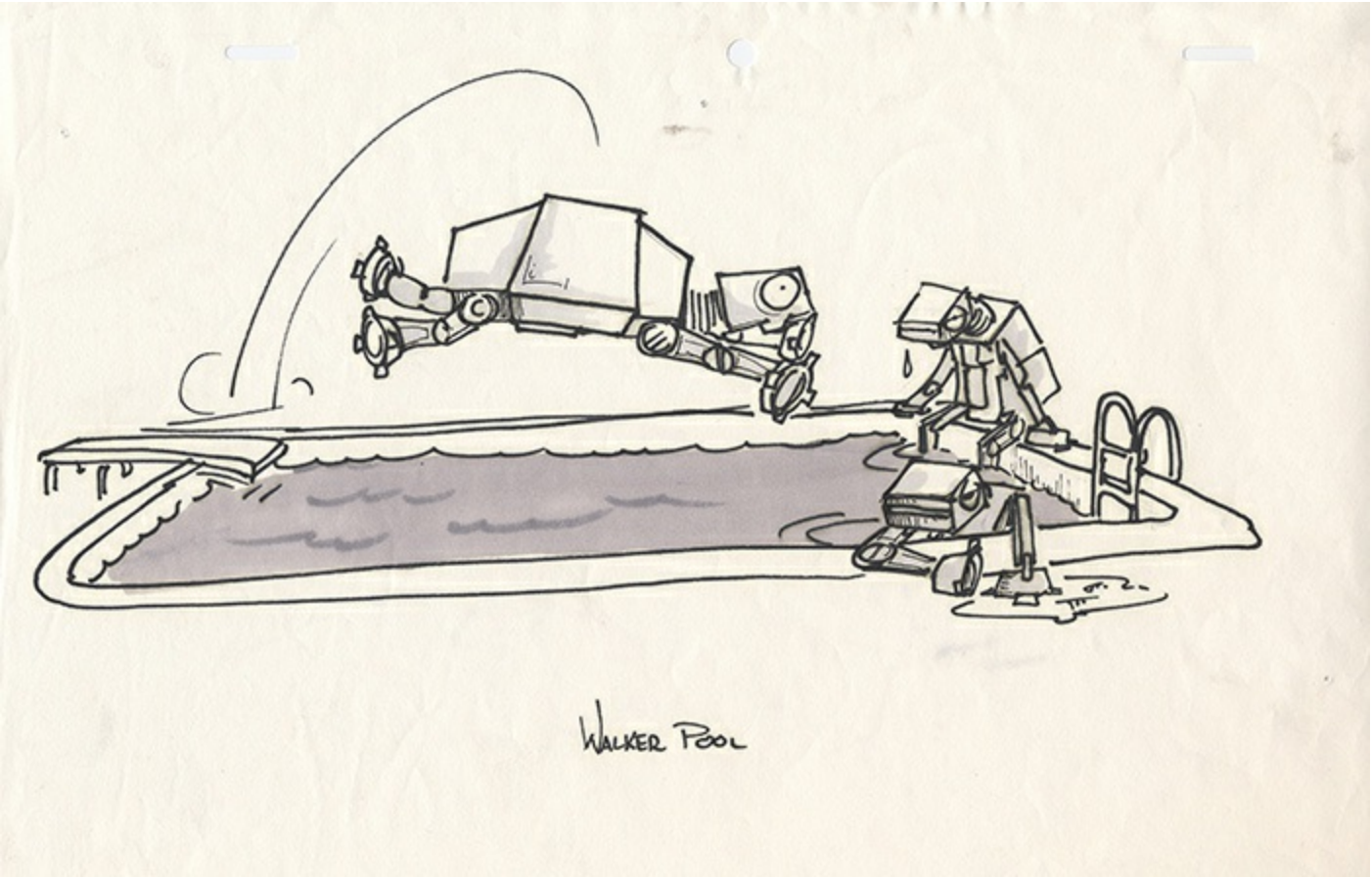
A cartoon in which *Slave I*'s resemblance to an iron is made explicit by animator John Van Vliet.



A “cloud car” and walker cartoon by Van Vliet.



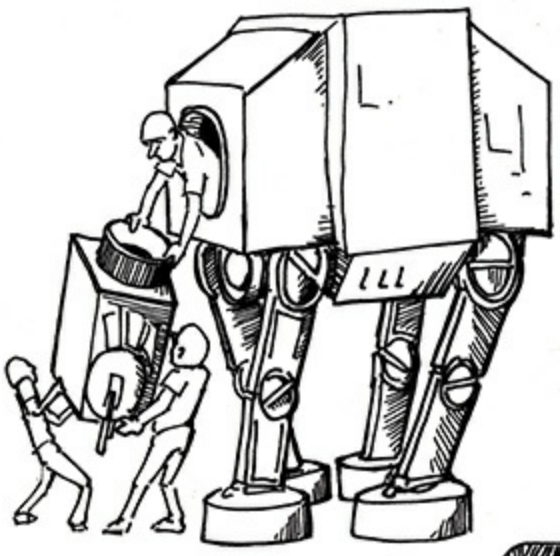
A “cloud car” and walker cartoon by Van Vliet.

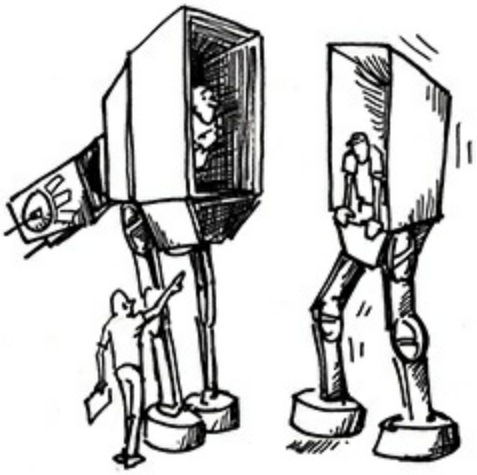


WALKER POOL

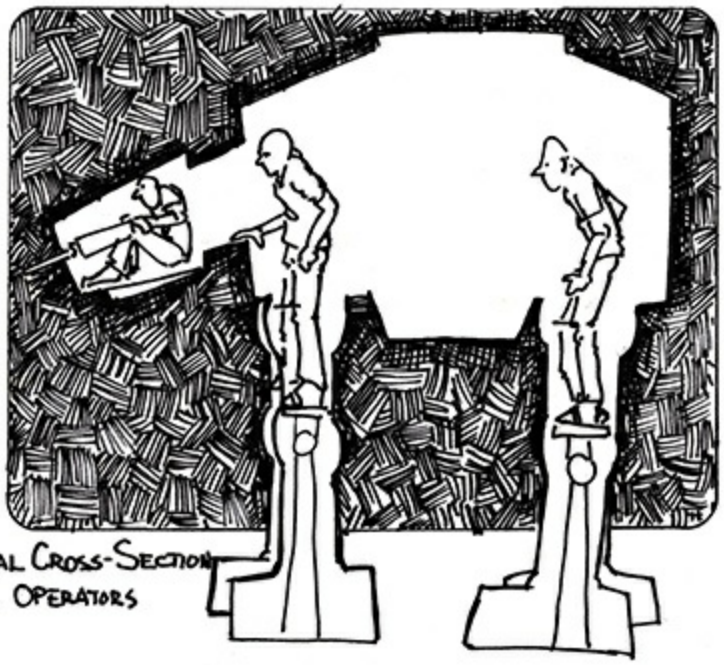
Special Effects

HOW IT'S REALLY DONE...

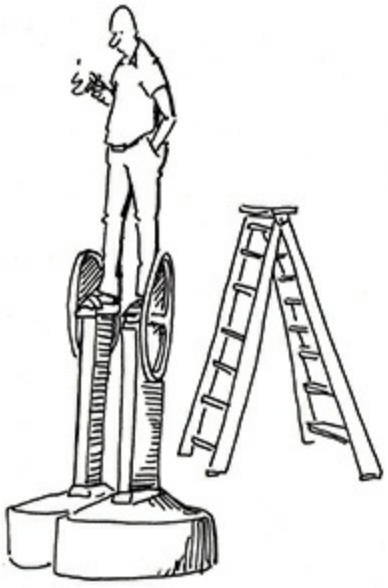


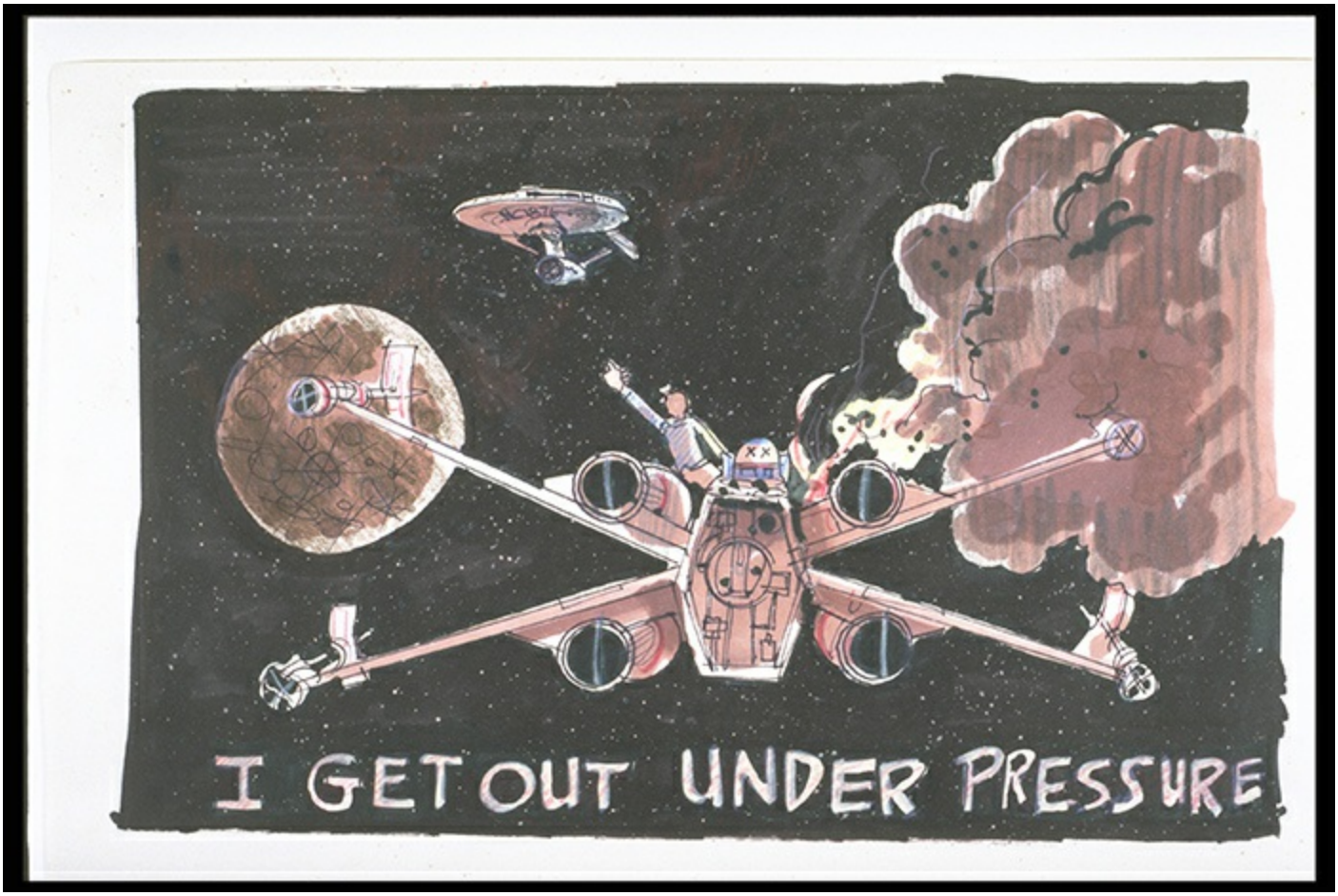


FOR THE WALKERS... THREE GUYS ARE INSIDE A BIG CARDBOARD SUIT, TWO STAND ON STILTS TO WORK THE LEGS AND A REAL TEENY GUY SITS IN THE HEAD, WORKING THE GUNS AND GIVING DIRECTIONS TO THE LEGS.



ACTUAL CROSS-SECTION SHOWING OPERATORS





A cartoon by Ralston.



A printer's proof of a final airbrushed frame for the marketing of *Empire* (the color of the Rebel cruiser had finally been worked out).

WONDERLAND EMPIRE

DECEMBER 1979 TO MAY 1980

CHAPTER TEN

Not long after the holidays, John Williams and the London Symphony Orchestra (LSO) taped the score at Anvil Studios at Denham, near London, and EMI Studios at Abbey Road, within the city. Seventy-two of the musicians had played three years before on the first film's sessions. "The main titles will be the same," says Hamill. "The main titles are *my* theme. The only reason I say that is because Carrie pointed to the *Star Wars* album and said, 'Look, Mark, here's 'Princess Leia's Theme,' and stuck out her tongue at me. Not that we're not mature adults, but I pouted for three days thinking, *Where's* my *theme?*"

John Williams, who had recently replaced the late Arthur Fiedler as the conductor of the Boston Pops Orchestra, had l08 minutes of original music to record. Since *Star Wars*, Williams had worked several times with the LSO: on *The Fury, Dracula* (1979), and *Superman*, for which the composer had just been awarded two Grammys.

"During the past 15 to 20 years, there has been a renaissance in Britain in the instrumental arts," says Williams. "The postwar generation has produced a wonderful pool of expert players, many of them surprisingly young; and in London, you have five or six great orchestras in one city, which is a situation that doesn't exist anywhere else in the world. Concurrently, there has been the development of recording techniques. London is in the front rank of that. So you have the combination of a wonderful pool of players and tremendous technical expertise—plus, a closeness to the film community. The British film industry is based in and around London, so it is the hub of all this activity."

Attending the sessions were of course Lucas, Kershner, and Kurtz, along with Willliams's support group: recording engineer Eric Tomlinson, orchestrator Herbert Spencer, music editor Kenneth Wannberg, and supervisor Lionel Newman, head of the Fox music department.

"*The Empire Strikes Back* is the fifth I have done with the LSO in the past three years and so a good relationship has developed between myself and this great orchestra," says Williams. "Performing film scores is not a new thing to them. They played the film scores of Walton [for example, *Major Barbara*, 1941] and Vaughan Williams [*49th Parallel*, 1941], and that goes back many years. They bring to a recording an ensemble precision and balance that comes from being a group of people who play together 52 weeks a year. During the recording of this score, the number varied depending on the type of music being played. Sometimes we would have 80 players, other days over 90, and for the most elaborate passages and the finale we had the full complement of 104."

"Williams has written a terrific Darth Vader Theme and it's so villainous," says Hamill. "I can already hear the audience booing and hissing."

"The new material is a Darth Vader Theme or Imperial March," Williams explains, "a dramatically scored piece of martial music that personifies not only Vader, but also the Imperial forces themselves. There is a theme for Yoda; it's very lyrical and, hopefully, there's a sense of wisdom and age in there. I tried to make the Love Theme a direct outgrowth of the original Princess Leia theme; it's very much in the same genre. And there are new themes that relate to the robots, Lando's palace, and Cloud City."

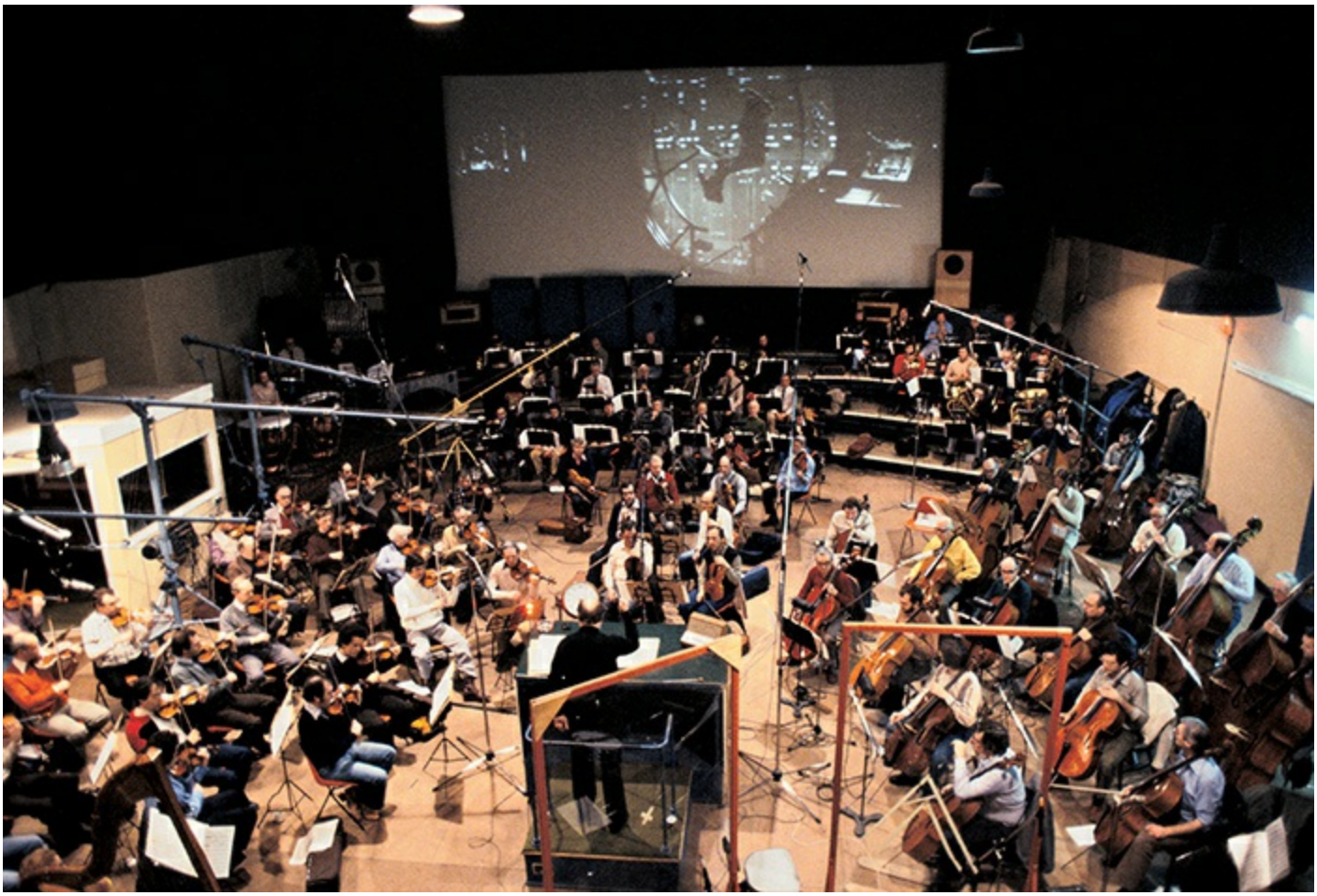
"Music is the most fun part of making a movie, especially with John, because the music turns out

perfect," says Lucas. "He's easy to work with if you need changes and it sounds brilliant. It's just an exhilarating experience the whole time. It was like, *Gee, I didn't think he was going to be able to top the first one, but I think he did.*"

"Battle in the Snow has an unusual orchestration calling for five piccolos, five oboes, a battery of eight percussion, two grand pianos, and two or three harps, in addition to the normal orchestral complement," Williams notes. "This was necessary in order to achieve a bizarre sound, a mechanical, brutal sound for the sequence showing Imperial walkers."

The expert musicians who arrived each day would be scanning the score for their respective instruments for the very first time. In general, a cue would be rehearsed one or two times as they sight-read, and then a final recording made in sync with the projected film.

"We did 18 sessions of three hours each, spread over a period of two weeks," Williams says. "That's quite a bit of time, but we had a lot of music. In a normal symphonic setting, you wouldn't need 18 sessions to record an LP with an hour-long piece on either side. But in recording for film, you have problems of synchronization that slow down the process. But I would say that music in film is a very new thing relatively. We've just begun to understand the audiovisual process, the very subtle and complex affair that is seeing/hearing. How much do we hear when we see?"



John Williams conducts the London Symphony Orchestra as they record the score for *Empire*, circa January 1980.



John Williams works with the London Symphony Orchestra, and Fox music supervisor Lionel Newman in the control booth, as they record the soundtrack in England, circa January 1980.

(1:31)

THROUGH THE MATTING GLASS WINDOW

January was midpoint for the matte painting department, which had coughed forward in October and whose work would continue full-gear until March.

"The day I walked into ILM, Neil Krepela was still testing equipment and not a single matte painting had been started," says Harrison Ellenshaw.

"I did some matte paintings that blended with the live action pretty good," says McQuarrie. "But I was a pinch hitter. I'd get tired, because production takes so long that it is hard to keep up the same level of work."

"Ralph McQuarrie, previously a stranger to matte paintings, takes a different approach: His mattes are of such detail and complexity that he was forced to work through, from beginning to end, on each individual matte," says Ellenshaw, who usually worked on several mattes at once. "Without him, I don't think we could have made the deadline."

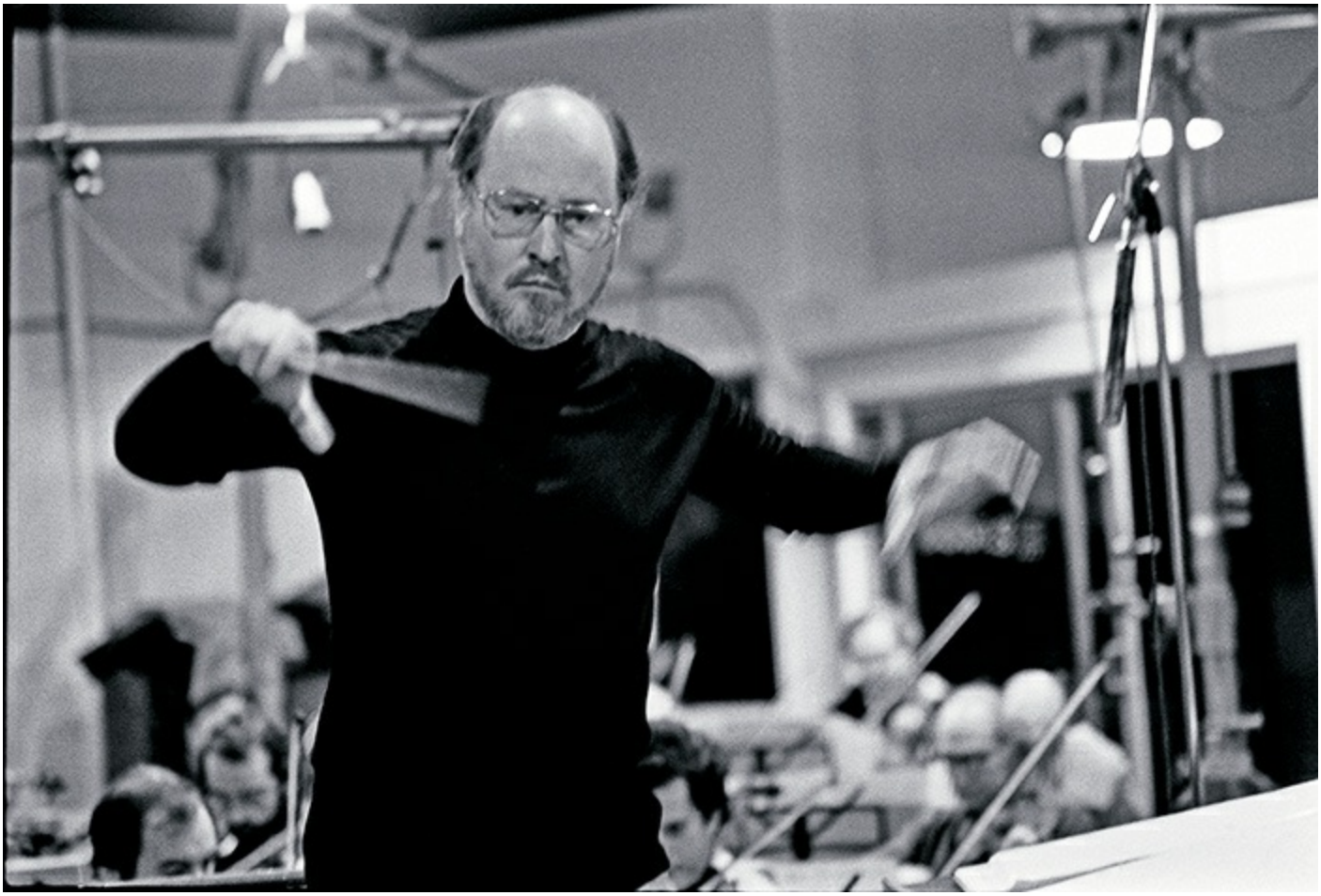
"We've been working 10 or 11 hours a day and Saturdays, just on the matte work," McQuarrie says. "But working for *Star Wars* is not just a job to make money so I can live—it goes beyond that. I'm almost happier working on the matte paintings. I didn't think I would be, but this is the stuff that goes into the film and I do like to see it on the screen."

Ultimately, the matte department would generate 70 paintings. Though some were just parts of backgrounds, every one of them, from small to enormous, was generated by Ellenshaw, Pangrazio, or McQuarrie. Many of them, as Ellenshaw had explained, used a front projection matte system; each

painting on glass had blank spaces for the live-action elements. The artists would put Scotchlite material directly behind those holes and then project the live-action footage onto the glass through a front projection beam-splitter.

"One of the most complex shots in the movie—at sunset!—was the real *Falcon* sitting there on Cloud City," says Kershner. "I shot it at 64 feet on the stage. The buildings of course were paintings. That shot is one of the biggest in the whole film and it was all done inside a studio."

That landing of the *Falcon* on Cloud City obliged the stage crew to resurrect the "gigantic" model used on the first film, according to Ralston. Part of the landing platform was also built as a model. John Van Vliet animated the firing of the retro rockets, and everything was combined in optical with the McQuarrie matte painting.



Williams conducts.



Lucas, Kershner, Kurtz, and Watts at a recording session.



During the recording of the soundtrack are (standing) Kurtz, Kershner, Lucas (and unknown); recording engineer Eric Tomlinson, composer John Williams, and Fox music supervisor Lionel Newman.

One of the bog's establishing shots was an Ellenshaw painting, with birds built by Tippett and animated by Ralston. "George hadn't planned on putting anything in those shots," Ralston says. "But Phil convinced him to go with something unusual. In fact, they were going to go with something even *more* bizarre, a creature sitting in the water, but there was simply no time to do that."

"It's all a painting except for a little foreground water with some fog," says Edlund. "All we added was the smoke coming out of the X-wing and the birds."

"One of my biggest moments was when I was recently at ILM," Kershner says. "They were working on what I thought was probably the worst shot in the movie. I saw it 'married' to its matte painting and other elements—and suddenly the worst shot became the best!"

ODDS AND ENDS

The first month of 1980 saw peripatetic work at ILM. "I returned to the Valley on December 2, after the walker animation, and took the rest of the month off," Doug Beswick says. "Then I got a call on January 2—they wanted more armature work done. It turned out to be the slug. They had a design as a wooden mock-up, so I made it out of aluminum again and it was pretty heavy. It worked like a hand puppet; a return spring mechanism would close the jaws. You could stick your hand through the neck and grab it like a handgun or a pistol grip."

Tippett had designed an exterior for the slug armature and Jon Berg had puppeteered the first version. Ultimately, the relatively large ILM group necessary to film the vertically mounted "sock puppet" needed more than 50 takes over a period of a week.

"Ben came to me one day and said, 'I need to record your burps,' " Howie Hammerman says. "Apparently, I was famous for burping. So I went to the store and bought some bottles of Hansen's juice, then I came back to our little studio and proceeded to burp under Ben's direction. Ben was working on *Alien*. Later, those burps were used for the space slug; when it chases the *Falcon* as they fly out, there's some of my burp in that sound effect."



The early *Empire* matte painting department, circa October 1979: painter Michael Pangrazio, assistant matte photographer Craig Barron, painter Ralph McQuarrie, matte photographer Neil Krepela, and matte department supervisor and painter Harrison Ellenshaw (sitting). To get a job in the department, as he was only 18 years old, Barron had fibbed about his age during his interviews ("I'd have to tell Craig how late we'd be working so he could call his mom and tell her when to pick him up," Ellenshaw says). Later, the pressure to complete work in time led to a second matte stand and camera with two teams working concurrently (and the hiring in early 1980 of matte photography assistant Robert Elswit and additional matte photographer Michael Lawler).



Ellenshaw and Lucas discuss a Dagobah matte painting.



McQuarrie at work on a matte for the entrance to the Rebel hangar on Hoth. "Ralph used an airbrush a lot," says Ellenshaw. "Keeping the airbrush from clogging would make me so frustrated, I tended to avoid the damn things. But Ralph was a hugely patient man."

Also in early January, Edlund shot the walker foot and snowspeeder with the HSE. He used his own Mitchell high-speed camera (that ran at 175 frames a second; the VistaVision would run only at 96 fps) for a shot listed as "Walker's Ass," or M-131. The falling walker was rigged with "hidden wires and solenoids," he says, "to get the thing properly balanced, so it would topple over just the way we wanted it to."

"The legs of the walker were trouble spots," says Beswick. "They were underbuilt. Ratchets were made so we could lift the walker up and position it. Once the ratchets were released, the thing would collapse. It worked just fine when we put the legs on. But once we put the *body* on, it was just too heavy—the ratchets stripped right out. Originally, there were three scenes where the walker falls; the film used two of them."

On January 15, Edlund shot the walker's head blowing up at the San Francisco Armory in the Mission District, where he ended up filming nearly all of the high-speed explosion footage. "It was the biggest single room we could find anywhere that was completely unrestricted—the ceiling's a good 80 feet high," Edlund explains. To cover the tricky and dangerous shots, he positioned five high-speed cameras for maximum coverage. He and his crew stayed for a couple of weeks and ended up with about 400 explosion shots.

Muren took care of shot M-141 on January 25: A walker firing its cannon is "ready to be shot," production notes read. "Must be projected and shot on same camera, so it lines up. Back lit, airbrushed technique. Two or three hours to shoot. One-and-a-half weeks average to plan exposure, artwork, and shooting."

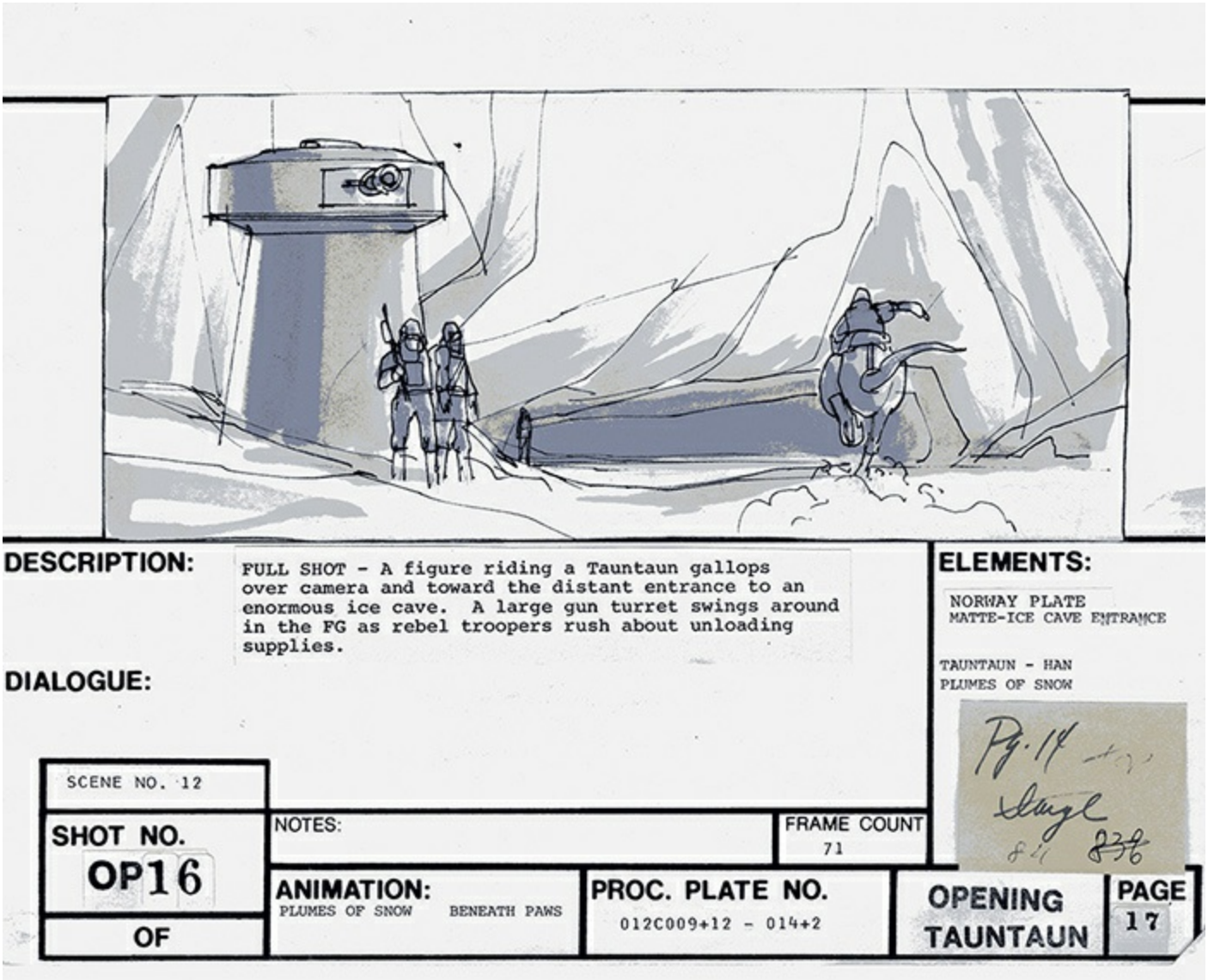
"The walker sequence ends with Luke climbing up a rope and blowing up a walker," Muren says. "That's not the way it used to end. Originally, that sequence came *toward* the end. But the shots of Luke running were done under a heavy overcast, so George rearranged that for the end, but it worked better dramatically, because I had come up with the idea of a progressive snowstorm. The live-action footage would have created a sequence in which some shots had bright sunlight and a blue sky, cutting directly to a white sky and a snowstorm. So we reordered the shots so they start out in morning sunlight, and then the overcast builds up for continuity's sake, though it was violated a few times; we were very rushed to shoot the high-speed walker footage and some of the backgrounds we used in those instances did not conform to the continuity."

The beginning of the new year also saw several pickups and reshoots. "We were doing a scene in George's swimming pool," says MacKenzie. "The pool was nothing but a big pit in the ground that was full of muddy water. We were doing the scene where that monster broaches the water on Dagobah and swallows Artoo. I was there because the divers had to have some way to get cued, so we rigged up these little light-emitting diodes in their goggles and just ran a wire down into the water with low voltage."

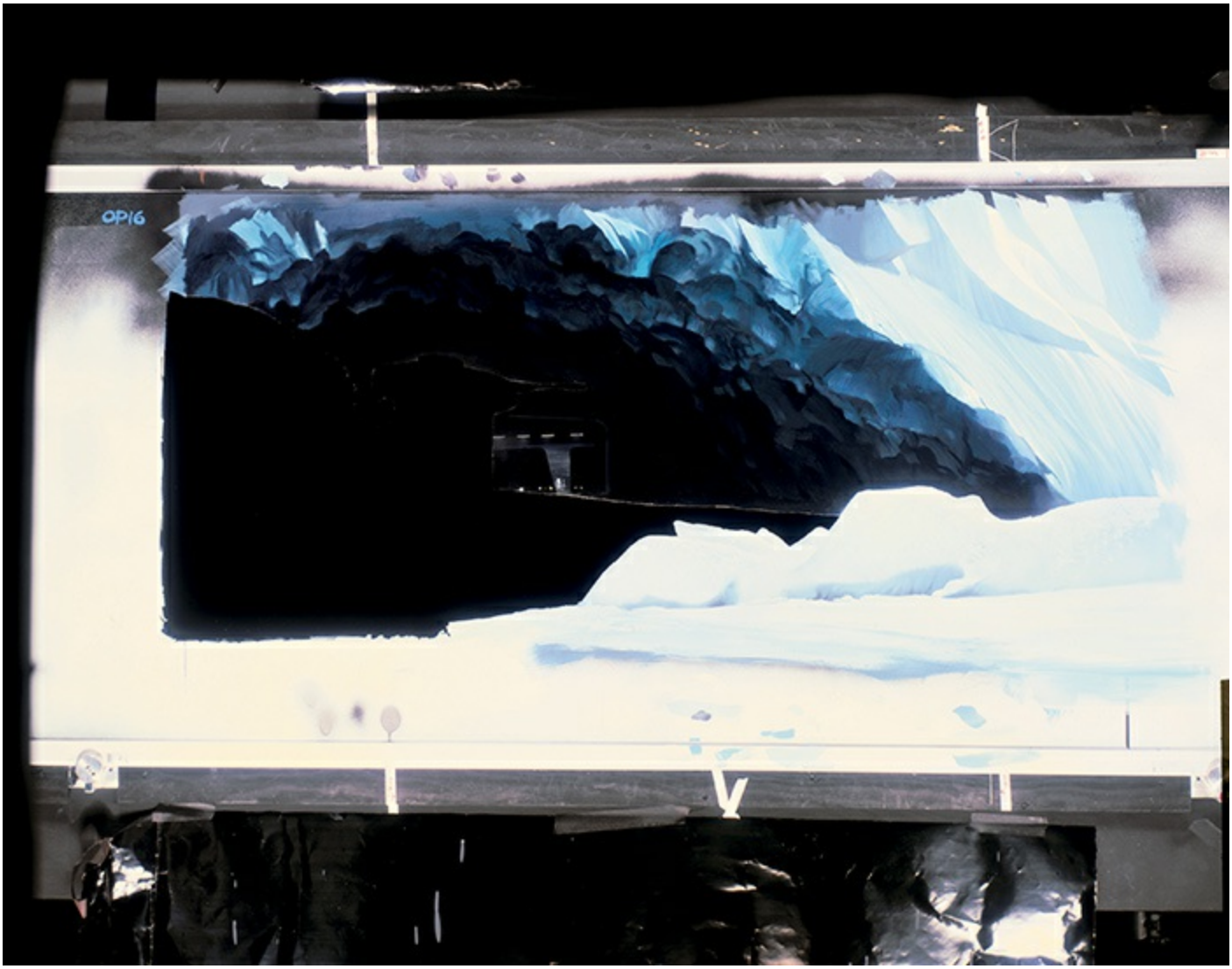
"At the moment, I'm involved in designing a rig for Artoo-Detoo, who has to be spat out by a monster," Johnson says. "The newly built Star Wars Stage at EMI was originally designed to be flooded to quite a depth, but, because of problems in construction and the time factor, it turned out that it could only be flooded to a depth of three or four feet—which meant that we couldn't get the Artoo rig into the water. So I've redesigned the whole thing over here."

"There was a lot of stuff goin' on," says Ralston. "We were shooting inserts and weird stuff would

happen. We saw the rough cut of the Abominable Snowman scene—and whatever they built in England was so crappy and so bad looking that Jon, Phil, Dennis, and me, we were like, 'I don't want this in the movie I'm working on.' Now we're getting really arrogant, because we know everything. [laughs] What they had looked like a big owl, kind of nice and cuddly, but not scary—and we weren't about to let something that dumb get into the film. So Phil built a miniature head and we just went into a vacant lot and shot up at a cloudy sky. Luckily, George used it."



A Johnston storyboard of OP16 led to McQuarrie's work on the hangar entrance matte (below two images), to which a stop-motion taun was added for the final frame and the foreground ice deleted.



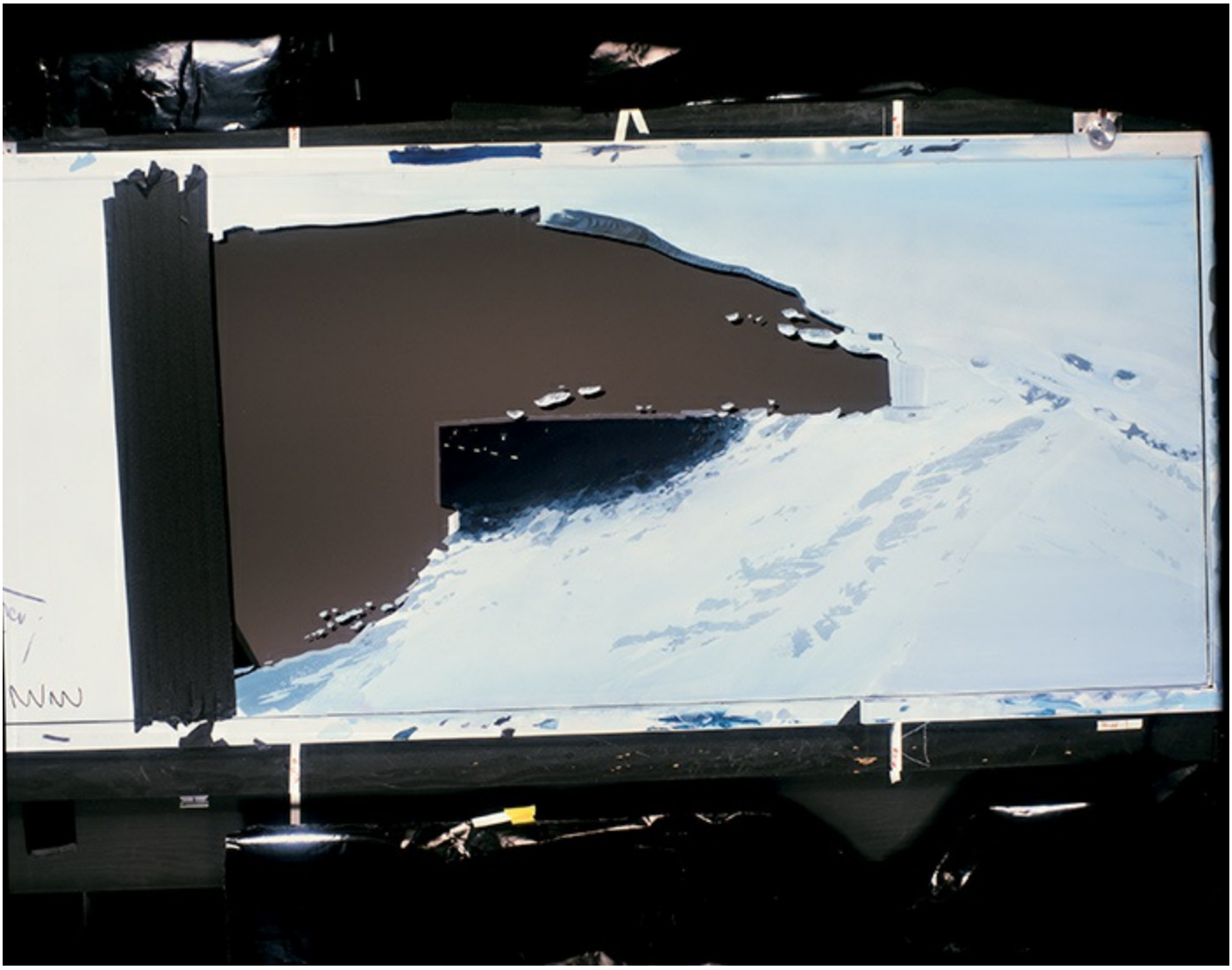
McQuarrie's hangar entrance matte.



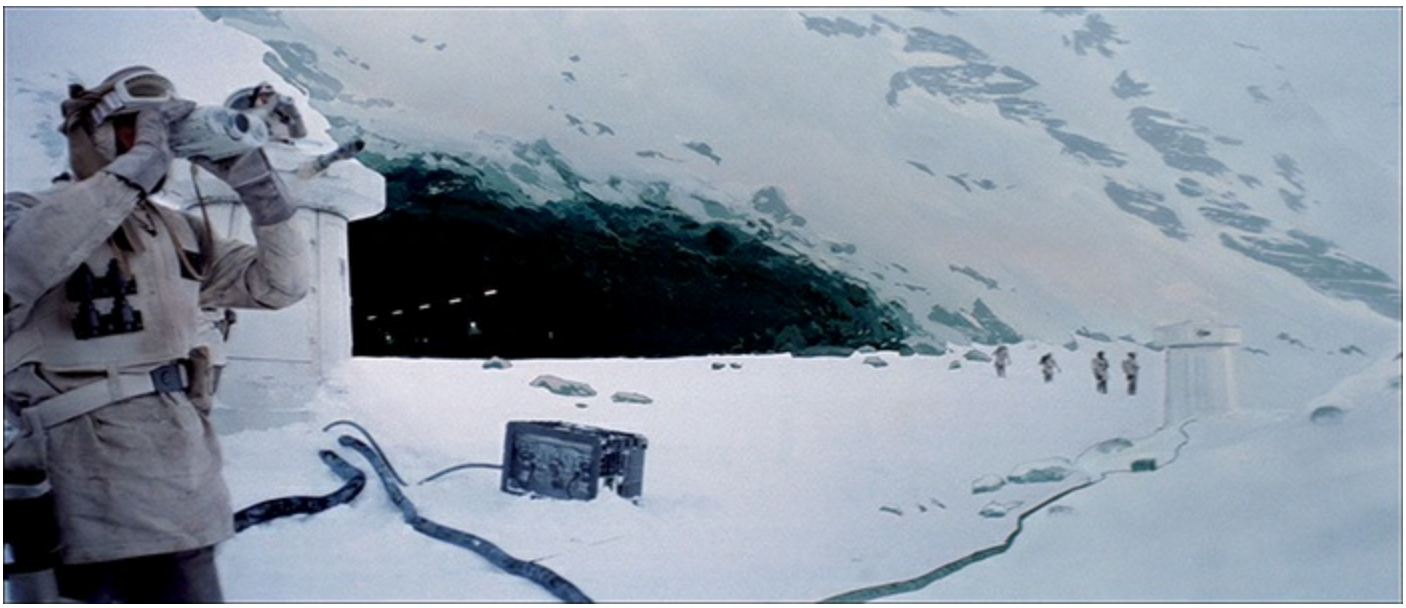
McQuarrie's hangar entrance matte.



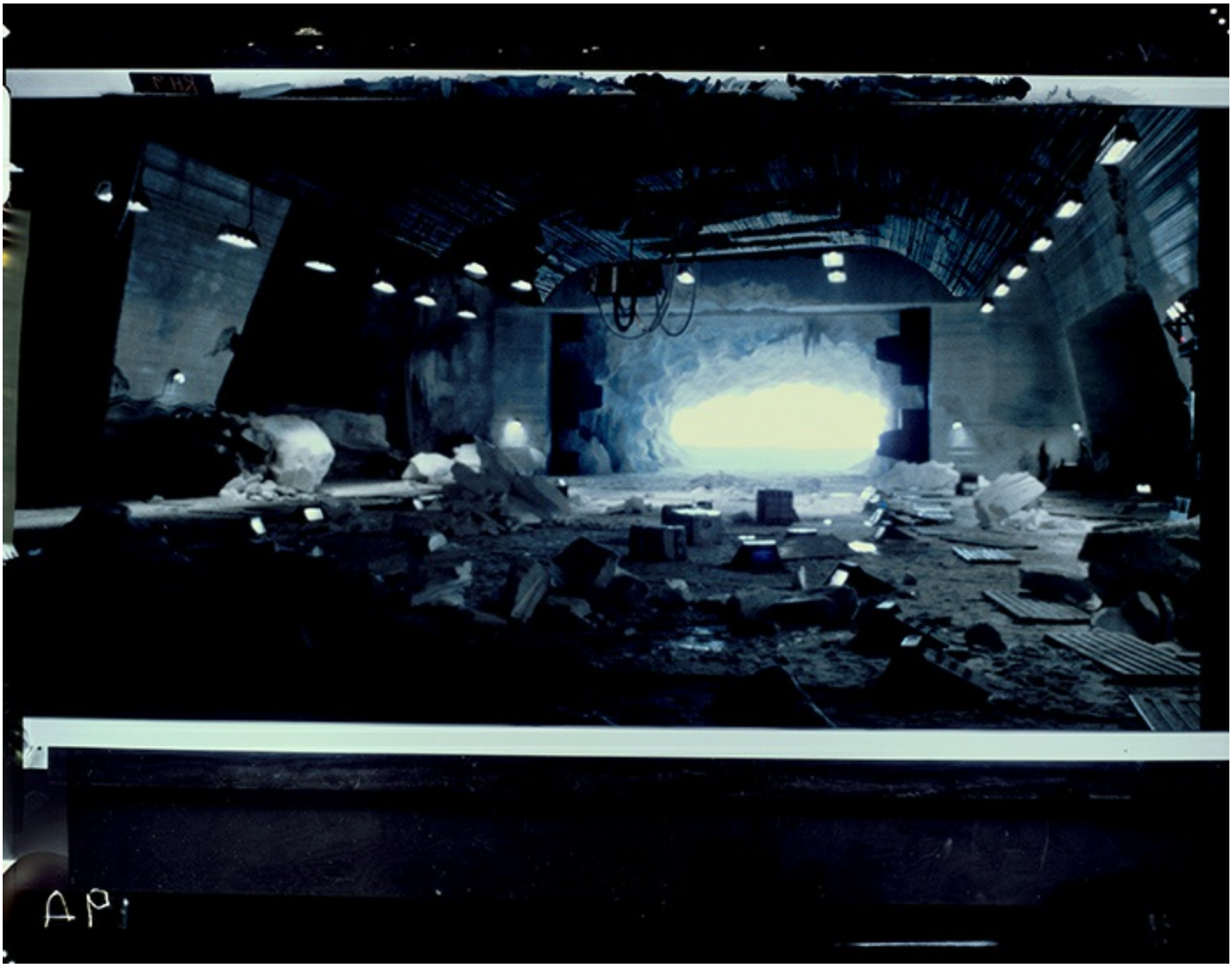
A stop-motion taun added to the final frame and the foreground ice deleted.



A second matte by Ellenshaw was created for a similar shot of the hangar entrance, but from slightly farther away and with painted snow tracks.



Final frame. For the final shot, a front-projected low-contrast color plate was reduced approximately 70 percent and another painting was added to the right side (at one point, a right-to-left pan was planned). Both mattes were married with live-action footage that had been shot at the Blue Ice location by second unit in Finse, Norway.



A matte painting by McQuarrie combined the live-action set with a painted roof, which was then flopped for the final shot.



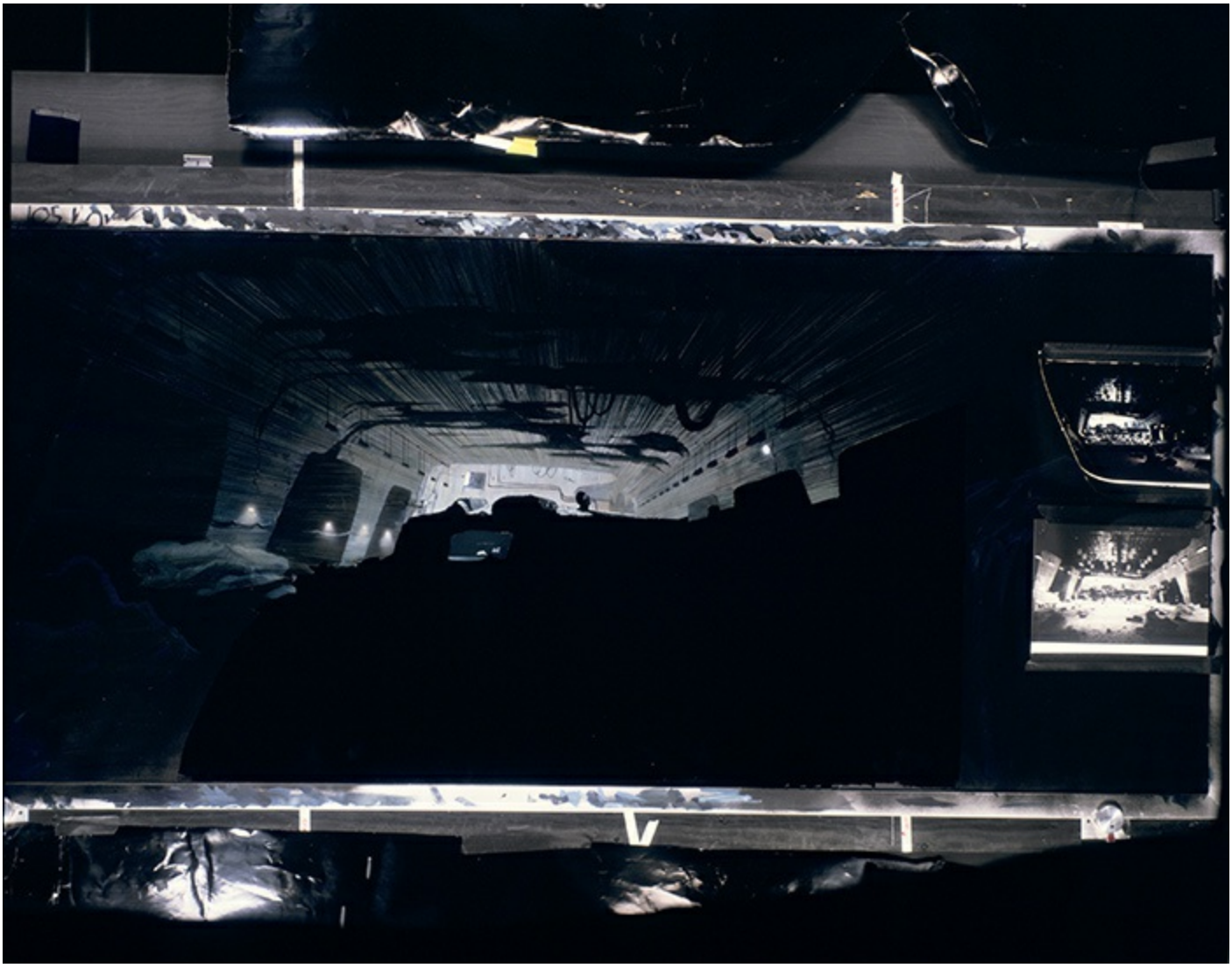
Final frame.



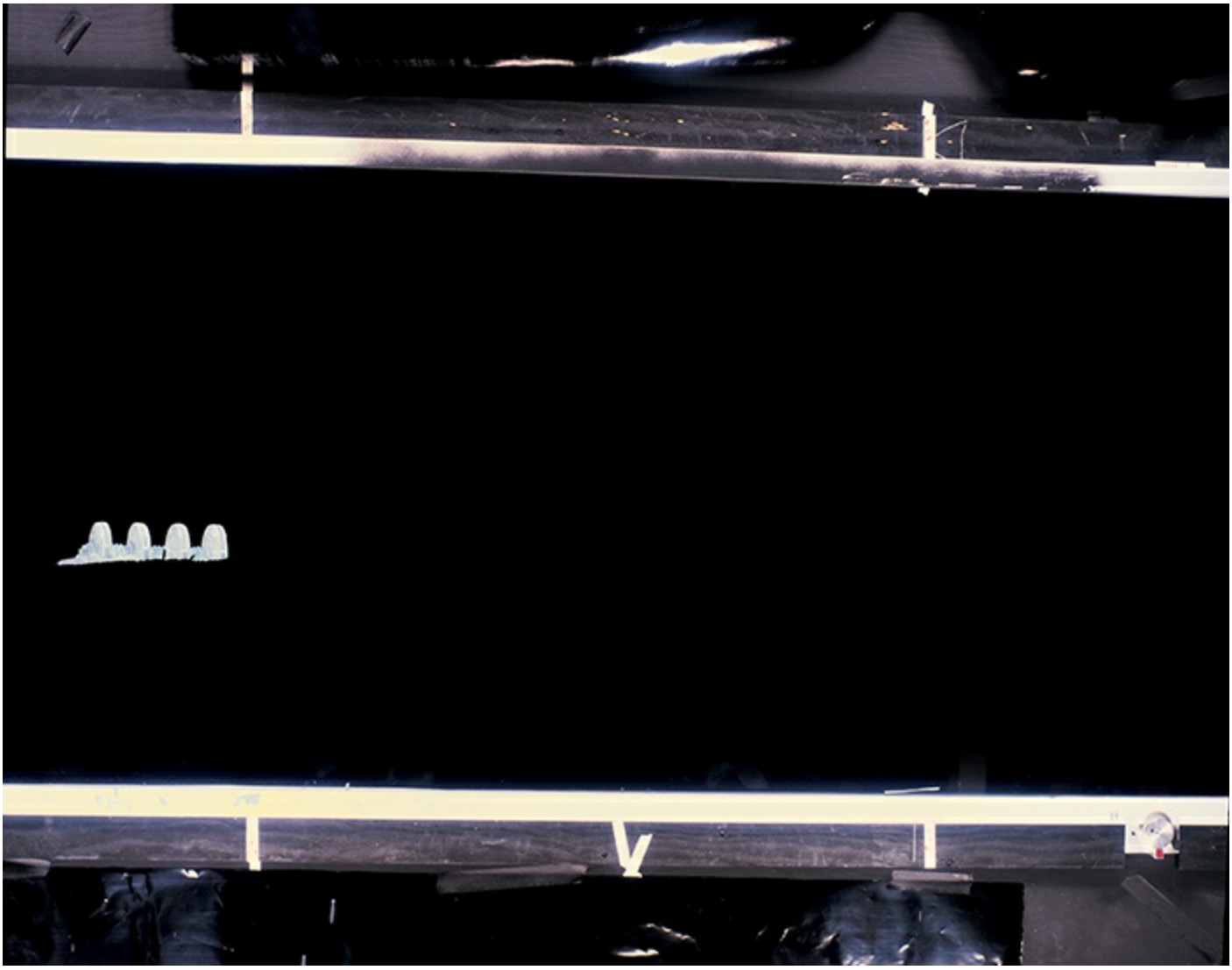
Another matte by McQuarrie married with the live-action set. Grease pencil numbers were added to the glass in order to line up the matte with the original plate. It was a difficult shot because the plate was out of focus; they therefore chose a lighter take, reduced it 70 percent, and then darkened and painted over soft areas until the only live-action element left of the set was part of the *Falcon*.



Final frame.



A storyboard (by Johnston) and finished matte painting of a portion of the rebel hangar by Harrison Ellenshaw.



One of the first mattes combined a painting by Ellenshaw of the generator combined with second unit.



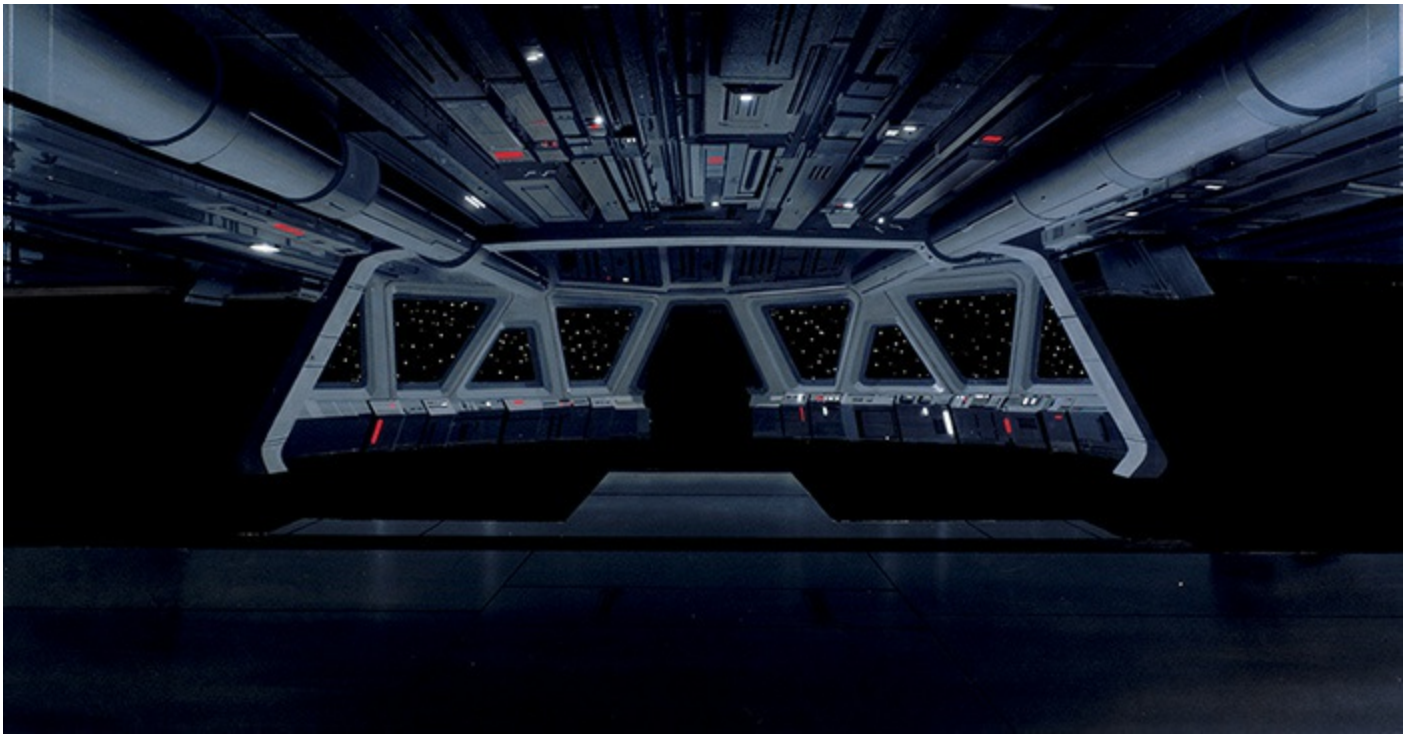
Final frame.



Final frame of another generator painting by Pangrazio combined with the live-action probe droid.



Michael Pangrazio at work on a matte painting of the rebel generator.



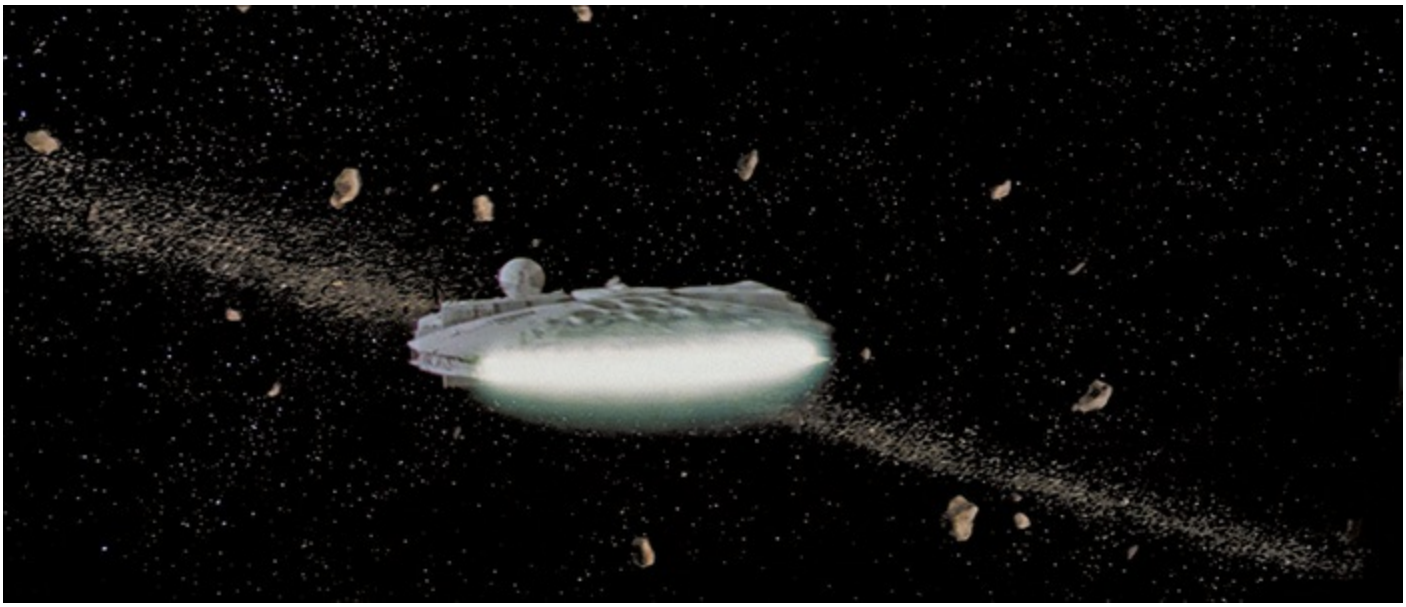
A McQuarrie matte painting was composited with live-action footage of the *Executor* bridge and Vader (the half-bridge-set having been duplicated to create a complete bridge) to render a final shot.



Final shot.



Pangrazzio works on a star painting on tilted glass (to avoid reflections), which would meld with miniature work.



Final frame of a similar shot in which the *Falcon* emerges from the asteroid field.

Most matte paintings were done in acrylic or oil paints; when the latter was used, an agent was mixed in to accelerate the drying process. Pangrazio used oil paints; McQuarrie, acrylic and sometimes tempura; Ellenshaw used primarily acrylics.



A Dagobah matte painting by McQuarrie served as the background to a shot in which Luke's X-wing levitates toward him care of Yoda.



Final frame.



Another Dagobah matte by Ellenshaw helped create the establishing shot of the bog, after going through about six iterations, being flopped, and then combined with the live-action X-wing and water.



Final frame.



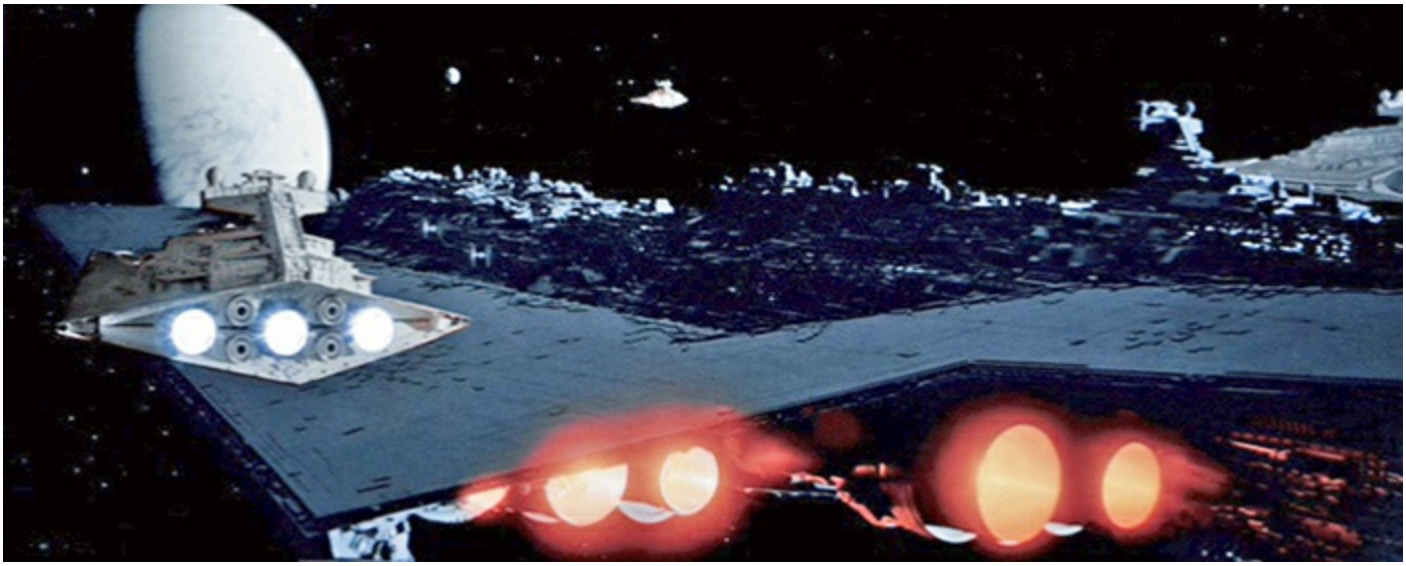
For the same shot, Tippett built and Ralston animated stop-motion flying creatures.

“Dagobah is a great opportunity for a sound designer,” Burtt says. “Because you can create an unseen world that’s off camera. You can give it a vastness that’s not really there. I started out recording some birds at a zoo in an echo-y aviary. When I slowed the recording, they became spooky howls. Mixed into that were raccoons in a bathtub (so they wouldn’t run away).”



Various planets were painted for *Empire*, including a moon by Pangrazio.





Additional planets were used in other shots (Two final frames).

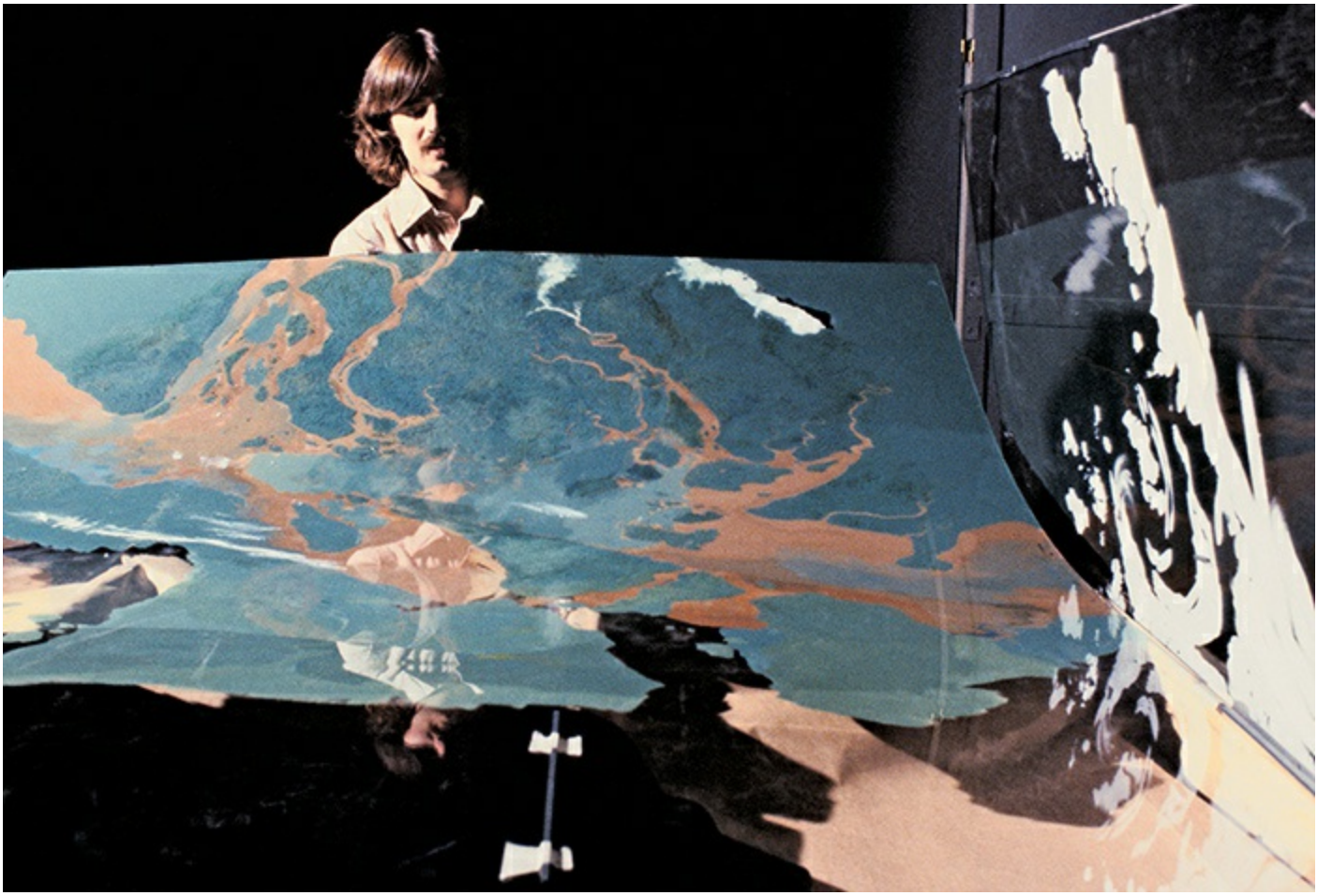


While still another figured in a publicity composit of Luke's X-wing.

A persistent problem for the matte painting department was its second floor location (where it had been for *Star Wars* in Van Nuys, too). Second-floor rooms were more prone to vibrations. Ultimately, Krepela would have to use the PA system to warn everyone in the building to be still when he was shooting a matte painting.



Johnston at work painting an aerial view of Dagobah, which Pangrazio helped create (with clouds painted on a separate piece of plexiglass on the far right).





A touched up final frame of Luke's X-wing blasting out of orbit made use of the Dagobah aerial-view matte painting. The plexiglass surface of clouds would be placed a few inches above the painted surface and then lit, which would create real shadows of the clouds on the planet surface (which could also be moved).



Production illustration of Han in window with cloud car by McQuarrie, summer 1979: "I showed this to Mike Pangrazio," McQuarrie

says. “He did a nice job of creating a matte painting to cover this moment.”



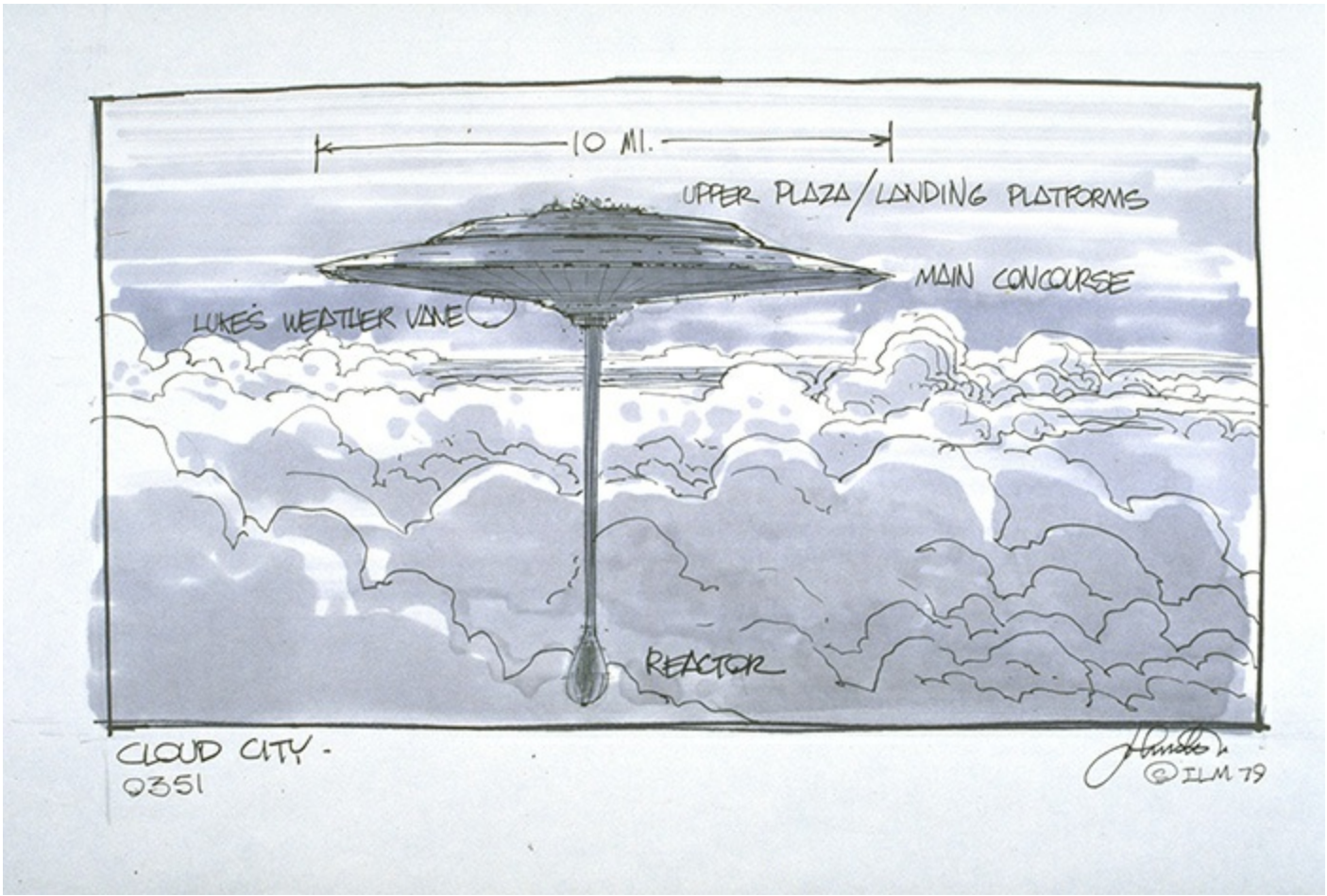
Pangrazio’s matte painting made use of miniature buildings constructed in the model department, as requested by the painter (the final image in the film would be flopped and would exist as three layers: clouds moving slightly; cloud car flying over rotoscoped matte of the foreground painting; and the matte itself. Both the illustration and the matte painting include a tower in the background from one of McQuarrie’s early concept sketches for Darth Vader’s castle).

“Ralph kept saying to me, ‘I don’t want to know anything about how things work around here, I just want to paint,’ ” says Ellenshaw. “And I said, ‘Fine, you paint. Any shot you want to start, you do it and let me worry about making it work.’ Well, he started coming in eight, ten, fifteen hours a day, just painting, while I was lucky to spend half my time painting, what with looking at tests and handling personnel affairs.” Even with their efforts, it was late in post before the matte painting department started turning out its shots. “Jim Bloom would come in about once a day and say, ‘Hi, how are ya? Need any help?’ Then this kind of furtive look—‘Anything I can do for you? Mix your paints, maybe?’ ”

To hit their deadlines, ultimately, the matte department crews had to work 24 hours a day, with completed shots coming off the optical printer every day or two in February–March 1980.



Matte photographers Robert Elswit (later, an Academy Award–winning cinematographer) and Michael Lawler prepare to shoot a matte painting.



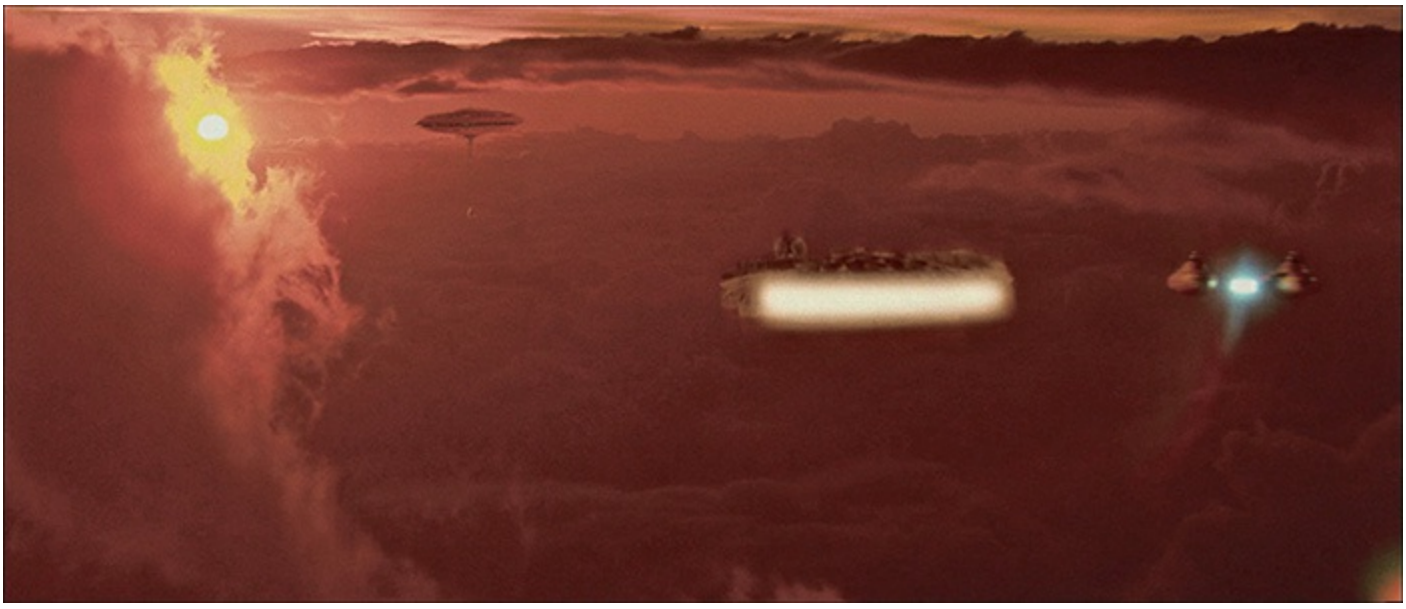
A concept drawing by Johnston of Cloud City, with approximate measurements.



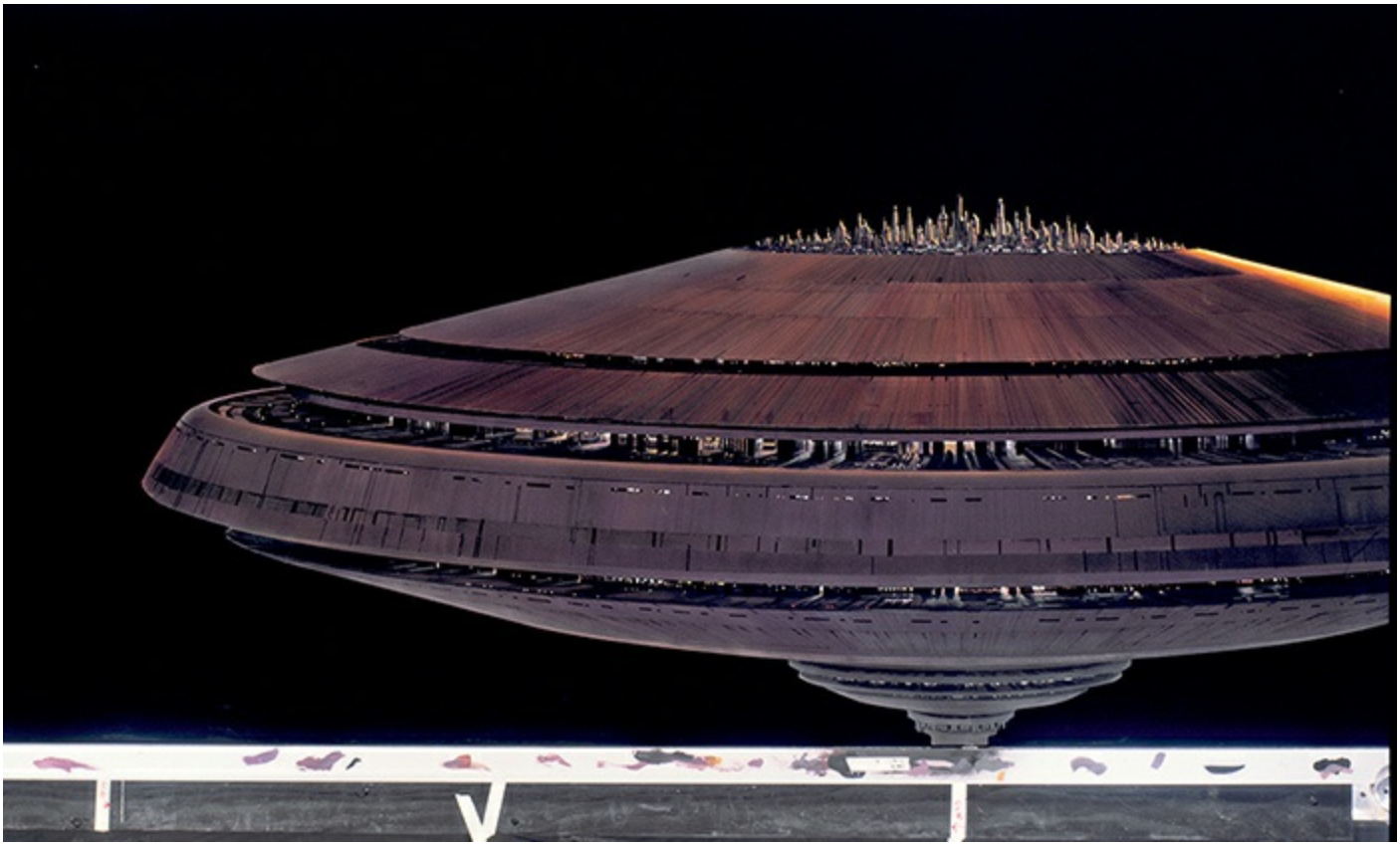
A matte painting of a sunset that would figure behind a Cloud City miniature, attributed to McQuarrie.



Pangrazio's matte painting of clouds in the foreground combined with a matte painting of cloud city by McQuarrie to create an establishing shot.



Final frame of distant Cloud City, which McQuarrie painted on an animation cel.



A third painting by McQuarrie of Cloud City was needed as the *Falcon* nears the floating metropolis.

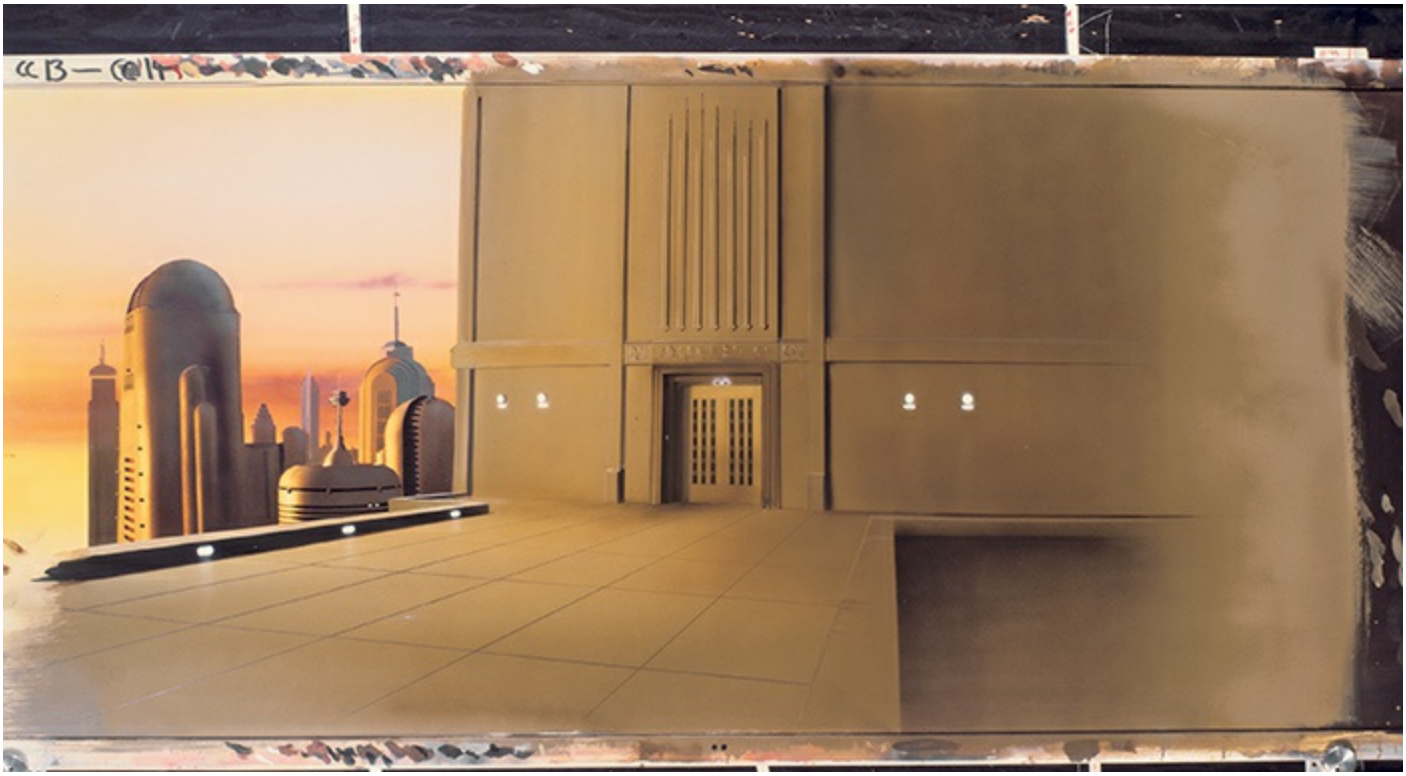


Final frame, again with clouds by Pangrazio.

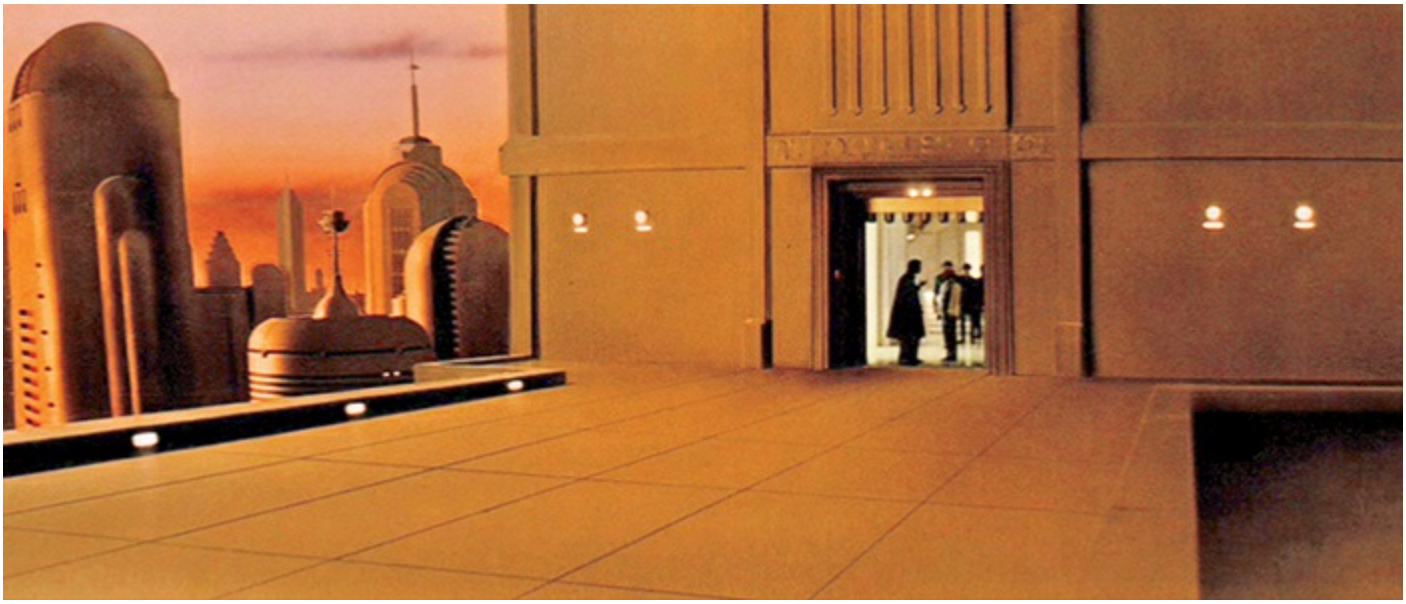
"Here in Cloud City, we're dealing with real backgrounds shot by Brian Johnson from an airplane," Muren says. "So we had light-colored backgrounds with a lot of bluescreen—the same problem they had on Superman—and this factor multiplied the difficulties 10-fold. In order to achieve a high degree of realism, we've gone heavily into diffusion on the spaceships. We've knocked the blacks out of them; we've degraded the image." "We did some tricks where we would do some dissolves so the *Falcon* would look like it was flying out of clouds," Ralston says. Johnson adds, "Matching the moving clouds was a nightmare for the optical department."



For a shot of the *Falcon* landing on Cloud City's platform, a matte painting by Ellenshaw was combined with footage taken by the night crew of the very heavy *Falcon* model (originally built for *Star Wars*).



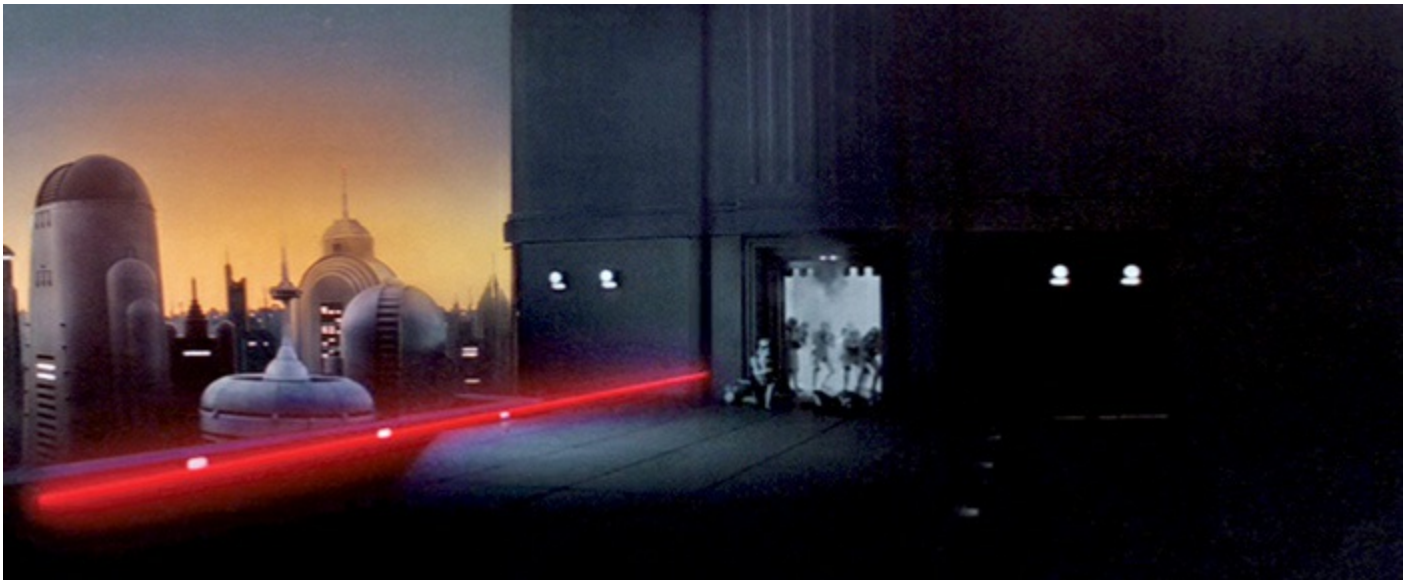
Another matte painting by Ellenshaw was used for Han's point-of-view of Lando.



Final frame.

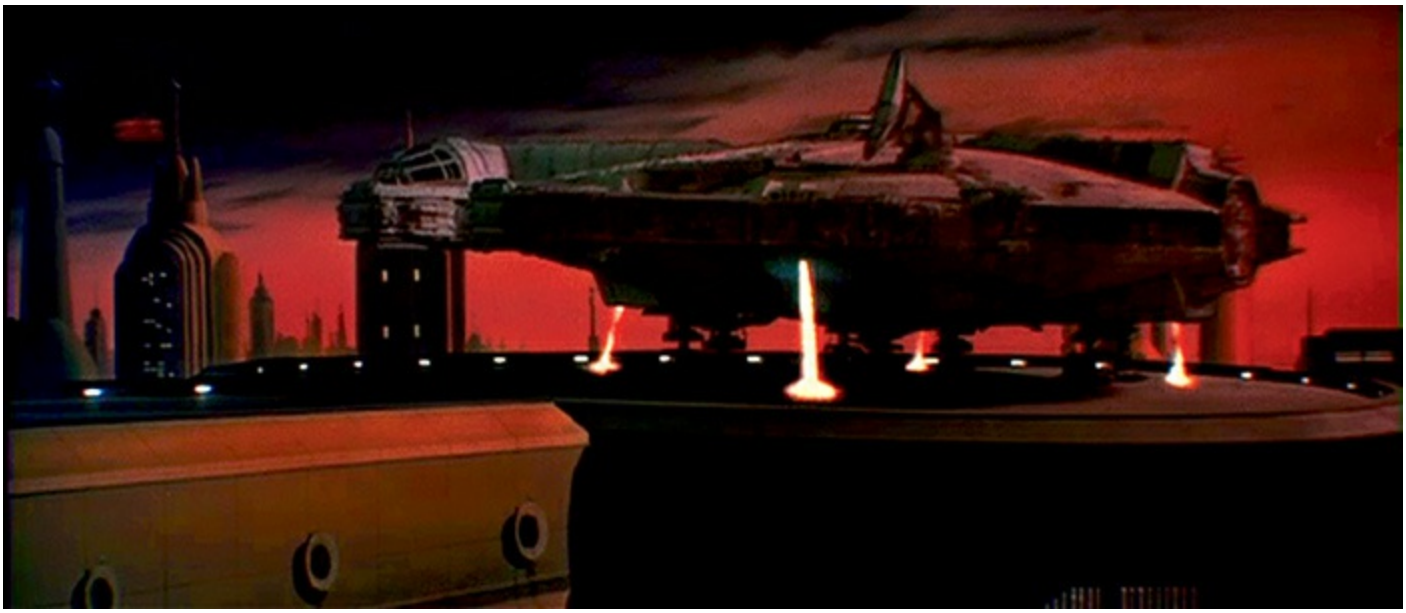


A second matte by Ellenshaw of the same angle, painted to simulate evening colors, was used for when the *Falcon* takes off as stormtroopers try to blast it.



Final frame.

"We composited the shot and the next day in dailies, we were surprised to see that the lasers were upside down and coming out of the top of the building," says Ellenshaw. With just *days* to go before the film came out, the shot was fixed.





Assistant cameramen Chris Anderson, Richard Fish, and Selwyn Eddy, along with Ralston, shake hands during a night crew session with the original *Falcon* model that resulted in the final frame of the ship's arrival on Cloud City (with retro-rockets animated by John Van Vliet). "The night crew was a crazy group," says Ellenshaw. The victory handshake celebrated getting the very heavy *Falcon* to land without a camera or model shake after a full night's work.



McQuarrie works on a matte shot for the sequence in which Solo and Lando meet.



After reminding everyone to be still over the PA system, Krepela photographs the matte painting (Final frame).

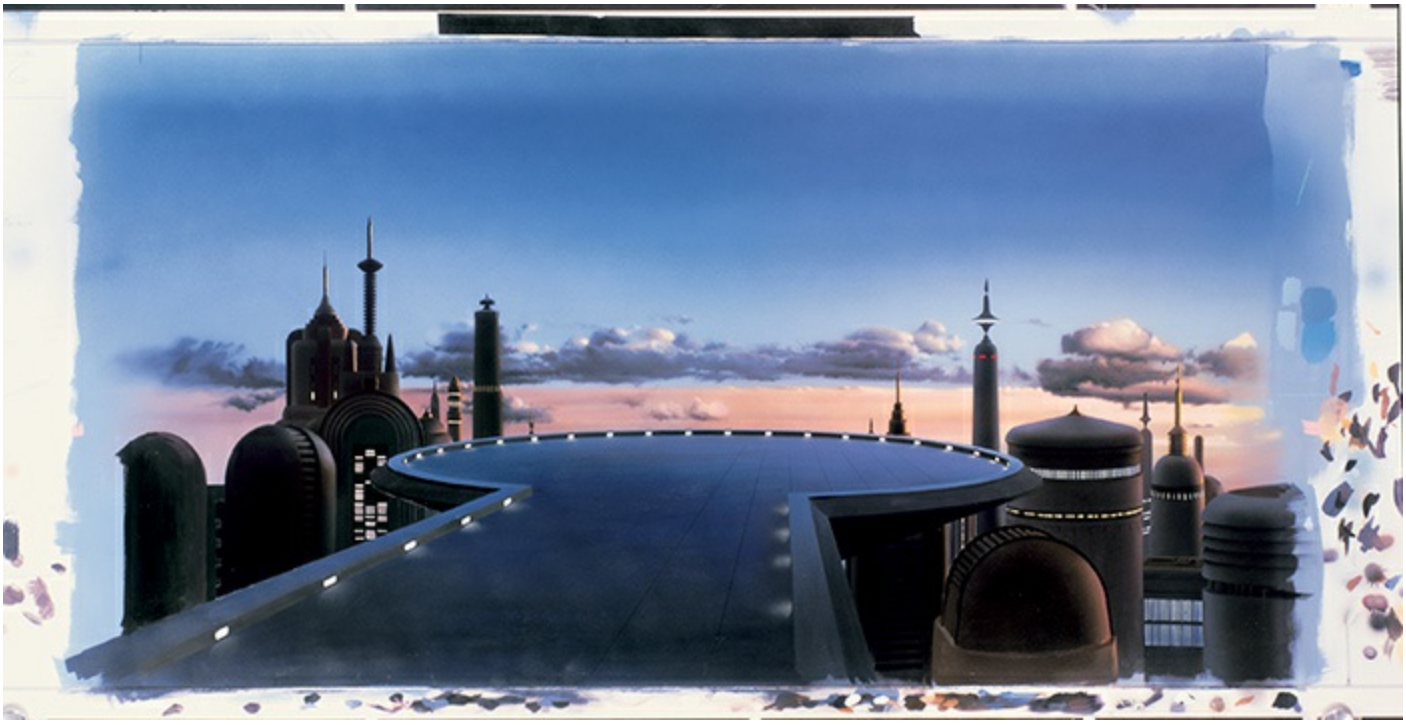
“Most days George would come to ILM about 45 minutes before afternoon dailies to walk through the facility and see how everyone was doing,” says Ellenshaw. “It was valuable to get his feedback and not have to wait until the paintings were finished and composited to hear that he wanted changes. It saved countless man hours.”



ILM assistant cameraman Selwyn Eddy III works on a shot of the Falcon landing on Cloud City.



A cel overlay painting done over a storyboard by Ellenshaw, created after the fact for PR.



The final matte painting by McQuarrie.



The matte was combined with live-action to create the final sequence (Final frame of the heroes arrival).



A matte painting by Ellenshaw extended a Cloud City corridor, making Luke seem small and vulnerable upon his arrival.



Final frame.

In creating his painting, Ellenshaw had to compensate for a live-action plate taken with a wide-angle lens; he used an airbrush to obtain the soft shadows on the walls' indentations.

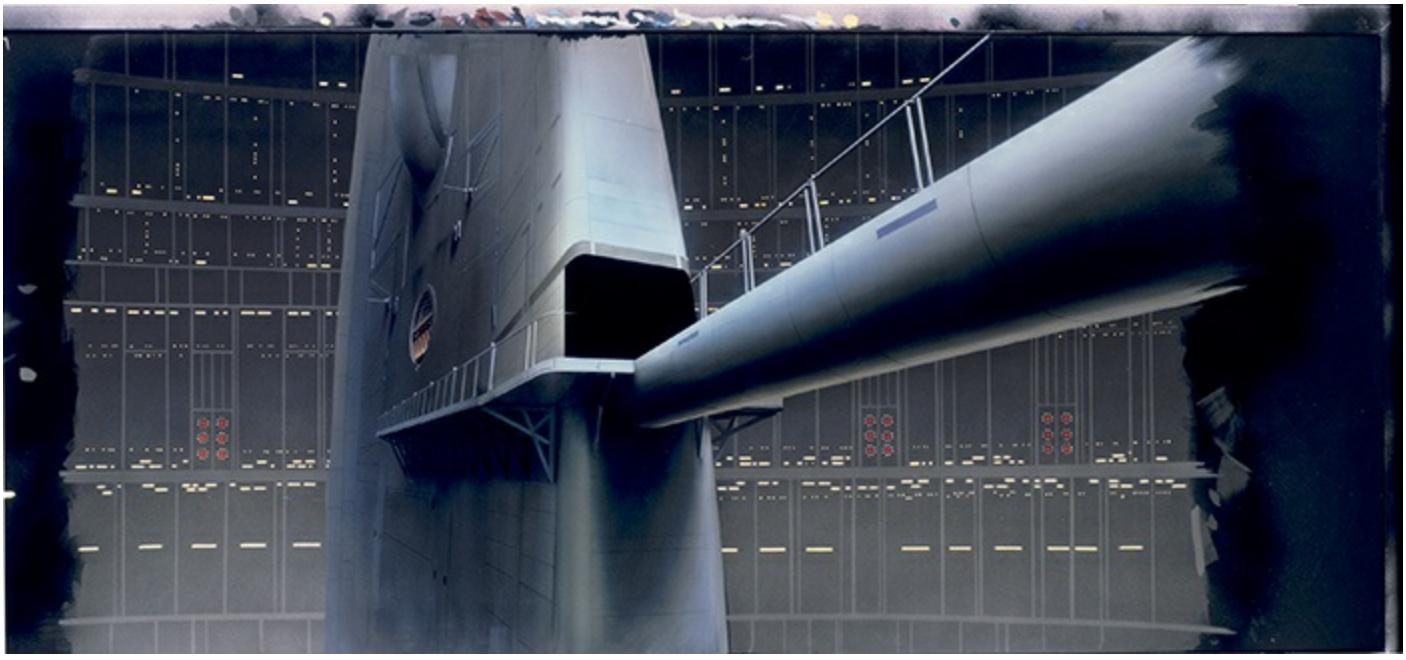


Mark Thorpe works on miniatures of Cloud City buildings, requested by Pangrazio, which were painted and lit for lighting reference.

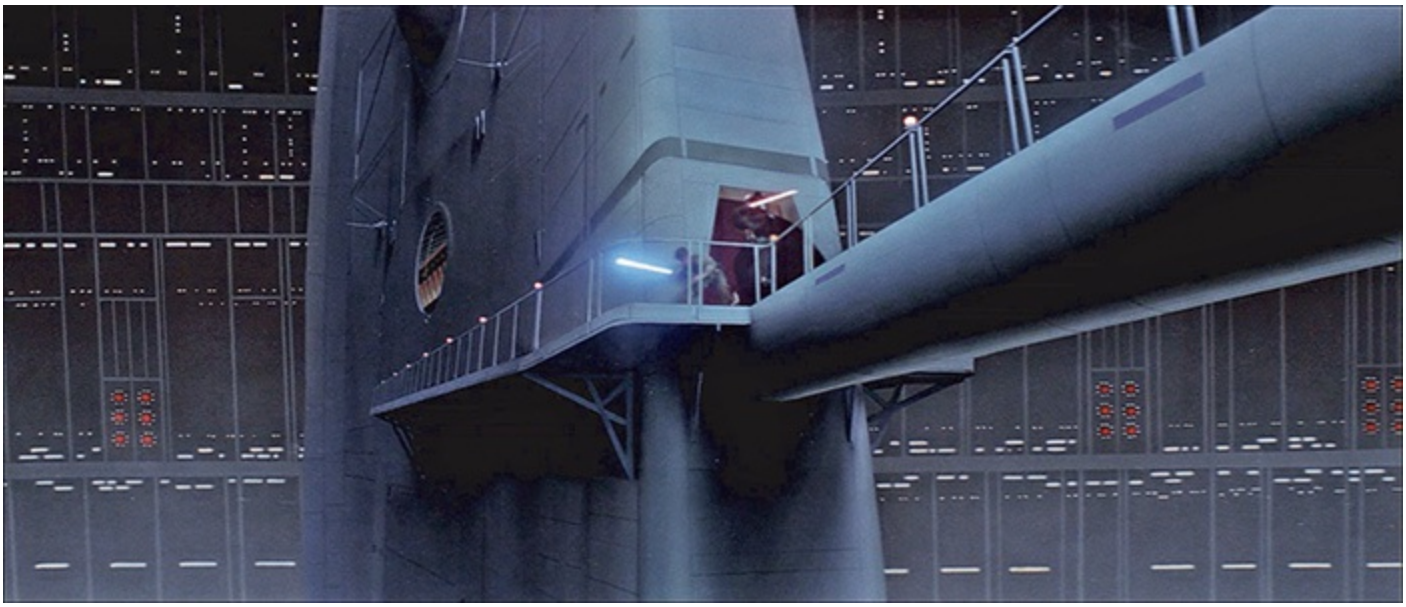


They were also photographed, cut out, and pasted into other matte paintings.

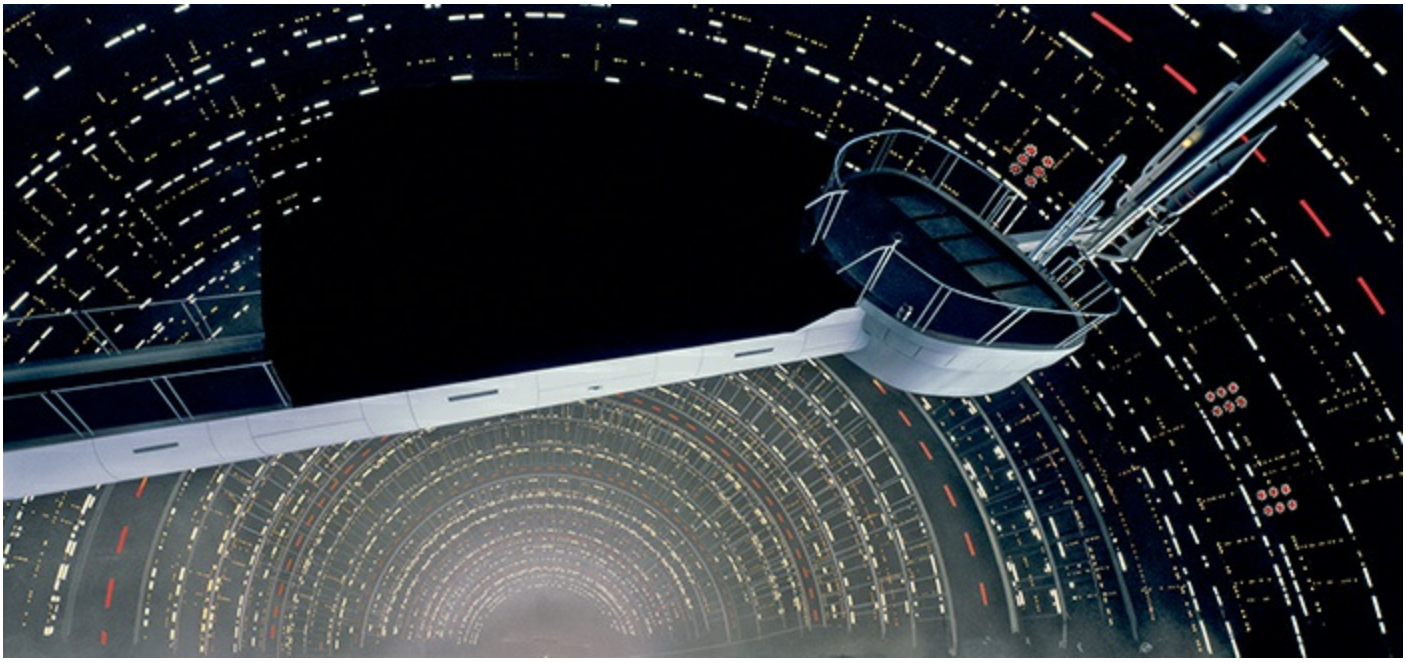
"Typical of George was his very clever concept of showing the passage of time in Cloud City," says Ellenshaw, "by going from sunrise to daylight (Luke's arrival) to sunset for the *Falcon*'s departure."



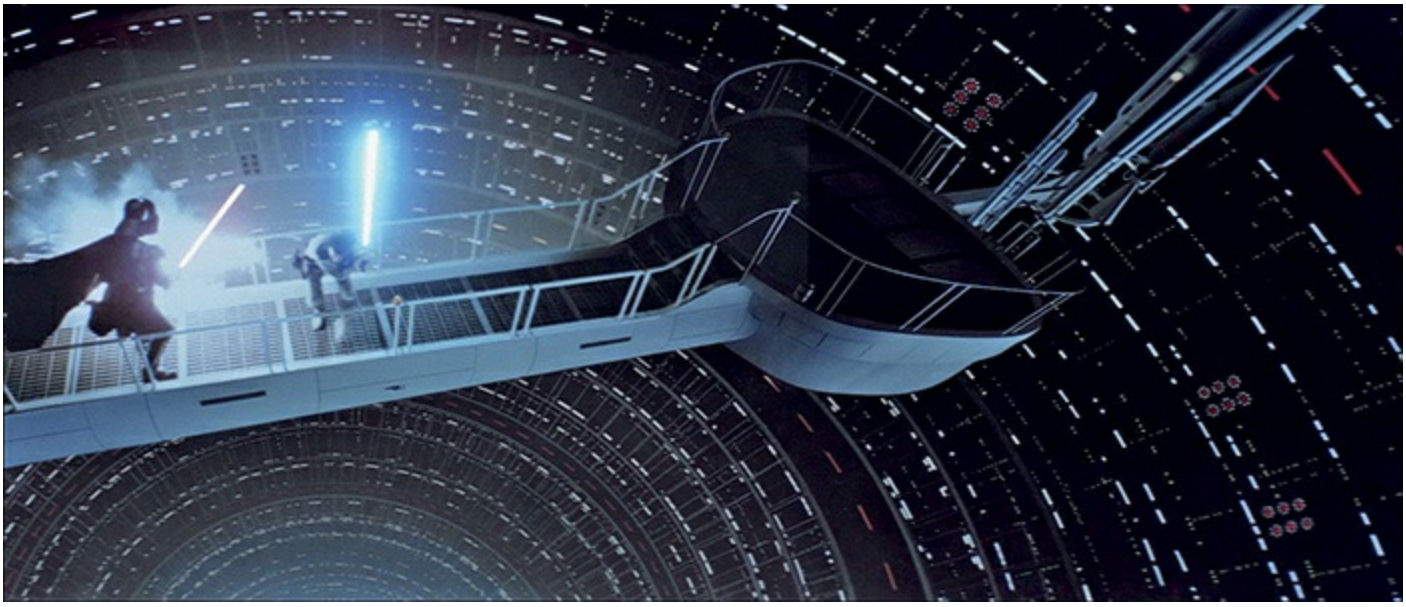
A matte painting of the gantry by McQuarrie enhanced the scale and grandeur of the film's cllimactic duel.



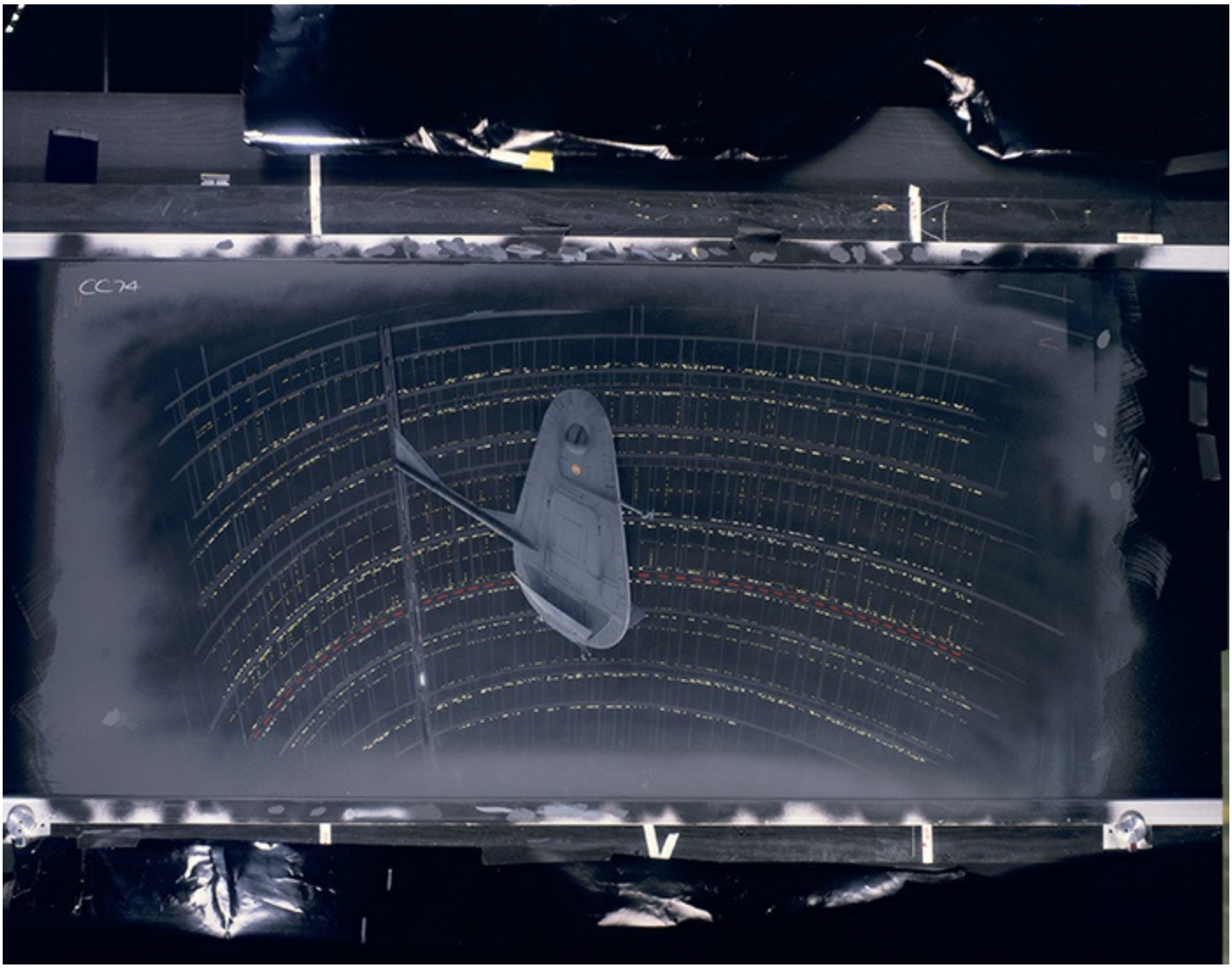
Final frame combines the painting with the live-action footage.



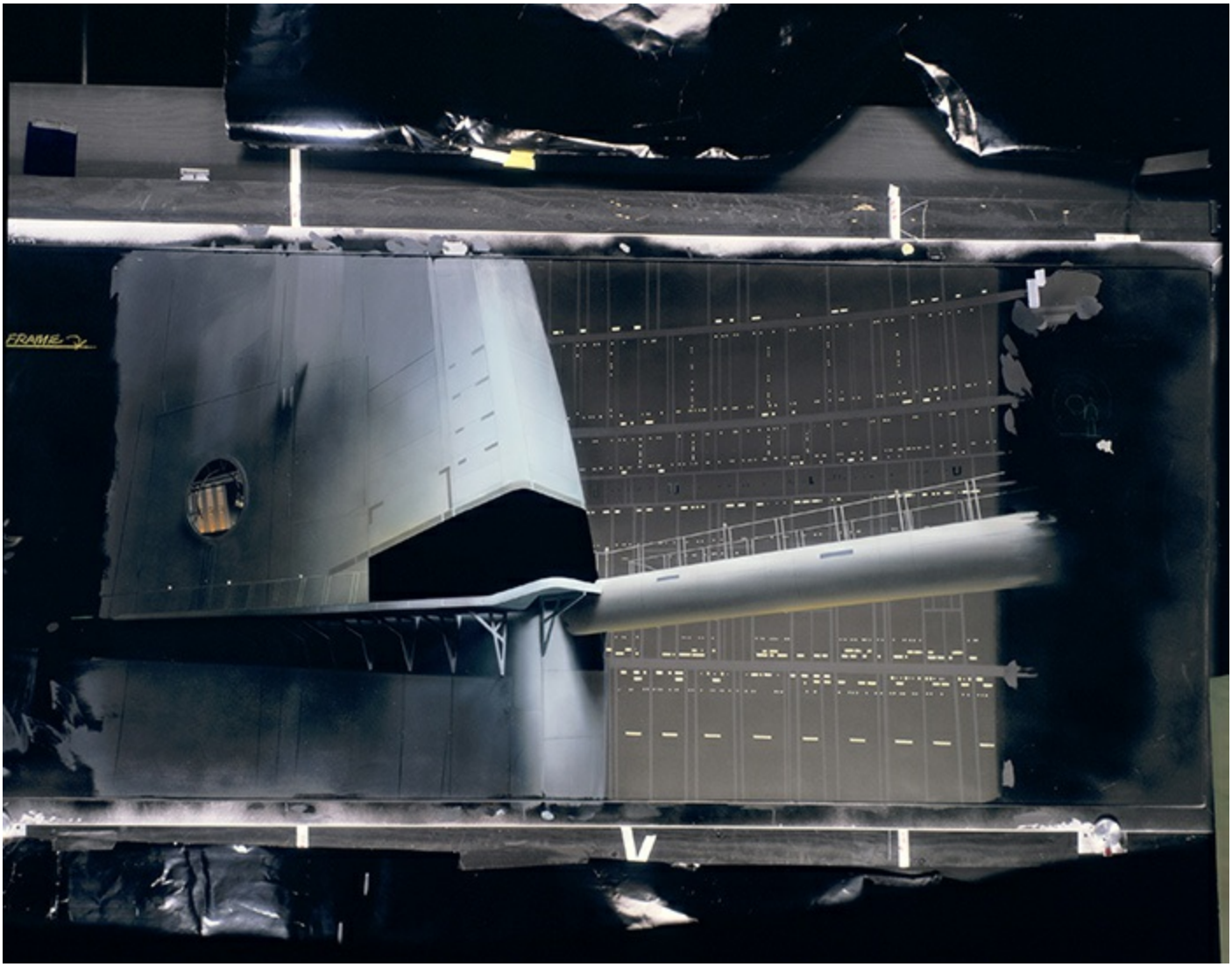
A matte painting of the Cloud City gantry by McQuarrie.



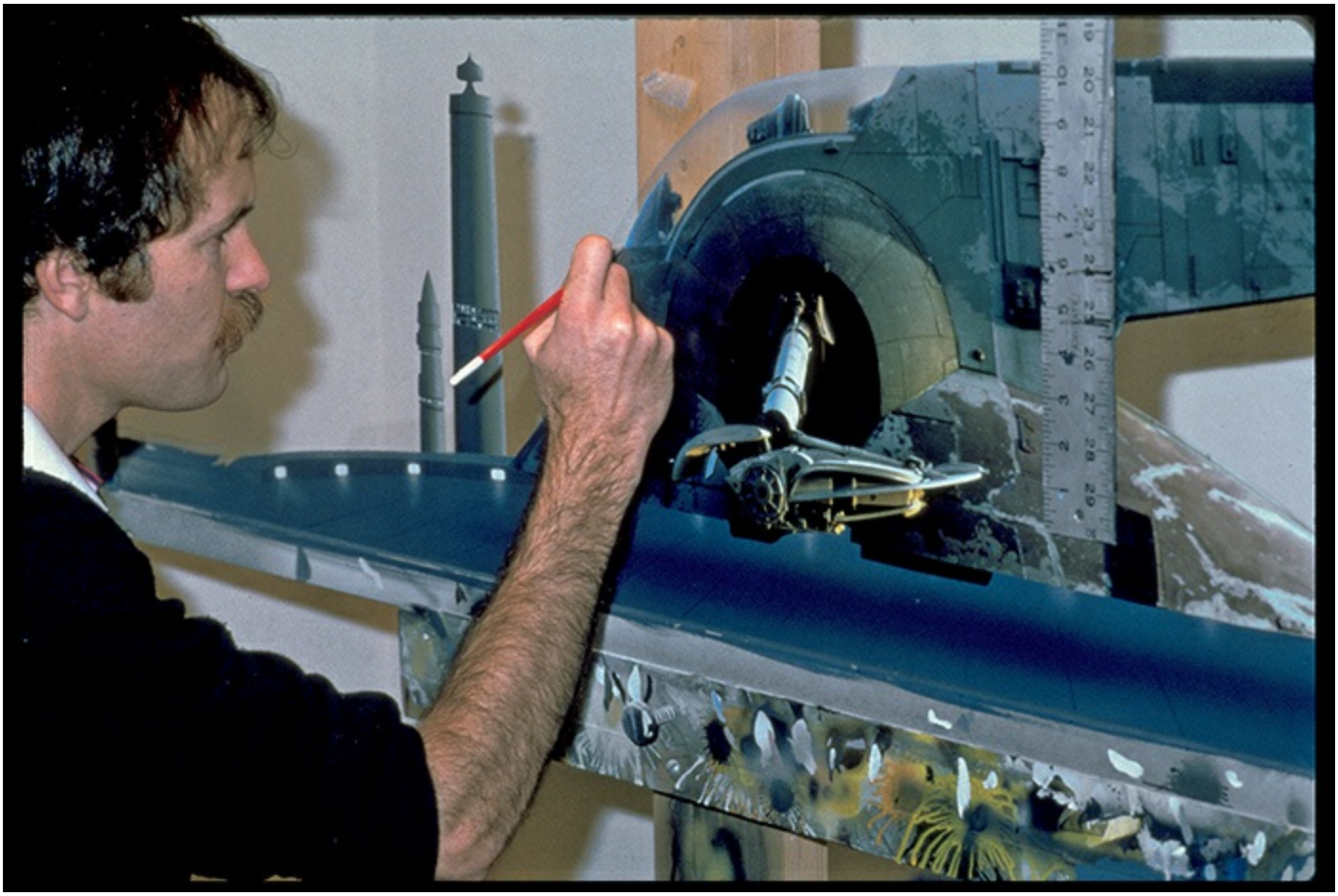
The Cloud City in a final frame from the film.



Matte painting by Ralph McQuarrie.



Matte painting by Ralph McQuarrie.



Ellenshaw at work on the East Landing Platform matte painting, upon which sits *Slave I*.



Slave I also existed as a model, for shots against bluescreen.



Final matte painting, in which most of Fett's ship is a photograph of the painted miniature, excluding the cockpit canopy; the building on the right is also a photograph.



Final frame in which the blinking red light was added as a doubleexposure; a "moving split," according to Ellenshaw, was used to hide the live-action fork-lift carrying Han in carbonite.



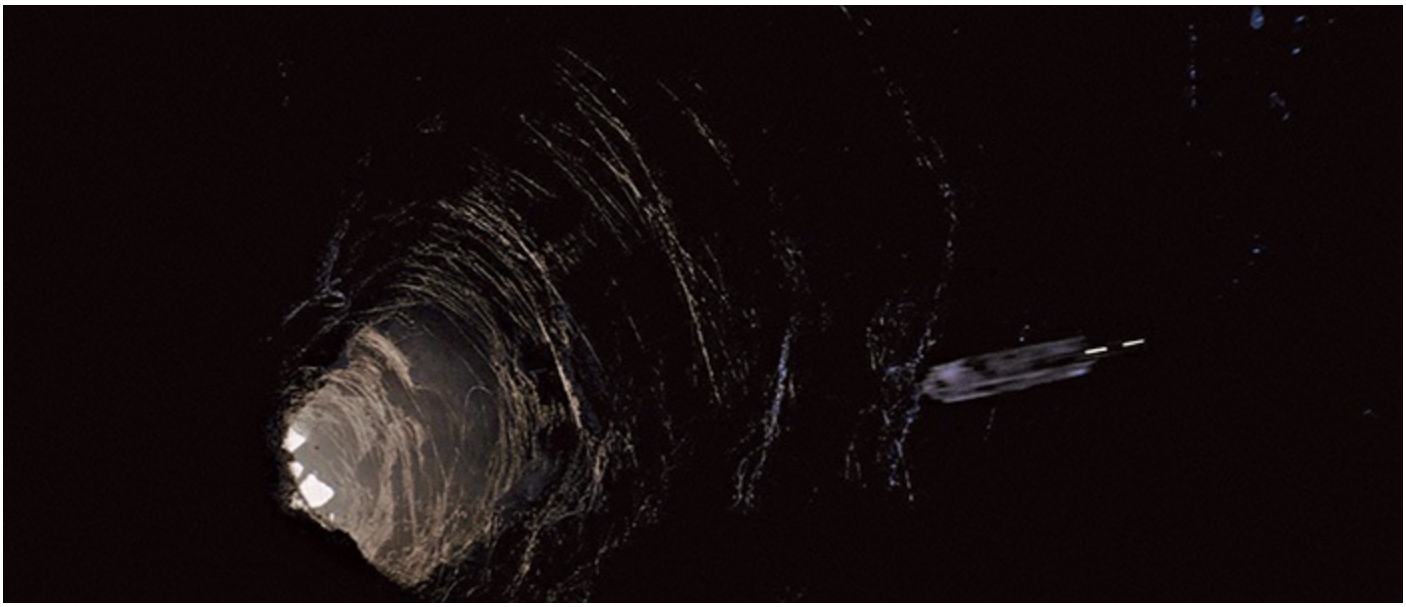
Matte department supervisor Harrison Ellenshaw at work on the cockpit of Fett's ship.



A Johnston storyboard, dated December 3, 1979, helped visualize the space slug "tunnel."



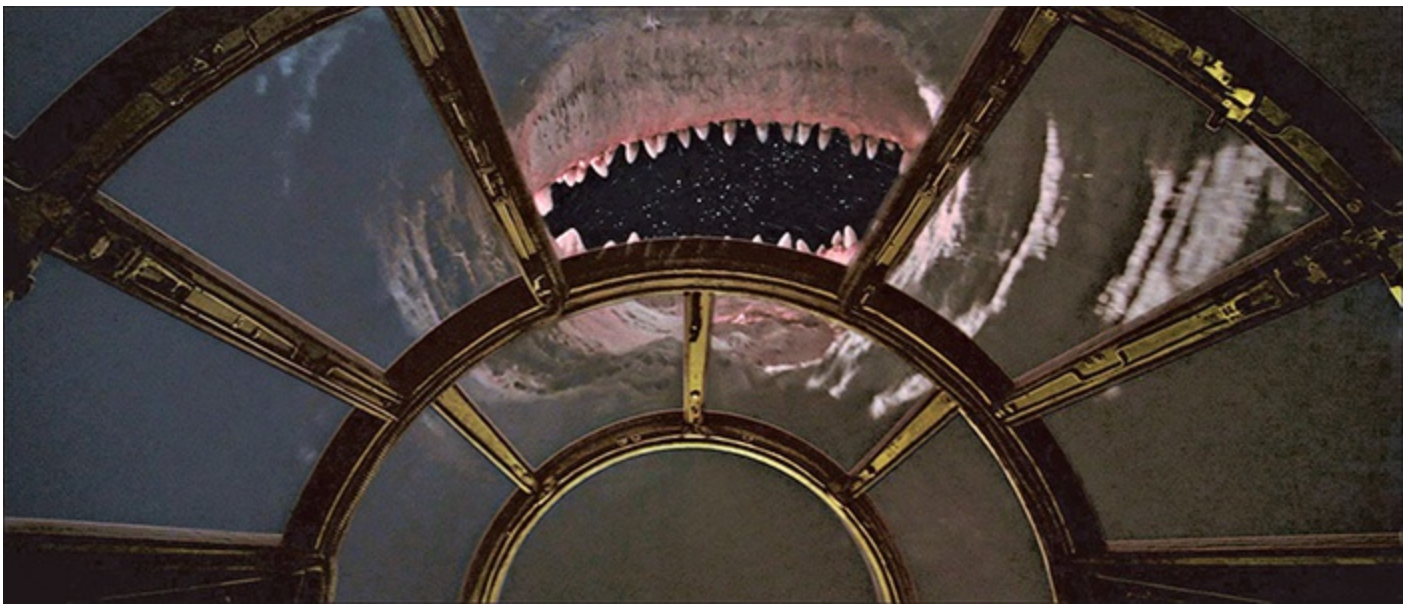
The space slug "tunnel" was then made into a model (with Muren).



The space slug "tunnel" was then composited with footage of the *Falcon* for the final frames, early 1980.



Peterson worked on the model of the space slug mouth and teeth.



The *Falcon*'s escape recalls Pinocchio's from the belly of Monstro the whale (animated by Wolfgang Reitherman in the Disney film of 1940; final frame).



The space slug puppet (conceptualized by McQuarrie and built by Tippett and Doug Beswick).

MYSTERY KID

"Kenner Toys and the other licensees were doing *great* in 1979," says Ganis. "There were big plans for continued licensing, which was an enormous part of the company, very important. George said out loud that it was the reason he was able to create plans to build the ranch and to fund ILM and so on. But when I walked in, it was a world that was kinda new to me; I didn't really know the licensing world."

Although it had made about $100 million the previous year, Kenner's success was based on the first film and Lucasfilm wasn't having an easy time fulfilling its plans for *Empire*. Indeed, the whole proposition was questionable to the business world, because, historically, sequels never lived up to the original movie; merchandise expectations were therefore pretty low.

"I would pack up my little licensing kit and go off to a department store in Cincinnati where there was a major buyer in the shoe department," says Ganis. "I would take out my portable slide projector, find a place to project it onto a wall, and do my *Empire* presentation and go home. That one, I'll never forget. When I walked outta there I asked myself, *Is this what I'm doing with my life?* And the answer, happily, was, *Yes*."

"I've said that I do a lot of *research* and people immediately think of marketing research," says Lucas. "They think, *Oh, he figured out how to make money*. But it wasn't market research; it was research into fairy tales, folklore, and organized religion. It was really my anthropological studies that I put together to make the film."

"We gave fans more than you give anybody and let them spread the word as an idea, as a concept," says Ganis. "We dealt with the press in a way that was delicate and extremely well thought out as opposed to trying to get as much press as you possibly could. And we were very shadowy when it came to discussions about George, creating a mystique. People didn't know George. They knew of the success, but they didn't know the kid from Northern California."



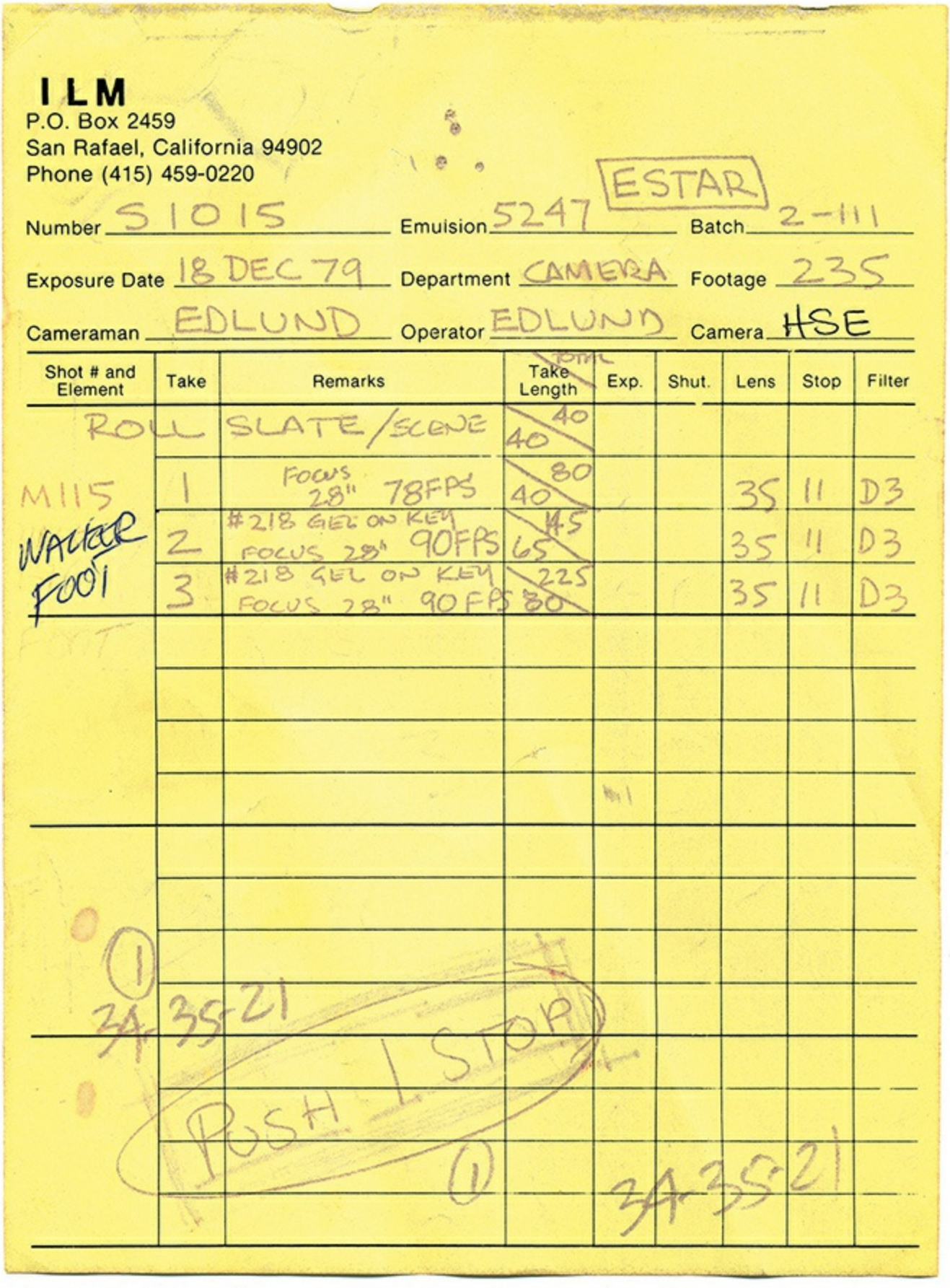
Owyeung works with the large-scale walker “feet.”



The “feet” were filmed with the HSE camera crushing a snow speeder.



That footage was then composited with the live-action footage (that had caused so much trouble during principal photography) for the final frames.



ILM
P.O. Box 2459
San Rafael, California 94902
Phone (415) 459-0220

ESTAR

Number S1015 Emulsion 5247 Batch 2-111

Exposure Date 18 DEC 79 Department CAMERA Footage 235

Cameraman EDLUND Operator EDLUND Camera HSE

Shot # and Element	Take	Remarks	Take Length (total / each)	Exp.	Shut.	Lens	Stop	Filter
ROLL		SLATE/SCENE	40 / 40					
M115 WALKER FOOT	1	FOCUS 28" 78FPS	80 / 40			35	11	D3
	2	#218 GEL ON KEY FOCUS 28" 90FPS	145 / 65			35	11	D3
	3	#218 GEL ON KEY FOCUS 28" 90FPS	225 / 80			35	11	D3
				#1				
(1) 3A 35-21								
		PUSH 1 STOP						
		(1)		3A 35-21				

A camera report for the "walker foot" shot, December 18, 1979.



Edlund shot the “walker’s ass” and additional elements for the foot shot in January 1980.



Gawley and model maker Samuel Zolltheis are horrified by the fate of Owyeung.





Miniature pyrotechnicians Joseph Viskocil and Dave Pier prepare the larger-scale walker for its trip and fall.







Final frames.









Six final frames show how the weather continuity varies from shot to shot during the battle on Hoth: Some second unit footage (first, fourth, and fifth frames) featured a blue sky, while ILM struggled to make the battle go from a clear day to a snowstorm.



Model shop foreman Gawley (partially shown), machinist Udo Pampel, and model maker Marc Thorpe examine the large-scale walker model in progress (destined for pyro shots).



From left:stage hand Bill Beck, special effects camera operator Bill Neil, stage hand Ed Hirsh, special effects technician Ted Moehnke, stop-motion animator Jon Berg, model shop foreman Steve Gawley, visual effects supervisor Richard Edlund, and key grip Bobby Finley.



The bog creature is taken by truck to Lucas's pool foundations.



Pickups are prepared (Lucas leans on a shovel, while Johnson stands at the edge of the unfinished pool watching divers with the creature).



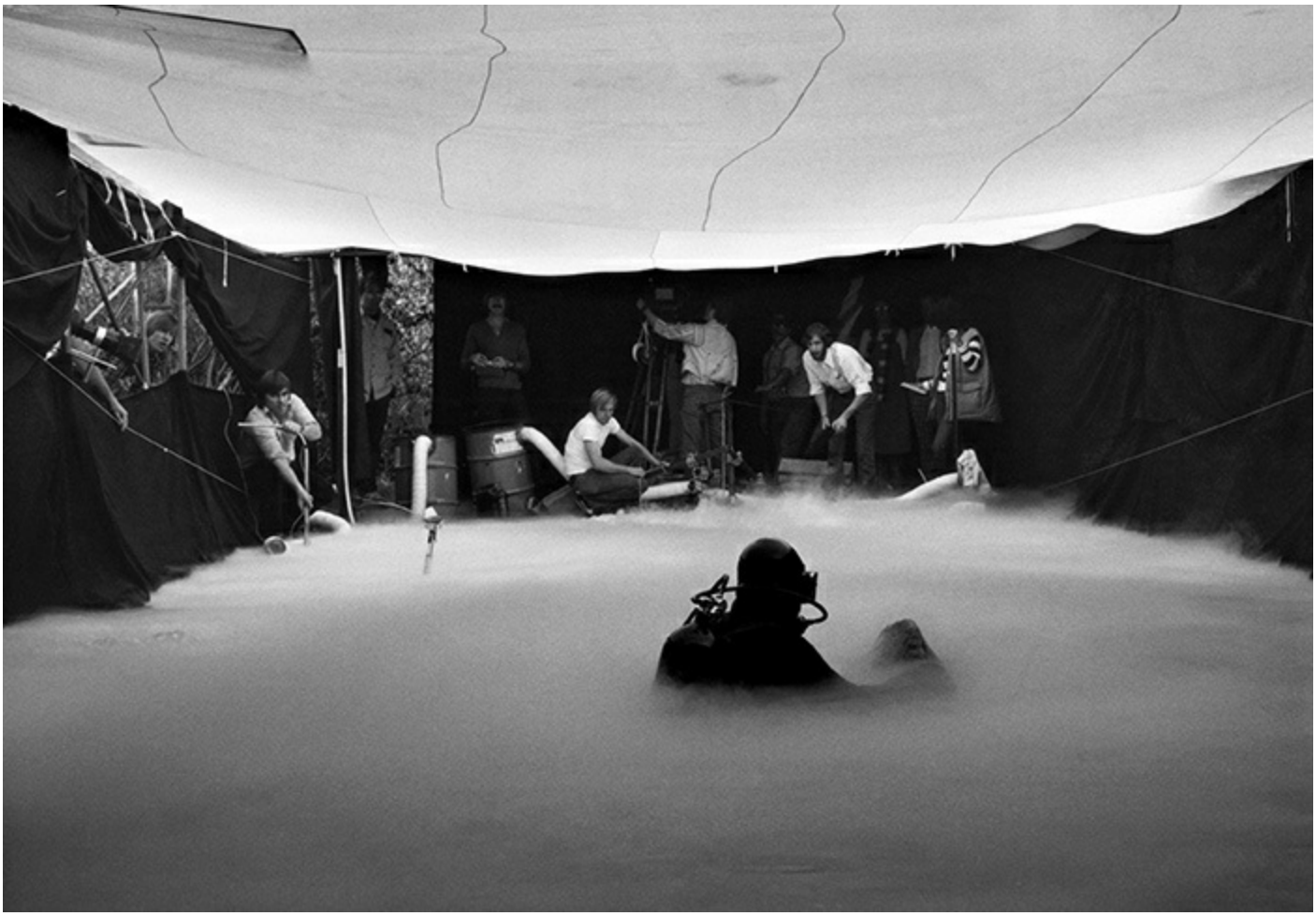
After preparations have been made, Edlund (in red lumberjack shirt) watches, with Johnson at far left with cables, as Lucas talks with Kazanjian (on right, with hand in his back pocket). “I never knew what a grip was, but I met Dickey Dova that day,” Mike MacKenzie says. “Here’s this guy shimmying across a pipe frame they’d rigged up over top of this muddy pit, because they’d had to hang a diffuser screen because the sun was too bright. It was really fun.”



Johnson checks R2-D2.



R2-D2 is then fired out of a hole by a pneumatic cannon, for the pickup in which the bog creature spits out the droid.





According to ILM's in-house optical continuity list, by January 22 Lucas had officially changed the film's opening shot from the tauntaun to one out in space featuring a Star Destroyer that launches several probe droids. Nevertheless, the enormous difficulty of the tauntaun shot remained.

"The first shot of the tauntaun was originally the first shot in the film," Muren says. "It was intended to be the 'grabber shot,' as dynamic as the opening shot in *Star Wars*. After some thought, though, George decided to start the film off in space. I think that decision was made to remind you of the first film and to establish the source of those brilliant probes that race toward the ice planet."

"The opening shot in this picture isn't as dynamic as the one in the original—but then it didn't need to be," says Edlund.

"I was starting a style," Lucas says. "I said, 'Each one is going to start in space. Each one is going to start with a Star Destroyer or some kind of a ship,' because the titles go into the stars, we pan down to wherever, and then we start the movie."

"The background was one that George picked out," says Comstock of the tauntaun shot, whose background plate had been shot from a helicopter flying into a huge ice field, slowing, and ending up with a shot straight down. "He said he'd really like to see the tauntaun fitted into that particular scene. We all rolled our eyes a bit, because it was obviously an unusual plate to have to fit something into."

"When George suggested that we try this shot, I was thinking, *Just how do we do it?*" says Muren. "I thought we could build a big model, but I knew it would never quite look right. I thought we might have to eliminate it and try to do another shot instead."

"It became Dennis's pièce de résistance," says Edlund. An internal ILM note explains in brief the work that went into OP-9: "Most challenging shot. Move plotted by Sam Comstock on Oxberry Animation Stand. Dennis shot taun bluescreen, full frame VistaVision, alternate frames. Next frame card under taun with keylight shining down providing a shadow. Bruce Nicholson separated the two images —taun against blue and white card underneath—and made taun against black matte and the separate shadow element. Those frames were individually cut up and placed on registration block on the bed of the Oxberry. He plotted it first and shot each element a frame at a time with the move. Plotting the move took three weeks. Shooting time was 10 to 15 hours straight. Never been done. Conceived by Dennis."

In other words, Muren had to first re-create the tauntaun's body orientation as if it had been in Norway and filmed with the Wesscam in the helicopter; he experimented with the tauntaun until they got it right, and then Tippett performed the tauntaun's moves, making it run in place, suspended on a rod. Next, Sam Comstock rephotographed it, repositioning the registration block every frame to match the position of the snow-covered ground, while using the Oxberry animation stand with the VistaVision format, so the image would fit the scene; then, with Nicholson, they worked out the shadows and the mattes.

"Some of the effect was filmed in live action, but some shots are stop-motion," says Johnson. "Matching the stop-motion with the live-action shots was a problem, but one that was solved with great success. A lot of calculated study of the live-action terrain enabled us to cut from model shots made at ILM to the VistaVision plates made in Norway with the same sort of craft going through—Luke's snowspeeder, for example—and I defy most people to tell the difference."

"Fortunately, I had already done those cockpit shots with the three-foot miniature walkers, so I had

some practice in matching background moves," says Comstock. "Dennis approached me and asked my opinion on how I might contribute to the shot. Both he and Phil knew from the start that this was going to be a very difficult shot, no matter *how* it was done."

"I'm amazed that we figured it out, because it breaks every rule of special effects," says Muren. "George gave me the piece of film, described what he wanted, and said use any way you can to get it done. It was terrifying and really exciting at the same time. We broke it up into components—and that idea of breaking up the shots, so the mind can tackle one problem at a time, is a methodology we've always used at ILM."



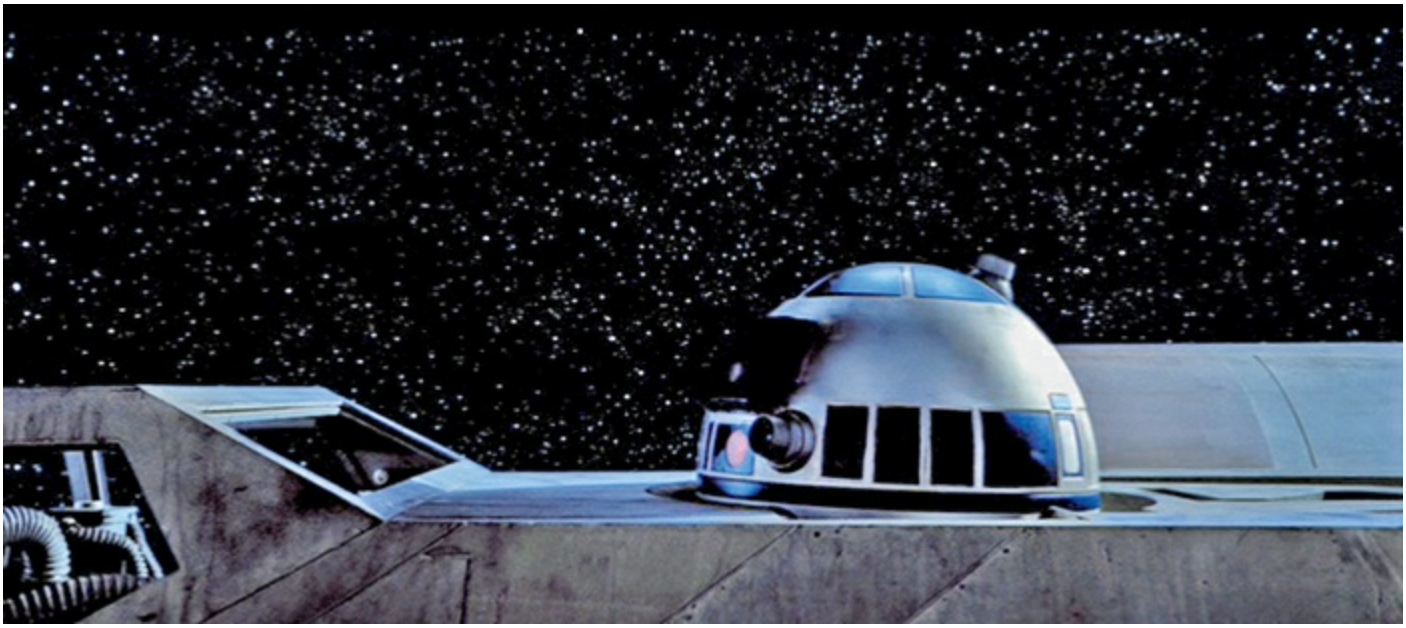
The newly designed wampa was filmed against a white backdrop by St. Amand, Berg, and Tippett.



The wampa was then filmed against a cloudy sky by Bill Neil and Tippett.



Final frame.



On the way to Dagobah, R2-D2 was actually repainted black instead of blue to avoid becoming transparent. Because of bluescreen, it was “the only way to make the shot work,” says Ralston.



WALT DISNEY PRODUCTIONS

500 SO. BUENA VISTA ST. • BURBANK, CALIFORNIA 91521
(213) 845-3141 • CABLE ADDRESS: DISNEY

January 11, 1980

Richard Edlund
Kerner Company
3160 Kerner St.
San Rafael, Calif.

Dear Richard:

On behalf of Art Cruickshank, Dave Inglish and myself, may I thank you again for the opportunity to tour your facilities and especially to see your new Four Head Printer. It was a pleasure to meet Jerry and the others. Please convey our thanks to them.

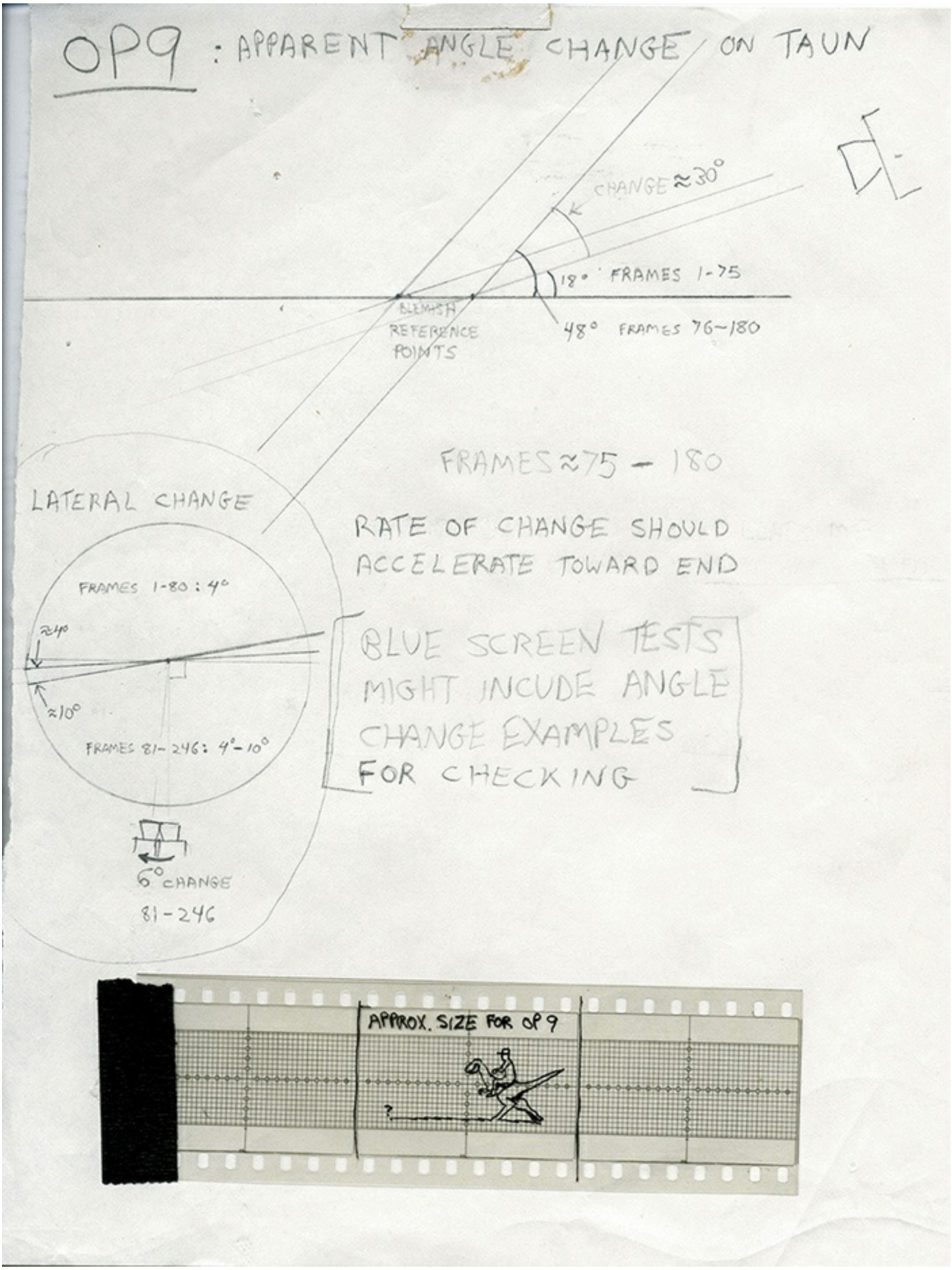
Please call if you are in our area, we would be pleased to show you the same hospitality.

Sincerely yours,

Don Iwerks
Walt Disney Productions

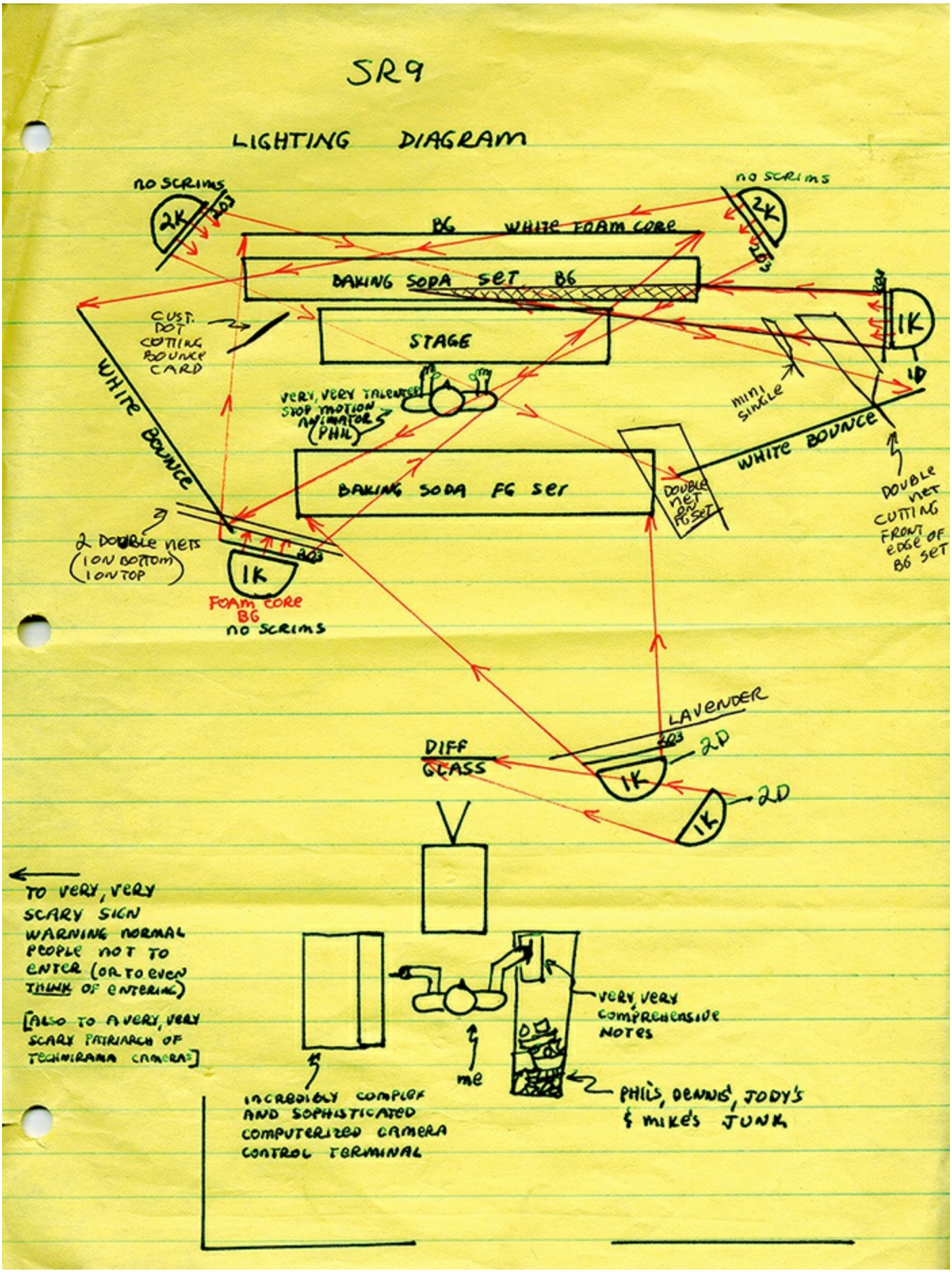
On, January 11, 1980, a historical confluence occurred: the son of Ub Iwerks (with Walt Disney, the creator of Mickey Mouse) sent a letter to Edlund at ILM, thanking him for a recent tour of the facility. “It’s wonderful being able to put words in the mouths of

characters that have the same kind of place for young children that Mickey Mouse had for me," says Kasdan.



Muren's records on "OP-9: Apparent Angle Change on Taun"—just a part of the complexity involved in the aerial first shot of the

tauntaun and rider.



A diagram of logistical setup for the same shot—complete with jokes. For example, an arrow points “To very, very scary sign warning

normal people not to enter (or to even THINK of entering)."







Details of three final frames from OP-9—the result of huge efforts on the part of Muren, Tippett, and Sam Comstock in the optical

department.

BLAZING ON

As January rolled into February, finding enough hours in the day for any shot became a rarity and tensions increased at ILM. Editing room notes dated February 6, 1980, report that Lucas was improving dozens of effects shots: "Fix matte lines, lose diffusion, correct color, make cable thinner, soften lasers, remove shadow at bottom of ship, crater should be darker and browner …"

"There just isn't time," Edlund says. "We've worked our way through the production schedule and as we've completed shots, some of them are perfect, others had to be redone, and yet others have gone onto a 'could-be-better' list that includes all the shots we could probably get by with if we had to."

"We've also had problems with suppliers who sent us defective pieces of equipment, which really didn't help matters," says Johnson. "So it's been quite a struggle for everybody and we've all been working very hard. Most everyone has been on six-day weeks, working long 12-hour days, ever since the end of August. The optical department is working 24 hours a day and will be doing so right up to the end. Obviously, the bulk of the pressure is on them now, having to get all of the composites done, whereas before it was on the camera department. Some of the more than 400 effects have required 100 pieces of film going through the optical printer!"

The model shop was also hard at it, ultimately doing 108 miniatures for the show, according to an inventory, including seven Cloud City buildings, a small R2-D2, Lando and Luke puppets, and so on. "The medical frigate was added late in the picture," says Edlund, who counted at least 50 major pieces.

"We spent lots of overtime getting things ready for camera—all the way up until right before the release when there was a big additional sequence added," says Huston. "We built a bunch of models in the last two or three months before the release that had to be designed and engineered. We spent what seemed like endless hours working on things."

"There's so many things about that film and the shooting of it—it was just mind boggling, exhausting," Ralston laughs.

"We were working six, seven days a week for months at the end to get it done," says Muren. "A lot of the stuff changed and we didn't get it ready in time. Some of the gear also didn't get ready in time, so the final four or five months of that show was just a really incredible push to get it out in the theaters in time."

"Toward the end of our work on the film, it got a little tense," says Ellenshaw. "You don't want to switch horses in midstream too often, because every time you do, it sets you back a week or two while you're bringing along the new method and doing tests. So it becomes a little tricky as the weeks start compressing on you and you begin counting the days. There is a lot of finger crossing and a lot of hoping that you can stick with a method that is going to pan out."

"When faced with a special effects problem, there are always a lot of directions in which to go," says Johnson. "We try to find the path that will yield optimum results. This means that sometimes we can go back to basics. For example, instead of flying models with motion-control cameras, we've hung them on wires in some cases. I think that it is the intelligent use of every technique available that makes the difference—instead of saying that we have motion control and so are going to do everything with motion control."

As the pressure mounted, some crew developed butterfingers: The Dykstraflex was crashed through a

bluescreen, and Jerry Jeffress dropped the high-speed Empire camera while a French documentary crew was filming.

"We're just burned out," says Tippett. When asked what his favorite part of the work is, he replied, "My vacation at the end."

"It was certainly kinda touch-and-go in terms of, if the film was actually gonna get done in time," says Franklin.

"I think we had about 100 people working at the facility six days a week," says Bloom. "I had the place running 24 hours a day, night shifts, day shifts for all the different cameras. But we were beginning to turn ILM into a working special effects house."

THE DARK LORD'S TRICKS

The pre-mix of the dialogue and sound effects had begun in LA the previous month. "We were in full-bore mixing by the beginning of February," says Ladevich, "which went on until probably the end of April."

On February 21, 1980, Kershner was interviewed while at the Samuel Goldwyn Studios, in Looping Room D, where he was supervising the layers of audio effects and additional dialogue recording (ADR). "We're in the final stages of the sound mix," he says. "We did all the music two months ago in England. The film has been edited for many months, the special effects are being completed right now."

"The people that went to the mix all the time were Ben, George, assistant sound editor John Benson, and myself," says Ladevich. "Usually I flew down with Ben, but we'd all show up Monday morning for the mix. During the week, it wasn't like we had lives in LA and then we'd all fly out Friday night. I remember one night we went to the Academy of Motion Picture Arts and Sciences to listen to reel six; we took this magnetic stripe six-track and we put it up without picture. We didn't want to hear it with picture, we wanted to hear it by itself. I'm sure the people from Dolby were there and the mixers. We listened to it and, of course, the sound in the academy theater is terrific. Then we listened to it again and there was a lot of discussion afterward, but I just listened."

"On *Empire*, we had the ability up here to do some pre-mixing, a little more than I did in first film," says Burtt. "I can control things a little bit more but, once again, we didn't have our own mix room, so I had to go to Los Angeles and stay there for three months to finish the film in conjunction, technically and creatively, with the gang down there."

"There was always this kind of nervous anxiety associated with *Empire*," Ladevich says. "But it was terribly exciting. There was this terrific emphasis on quality. Everything was about quality. It was a terrific opportunity and environment in which to learn the craft, because everything was about how good you could make it."

"Harrison was talking very fast in the cockpit set during the meteor scenes," Kershner says. "But when we went to dub him back in Hollywood later, he asked me to go check the projector. He said, 'I can't talk that fast, the projector's off.' Of course, the projector was running at the right speed, so I said, 'You were speaking that fast because the adrenaline was high when you were doing the scene.' 'I can't do it,' he said. So we kept running the ADR over and over, and finally he got into it and of course he *could* talk that fast."

"The nice thing was the contrast of sounds we had in *Empire*, from the busy, noisy snow battles to very quiet jungle," says Burtt. "We alternated between the quiet, tense, and suspenseful scenes and the contemplative scenes, so the overall design of *Empire* was pleasing to the sound person.

You didn't have too many sequences that were just too barbaric for too long. Those hills and valleys, I think, made it a balanced film."

"When I first saw the dialogue that said, 'Luke, I am your father,' I said to myself, 'He's lying, I wonder how they're gonna play that lie out,' " says the voice of Darth Vader, James Earl Jones, who recorded his lines in late 1979/early 1980.



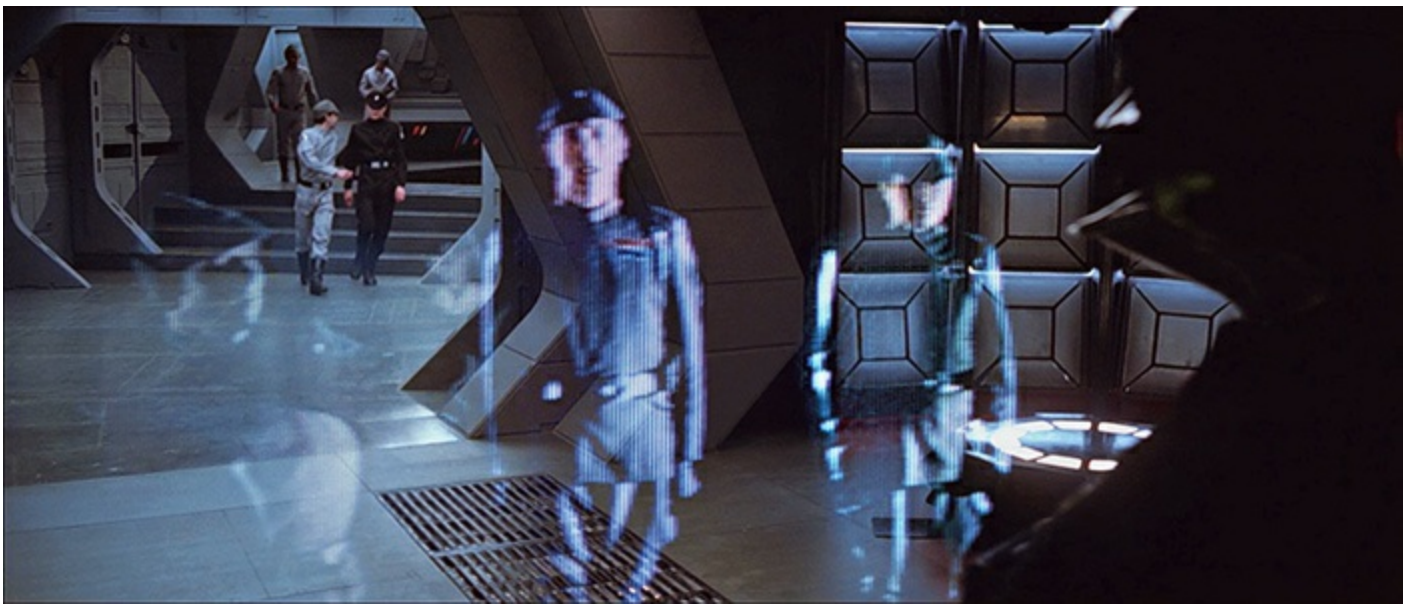


Lucas directed Jim Bloom in pickups of Luke hanging upside down in the wampa cave (for close-ups of his boots stuck in the ice and his hand extending for the saber), on February 19, 1980.

Additional pickups had already been completed back in England on January 18, 1980, where five or six partial sets had been constructed at Elstree Studios. “Kersh and Mark Hamill came over and it was bang, bang, bang,” says Watts.



Lucas directed effects cameraman Jim Veilleux in another pickup as an Imperial officer who is killed when an asteroid smashes into his vessel; his death via hologram was added to footage already shot in Elstree of two officers, which, in turn, was composited into film of Vader and extras on set.



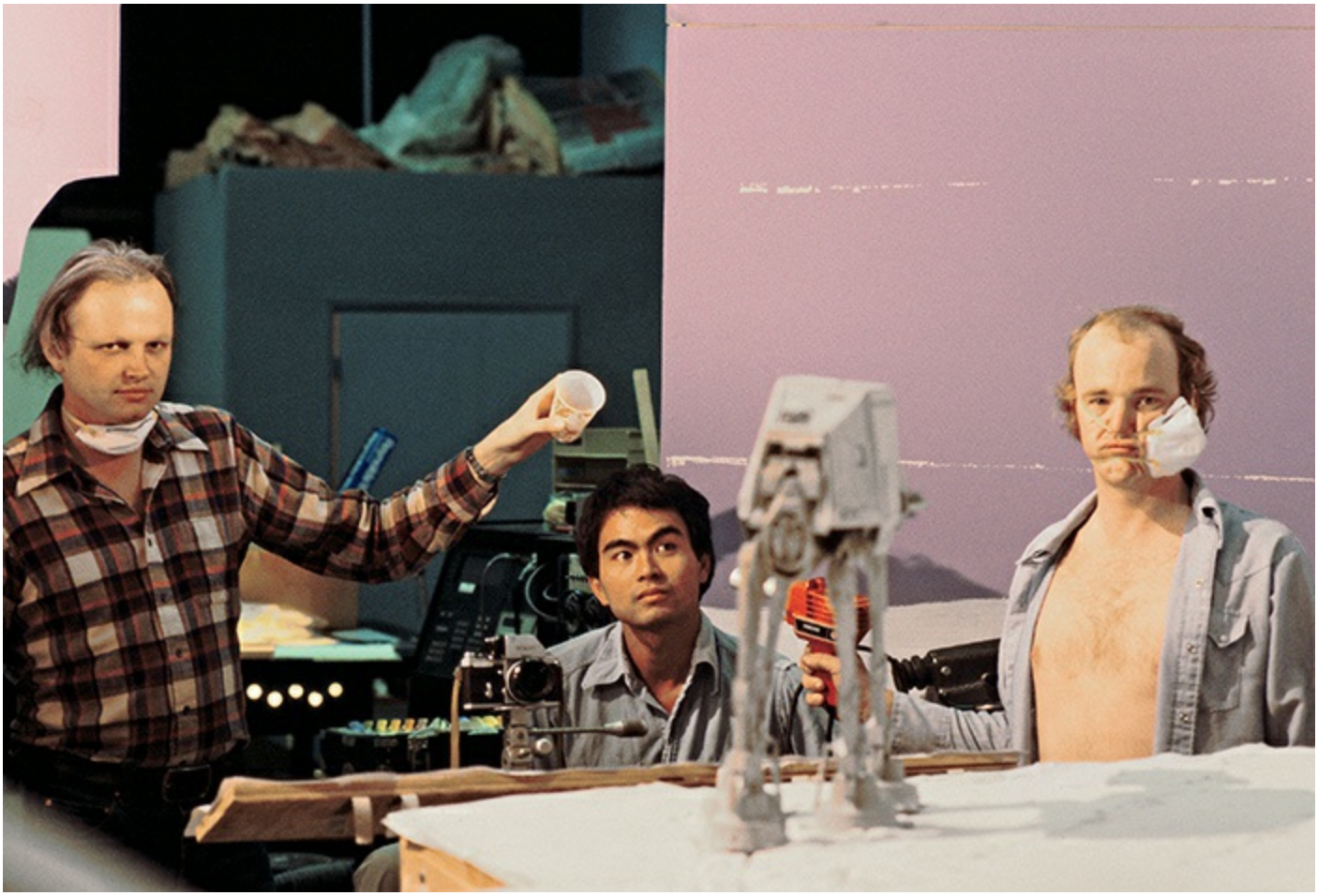
Final frame.



Rodis-Jamero and the final model for the cloud car.



Selwyn Eddy III works on a pod car shot.



An exhausted Muren, Rodis-Jamero, and Tippett still have the energy to clown around.



Animator John Van Vliet and Johnston in the art department.

On February 5, Jim Bloom sent a letter to Marjorie Eaton, in Palo Alto, enclosing a sheet with the "five lines of dialogue you will need to know for lip synching. We intend to photograph you sometime between Monday, February 18, and Friday, February 22." Originally scheduled for November, Eaton was filmed at ILM as the Emperor, though her test didn't prove satisfactory; she was replaced by Elaine Baker in makeup, with the Emperor's voice later supplied by actor Clive Revill.

"It's interesting because the Emperor was an actress, dubbed with a male voice, and monkey eyes superimposed," says Hamill. "There is certainly something strange about him. This has got to be due to the fact that he looks and sounds a bit like Obi-Wan."

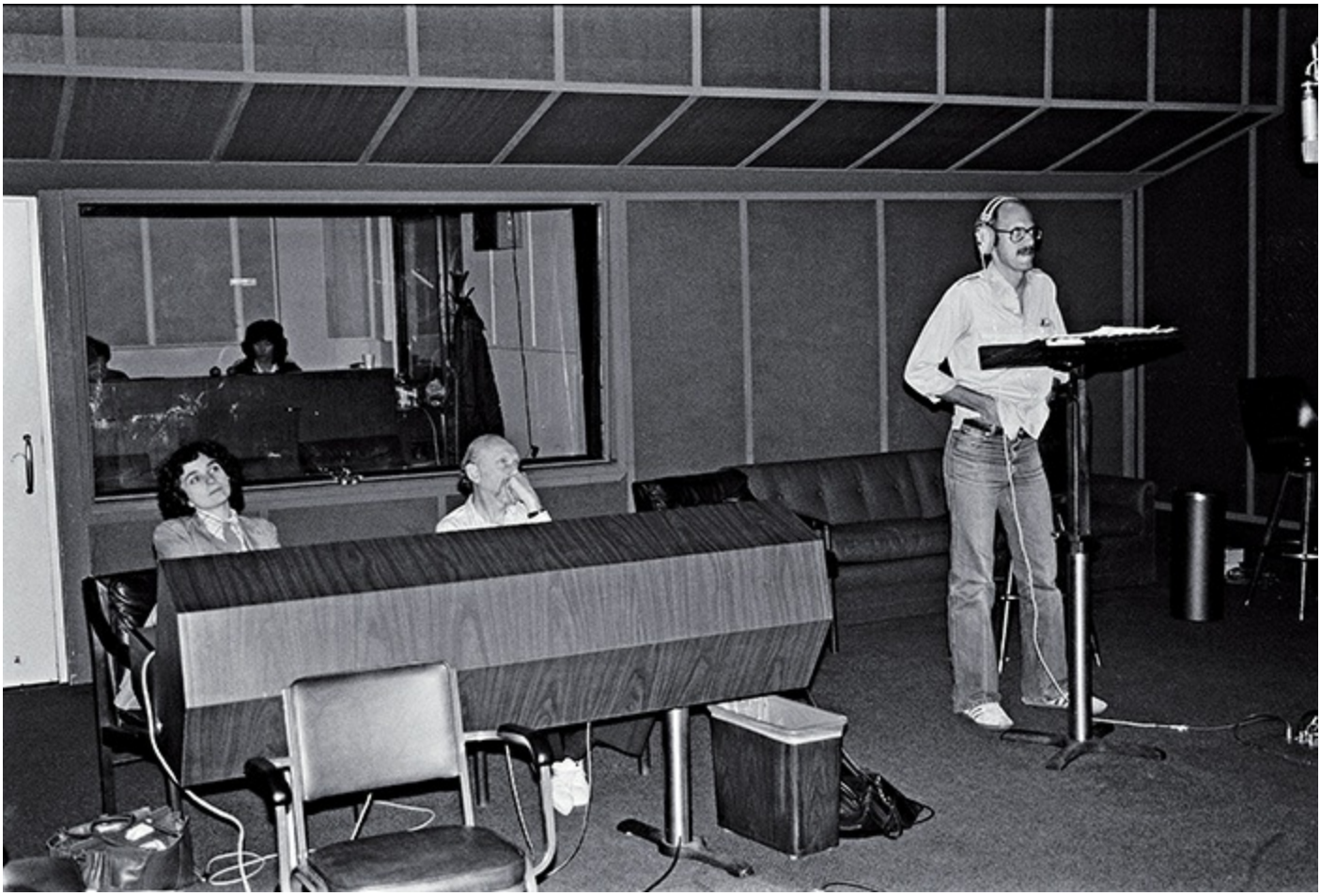
"To make the hologram of the Emperor, we shot an actor in makeup with the eyes blacked out," says Ralston. "We wound up shooting the eyes of a chimpanzee, then matchmoving the eyes of the actor and rephotographing it from a TV screen. Actually, that was true of all the hologram shots."

"They'd send up the auditions of the voice-over actors and I'd say which one I liked the best," says Lucas.

Other important voice-over work was done by Jason Wingreen, who dubbed Boba Fett's lines, and, of course, Frank Oz, who returned as Yoda. "I didn't want Yoda to sound like Miss Piggy," says Lucas. "I was a little concerned about that, so I'd wanted to use a different actor. But I've discovered over the years that, in terms of puppetry, the person who is actually acting the role is really into it. They really live the performance, so it's very hard for anyone else to duplicate that performance. It was really a matter of me not being able to find another actor who could have performed it as well as Frank could—the same thing had happened with Tony Daniels." (In November 1979, Frank Oz's contract had been

finalized.)

On March 9, additional dialogue changes were made in reels one through three, from “First transport is clear …” to “The first transport is away!”; from Luke’s “Artoo, are you okay?” after the droid is spit out by the monster in the swamp, to “It’s lucky you don’t taste very good.”



Kershner with Oz as the latter performs for the first time the final voice of Yoda, during the additional dialogue recording (ADR) sessions.



Kershner works with Fisher during one of her ADR sessions.



Daniels performing C-3PO's dialogue; both of the droids' internal motor sounds also received a sound tune-up, as those had been rushed in the first film. Sound editor Terry Eckton worked for about six weeks on finessing them.



Foley artists recorded myriad sounds for the carbon freezing scene (such as footstep sounds on a metal grill). Back in November 1979, Burtt had selected all the Foley "snow sounds," including snow being wiped off a sleeve, and so on.

Sept

R9 Sc 371

Vader:
"You may return Captain Solo to Jabba the Hutt after I have Skywalker."

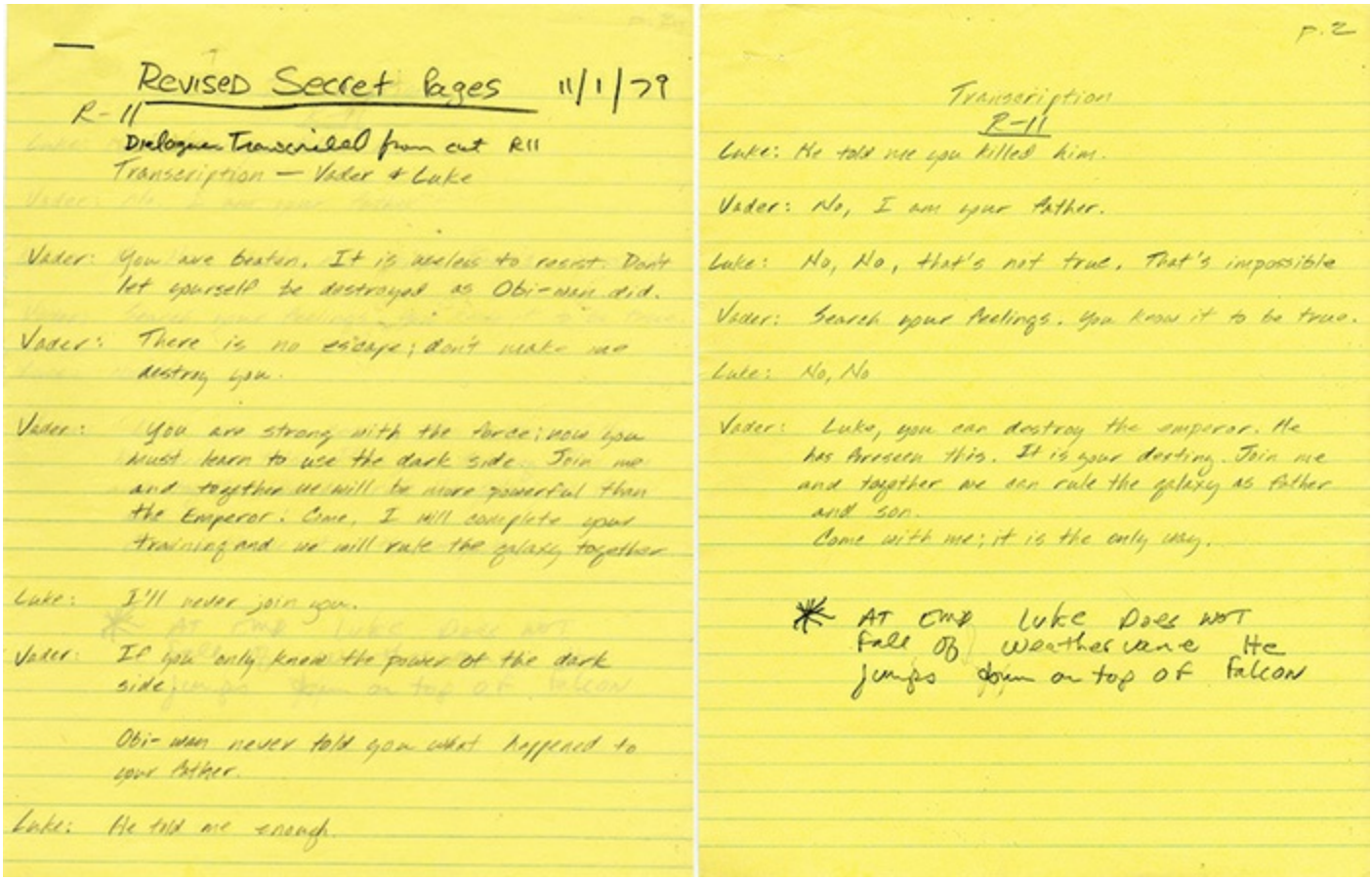
Boba:
He's no good to me dead. Jabba expects him alive.

Vader: "He will not be harmed."

R9 Sc 372

Leia: "Why are they doing this to us?"

Notes for reel 9, scene 371, dated September 1979, revised the exchange between Darth Vader and Boba Fett in the carbon freezing chamber.



Revised Secret Pages 11/1/79

R-11

Dialogue Transcribed from cut R11

Transcription — Vader + Luke

Vader: You are beaten. It is useless to resist. Don't let yourself be destroyed as Obi-wan did.

Vader: There is no escape; don't make me destroy you.

Vader: You are strong with the force; now you must learn to use the dark side. Join me and together we will be more powerful than the Emperor. Come, I will complete your training and we will rule the galaxy together.

Luke: I'll never join you.

Vader: If you only knew the power of the dark side.

Obi-wan never told you what happened to your father.

Luke: He told me enough.

p. 2

Transcription

R-11

Luke: He told me you killed him.

Vader: No, I am your father.

Luke: No, No, that's not true. That's impossible.

Vader: Search your feelings. You know it to be true.

Luke: No, No

Vader: Luke, you can destroy the emperor. He has foreseen this. It is your destiny. Join me and together we can rule the galaxy as father and son.
Come with me; it is the only way.

* AT END Luke Does NOT Fall Off Weathervane He jumps down on top of Falcon

"Revised Secret Pages," dated November 1, 1979, clarified the words for reel 11's climactic reversal scene. A note on the second page modified Luke's rescue by the *Falcon* (ultimately, he would collapse, falling off the antenna into Lando's arms).

1/25

ADR

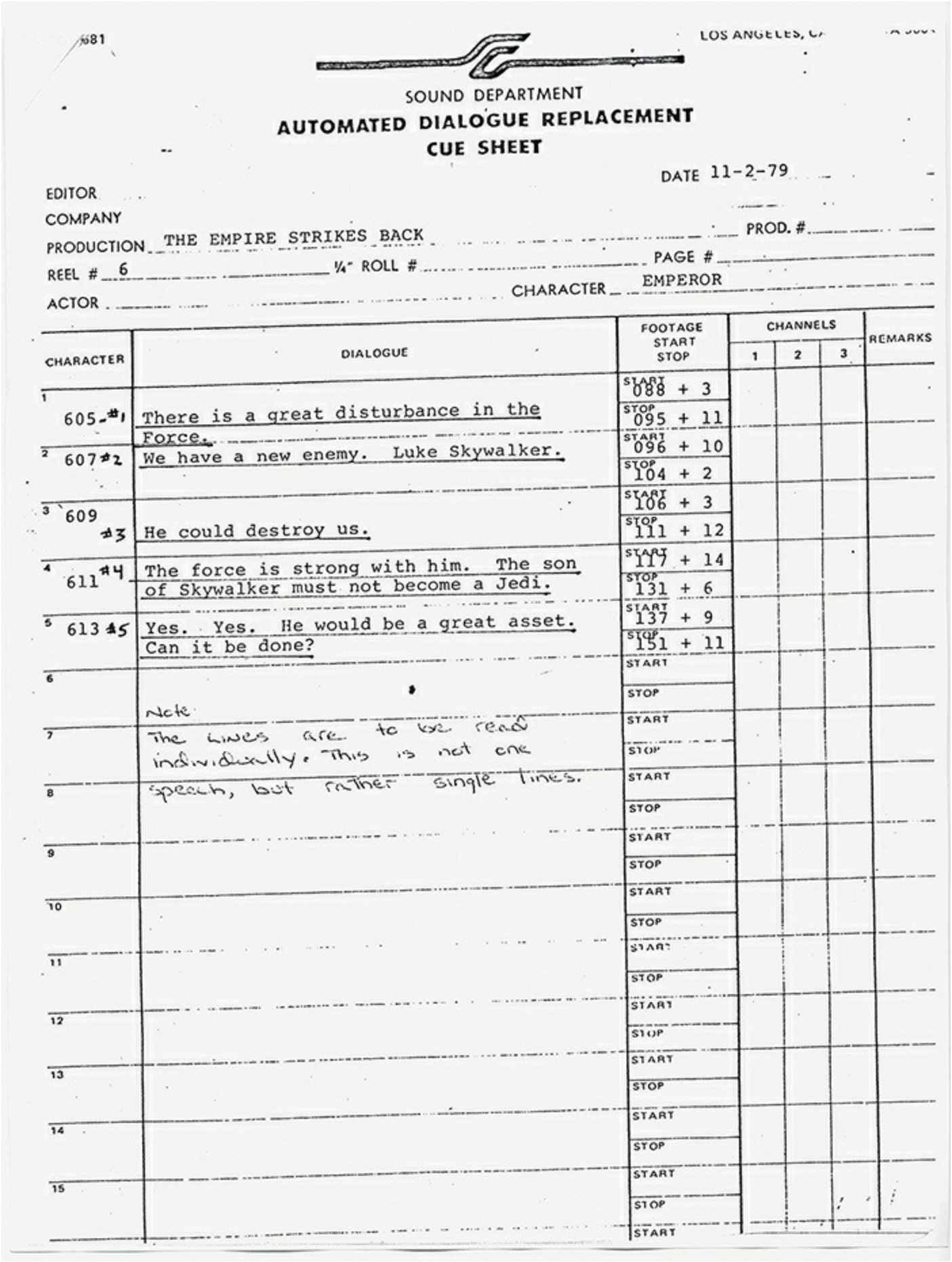
R7 ADR 9 at 652+4 "a powerful ally it is" – "ally" is bad

ADR 6 at 655+6 "Life creates it" is early (I think)
at 659+3 – "Makes it grow" sounds like "Looks it grow"
at 687+15 – "me" is way early, maybe 8 or 9 FRS.
the rhythm of the line is wrong – should be more measured

Overall, the reel looks + sounds much better

ADR 6, 7, 8, 9 on R7
have already been adjusted for new cut of Yoda falling

A page dated January 25, 1980, goes over some of Yoda's lines that Frank Oz would have to record.



681

LOS ANGELES, CA

SOUND DEPARTMENT

AUTOMATED DIALOGUE REPLACEMENT

CUE SHEET

DATE 11-2-79

EDITOR

COMPANY

PRODUCTION THE EMPIRE STRIKES BACK PROD. #

REEL # 6 ¼" ROLL # PAGE #

ACTOR CHARACTER EMPEROR

	CHARACTER	DIALOGUE	FOOTAGE START / STOP	CHANNELS 1	2	3	REMARKS
1	605 #1	There is a great disturbance in the Force.	START 088 + 3 / STOP 095 + 11				
2	607 #2	We have a new enemy. Luke Skywalker.	START 096 + 10 / STOP 104 + 2				
3	609 #3	He could destroy us.	START 106 + 3 / STOP 111 + 12				
4	611 #4	The force is strong with him. The son of Skywalker must not become a Jedi.	START 117 + 14 / STOP 131 + 6				
5	613 #5	Yes. Yes. He would be a great asset. Can it be done?	START 137 + 9 / STOP 151 + 11				
6		Note	START / STOP				
7		The lines are to be read individually. This is not one	START / STOP				
8		speech, but rather single lines.	START / STOP				
9			START / STOP				
10			START / STOP				
11			START / STOP				
12			START / STOP				
13			START / STOP				
14			START / STOP				
15			START / STOP / START				

Dated November 2, 1979—the original date for the ADR, which was then postponed—the Cue Sheet lists the Emperor's lines.

On March 12, 1980, *Daily Variety* reported that a deal had been made for Fox to distribute Lucasfilm's *Star Wars III*, noting that the terms were "significantly improved" over the deal for *Empire*. What the article couldn't mention was the harrowing financial straits that had led to the agreement. Meanwhile, *Star Wars II* was rapidly approaching its finish, as technicians in LA simultaneously finalized the sound mix and lab work for the crucial color timing.

"If you have a particularly good timer, it can be a great asset," says Kurtz. "It doesn't matter what lab you use; they're all using the same equipment and the same chemical processes for color. So it's the people who you're dealing with. We've had really good luck with Deluxe. They had very little time to do the work that they did."

At ILM, diverse shots were being attacked in the last moments. "Pops" in the walkers' stop-motion stride were concealed by animated laser blasts. "We did end up using bluescreen for three shots at the end of the sequence, including the one with the people running in the foreground, where the walkers are small," says Muren.

Luke's snowspeeder crash was handled in shot M-111. Part of that sequence had already been filmed with a camera on a "luge rig," built by an expert grip, which had plunged into the snow; that footage was now cut together with stop-motion photography of the snowspeeder.

"Pretty late in the game, near the end of postproduction, George wanted to add a scene right before the Rebel fleet leaves Hoth," says Johnston. "They needed a speaking part, so they auditioned anyone at ILM who wanted to do it. We had like 50 auditions and it took all day for people to come in and read the line. I thought, *Well, okay, I'll come in and do it, what the heck*. I read the line and for some reason they picked me—and then I realized, *Dammit, now I have to do it.*"

"Ralph did that particular painting, so it was kind of neat to have the guy who actually did the painting moving around in front of his own artwork," says Edlund.

"It was fun," says Johnston. "Ralph is in the shot, Michael Pangrazio's in the shot; there's model builders going through the background. The line, I believe, was, 'Groups 7 and 10 will stay behind to fly the speeders. As soon as each transport is loaded, evacuation control will give clearance for immediate launch.' So they started doing take after take—they just kept doin' these takes—so I began thinking, *I wonder if they're doin' all these takes to try to get me to blow this line?!*" I did 10 takes and I never messed up the line. I'm not saying the acting was any good, but at least I didn't blow the line."

"Near the very end of shooting the special effects, I had the opportunity of getting out of the front office for an hour or two when they needed an extra hand to shoot the probe," says Blau. "I got to control the little Variac that turned on the light of the droid. I was very excited and it was very interesting to see the cheats that they used to create the shot."

"There were about 10 people doing that shot," Johnston says. "There were so many things going on. One guy was stationed in front of a fan and threw handfuls of baking soda at the right moment. Phil was down there, Dennis was behind camera, Mike Pangrazio was doing the smoke, and Tom was in there, too. So you had an animator, a cameraman, a machinist, a model builder or two, a matte painter, one of the girls from the front office—in fact, anyone who wasn't doing something in the building was called in for that shot."

"A lot of time is going into the look of each shot," Muren says. "Because it doesn't matter what it took to get it, or what went on behind the camera—it just matters what's left on the screen."

Indeed, though practically out of time, Lucas, Johnston, Berg, and others were able to add the chicken walker to the mix. "We were going to build a completely new one, but we ran out of time," says

Johnston. “Since Jon Berg had already built a new armature, I took the prototype chicken walker parts and glued them to the armature. Then Tom St. Amand worked on the joints, making it operate smoothly. So it’s basically the display model that ended up in the film.”

“I remember Joe and Jon decided that they wanted to have some fun on their own so, on the weekends, they built this little two-legged walker, and then showed it to George,” Muren says. “It’s just in two background out-of-focus shots, marching along. It’s a throwaway thing.”

St. Amand animated the ad hoc model against bluescreen, with Ralston shooting the foreground material. “The two-legged walker was the result of Joe and Jon getting together and putting something into the film that wasn’t even planned,” says Ralston. “It was another ‘element of the strange’—another creation that’s just out there with the walkers, and who knows what it’s doing!”

For the lightsaber effects, a different technique from the first film was used, because the highly reflective tape on the swords shot during principal photography had made them very hard to animate. “Whenever we had a situation where they were being swung mightily through the scene, the image tended to disappear in a blur,” says Edlund.

“The lightsaber effect has been improved,” says Johnson. “It’s the animation that was the key. While we still use some of the old techniques from years ago, we have benefited by advances in film emulsion, so that we get better definition now. We’ve benefited by having different film bases, so we can run film through the camera steadier. We’ve benefited by new lenses; we’ve benefited by lots of things.”

“I was sent down to Los Angeles to oversee, at a crucial juncture, the completion of the effects being done out-of-house,” says Starkey. “We had a lot of laser pistol shots, swordfighting shots, dissolves and wipes, and all kinds of titles and things that were getting done down south. So Duwayne just said one day, ‘You gotta get to LA and on a daily basis, drive this train.’ I stayed at the Oakwood Apartments or some dismal place. I think somebody broke in next door the first night I was there.”

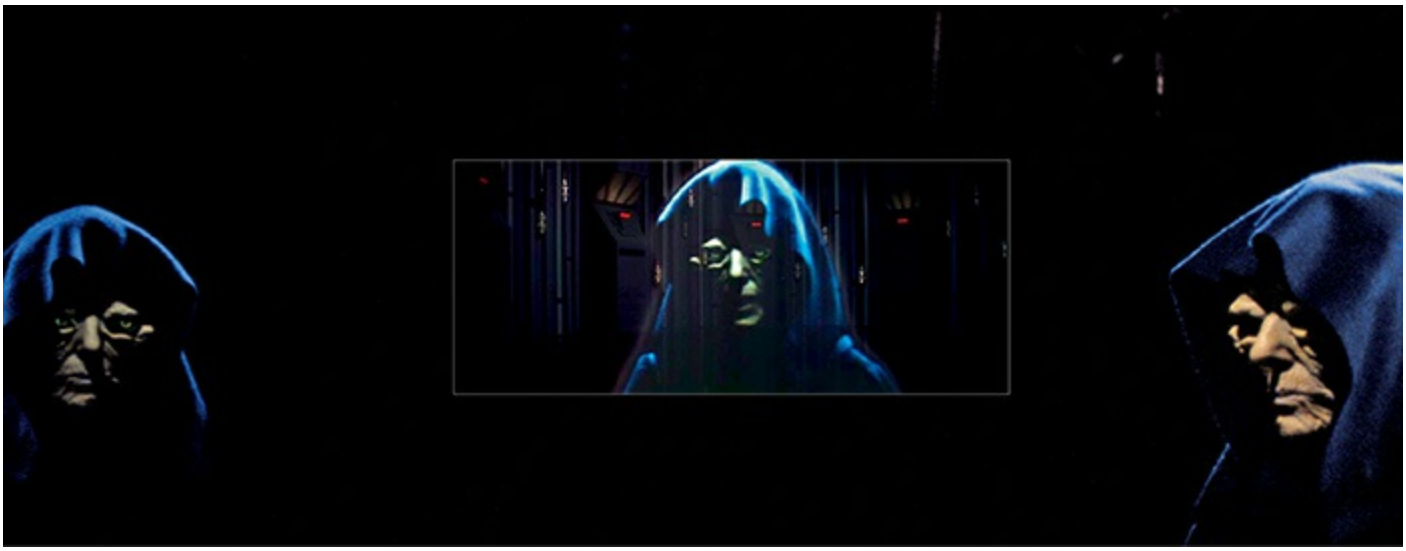
Around this time, Lucas rewrote the roll-up to accommodate the film’s new beginning, locking it for final release:



Several candidates were tried out for the Emperor's eyes: a cat, a chimpanzee, and those of assistant accountant Laura Crockett (the chimp won out).

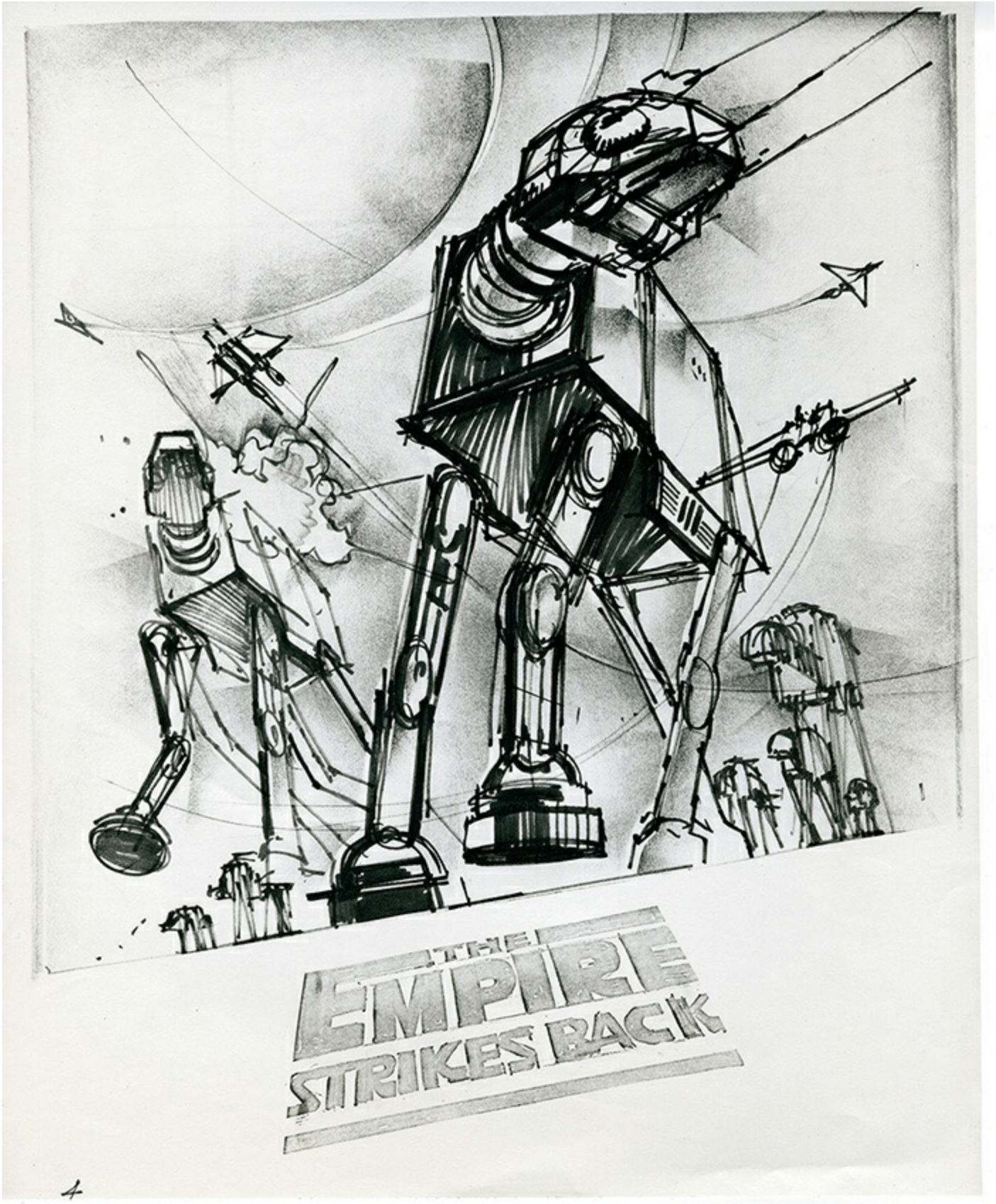


Although a test had been shot with an older actress (Marjorie Eaton), it was decided instead to use an appliance (mask) crafted by Rick Baker, which was then worn by his wife, Elaine Baker. She is filmed by Jim Veilleux with Jim Bloom (on left) in attendance.



By use of split-beam technique with a mirror, the chimp's eyes and Baker in Emperor makeup could be combined in camera. (INSET: Final frame).





4



Poster concepts by various artists—one of which touted an abandoned tag line, "The war isn't over" and one of which re-used Luke and Leia from the *Star Wars* poster.

The war isn't over...

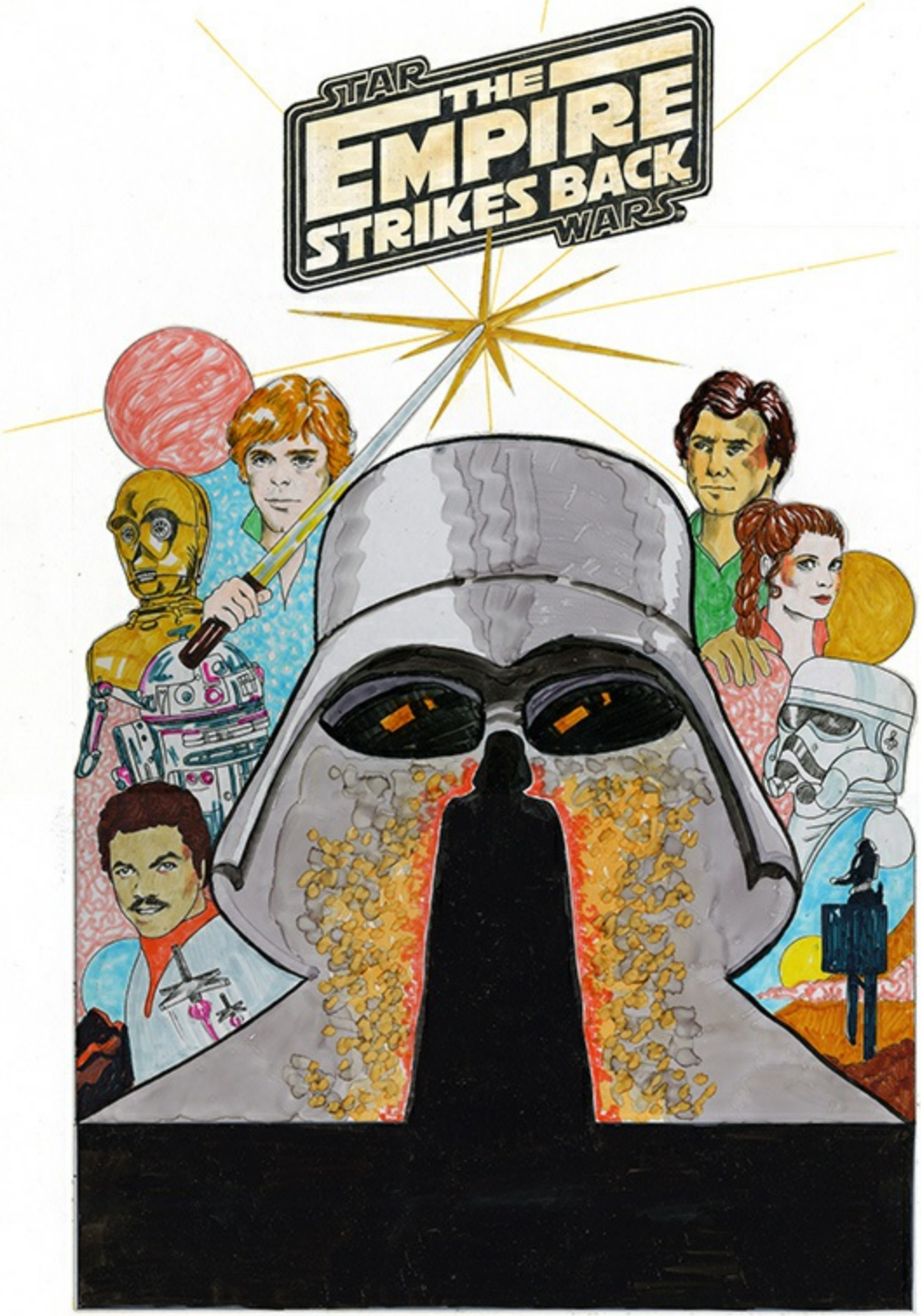


STAR WARS™ THE EMPIRE STRIKES BACK™

TWENTIETH CENTURY-FOX Presents A LUCASFILM LTD PRODUCTION STAR WARS
Starring MARK HAMILL HARRISON FORD CARRIE FISHER
PETER CUSHING
and
ALEC GUINNESS
Written and Directed by GEORGE LUCAS
Produced by GARY KURTZ
Music by JOHN WILLIAMS
PANAVISION
PRINTS BY DE LUXE
TECHNICOLOR

DOLBY SYSTEM


STAR WARS
THE EMPIRE STRIKES BACK


STAR WARS
THE EMPIRE STRIKES BACK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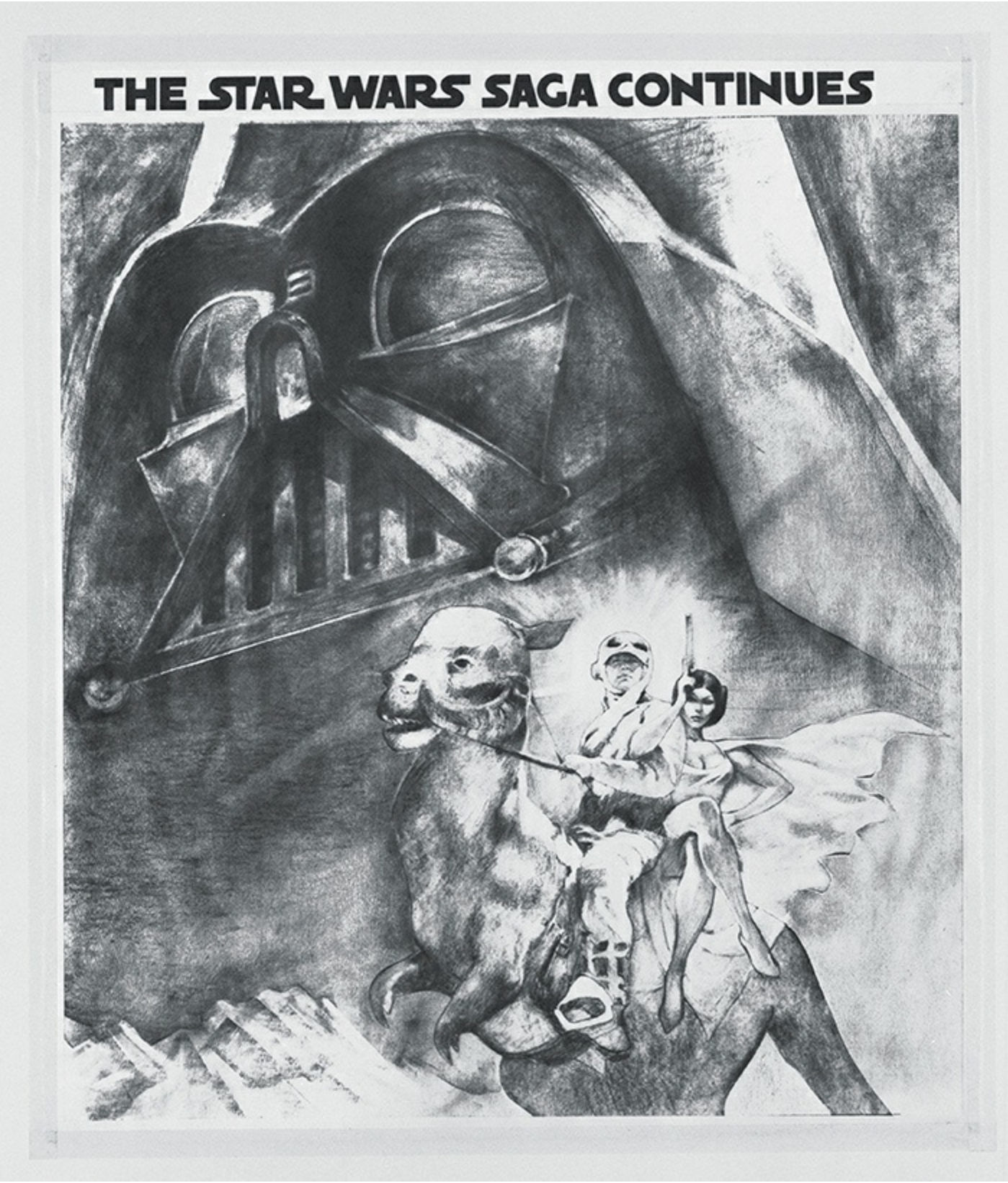
THE EMPIRE STRIKES BACK



Unused poster concepts featuring Darth Vader by Tom Jung.



Attributed to Tom Jung.



Attributed to Tom Jung.



Attributed to Tom Jung.




THE STAR WARS SAGA CONTINUES
THE EMPIRE STRIKES BACK


THE STAR WARS SAGA CONTINUES
THE EMPIRE STRIKES BACK

Attributed to Tom Jung.



ADVANCE ONE SHEET

The 1979 theatrical advance one-sheet, or teaser poster, for *Empire*, designed by Tony Seiniger and David Reneric, who also developed the film's approved logo; the Vader helmet was photographed by Bob Peak, Jr. This poster was used in several formats and countries, including Japan (below).


STAR WARSシリーズ第2弾!
スター・ウォーズ
帝国の逆襲
THE STAR WARS SAGA CONTINUES
THE EMPIRE STRIKES BACK
主演マーク・ハミル／ハリソン・フォード／キャリー・フィッシャー
ビリー・ディー・ウィリアムス／アンソニー・ダニエルス(C-3PO)
監督アーヴィン・カーシュナー／製作ゲイリー・カーツ
脚本リー・ブラケット◆ローレンス・キャスダン
ストーリー◆ジョージ・ルーカス
製作総指揮ジョージ・ルーカス／音楽ジョン・ウィリアムス
DOLBY STEREO
TWENTIETH CENTURY-FOX FILM CORP. LUCASFILM,LTD. 1979 ALL RIGHTS RESERVED
映倫



In England, a movie theater quad, in the tradition of B-movies, was used to hype the film in advance.

TERROR AT THE SCREENING

In early 1980, Hamill had said, "I don't think *Empire* can become a phenomenon. You can't take people by surprise like we did the first time. There's been so much down the pike since we came out. But I think it's going to be a smashing success."

On March 13, Lucas said, "I think it's a better film than the first one. At this point, the film is practically finished. I feel really good about it and I think it's great, but I have no idea what the rest of the world will think. It's probably as pre-sold to the moviegoing public as any film has ever been, but that doesn't mean anyone's going to love it. I think it stands just as much chance of being a hit as not being one. I guess I'm the biggest pessimist around here—after all, I said the very same thing about the first one."

"There was a very apprehensive atmosphere in the company about *Empire*," says Ladevich. "It was not a sure thing and everyone was very nervous about it. George had, obviously, a tremendous amount riding on this financially, emotionally—it was going to define the rest of his career."

"One hopes so much that George will succeed," Arnold said in discussion with Hirsch. "I mean most people grow right past their dreams and hopes. When you talk to him, his simplicity comes over and indeed I've found his sincerity and integrity—you want this man to succeed."

"Oh, yeah," Hirsch agreed.

"And that's why you worry about the movie here to some extent, you know."

"There's no doubt in my mind that *Empire* will be every bit as good as *Star Wars* and probably even better," says Johnson. "It's always hard to follow up a stunning movie. You never know what happens until it comes out. But we've gotten some very positive reaction from the trailer and it's thrilling to witness all the visual things that are happening. The story is very strong."

"I'm scared," Ellenshaw says. "Because I'm afraid many of the matte shots will *look* like matte shots, because you'll *know* what we've done just can't be accomplished any other way. Fortunately, there is a tone established very early in the film which will cause a suspension of disbelief; hopefully, believing in the fantasy of it all will make the mattes less noticeable or at least less bothersome."

When asked by *Starlog* to reveal specifics of the plot, Prowse laughed. "You must be joking. I haven't got a clue." That magazine also asked Billy Dee Williams for clues while the actor was on the *Nighthawks* (1981) set working with Sylvester Stallone in New York. "I don't even know what happens in the movie!" Williams explained.

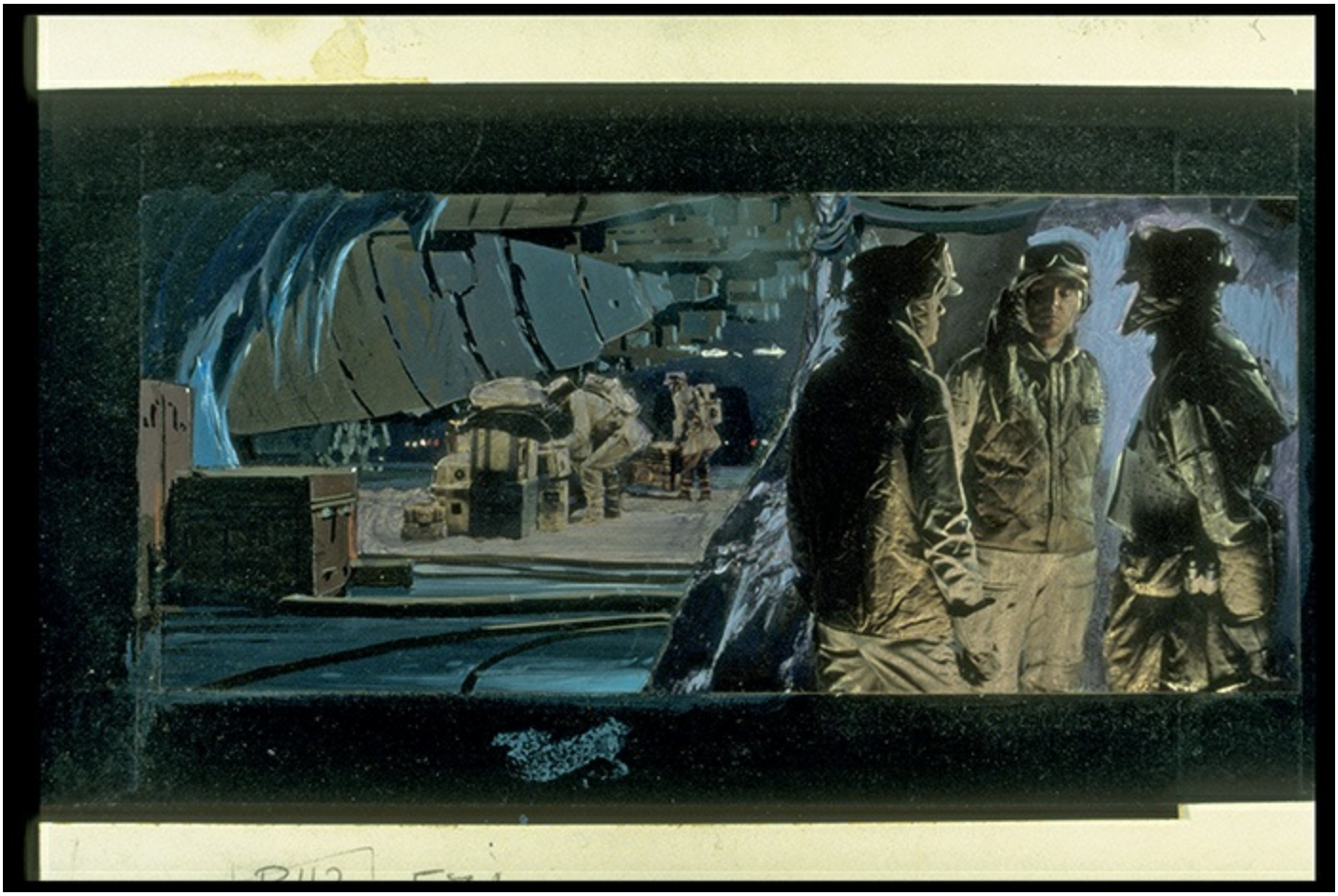
Neither did the executives at Fox, until they had their sneak peek on March 22. "We were doing our first screening for Fox in the big theater on the Fox lot," says Starkey. "For me, this was leaving the little cocoon of Lucasfilm and blowing into the outside world. Before the screening, I was in this little editing room they had at the Egg Company. We were gonna cut in some very late visual effects. It was the eleventh hour—George is in there, Duwayne—and Ben comes in, drops this new mix on the floor within hours of the screening, and says, 'Here's the new mix.'

"I looked at it and said, 'Oh my God, I've got to …?' I didn't have time to view it, check it on the KEM, or put codes on it," Starkey adds. "All I could do was run it down by the numbers I had written on a piece of paper and pray that I'd done everything right—and then we sat down for the screening. I was so nervous. I was sitting on the edge of the aisle. I knew exactly the frames where it would change reels—and each time, the moment sent a shock through my system. I'd anticipate and go, 'Oh my God …,' and watch the first words or something, and then I'd go, 'Thank God, we're still in sync!' I don't think I was aware of any reaction in the audience. I was in this numb-eared state of hearing sync. I was just so terrified that I was going to have to fix this thing in the middle of this huge screening for the studio. It all came off—but I was so terrified. I just couldn't believe that they had done this to me."

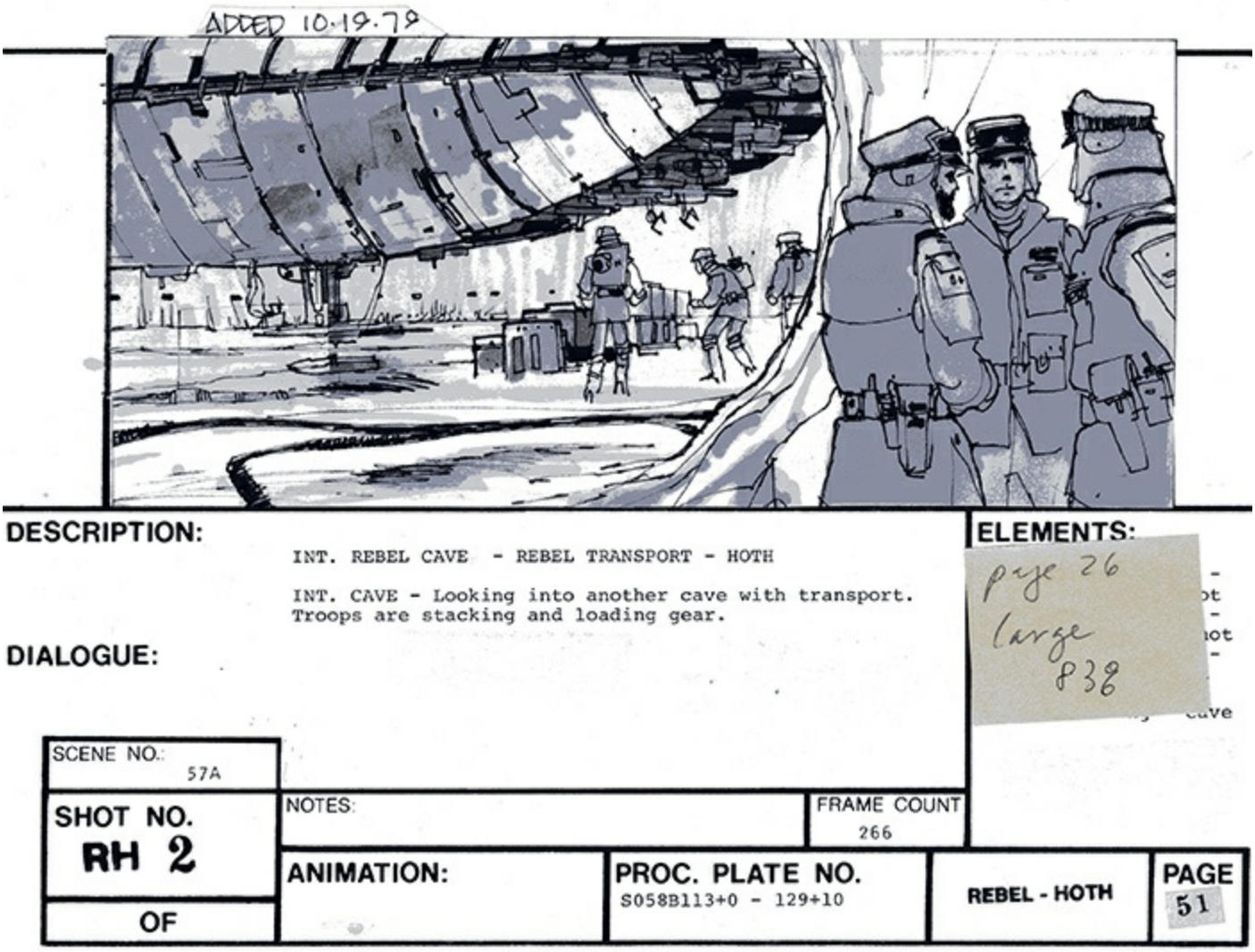
Two days later, Lucas was back at ILM, where editing notes recorded the supervisors' and Lucas's ongoing list of improvements: "Fix transparent matte, pod needs to be darker; M-40, wrong background, should be similar to M-99, needs 60 frames. If we can't get 60, make up by re-comping M-41. Make black-and-white test to check movement …"



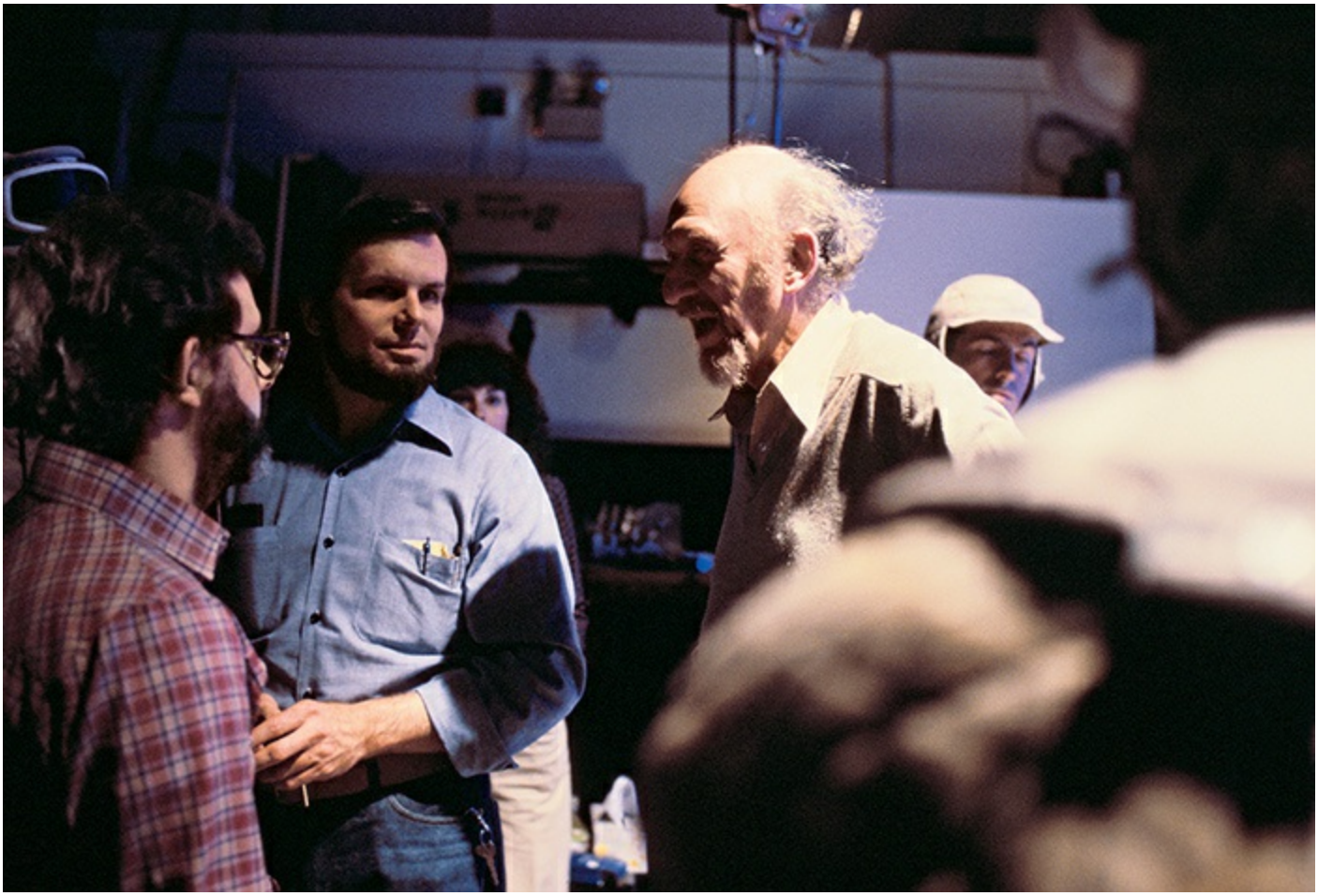
Mixing the sound in Hollywood are (FROM LEFT) Greg Landaker, Steve Maslow, and Bill Varney; Lucas and Burtt supervise from seats in the back.



A painted photo comp by McQuarrie shows the first attempt at a Rebel hangar scene as planned and shot in England—but when Lucas found the shot unsatisfactory, he decided to redo it.



A storyboard by Johnston for the rebel transport (in background) shot.



On February 9, 1980, Lucas, Kurtz, and Kershner reconvened for the pickup shoot (effects editor Michael Kelly in the background is dressed for his part).



Kurtz speaks with Johnston, who had the sole speaking part, while Kershner chats with McQuarrie.

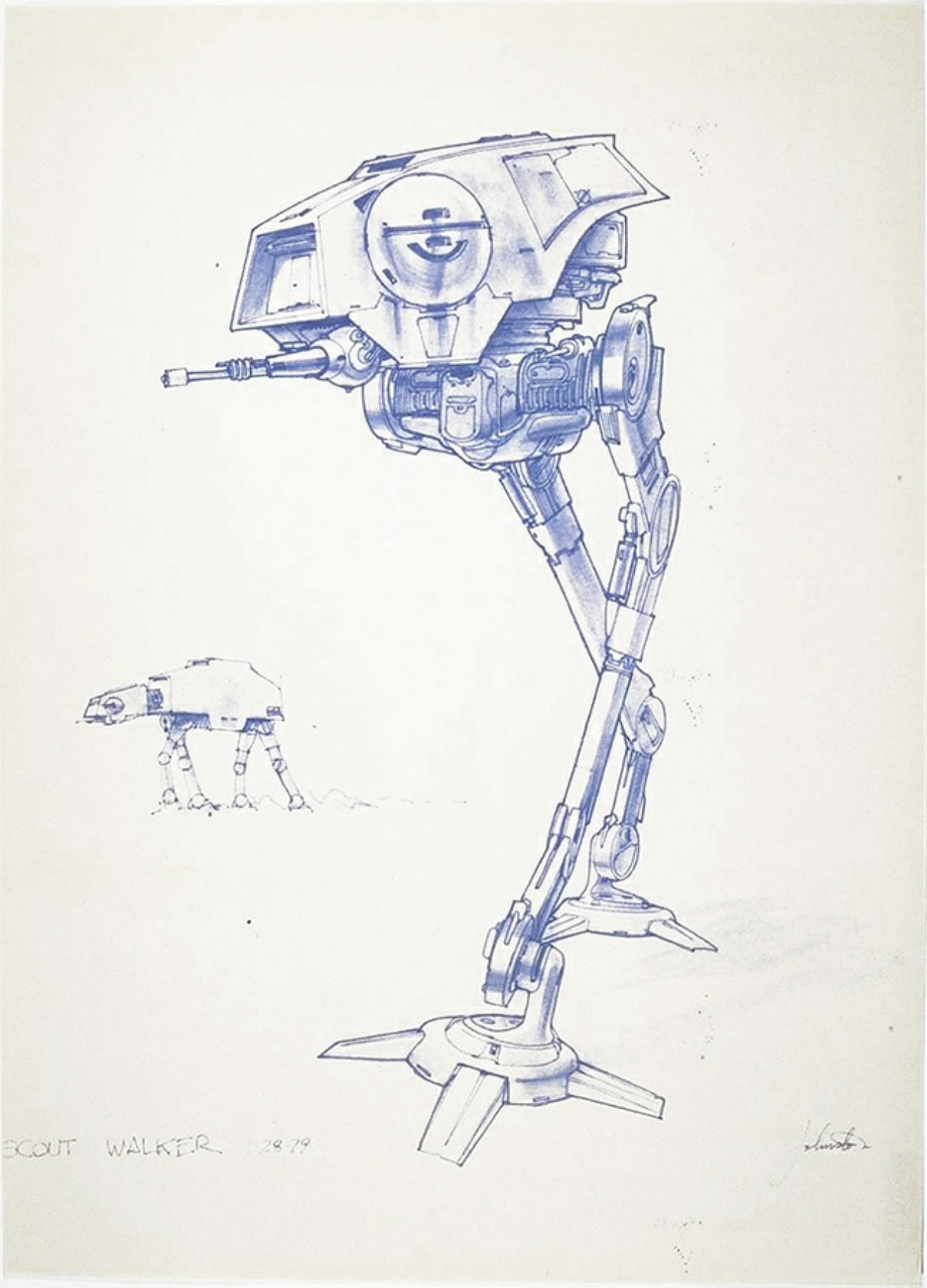


Ellenshaw, McQuarrie, and Pangrazio.

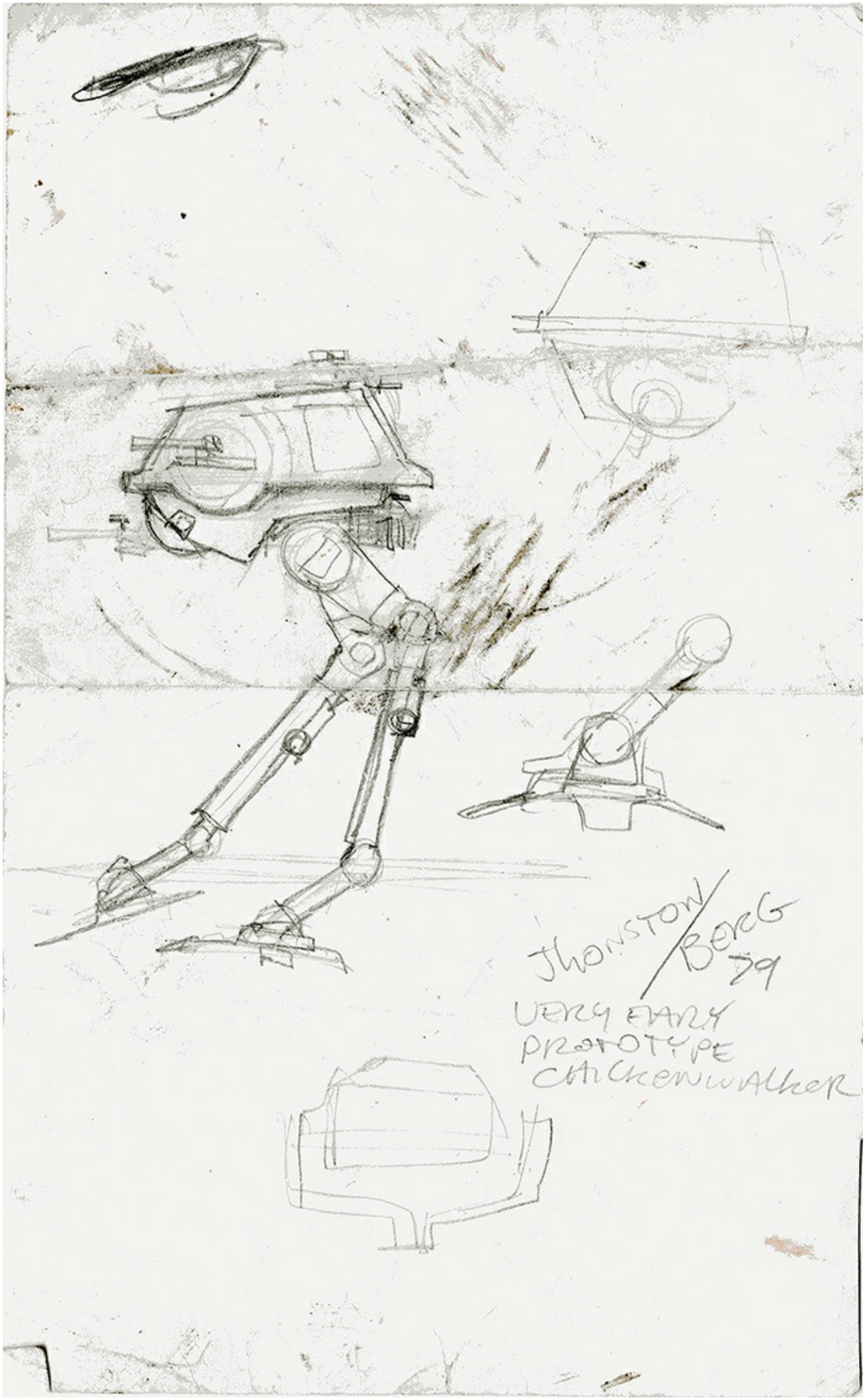




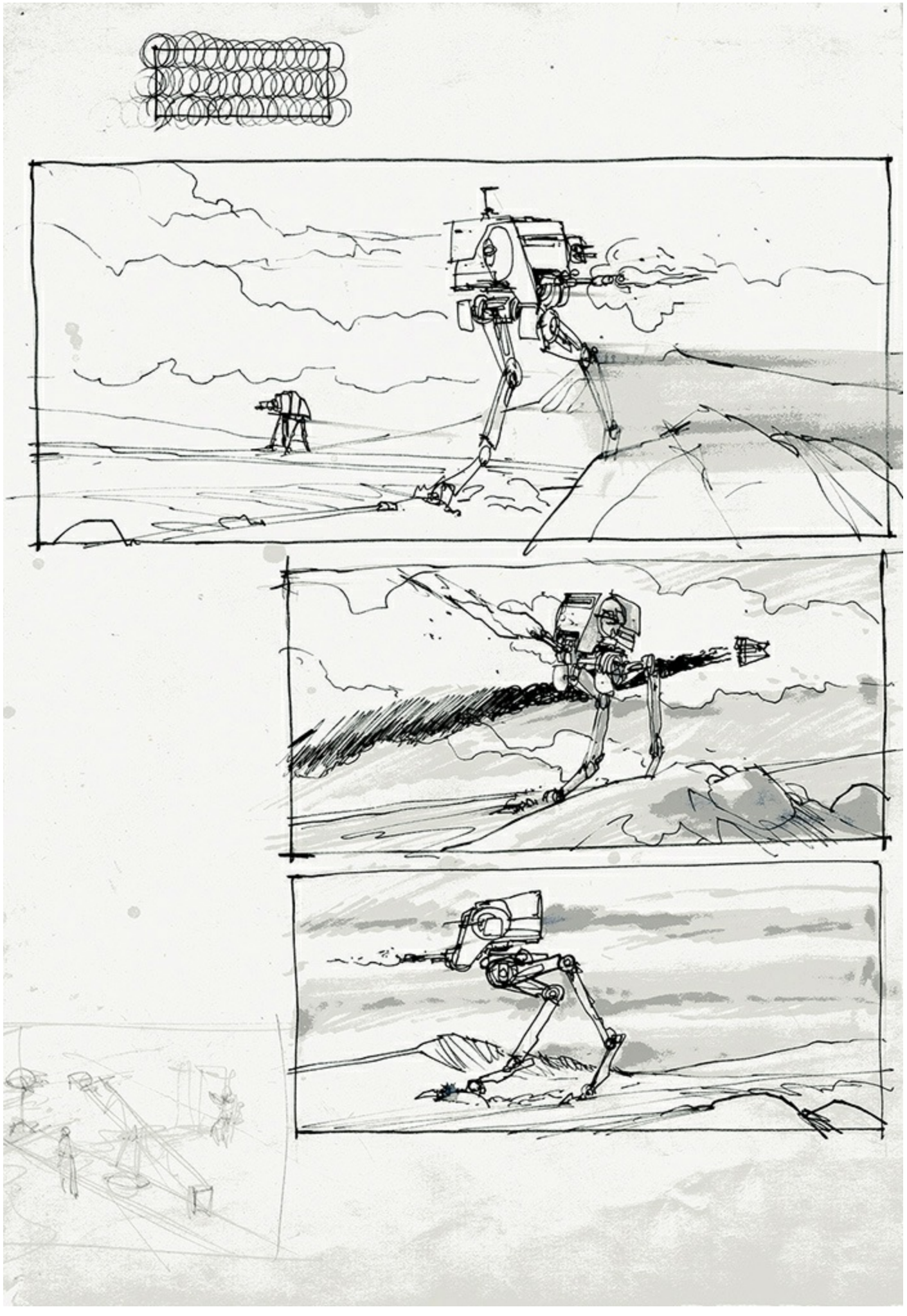
Two final frames with Kelly, Johnston, and Ellenshaw; McQuarrie walks through the midground (he also did the shot's matte painting).


SCOUT WALKER 1-28-79

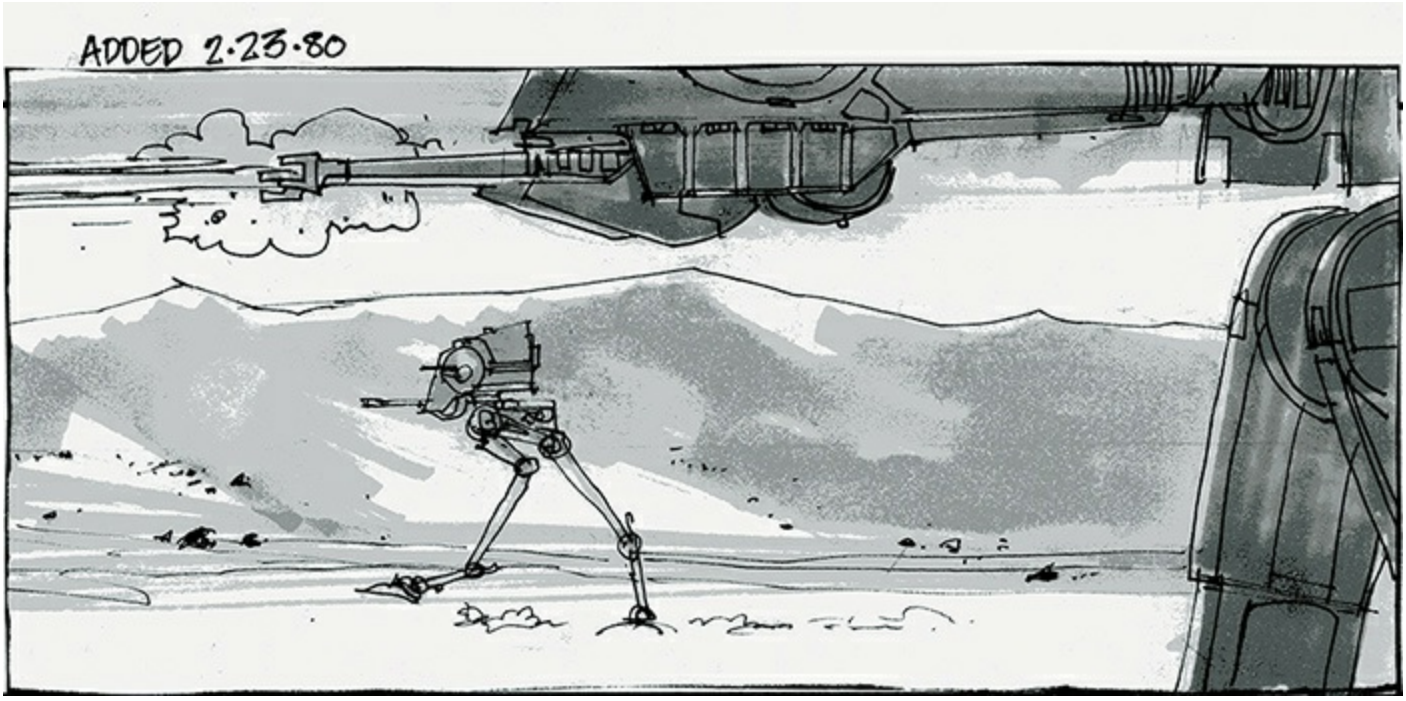
Johnston redesigned his 1977 concept of a two-legged “scout walker,” on January 28, 1979, perhaps based on an envelope doodle signed “Johnston/Berg ’79—very early prototype chicken walker.”


JHONSTON/BERG 79
VERY EARLY PROTOTYPE CHICKENWALKER

Johnston envelope doodle.



Rough boards led to a revised Johnston storyboard of the AT-ST, or “chicken walker,” on February 23, 1980 and to its very late inclusion in two shots.



Revised Johnston storyboard of the AT-ST.





Chicken walker in two shots.

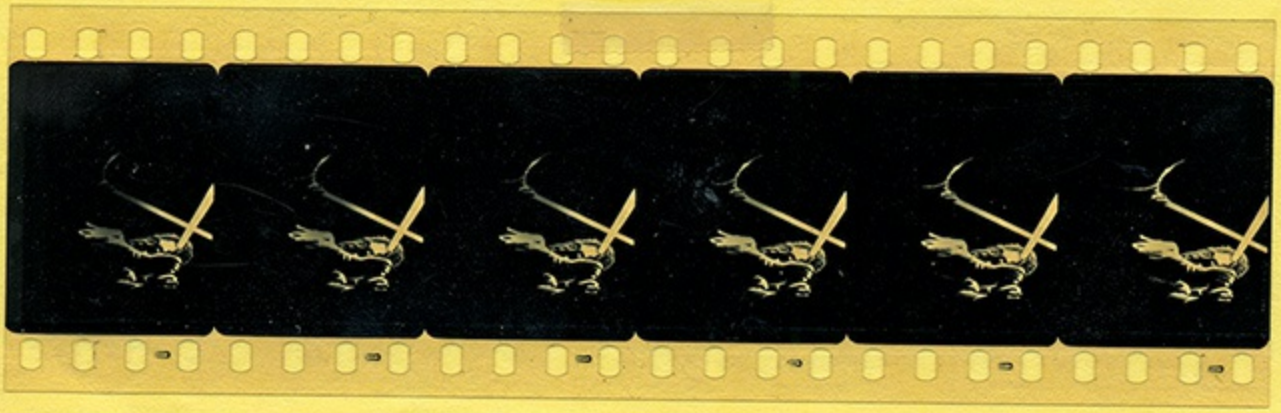
FEB 1980
RECEIVED
Carol W. Titelman

Feb. 18, 1980

Carol:

This was just given to me this morning--
I don't know if you are interested or not.
Peter Kuran, our animation supervisor,
says that the laser swords are being done
by two or more outside animation people--
this clip is from the stuff done by
Chris Casady. It shows not only the
laser swords, but also reflections on
the faces, etc. from the laser swords.

Cathy

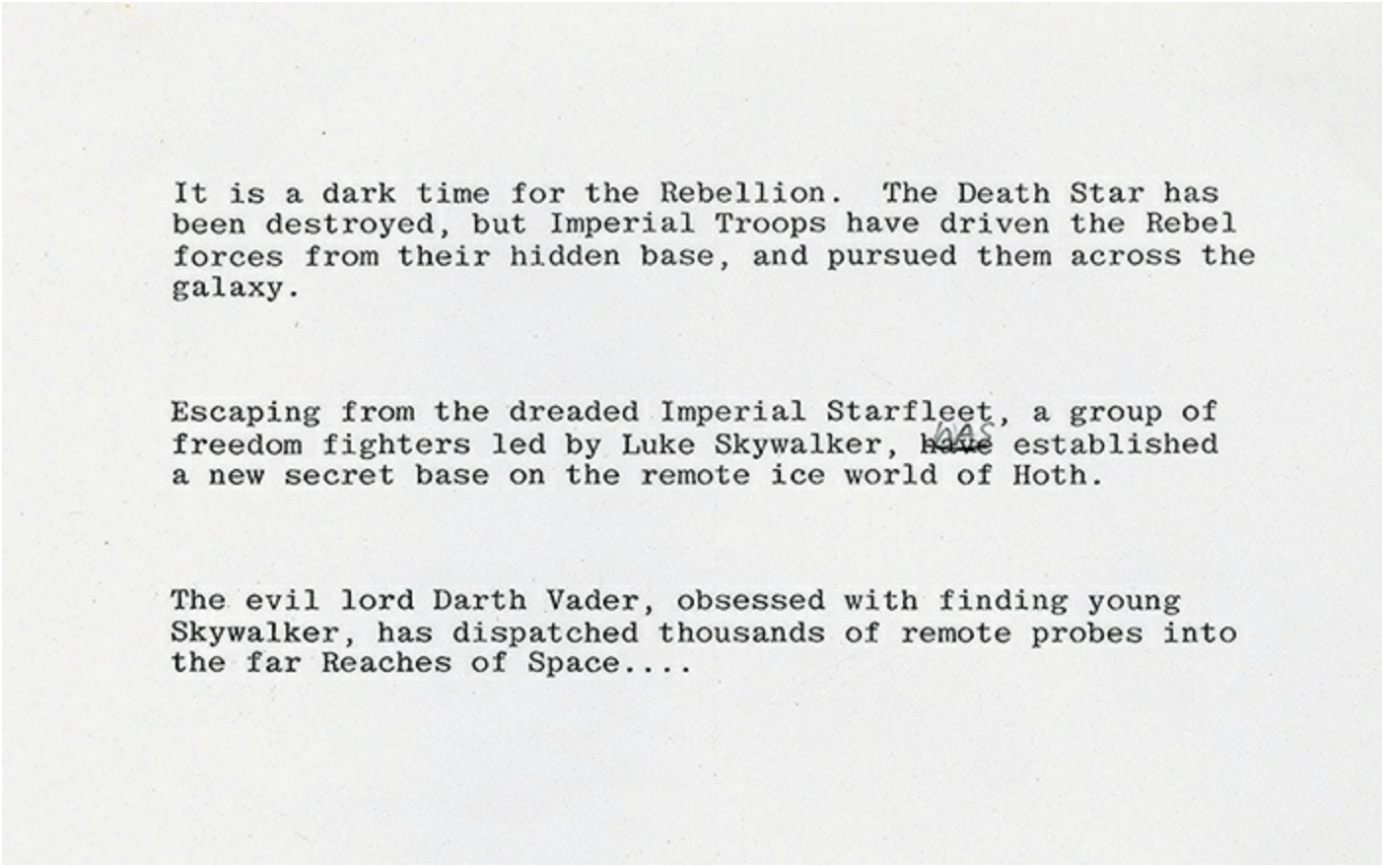


A memo from Patty (Patricia) Blau to Carol Titelman, dated February 18, 1980, concerning out-of-house lightsaber effects.





Final frames with finished lightsaber effects.



It is a dark time for the Rebellion. The Death Star has been destroyed, but Imperial Troops have driven the Rebel forces from their hidden base, and pursued them across the galaxy.

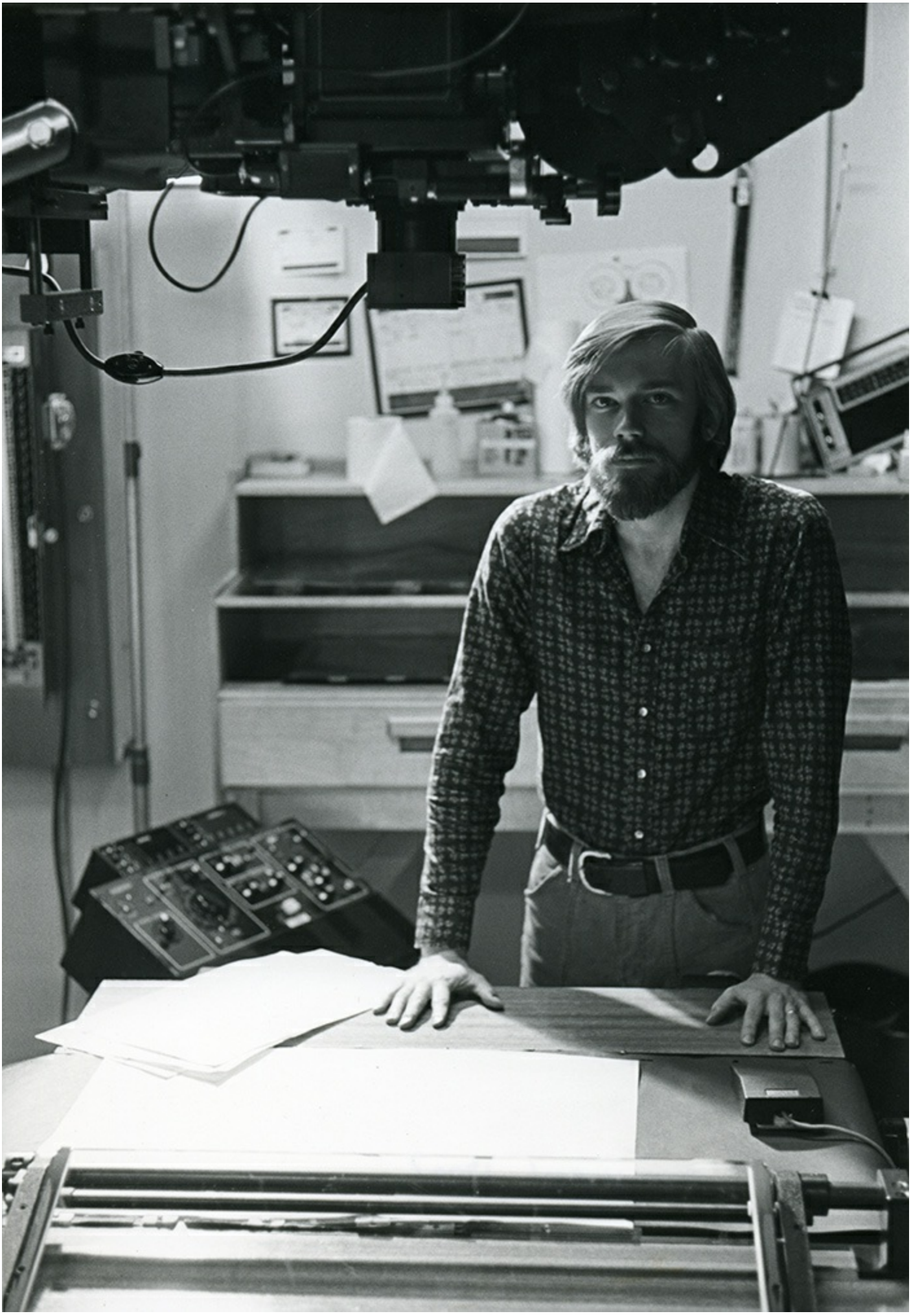
Escaping from the dreaded Imperial Starfleet, a group of freedom fighters led by Luke Skywalker, ~~have~~ has established a new secret base on the remote ice world of Hoth.

The evil lord Darth Vader, obsessed with finding young Skywalker, has dispatched thousands of remote probes into the far Reaches of Space....

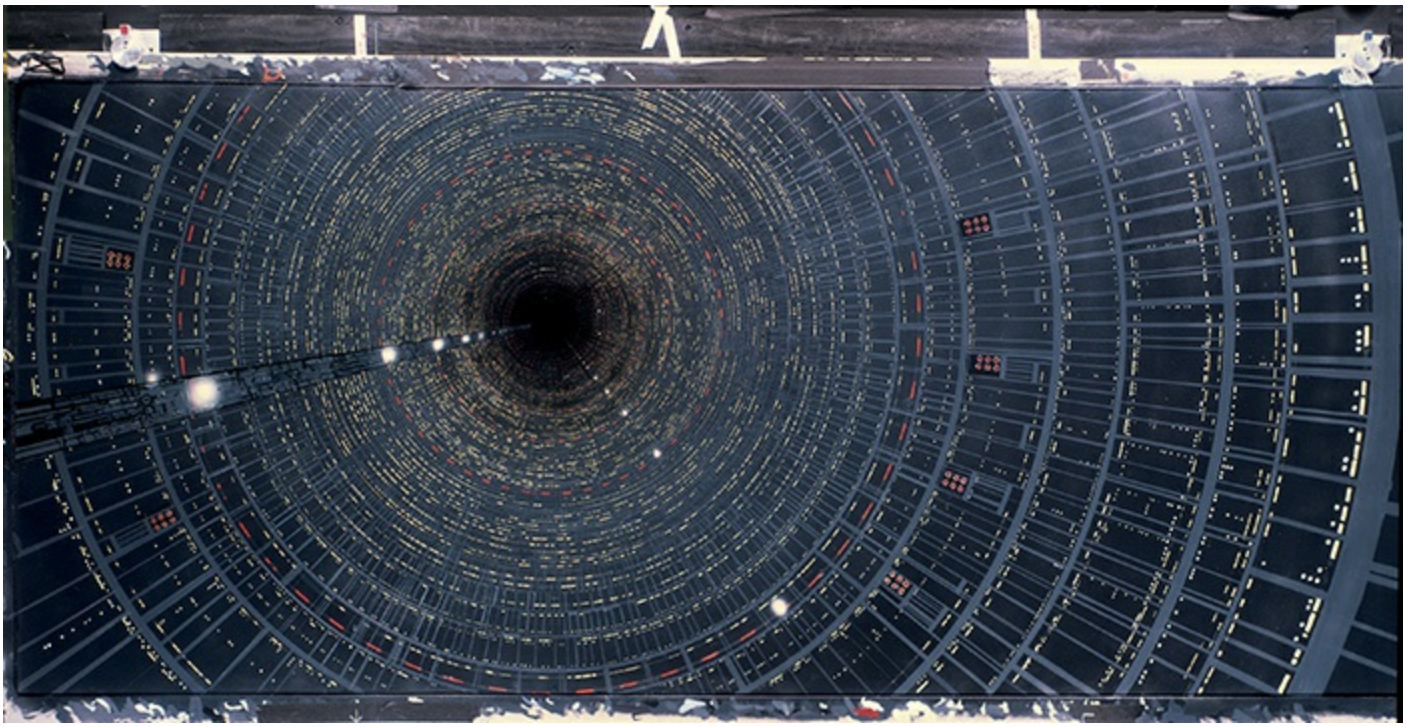
The typed up final version of the opening crawl contains one last edit from Lucas, who changed “have” to “has.”


Episode V
THE EMPIRE STRIKES BACK

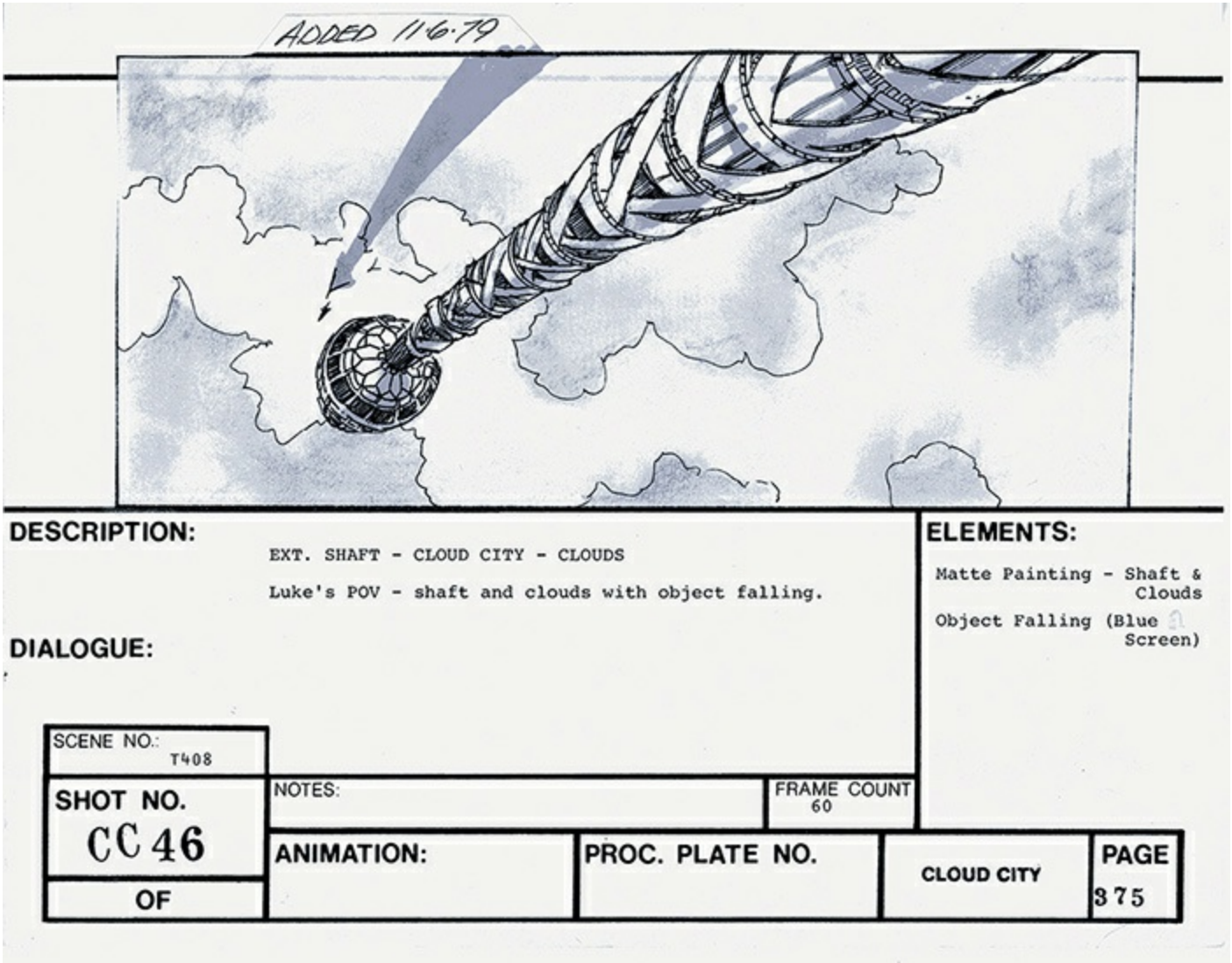
The crawl was then filmed at ILM, circa March 1980.



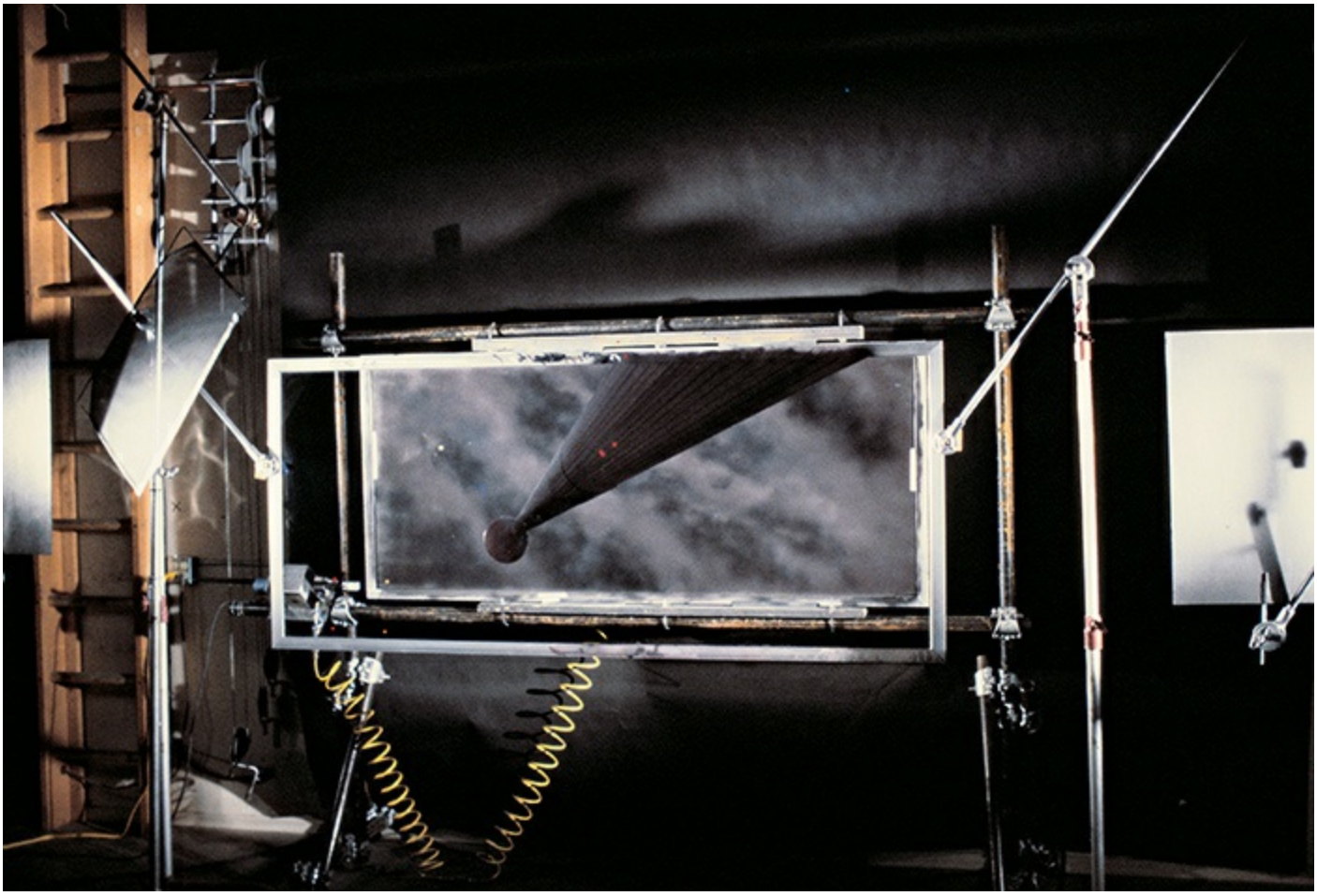
Animation supervisor Peter Kuran.



A matte painting looking into the reactor shaft (into which Luke lets himself fall) by Ellenshaw, who convinced Lucas that the shot would be more foreboding if dark, though in earlier shots the core was lighter and had a pulsating glow.



A storyboard, dated November 6, 1979, helped visualize another downward looking matte—this one underneath Cloud City for Luke's point-of-view as his lightsaber falls away.



The final matte painting by Ellenshaw is set up for front projection at ILM.



Assistant art director Nilo Rodis-Jamero and model maker Dave Carson work on a large painted model of the Cloud City underside.



Harrison Ellenshaw and his painting of the reactor shaft.

GOOD SUSPENSE

Variety announced on April 1 that Lucas would act as consultant on John Korty's *Twice Upon a Time* (1983) for The Ladd Company, the new production house Ladd and his partners had formed. A Bay Area filmmaker, Korty, like Kasdan, was a friend of Lucas's.

"Laddie went ahead with *Body Heat* and I was able to make the movie with complete autonomy," says Kasdan. "George never came to visit. We would send him dailies—I don't know if he ever looked at them. He did come and look at the movie when I'd finished cutting it; he spent a day with me and Carol Littleton, my editor, going through the movie and making a few suggestions, which were very supportive and very smart, 'cause George is a great editor. That was it! And then he came to the sneak preview. You know, he couldn't have been more helpful or supportive."

For his own film, Lucas was finalizing shots as late as April 11. The last reel was delivered on April 16, which triggered a $10 million payment from Fox to the Bank of Boston. On April 17, Lucasfilm put into effect a new Employee Bonus Plan, which would enable qualified staff to participate in the profits of *Empire*.

That same day, somewhat prematurely, *The Hollywood Reporter* called the film "completed," because it was being shown in seven states where anti-blind-bidding laws were in effect: Ohio, Virginia, Georgia, Alabama, South Carolina, Louisiana, and Tennessee. *Empire* was already setting new exhibition standards by demanding minimum play time of up to 28 weeks and more, according to Fox president Norman Levy (a 12-week minimum engagement was usually the upper limit even for a "big" film).

On April 19, Lucas previewed the film, as he had *Star Wars*, at the Northpoint Theatre in San Francisco. An interoffice memo summed up the answers on the Preview Questionnaires distributed after the showing:

Male comments under 10: "Thought it was great … It was like a dream … It was very good … Movie too long. Luke sometimes gross (hand). Tan Tan [sic] animation could be better, otherwise movie good. It was kind of sad when Han Solo turned into ice. Why are you making me phil [sic] this out?"

Female comments under 10: "You should have less violence, or if you have violence, make it funny violence. I was unhappy I had to wait so long to see it. I did not like it as much as *Star Wars*. All the war was a little too much for me. I didn't like the ending. Overall good suspense."

Males 16 to 20: "These movies had a meaning. Mattes of Bespin weren't realistic looking. Everything else was flawless. It's one of the few sequels as good or better than the original."

Females 16 to 20: "I hope you find Han Solo!"

Males 21 to 25: "I was surprised the story was good. I enjoyed the magic of the Force. But the army stuff, not for me."

Males 56 and over: "You will have the kids of America standing on their heads practicing psychokinesis.

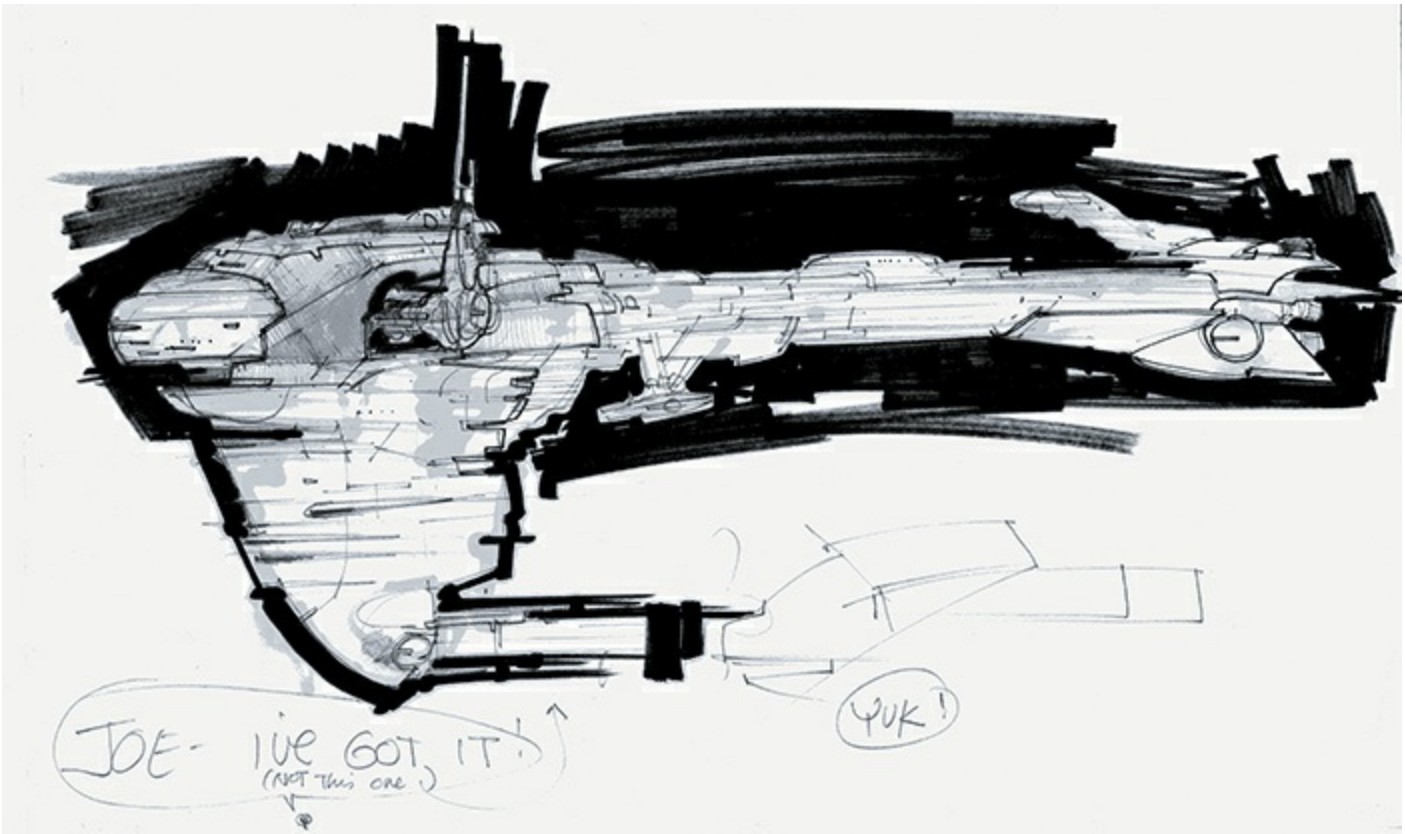
The Biblical parallels of the story are remarkable and fascinating. I am moved by your willingness to 'go for it.' Fabulous series of films. I support your intention."

"I remember getting the first preview cards from a screening we had here at the Northpoint and some of the criticisms were the tauntaun," says Muren. "I thought, *My God, what did we do wrong? I thought this thing was really working*. And it got me to thinking that we had solved 10 percent of the problem, not 100 percent of the problem."

"George was worried about Solo's line, 'I know,' " Kershner says. "So we sneak-previewed the film and when the line came, the audience roared. George turns to me and says, 'You see, it's a mistake.' Now the picture is over and they're all talking about that line and how great it was. They all noticed it, so we kept it in the film. George knows what he wants, but he is very flexible and that's why I like him so much."

On April 21, the "Action Negative" was delivered to Deluxe, but, in a memo the next day from Kurtz to Robert Greber, the former outlined the last key elements needing completion: The Dolby stereo optical soundtrack negative was on target for delivery on April 29; the mono optical soundtrack negative had three more weeks to go; the 35mm answer print would be completed by Monday or Tuesday of the following week. Deluxe was working around the clock on the color timing of the 70mm prints for the May 21 release date, while the MPAA Certificate of a PG rating had been forwarded to Fox.

"The problem with 70mm that none of us anticipated was that you had to check-run the 70mm prints in real time because of the magnetic soundtrack," says Kurtz. "And sometimes the magnetic coating on the 70mm prints doesn't work; parts of it would flake off. So you had to listen to each reel all the way through to make sure that the soundtrack was okay. Normally the picture could be looked at in high speed and you could tell if there were defects. But for the sound, you couldn't do that, so I ended up hiring people to sit 24 hours a day, running these 70mm prints. Every single print was run and the reject rate on the reels was something like 22 percent."



The first concept in which Rodis-Jamero hit upon the medical frigate design—"Joe, I've got it!"



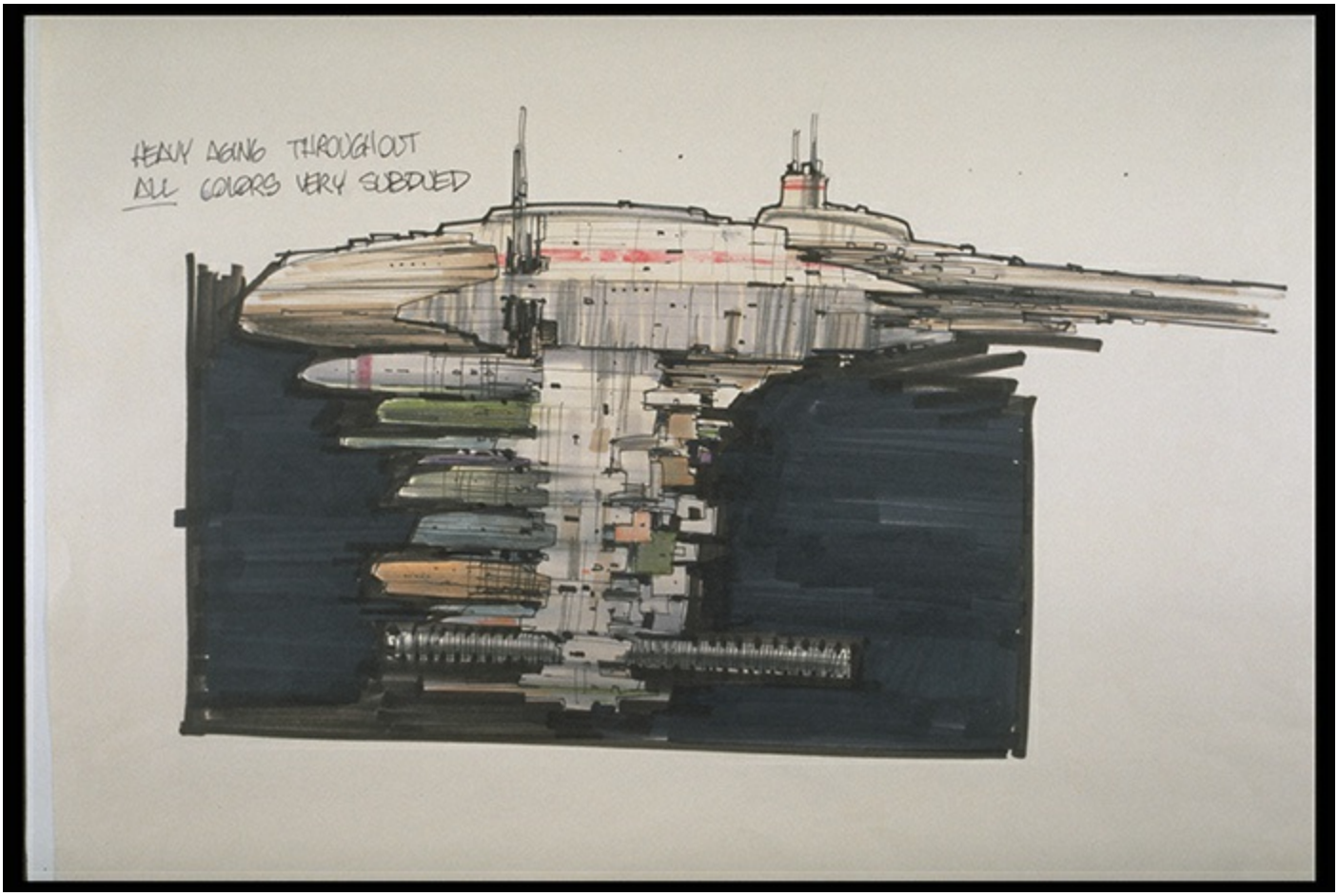
Rodis-Jamero then refined the idea, which, after being approved, was turned into a three-dimensional ship by the model shop (below).





Lucas inspected that model, planning out shots (with Edlund, Johnson, and Gawley).

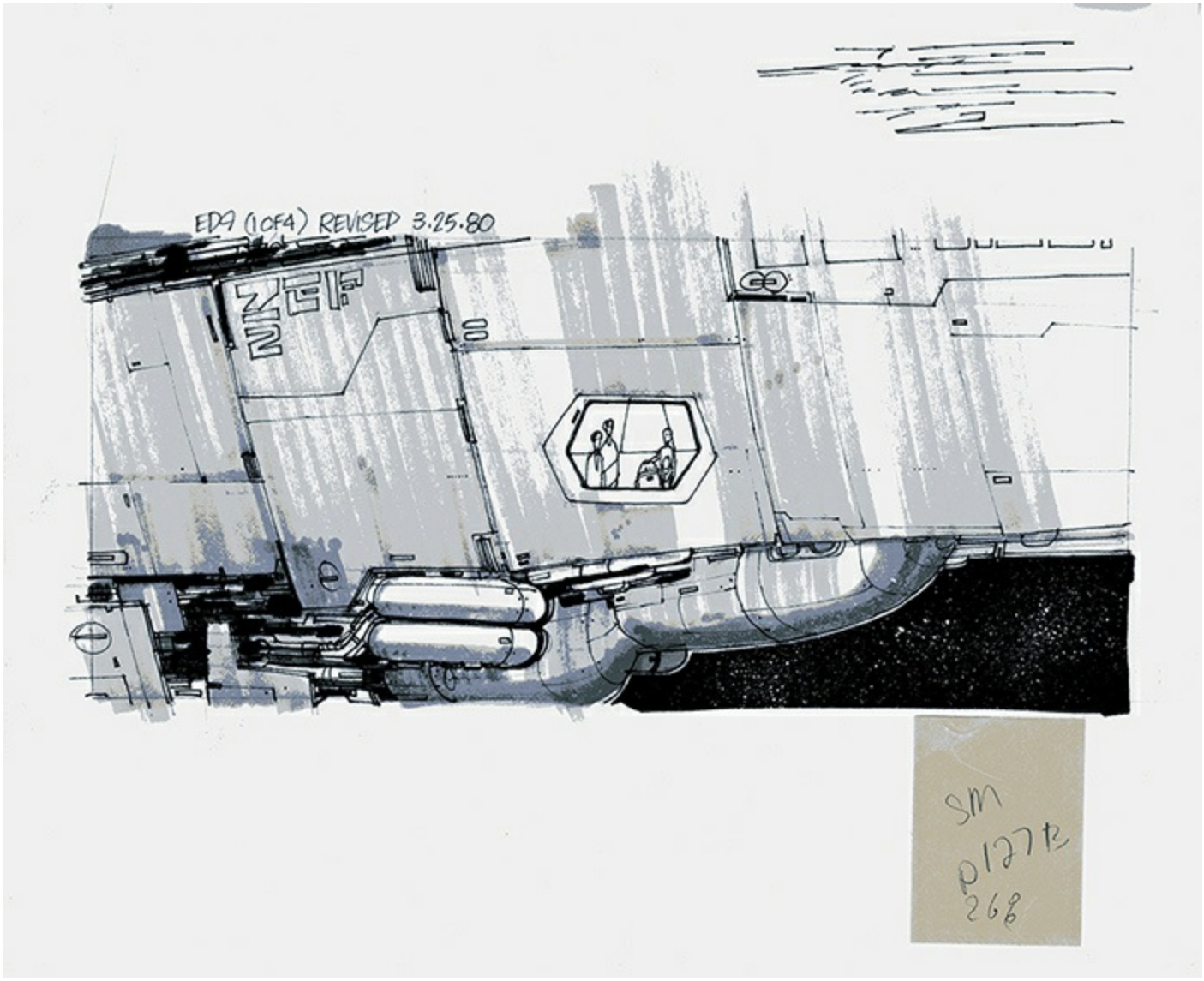
As ILM surged toward its several goals, desperately trying to finish on time, someone wrote on the shot status board the Han Solo quote: “Never tell me the odds!”



Color scheme concept for the Rebel Alliance medical frigate by Rodis-Jamero.



A special comp of the medical frigate model and other miniatures against a star backdrop—the establishing shot of the Rebel fleet at the end of *Empire*.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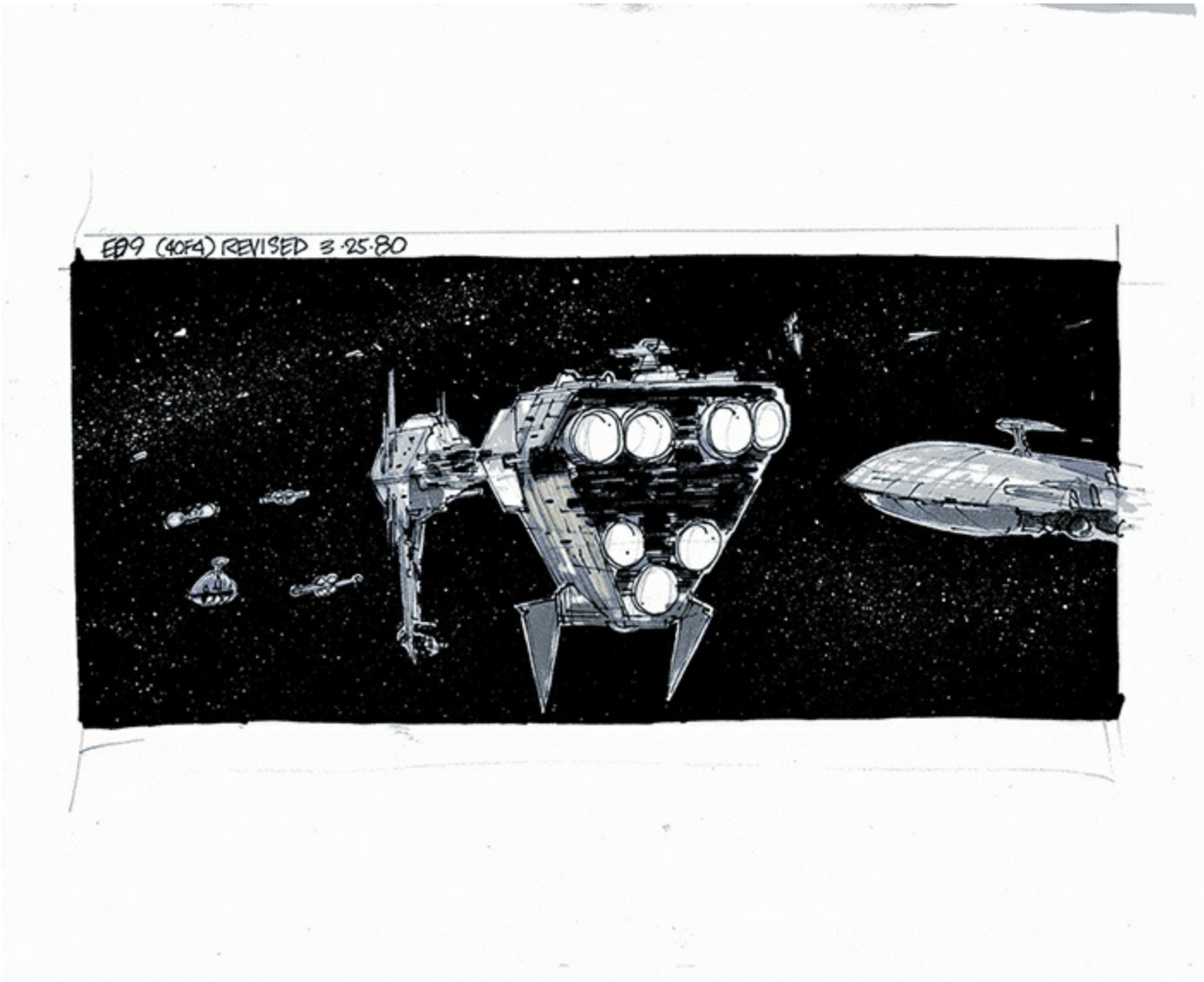
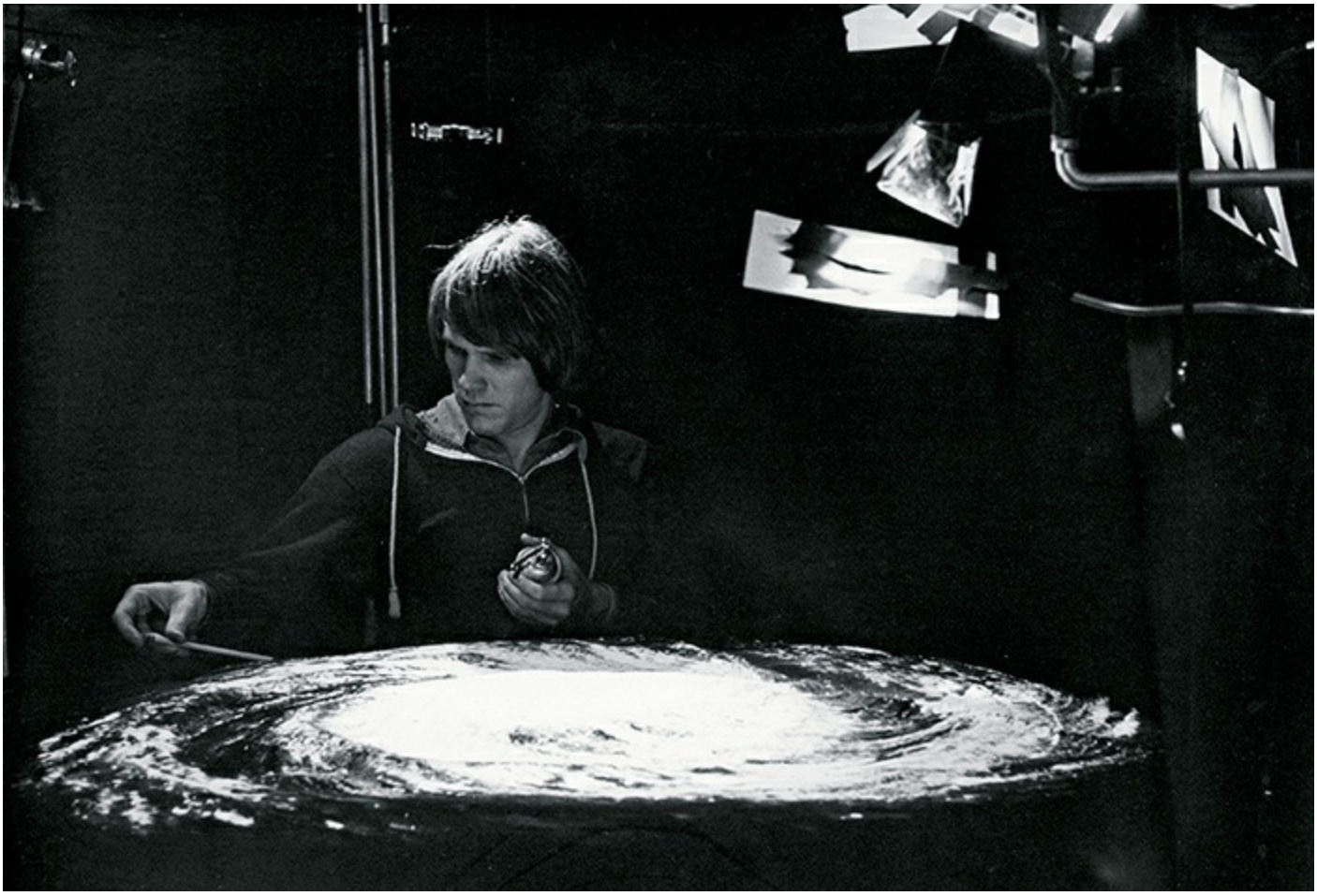


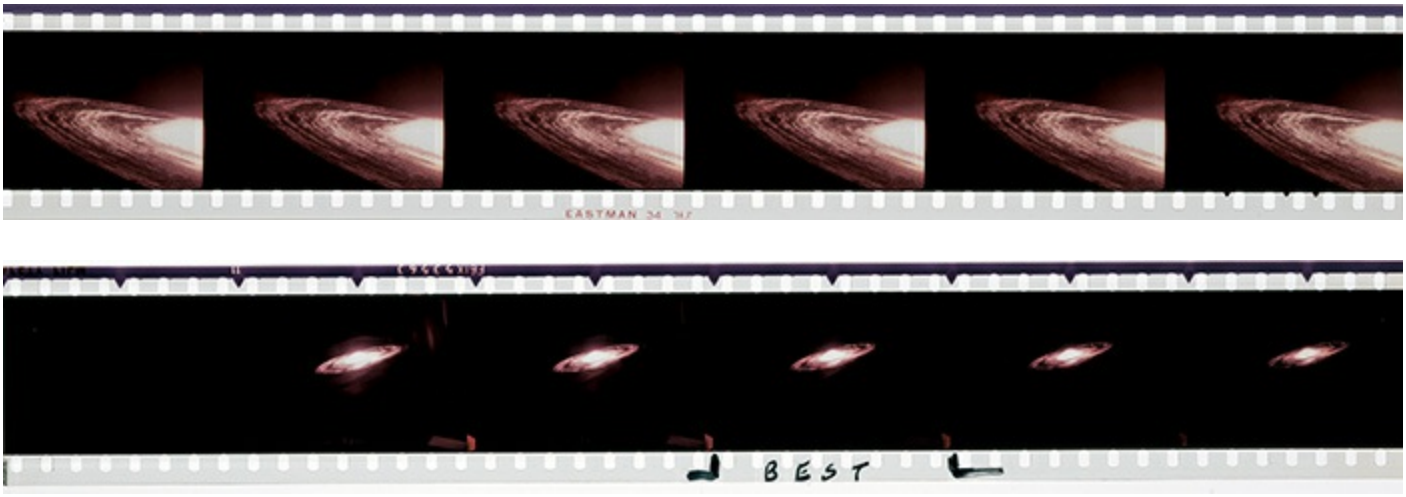
A series of four drawings by Rodis-Jamero on March 25, 1980, plotted out the film's last shot.



Johnston works on the nebula.



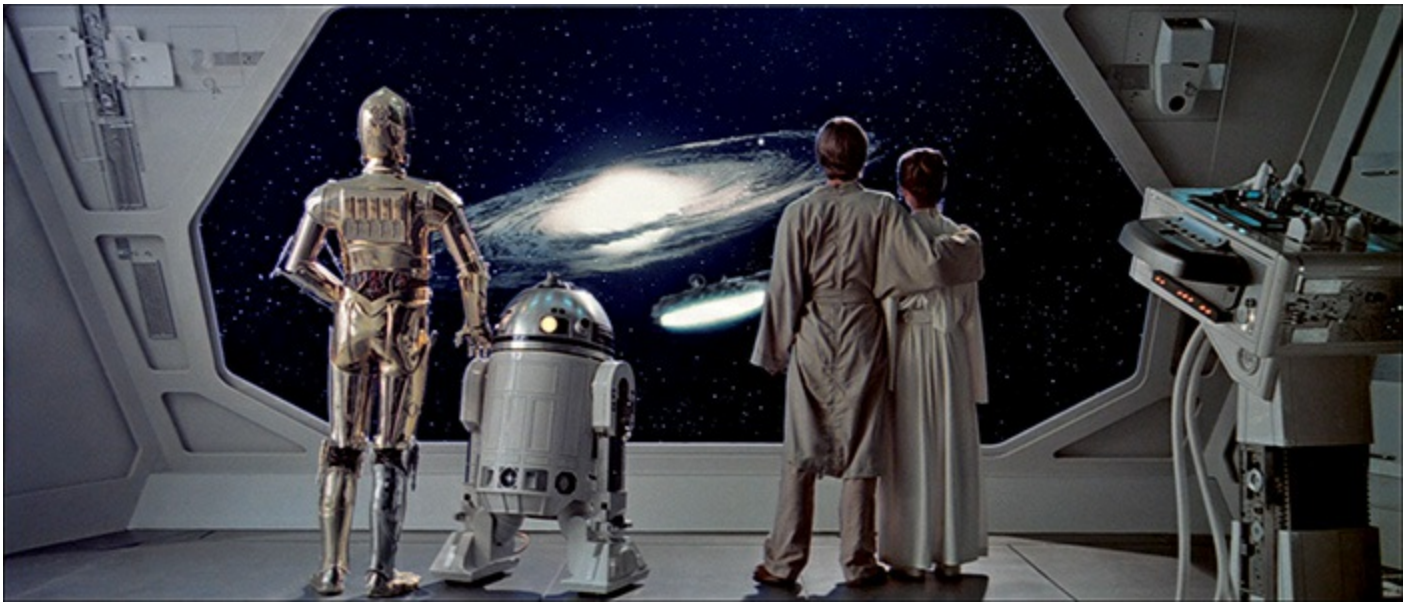
Johnston consults with Muren. Muren drew on his experience making the 16mm film *The Solar System: Islands in Space* (for Charles Cahill and Associates Educational Films, 1972), repeating the use of flour, over-exposures, and a mirror to create space phenomenon. It took one day to set up the ILM shot and half a day to shoot it.



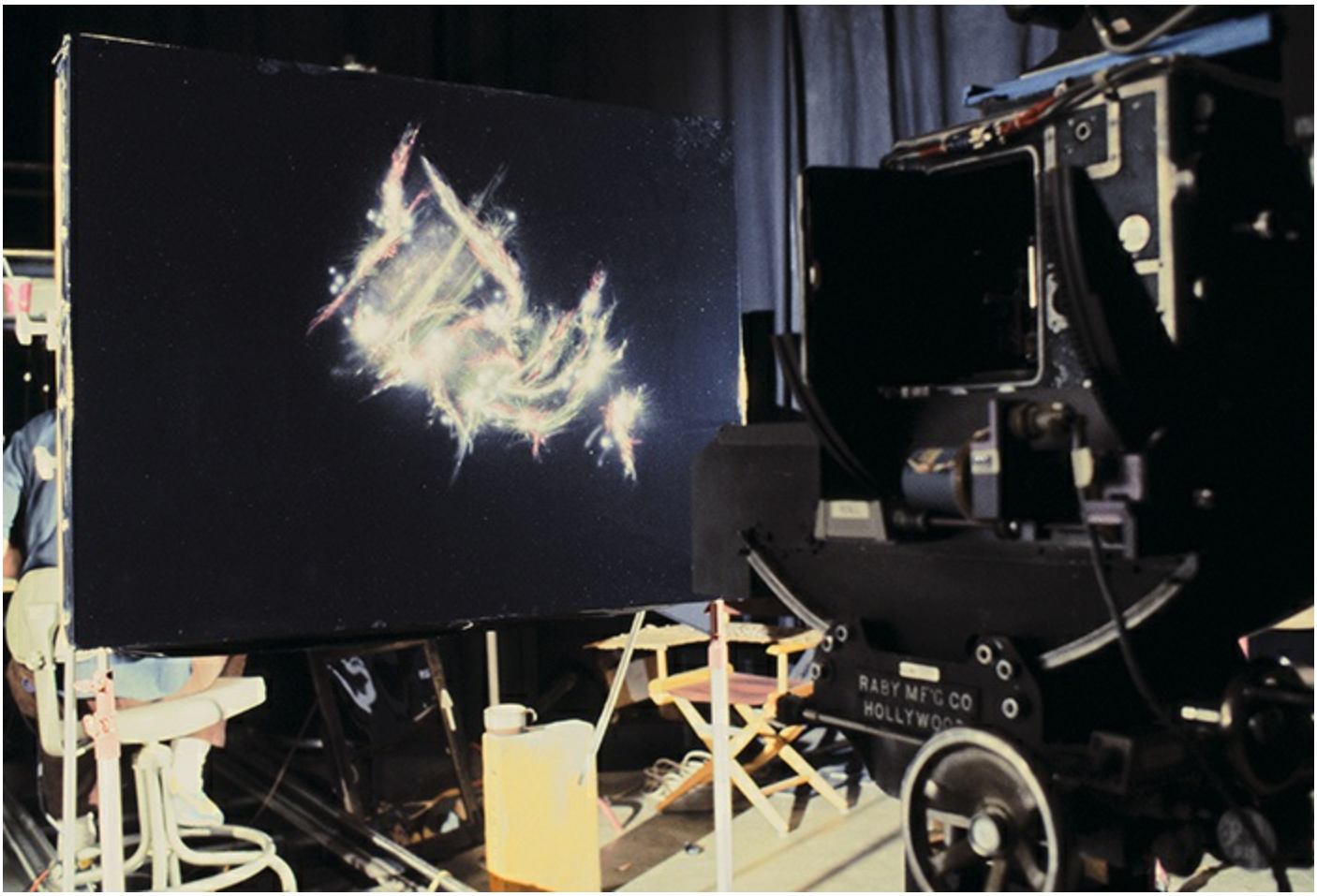
Two strips of film (VistaVision and 35mm) of the nebula element.



"Luke and Leia (Star Cruiser)" production painting by McQuarrie, October 3, 1978.



"Luke and Leia (Star Cruiser)" final frame with the added nebula based on the artist's work.



A space element experiment setup at ILM.

EXCITED PERCEPTIONS

By the month of May, the financials were clear: To make a profit, *Empire* would have to earn more than $57,158,514, the sum of its "Before Release Producer fee," which included the final cost for the film itself—$30,478,433, about $8 million of which was ILM—added to the distributor fee of $20,456,661 and more than $6 million in interest. The guarantees didn't come close to this figure, so the sequel was

going to have to do better than most films in recent memory.

"The marketing campaign was working beautifully," says Ganis. "And the guiding light for the campaign was George. He knew what he wanted. He's the one who said to me, 'I want to do a poster of Han Solo and Princess Leia like the *Gone with the Wind* poster.' And if you take a look at the poster for *Empire*, you'll see that's exactly what we did. George is the conceptualizer. He doesn't want to be out front of it, but he knows how to do it. Every once in a while, we'd try something completely off-the-wall, and then we'd go back to his idea."

To help with the campaign, Lucasfilm hired partners Manning Rubin and Jeff Wolff, who had formed Creative Alliance (a "creative boutique specializing in movie advertising"). "It's Lucas's baby all the way," Rubin says. The first advertising would feature Han and Leia, followed by posters featuring Darth Vader—a "conscious" strategy devised by Lucas.

"I've always had a very strong interest in the way my films are promoted and the way they're released," Lucas says.

Licensing also came on strong, with Kenner leading the way thanks to a $10 million advertising push. To accommodate the growing frenzy for what was being called internally "E-Day" for *Empire*, Lucasfilm established a special *Star Wars* Hotline number (800–521–1980, the number being the release date), where callers could hear a recorded message from cast members.

Though Lucas stayed behind the scenes, the film's principals were, over a period of weeks, hustled from Los Angeles to New York to Washington to London to Japan and then on to Australia to sit for literally hundreds of endless newspaper, radio, and television interviews.

"The first day we got here, we had a press conference at nine in the morning," an "exhausted" Ford, with feet on a coffee table, told a reporter in New York's Plaza Hotel. "And then from about 9:20 AM to 1:30 PM, we met a gross of journalists around a dozen tables, 12 at a time; moving from one table to another, we did about 150 interviews in four hours. An hour off for lunch, then we came back and did fifteen 5- to 10-minute television interviews in four hours. Then we went back to our rooms and passed out. The next day, we did 27 television interviews, and on into Sunday. This morning, I've done the *Today* show and about four or five interviews with print media."

"The last time we were on tour together, Harrison was the publicity sheriff," says Hamill. "He would give us report cards: 'Humility—*B*. I like what you said about not being in the business for money—*A* for that.' "



From the *Los Angeles Times*, March 2, 1980, a Kenner sweepstakes ad offered tons of prizes, including toys—and a chance to attend the Washington D.C. premiere!.

from . . . .

sidney ganis

Carol -

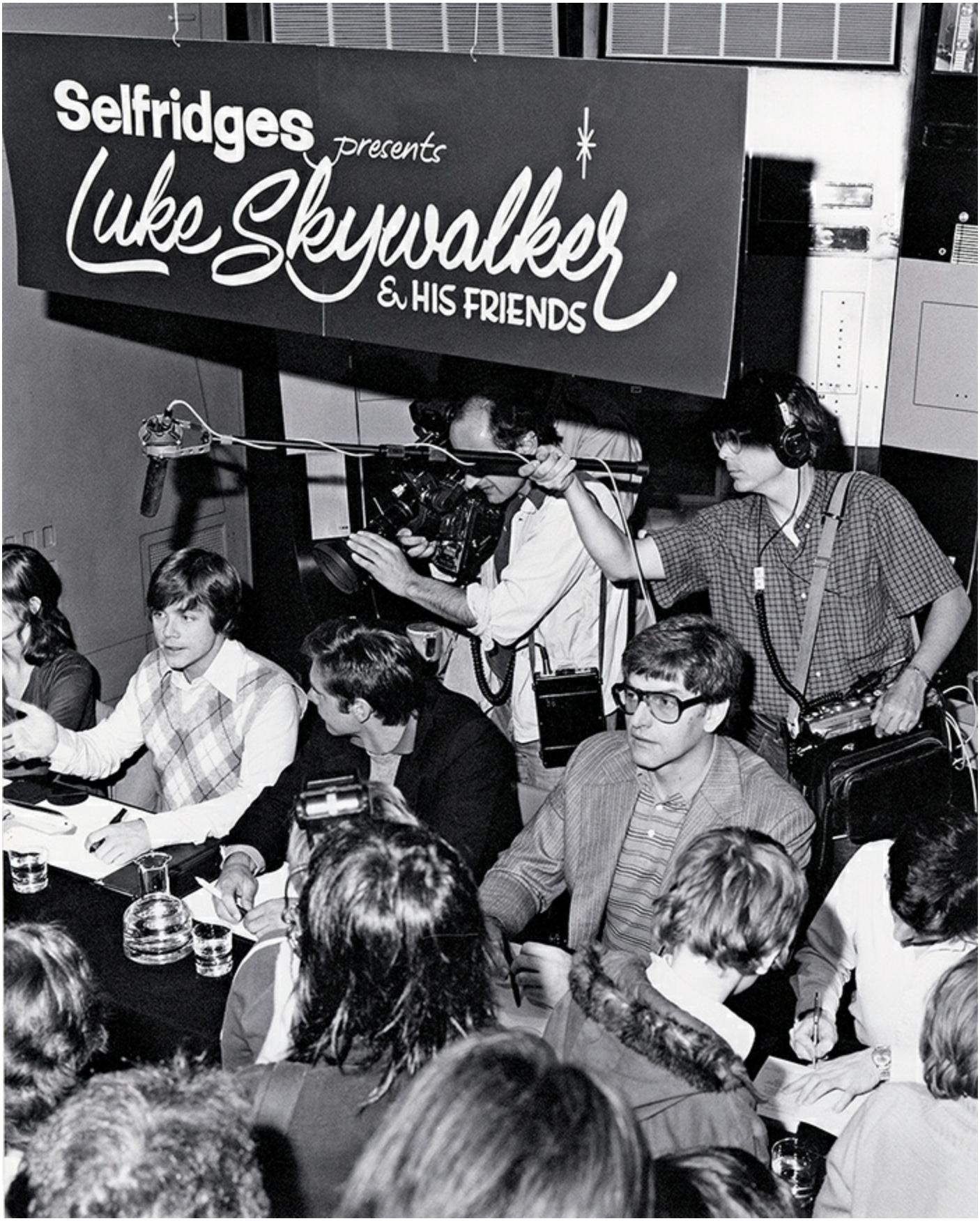
UK / N.Y.
Junket -

Fox has negs -

ALSO
SELFRIDGES
DISPLAY.

A memo from Lucasfilm marketing executive Sidney Ganis to Carol Titelman accompanied photos of the “UK/NY Junket.”





At Selfridges, the huge department store on Oxford Street in London, a signing was held to promote *Empire* with Fisher, Hamill, Ford, Williams, Mayhew, Prowse, and Daniels.

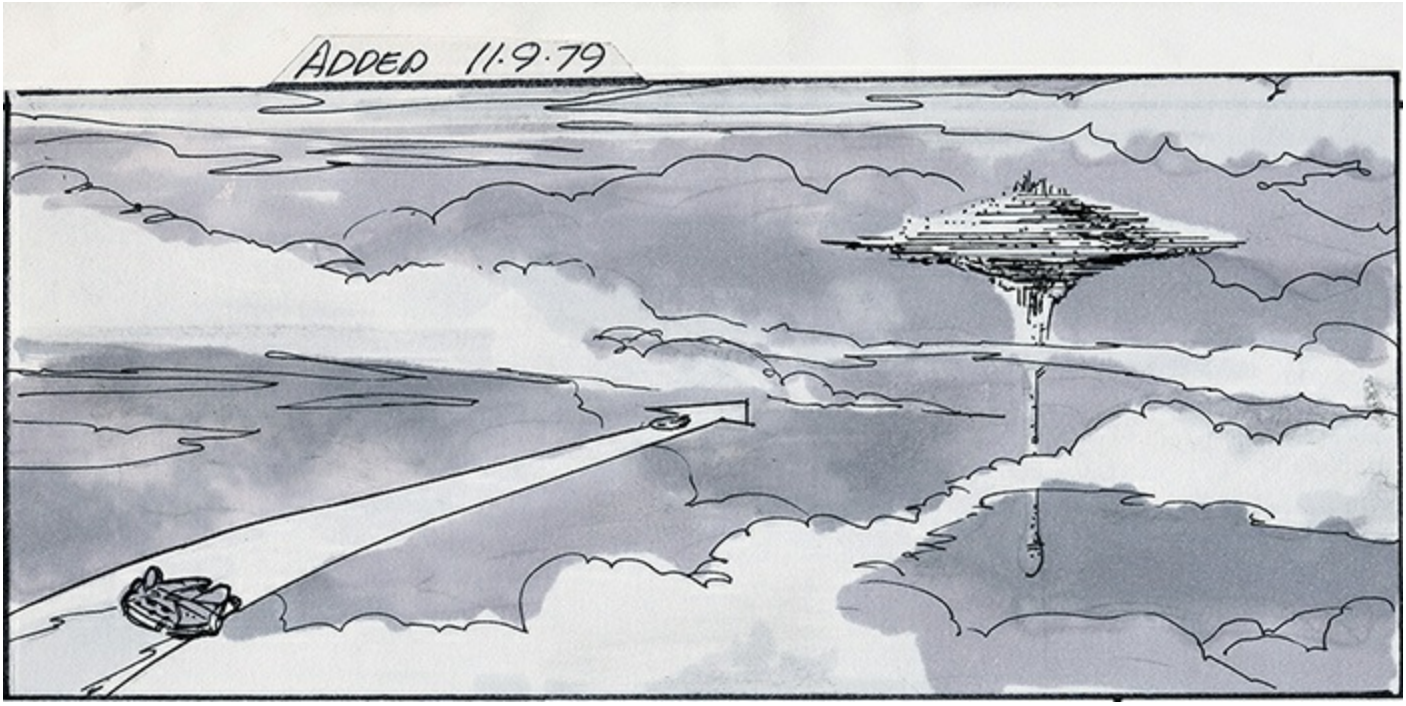




Fisher and Hamill.



Mayhew.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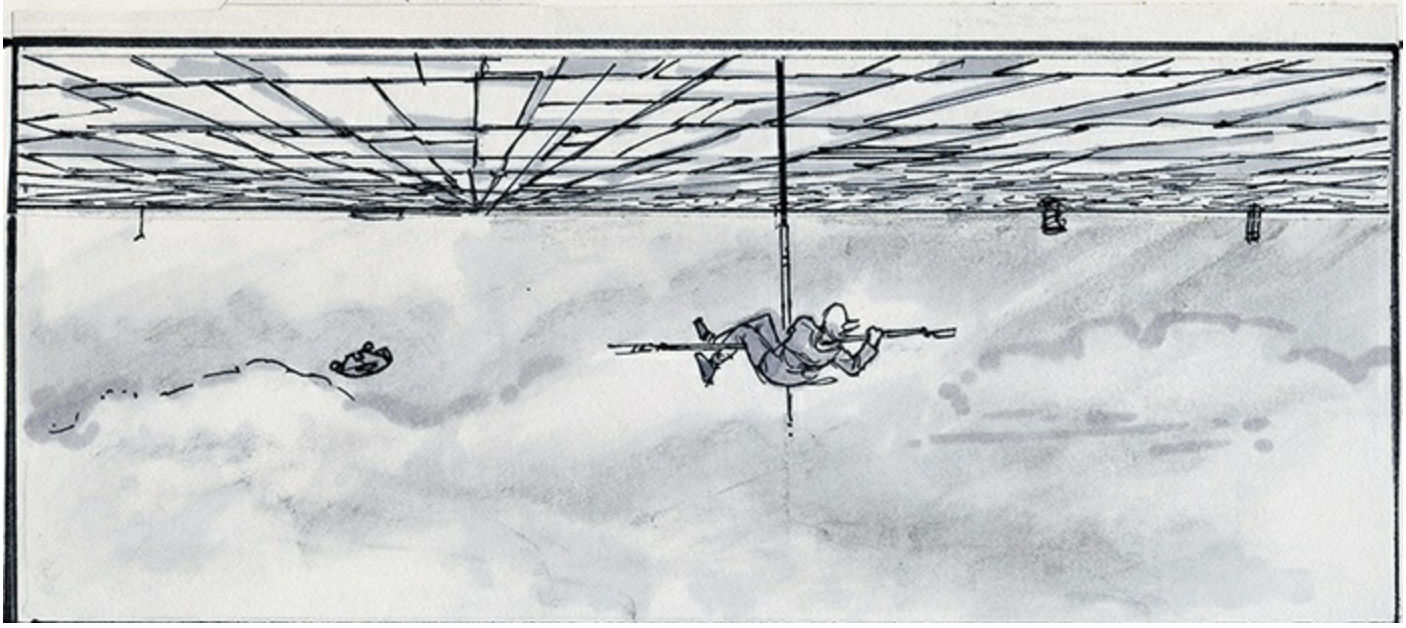

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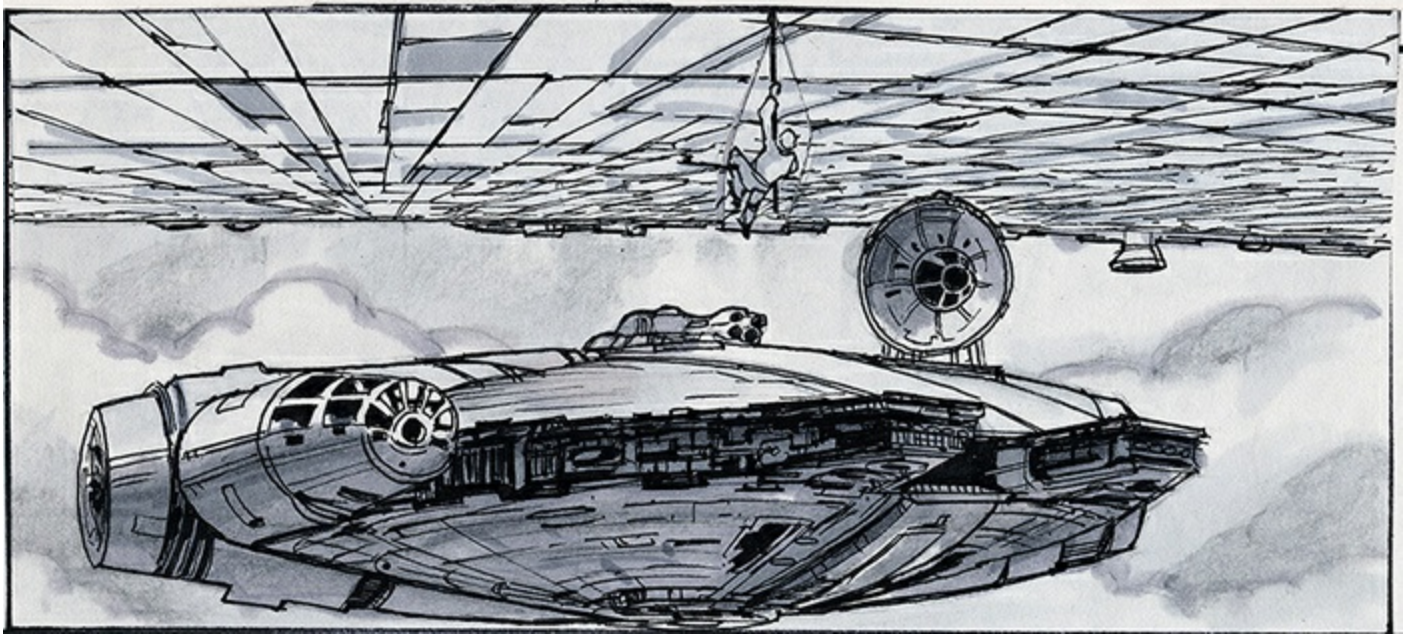
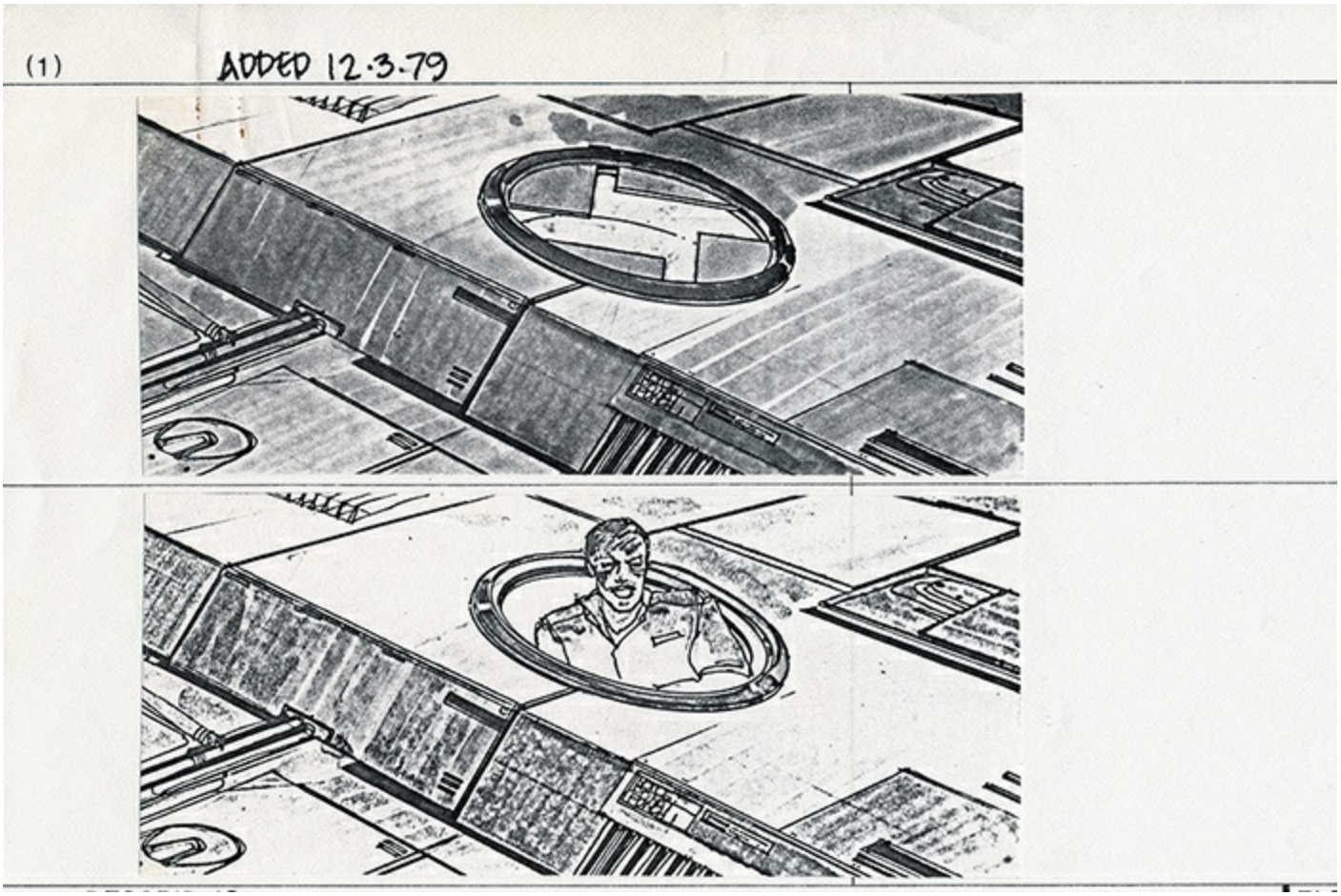
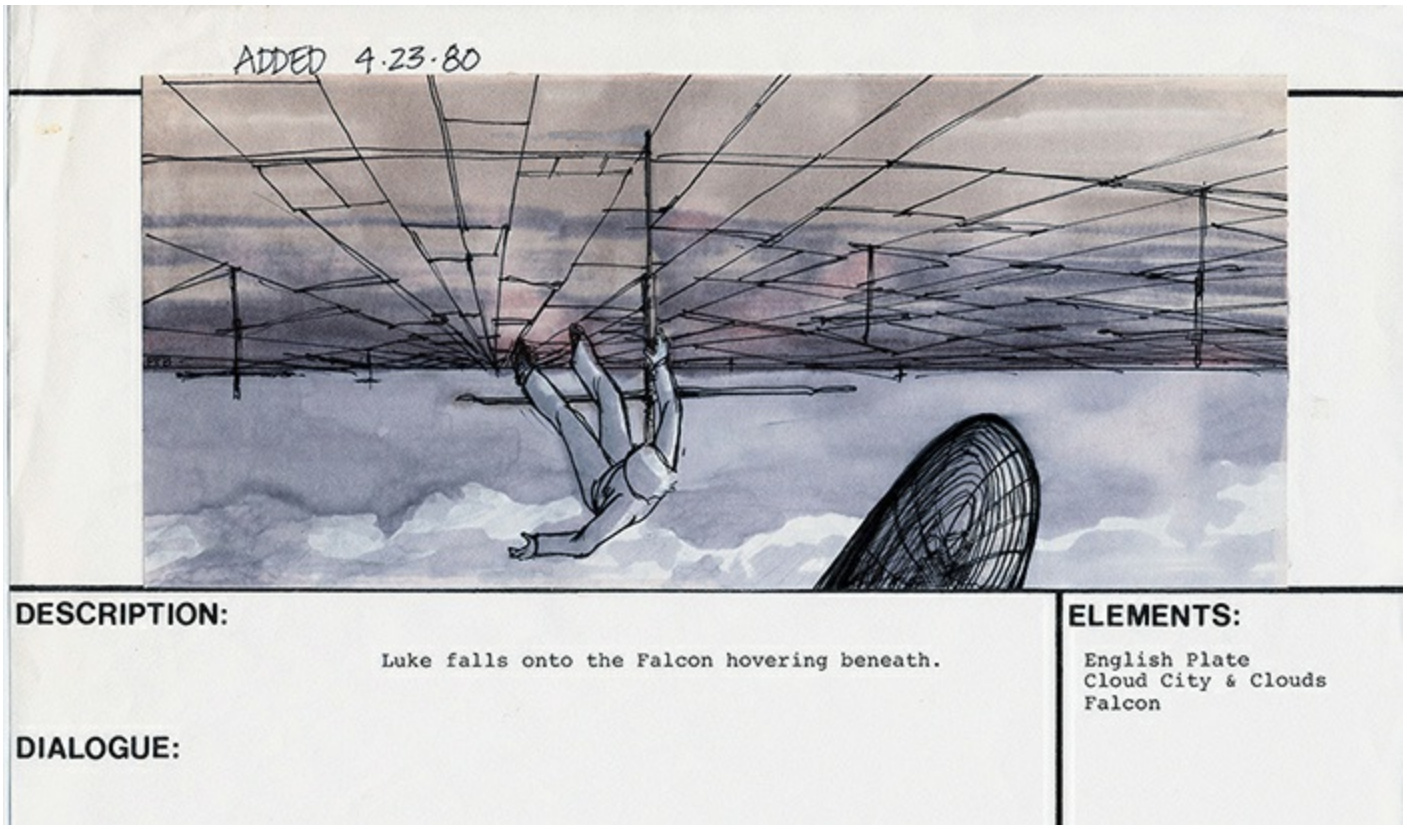






Storyboards of Luke's rescue, which was finalized late in post, on April 23, 1980, and shot using one of the miniature Lukes.



Muren holds two pilot Lukes, the smaller of which is a Kenner toy.



Final frame.

DAVID O. SELZNICK
presenta

"Gone with the Wind"



VIA COL VENTO

CLARK GABLE
LESLIE HOWARD

VIVIEN LEIGH
OLIVIA de HAVILLAND

The 1967 re-release poster for *Gone with the Wind* (designed by Tom Jung and painted by Howard Terpning) was the inspiration for *Empire*'s first theatrical one-sheet.



Six artists were hired to re-imagine Han and Leia as Rhett and Scarlett, according to painter Roger Kastel—whose painting was chosen.







The concepts of three of the other artists were also preserved in the Lucasfilm Archives. To keep him a secret, Yoda was not featured on

any early posters in the United States.

VOYAGE TO VICTORY

MAY TO DECEMBER 1980

CHAPTER ELEVEN

Following a sneak preview at the Dominion Theater on May 6, the world premiere of *Star Wars:* Episode V *The Empire Strikes Back* took place at the Odeon in London on May 20, the US preview having taken place three days earlier.

"I got a call from George saying, 'Next week, you're going to fly over to London for the premiere,' " says Kershner. "I said, 'That's great. When are we going?' And he said, 'No, no, no. *You're* going. It's your film.' I was very, very impressed with that. Since then, I have gotten to know George a little better and that's true to his character."

"I felt ridiculous," Prowse says of Vader's paternity revelation. "I thought I was saying one thing and here they have me saying another."

"When the picture was shown at the Odeon, Darth Vader was sitting in back of me," Kershner says. "And when he saw 'I am your father,' he tapped me on the shoulder and said, 'Why didn't you tell me? I would've done it differently!' "

"We had been promoting *Star Wars* in England and France," says Ganis. "And then we flew back to Washington for a Saturday-afternoon screening of *The Empire Strikes Back*. When I say 'we,' I mean just about everybody in the cast and the director, of course."

The DC premiere at the Kennedy Center was a benefit performance for the Special Olympics. "Everybody wanted the movie," Ganis says. "We knew we should do something, but we knew we couldn't open it up to everybody even though there were so many people who wanted to use it for the right reason to benefit their worthy organization. The Special Olympics got it and it was a great, great premiere."

"I cannot think of any group more appropriate than Special Olympians to symbolize the struggle for justice and truth dramatized in the *Star Wars* epic," says Eunice Kennedy Shriver, Special Olympics president. "In overcoming the challenges they confront every day, Special Olympians give others the same precious prize I believe George Lucas is trying to express in the *Star Wars* films: faith in the unlimited possibilities of the human spirit."

As a large crowd waited for the limousines to arrive, kids reportedly asked, "Is Chewbacca coming? Is Artoo-Detoo coming?"

Before the film, everyone was invited to a luncheon of hot dogs, popcorn, and cotton candy, which was attended by Carrie Fisher, Mark Hamill, Harrison Ford, Billy Dee Williams, Frank Oz, Kenny Baker, David Prowse, and Peter Mayhew (Anthony Daniels was bedridden at Sibley Hospital with what he called "some kind of blood poisoning"). The pre-event took three hours as the cast signed autographs for some 600 children, including 300 Special Olympians (a total of 1,100 people came to the premiere). Also on hand were Kershner, Kasdan, and Kurtz, along with Ted Kennedy, Amy Carter, Ethel Kennedy, and Arnold Schwarzenegger.

"The day of the premiere, we went to the Kennedy Center," young fans Lisa Timchalk and Teresa Perry told *Tiger Beat*, a Hollywood monthly. "They were having a luncheon before the showing of the movie, but we couldn't get in, so we stood outside for about one hour, then decided to send a note to

Mark. A girl who worked there took the note in to him."

"That afternoon we had all these beautiful little kids, who were handicapped in some way and who were Special Olympics kids," Ganis says. "Everybody came onstage and took a bow."

"The luncheon was over and everyone was leaving," Lisa and Teresa continue. "We tried not to be sad and give up hope, but the tears welled up in our eyes … We went down to the Eisenhower Theater where the movie was about to be shown. One of the ladies who worked there came up to us and [told us], 'Mark Hamill requested to see you! He was looking for you but couldn't find you.'

"About five minutes later, the girl who had taken the message in to Mark came up to us and took us backstage. We were standing in a daze when—lo and behold!—Mark Hamill was coming. He had our note in his hand and he said, 'So, you are my two friends who wrote the letter, huh?' We couldn't even answer—we just nodded. 'Well, I guess you're going to go in and see the movie now … I hope you don't mind standing room.'

" 'No!' we said.

"Mark said, 'Enjoy the show,' then he went back through the stage door."

As *Empire* was finally projected—the result of three years work and the committed efforts of hundreds—one reporter noted that "so great was the excitement that nearly half the dialogue was drowned out with squeals of joy and welcoming applause for each character." Tony Kornheiser of *The Washington Post* wrote that "all the major stars sat through the film hearing the sound an actor loves most—wild, unbridled cheers."

At Loew's State Theater in New York City, another preview had been held on May 9, as reported by Terry Lawson from Dayton, Ohio's, *Journal Herald* on May 19: "The last strains … have faded from the Dolby sound system of Theater One, and press and invited celebs are streaming out into the cool Manhattan streets, babbling and smoking and looking for a drink. At the back of the theater, director Irvin Kershner leans against the wall and waits. He doesn't wait long."

Peter Yates, director of *Breaking Away* (1979), told Kershner it was a "remarkable film." Actor James Woods "offers Kershner his hand and tells him he really liked the film a lot, thought it was better than the original movie, 'And you know what's really great? It's going to make … loads of money.' "

Lawson adds that the following morning, when faced with "a gaggle of film writers and television interviewers in the ritzy Essex House hotel," Kershner was in "a decidedly less ecstatic mood, which soon dissolves into ill-disguised anger. 'What you're asking is, *Was I a technician on this picture or was I a director, right?* Well, dammit, I was the director, 'cause I worked on this picture for two years and two months. I followed through … It's my damn picture.' "



An invitation to the European Royal Charity Premiere in London, England.


SOHO
SQUARE W1
TWENTIETH
CENTURY
HOUSE
TWENTIETH CENTURY-FOX FILM C
31 - 32
CAA 19V



To publicize the event, stormtroopers fanned out from the offices of Twentieth Century-Fox (with vehicles sporting decals advertising the film) for humorous, spontaneous photo ops.

SPECIAL OLYMPICS, INC.
International and National Headquarters
1701 K St. N.W., Suite 203, Washington, D.C. 20006 (202) 331-1346

January 31, 1980

Mr. Sid Ganis
Vice President, Publicity
Lucas Films
3855 Lankershim Boulevard
North Hollywood, CA 91604

Dear Sid:

So good talking with you on January 30. I'm really sorry we've been out of touch lately and I often think fondly of our days together on "Superman".

As I mentioned in our telephone conversation, I'm extremely interested in pursuing a Special Olympics Presidential Premiere here in Washington for "The Empire Strikes Back". We were all thrilled with the "Superman"-Special Olympics Benefit Premiere in December, 1978, and Mrs. Shriver and our entire National Office would make every effort to guarantee an even greater success for your film (which Risa Kessler says is an absolute knock-out!)

Along with everyone at Lucas Films, we'll await word from the White House regarding their possible selection of a satisfactory charitable "tie-in" and will anxiously hope that once again, Special Olympics will bring Hollywood to the banks of the Potomac.

Best,

David

David Michael Petrou

cc: Mrs. Eunice Kennedy Shriver

SPECIAL OLYMPICS, INC.
Eunice Kennedy Shriver, President
Robert M. Montague, Brig. Gen. U.S.A. (Ret.), Executive Director
Thomas B. Songster, Phd. Director of Sports and Recreation
Stanley Startzell, Director of Coaching and Training
Created and sponsored by The Joseph P. Kennedy Jr. Foundation

A letter from Special Olympics, Inc., to Sid Ganis on the efforts to procure the premiere for that charity group.

NUMBER 9
SUMMER 1980

BANTHA TRACKS

NEWSLETTER OF THE OFFICIAL STAR WARS FAN CLUB

WASHINGTON PREMIERE MAY 17

The first U.S. screening of THE EMPIRE STRIKES BACK was held at the Kennedy Center in Washington, D.C. Screened in a benefit performance for Special Olympics, EMPIRE was viewed by more than six hundred area children — many of them Special Olympians. Rather than stage a gala event, George Lucas chose to premiere the exciting continuation of the STAR WARS saga for these special children. As Special Olympics President Eunice Kennedy Shriver said: "I cannot think of any group more appropriate than Special Olympians to symbolize the struggle for justice and truth dramatized in the STAR WARS epic. In overcoming the challenges they confront every day, Special Olympians give others the same precious prize I believe George Lucas is trying to express in the STAR WARS films: faith in the unlimited possibilities of the human spirit."

These children, and the chaperones accompanying them, were treated not only to the film, but also to seeing many of its stars and creators in person. Attending the event were Carrie Fisher, Mark Hamill, Harrison Ford, Billy Dee Williams, Frank Oz (who performed as Yoda), Kenny Baker, David Prowse, and Peter Mayhew.

Among the film's creators who attended the premiere were director Irvin Kershner, screenwriter Lawrence Kasdan, and producer Gary Kurtz. Local celebrities joining in on the festivities included Ted Kennedy, Amy Carter, Ethel Kennedy, and Eunice Shriver. Two not-so-famous STAR WARS enthusiasts managed to obtain seats after sending Mark Hamill a letter indicating their great desire to see the film. Moved by their eloquence, Hamill sent them tickets for the by-then sold-out show. Two other children became celebrities in their own right when they appeared at the screening dressed as Luke and Leia. As she stood signing autographs, the little girl was careful to explain, "I'm not *really* Princess Leia."

Before the screening, a picnic lunch of hot dogs, popcorn, and cotton candy was served to the guests. As the 1100 attendees munched their meal, a local high school band entertained with renditions of themes from STAR WARS and THE EMPIRE STRIKES BACK. Mingling with the crowd, Carrie, Mark, Harrison, Billy Dee, and the other stars of the film met their fans and with unflagging enthusiasm autographed the paper plates handed their way.

As it is everywhere, the film was enthusiastically received. In fact, so great was the excitement that nearly half the dialogue was drowned out with squeals of joy and welcoming applause for each character. But missed dialogue or not, the EMPIRE screening and party were events that these children will long remember. ●



EMPIRE cast members visit with Amy Carter at the Washington, D.C., premiere. From left are Mark Hamill, Frank Oz, Carrie Fisher, Harrison Ford, Amy Carter, Peter Mayhew, Billy Dee Williams and Kenny Baker.



Lucasfilm's Fan Club magazine reported on *Empire*'s Washington D.C. charity benefit premiere.

THE HOUSE OF STAR WARS

On May 21, *The Empire Strikes Back* began its 70mm run. Although *Variety* reported its first day as only

41 theaters in 16 cities, the initial week had the film in 127 theaters, including the Northpoint in San Francisco (its premiere benefited the University of California at Berkeley's Pacific Film Archive); the Astor Plaza, Murray Hill, and the Orpheum 1 in New York City; and the Avco in Westwood, Los Angeles.

"When it came time to open *Empire*, there was tremendous excitement and everybody agreed we should try something that had never been done before," says Ganis. "So we opened it at the Egyptian Theater in Los Angeles at midnight—and then kept running it without stopping for one full day."

Except for Kubrick's *The Shining*, which would bow in a limited release two days later, and *Friday the 13th*, which had been playing since May 9, *Empire* had little competition—*The Hollywood Knights, The Gong Show Movie, The Long Riders*—as no studio wanted to go up against it. However, *Empire* was opening relatively small compared to many tent-pole movies, with a wider 35mm release planned for June 18 and an even wider distribution for the later summer. As usual, movie houses would deduct their operating costs and then split the box office in favor of the studio 90–10, with the theater making more as the weeks elapsed (though there were many financial variations that depended on individual theaters and particular state laws).

The Washington Post reported that 750 people were standing in line to catch the 11 AM show, "computer programmers and economists and housewives and students out of school for the summer … Two [parents] wrote notes to get their kids excused from school early so they could go to the movie. Even Amy Carter, in designer jeans, skirt, and shirt, showed up with a group of classmates—it was her second time."

Among those in the queue were a soldier, a policeman, and a reverend. "The print's usually better if you go early," said early entrant Tom Finn. "If you go later, it's been run four or five times a day … It's picking up scratches."

At one theater, people waited two hours and didn't get in; at another, would-be attendees stood in the rain for three hours, also without getting in. Many theaters added showings to their schedules to accommodate the massive turnout.

"There's like hundreds upon hundreds and hundreds of people in line, wearing costumes, countdown signs—it's just amazing," says Maureen Garrett, head of the Lucasfilm Fan Club. "The devotion factor was really high, to have to be at that first screening. It's total chaos. I've been in the first show with the fans and it's just electric."

"You try to think about the moments in your career that resonate forever and I'll tell you it was one of those moments," says Ganis. "Men and women and kids who were out on the street in their costume and just having a very nice time. And then a theater full of people at The Egyptian counting down that very last minute!"

David Seltzer, manager of the K-B Cerberus, witnessed the midnight showing of the film: "Everyone started to applaud for each name [on the roll-up]. When Darth Vader's name first came up on the screen, a hiss started in the front of the theater and went through the whole place. The hair on my arms just went electric, I was so turned on."

Peter Myers, senior vice president of domestic distribution at Fox, visited several theaters on opening night and reported, "People were yelling and screaming!"

"I thought, *My goodness, this is really happening and this is great, this is great. It's spectacular*," says Ganis. "Counting down, 'Ten, nine, eight, seven, six …' And the projectionist was right on the button—at the right moment, up came the Lucasfilm credit and it was just brilliant. The audience was just

beside themselves. Everybody was so excited and so happy. When each of the characters came on, there were cheers. It was a great and wonderful night, an *amazing* experience."

Empire was number one its first week, beating out *Friday the 13th* and *The Shining*, and breaking 125 out of 127 house records for opening day—a new industry record for the highest single-day per-theater gross, representing completely sold-out business. According to Lucasfilm internal notes, the first week garnered $9,601,374. "We never thought it would beat *Star Wars*," an unidentified Fox executive was quoted. "The only question now is whether people like it and will come back to see it again and again," says Peter Myers.

Most of the gross came from The Egyptian, where it generated $269,720. In Chicago, it broke records with $123,000, creating long, long lines. *The New York Times* reported that *Empire* was doing $77,000 average per theater, although *The Shining* was doing even better at $100,000. Ticket prices, of course, had gone up: The same New York City movie theater that had exhibited *Star Wars* for $4 was now charging $5. And in LA, Grauman's tickets cost $5.50—a new high, according to *The Hollywood Reporter*—but tickets in places like Delaware still went for $2.

During that opening week, on May 26, president Jimmy Carter invited Chinese Vice Premier Geng Biao to see "the Son of Star Wars."


EGYPTIAN
EGYP
SCIENTOLOGY
THE STAR WARS SAGA CONTINUES
EMPIRE STRIKES BACK
STARTS MAY 21ST
MILLER'S
SCIENTOLOGY
LOS ANGELES
TEST CENTER

The Egyptian Theater in LA, where *Empire* played for 24 hours on opening day.





Opening day crowds as people lined up across the country to see *Star Wars:* Episode V *The Empire Strikes Back*. For the limited release, the film was projected only in 70mm. "The big advantage of 70mm was there were no pirated copies floating about until the 35mm came out," says Kurtz. "What happens is that the 35mm prints get pirated because somebody pays off a projectionist, borrows the reels, and makes a copy, but they can't do that with 70mm."

IT WAS PRINTED HERE

Reviews in the major publications were mixed. And with Alec Guinness gone as a major player, many critics began to focus on the film's technical side, somewhat ignoring the actors, though Yoda received attention.

Both *Variety* and *The Hollywood Reporter* had reviewed the film back on May 12, with the latter's Arthur Knight (who mistakenly reports Yoda as being played by Bulloch) writing, "While *Empire* doesn't quite measure up to *Star Wars* in the freshness and originality of its script …, this 20th Century–Fox release remains a rattling good entertainment, a worthy successor to the original—and far and away the best of its kind since *Star Wars* itself. On the story side as well, Lucas has strengthened his hand by providing a plot motivation for Darth Vader … Suffice it to say that it's a twist straight out of Greek mythology, and should serve Lucas well in the episodes that lie ahead."

James Harwood in *Daily Variety* opines: "From the first burst of John Williams' powerful score and the receding opening title crawl, we are back in pleasant surroundings and anxious for a good time—like walking through the front gate of Disneyland, where good and evil are never confused and the righteous will always win."

David Ansen in *Newsweek* gave the film a passing grade: "The 'gee-whiz' spirit lives on … Visually, the new installment conveys a sense of generosity that surpasses even the original." But he felt there was nothing really at stake—"Halfway through *Empire*, I began to feel a strong sense of diminishing wonder."

"*Star Wars* and *The Empire Strikes Back*, like all superior fantasies, have the quality of parable," writes Charles Champlin in the LA *Times*, "not only on good and evil but on attitudes toward life and personal comportment, and there is something very like a moral imperative in the film's view of hard work, determination, self-improvement, concentration, and idealism."

"I assume that Mr. Lucas supervised the entire production and made the major decisions or, at least, approved of them," remarks Vincent Canby, who didn't like the film, in *The New York Times*. "It looks like a movie that was directed at a distance."

"This transitional, eerie, deliberately unresolved sequel activates a climactic psychological bombshell, aligning the story in a powerful, sinister new direction, full of dreadful implications for the original movie and the sequels ahead," Gary Arnold says in *The Washington Post*. "It comes as a tantalizing shock to realize that Lucas's delightful cinematic dream world has darker undercurrents and a more expansive framework than anticipated. A more impressive and harrowing magic carpet ride than its fundamentally endearing predecessor, *Empire* pulls the carpet out from under you while simultaneously soaring along."

"[There is] a pseudo-Sophoclean, outer-Freudian turn of events involving Luke and Darth Vader," Roger Angell notes in his *New Yorker* review. "I don't *mind* any of this, but I don't think this movie odyssey needs to be significant in every possible way … The movie has its own rewards, and the only way this epic could go really wrong in the end, it seems to me, is if it tried for weight in place of speed

and light and humor … Yoda astounds us … because he moves and talks and reacts so convincingly that he becomes a person in our minds, all in an instant, but what is truly pleasing is not just that he can change his moods, or seem funny and sad at the same time, but something more—the joyful extra touch of life that Lucas always gives us, such as the little scene in which Yoda has perched himself up on Luke Skywalker's back, where he clings and talks and gestures like a tiny Sinbad or a sentient backpack. This is wit."

"I don't pay attention to critics anymore," says Lucas. "I try to read the good reviews and ignore the bad ones."

A TWIST ENDING

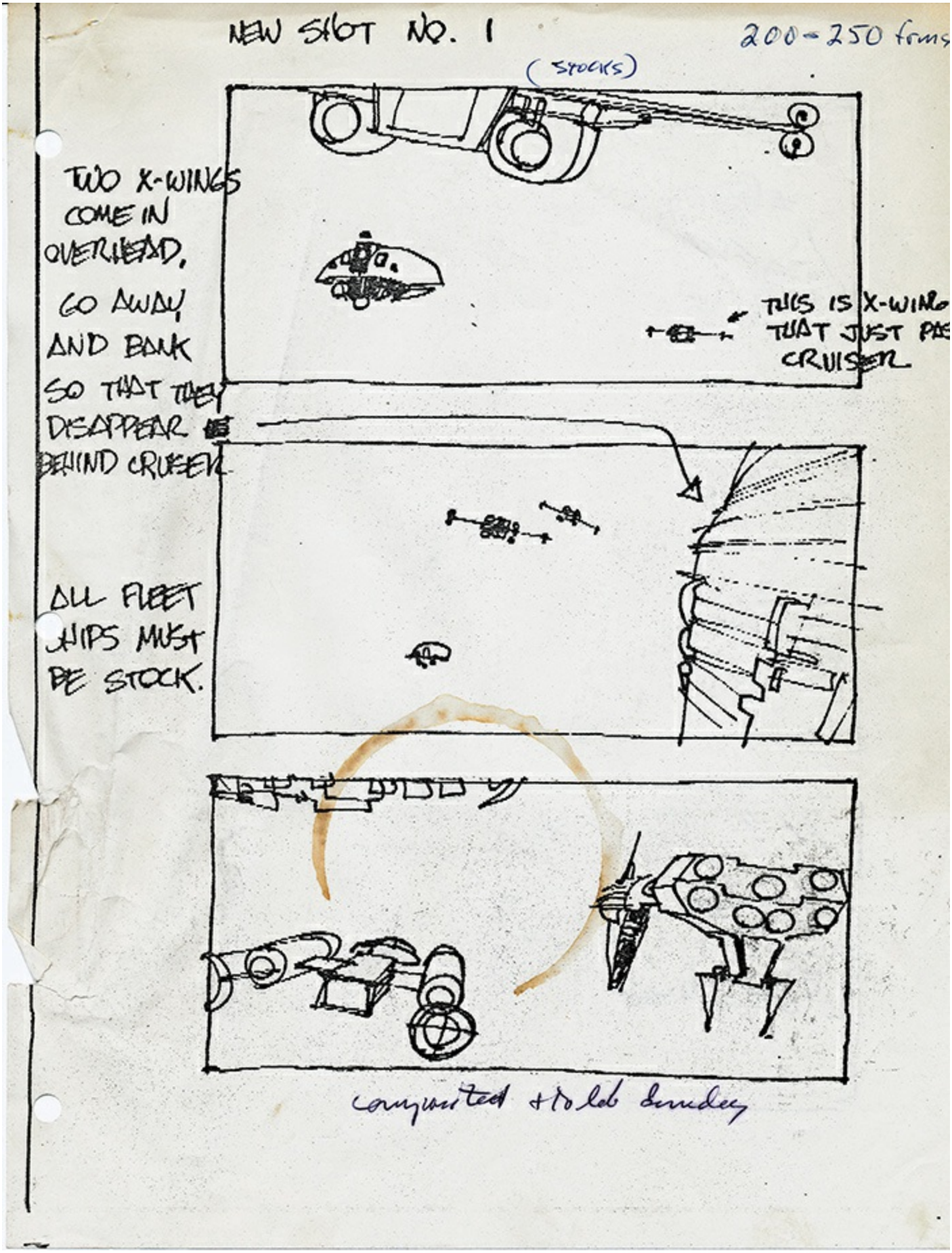
"The film opened in 70mm in about 100 theaters, and then after a few weeks it was going to go out in 35mm to many more theaters," says Tom Smith. "Everything had died down, people had gone on vacation, there were maybe 30 people left at ILM—when the phone rang. It was George and the first thing he said is, 'I hate to tell you this, Tom—I don't wanna tell you this, but I gotta tell you this,' and I thought, *I'm getting fired*. But George said, 'We need some more shots for *Empire*.' I said, 'Wait a minute. The film's in the theater! You're kiddin' me!' He said, 'No, no, no—it's not in *all* the theaters.' "

"We were done with the movie," says Ralston. "We went into San Francisco and had a *big* wrap party. It was great. We saw the movie and it was exciting; we were very proud of all the work everyone had done and so many long hours and I was delighted. So I was on vacation visiting my folks down in LA—when I got a phone call from Patty Blau at ILM telling me, 'George wants to add some more shots.' "

"George had gone to see the movie with an audience and realized that the end of the film was unclear," Smith explains. "So he needed three new shots and he couldn't do them without special effects."

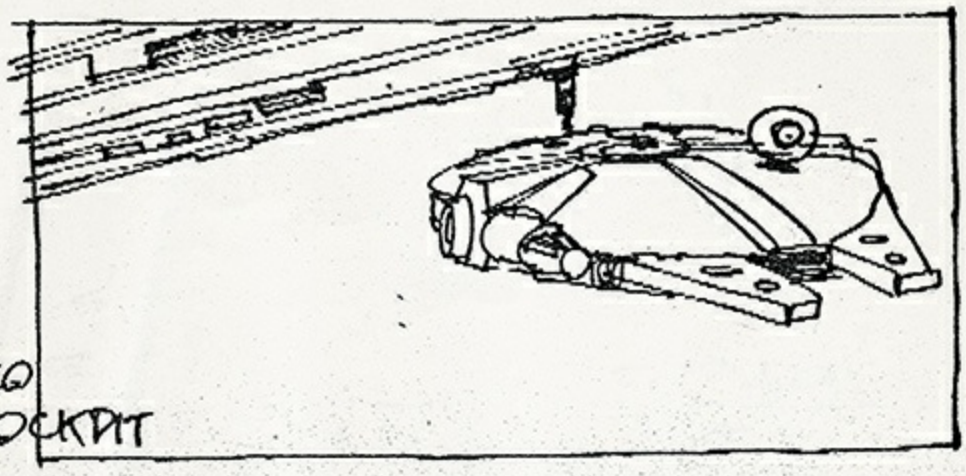
"I said, 'That's funny, that's a good joke!' " Ralston says. "But it wasn't a joke. I wound up meeting Joe Johnston at the Egg Company with George and designing three new shots."

"I called Joe Johnston, who was down in LA," Smith says. "George was down there, and I said, "Joe, go over and see George. Draw the storyboards and fax 'em up here right away.' So he did. Meanwhile, the editing room was going crazy—'My God! We don't have the music, wah, wah …' Really, everybody who heard about this thought it was a joke. But it wasn't. We had to do these shots. It took about three weeks and the new shots were cut into the 35mm prints going out to all the theaters. George saw the new shots and he said, 'Wait a minute. If you guys did this so fast, why did it take so long to do all the other ones?' "

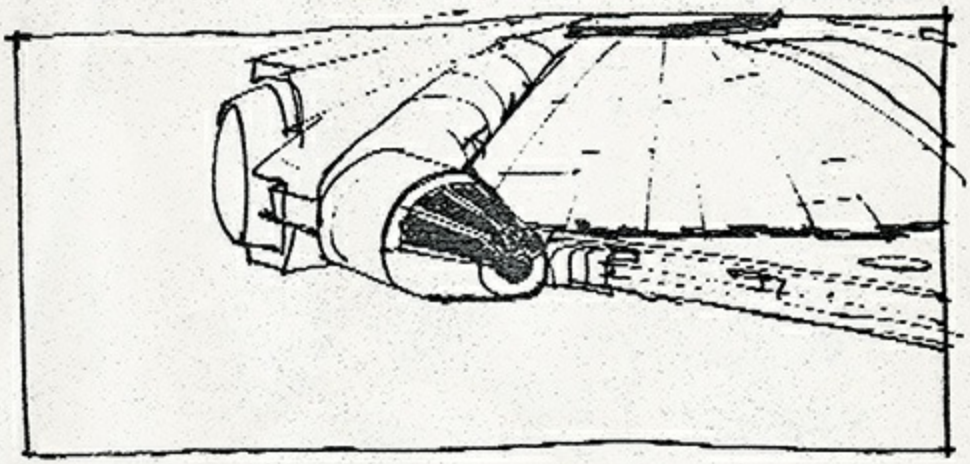


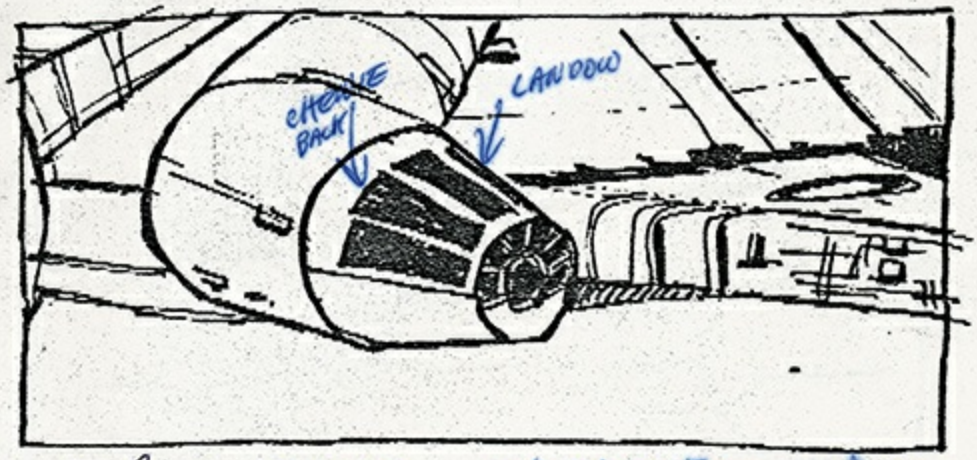
The original three-page fax from Joe Johnston to Tom Smith outlining the extra shots for the 35mm release (circa late May 1980, with contemporary coffee-cup stain on No. 1).

NEW SHOT NO. 2



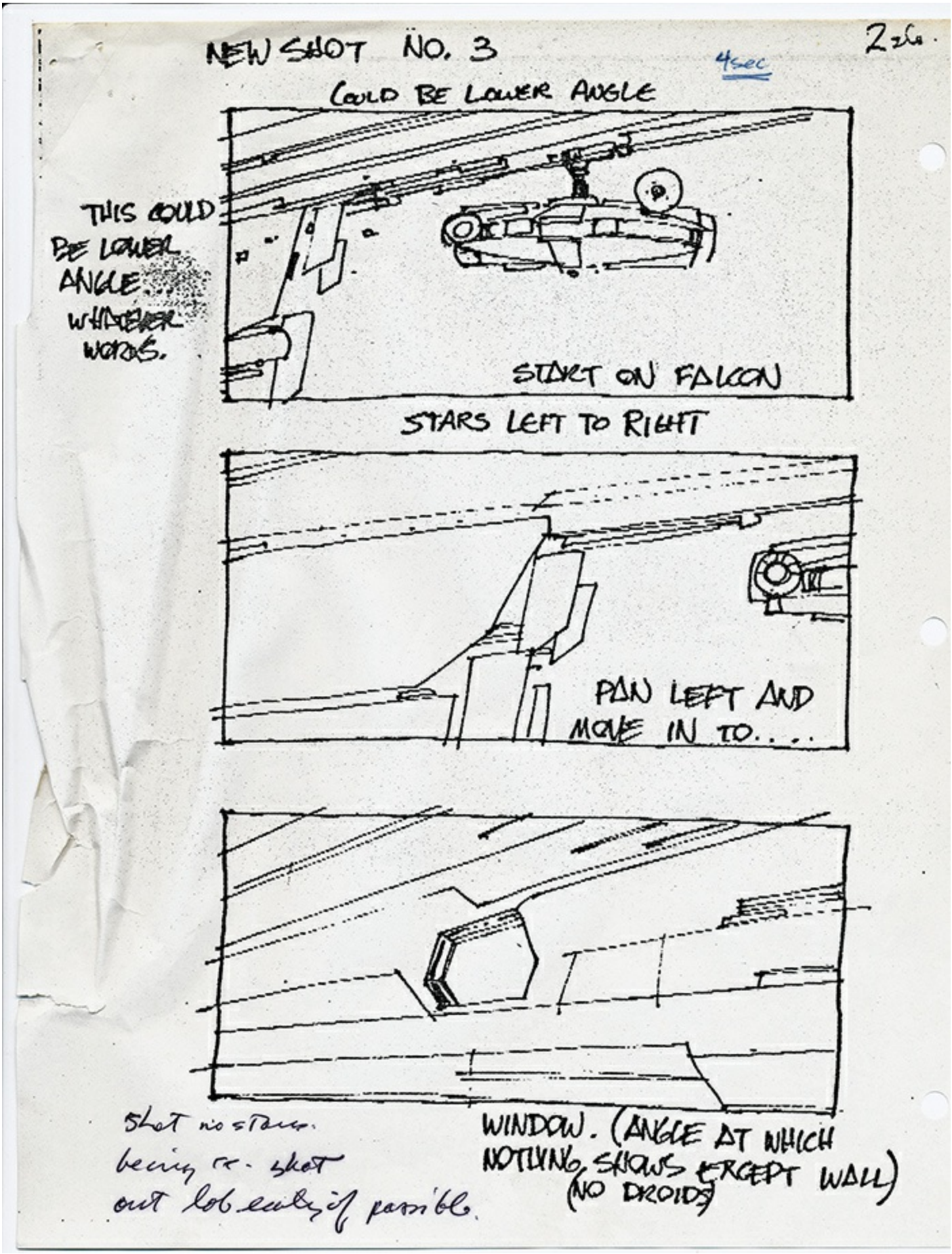
MOVE IN TO FALCON COCKPIT



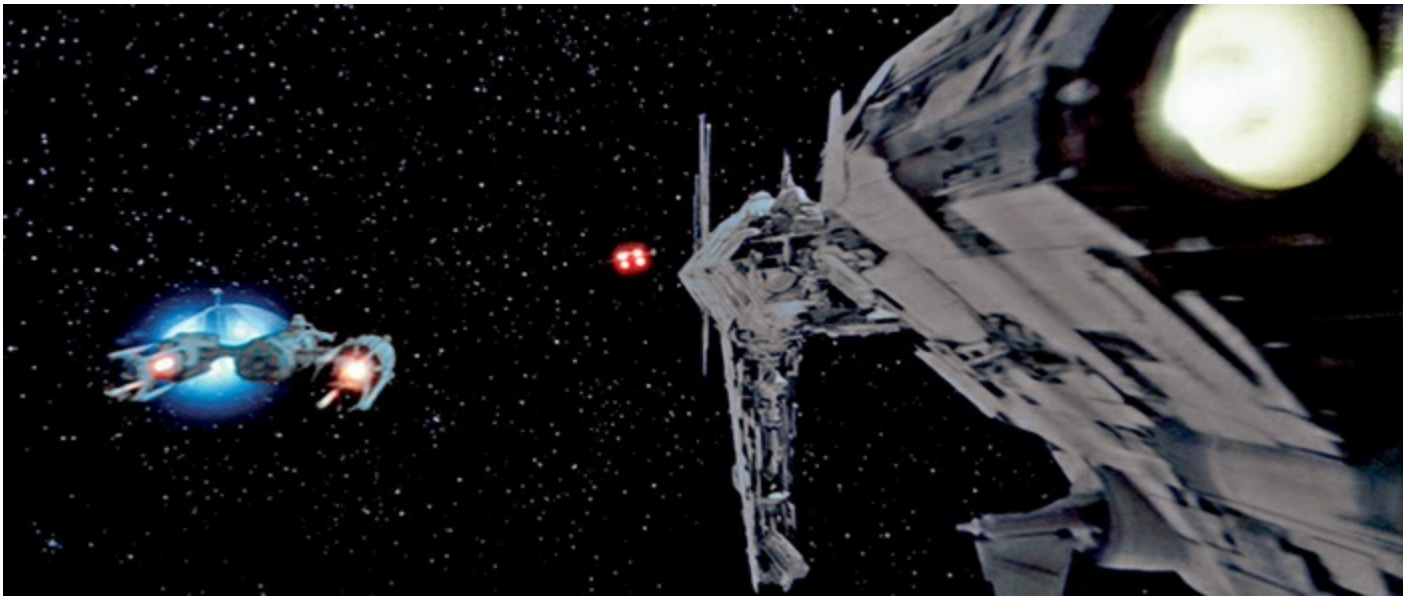


All elements done composited in lab Sunday DWAYNE

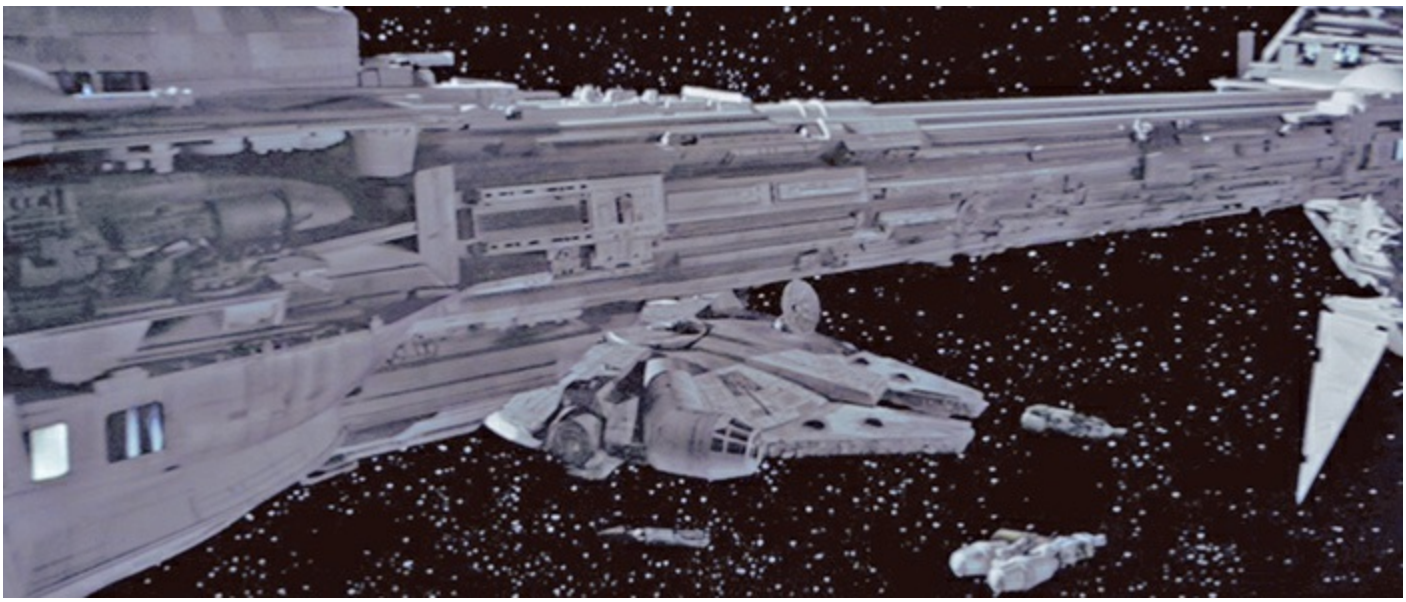
1st Shot interior cockpit in last sequence.



"The new work required building a couple quick models and recycling stock shots for the smaller moving spaceships," says Smith. "The work was all done in record time thanks to the recycled shots. Also, it was a real challenge that George had tossed us—and we wanted to show we could do it. The editing room had a tough time extending the music and putting in new lines of dialogue, but it was all done in time."



Final frame (No. 1).



Final frame (No. 2).



LASHING OUT

On May 28, the Directors Guild of America sent a letter to Lucasfilm asking for a payment of $250,000 in penalties because the director's credit had been placed at the end of the film; because of a lack of unit production manager and "first and second assistant directors on a separate card in a more prominent place"; and, in the guild's view, other violations of DGA Basic Agreements.

"We were more nervous about it than I should've been," says Ganis. "I thought, *Oh my goodness. Now what are we gonna do?* Didn't mean a thing."

The problem for the DGA was that the film had been made by Lucas's English production company and was subject only to that country's union rules, which had been followed. Because the DGA was therefore unable to sue Lucasfilm, they turned around and fined their own member, Kershner, $25,000.

"Lucas was so angry that he resigned from the Directors Guild," says Kazanjian.

"George is a person who feels best when he's not joining the fray, when he's not a member of an organization," Ganis adds. "And every time I look at a movie today, in 2003, it has credits in exactly the form that George had on *Empire*. So once again, George was merely expressing himself, didn't care what anybody else thought about it or did about it, and it's become pretty much the standard today. And he paid Kershner's fine of $25,000, which was a lot of money in those days. He said that where the credits are placed is a creative decision and shouldn't be dictated by anybody, including the guild."

At least one other legal case accompanied the film's release. On June 5, *The Atlanta Journal* reported that 19 irate "moviegoers are striking back at an Atlanta theater to the tune of more than $500,000" for misleading showtimes. Apparently, several people had traveled 75 miles to see a 10 AM show that had been canceled, unbeknownst to them, so a lawyer seized the opportunity, took the names of the disappointed fans standing in line, and began a class-action suit.

A BIGGER BANG

On June 18, *Empire* went out in 35mm with its additional last-second shots, expanding onto 115 more screens; 116 were added two days later, and the number steadily increased throughout the summer. Eventually, *Empire* would be playing in more than 1,400 theaters, where Fox marketing research showed the audience's male–female ratio was split 60–40.

In a largely negative review, *Commentary* wrote, "Lucas, with his particularly intimate feeling for the joys and longings of the juvenile mind, is still engaged in the vast enterprise of proving that the world of the child is superior to the world of the adult."

"Well, from the frenzy I saw, it's not going to make a bit of difference what the critics say," said a reporter on the 6 o'clock news in New York City, as he covered, live, one of the thousands of queues forming around the country. "The line went from the box-office through Loew's Astor Plaza, down Shubert alley, winding around the block. [Turning to someone standing in line:] Sir? How much would you be willing to sell that ticket for?"

"Presently, I wouldn't."

"Come on, 20 bucks."

"Uh, something in the order of 500."

The Maui News wrote that some truly unfortunate moviegoers became very unhappy when the film

broke—15 minutes before the ending!—and began to jeer and boo until their money was refunded.

The United States was officially in a recession, but *Empire* overcame all obstacles. *Variety* headlined it as the "Major Exception to B.O. Slump," after the movie grossed $65 million in its first five weeks. The film's newest rival—*The Blues Brothers*, which co-starred Carrie Fisher and opened on June 16—had less than half of *Empire*'s fifth-week grosses, while other up-and-comers, such as *Fame* (May 16) and *Brubaker* (June 20), also could not best the powerhouse sequel.

Financially, within three months, Lucas had recouped his risky investment. A letter dated August 6, from loan officer Robert L. Wallace Jr. to Lucasfilm treasurer Chris Kalabokes, made it clear that Lucas's company was successfully discharging its debt to the First National Bank of Boston: "Now that *Empire* has done exactly what all of you at Lucasfilm said it would do, I guess that it is time for your bankers to shift their focus from Chapter II Co. to 'Chapter II' of our relationship [that is, the third film]."

Work could therefore continue on the ranch and Lucas's several Computer Division research projects, as *Empire* mania went beyond the theaters to infiltrate all parts of American culture. On July 26, *Billboard* reported that Freddie Mercury closed a Queen concert riding on the shoulders of a stagehand dressed in a Darth Vader costume—and other examples across the country were manifest, from political cartoons to conversations by the watercooler. *Empire*'s travels abroad were also successful. On June 4, *Variety* noted that the film's run at Leicester Square, London, which had a 2,000-seat capacity, had pulled in a "sensational" $213,562 in 32 performances, which Fox called an all-time record for any picture in the UK.

Empire was shown at the Venice Film Festival and opened that August in Australia's new "ultra-modern" Cineplex in Brisbane, with some of the actors and Kurtz on hand. The sequel was also number one in Tokyo, Japan, for at least four weeks, but in Denmark, *Empire* was ruled off-limits to children under 12 (as were *Star Wars*, *Close Encounters*, and several other films).

"Children are not allowed to see a film that desensitizes them to violence, to suffering," says Dr. Joergen Bruun Petersen. "They must not see a film if we feel they will get [from it] less ability to feel pity." On the other hand, children were allowed by the Denmark censors to see sex on screen. "I don't think children will be harmed if they see two adults going to bed with each other. But only if they express love for each other, do what they do with feeling."

THE GREATER GALLERY

Finally with time to relax, both cast and crew were free to watch *Empire* and form their own opinions.

"I've had two of the best and most creative years of my entire life on *Empire*," Kershner says. "I wouldn't have missed it for the world. I look back and it's like a good dream and a bad dream. A good dream because I worked with interesting people and it was nice being in London. A bad dream because of the frustration and things not working; running out of time and having to do things that I ordinarily wouldn't do. But there has to be a limit as to how much a picture costs."

"The first film was like graduating from high school, the second film was like graduating from college," says Lucas.

"I asked Irvin if I had to read this section or that," Ford says of the script. "He said there was no need to. So when I finally saw the finished movie, I learned for the first time all the things that happened to Luke. It was great."

"I'm way under the weather today," Fisher says in a *Soho Weekly News* interview. "I feel badly that I can't articulate … that I can't properly represent myself and the film. I love the film … because you can be transported. It's very childlike so you can be very childlike. You can bring your own sensibilities to it."

"I felt curiously detached watching *Empire*," says Hamill. "I sound like my therapist, but you do start taking these things to heart, thinking, *Yes, you are a terrible actor and it was only the special effects that made it all memorable*."

"This is just the introduction of Lando, so I'll be in the next episode," Billy Dee Williams says. "I gotta go save Han's life now, me and the Wookiee."

"The sky was the limit," says Ganis. "How do you do better than the cover of *Time* magazine? You just can't. It's quintessential; it's what you dream about as a marketeer."

"Here I am on the cover of *Time*—do you know what it means for an actor to be on the cover of *Time*?" asks Prowse. "But nobody knows me. I'm still not recognized when I walk down the street."

"I haven't enjoyed myself so much on a film for a very long time," says Suschitzky. "I worked with a director who encouraged me to do my utmost and so I had a ball on it really, and lots of large toys to play with. What more could one want?"



A selection of magazines that featured *Empire* on their covers, including the fledgling visual effects journal *Cinefex*, whose second and third issues concentrated on the *Star Wars* sequel (*Starlog* also had numerous *Empire* covers).



Legendary reporter and news anchor Walter Cronkite traveled to ILM for a tour and to interview Lucas, 1980.

"I didn't make the film to be successful or unsuccessful," says Kershner. "That's part of the whole fear, anxiety, and ego pattern of Hollywood. I wanted the time spent in making the film to be a good time for me."

"What is interesting to me is that two such different men were able to make two films that meld perfectly," says Ford. "It doesn't matter that they come from different backgrounds and are far apart in age, because both films are in service of an idea. That's the key to it all. George wasn't on hand for much of the second film—but the idea was. And it's Kershner's discipline, talent, and technique that serviced the idea."

"I think that anything that comes out of Lucasfilm has the George Lucas aura about it," says Johnston. "I think this is especially true of *Empire*, because George had created such a monument in the first one. Not that the director was a gun-for-hire, because he brought his personal style to it. But there was never any doubt in my mind, and maybe that's because I've worked with him before, that *Empire* was a George Lucas film from beginning to end."

"The merchandising, it's very funny," says Fisher. "Harrison used to get so upset: 'Mark gets to be a puzzle, why don't I?!' We'd go, 'Wait a minute! Why don't I get to be on the pencil box for chrissake! I mean, if I'm gonna end up being two sizes of dolls, a belt, a cookie, and a hat, then why don't I get to be on an eraser, too?' "

"I've been marked down in price," Hamill says. "My wife and I went into a Toys 'R' Us store a while back and they had all these kids' costumes. They had sold out Darth Vader, Chewbacca, and See-Threepio, so I was the only one available. There were just boxes and boxes of me."

"The surprising thing to me was that we were able to pull off the reality of Yoda," Lucas says. "And the key to Yoda is that there's a hugely talented actor behind it."

"I've talked to George about doing Yoda again," says Oz. "But I have two movies next that I'm very involved in, so it's still up in the air. If I can work it into my schedule, I'd love to do Yoda again."

"At first I was disappointed that I didn't get praise for the Dagobah sequence, but on second thought, the fact that no one mentioned it seems to me to be the greatest compliment of all," says Hamill. "You know the old dictum that the best special effects are the ones no one notices. And no one did, which means they believed totally what was being presented."

As for the ILM crew, whereas Edlund and Lucas had rated the special effects of *Star Wars* as 3.5 on a scale of 10, Edlund gave *Empire* a 6.5.

"With *Star Wars*, we were inventing the medium," says Lucas. "What we were doing had never been done before. We were trying to figure out something that didn't exist, so it was like an experiment. At least *Empire* looks more like a finished product. The quality was much better on all levels. You know, they did a great job with it; I was very happy with ILM."

"At that moment when the movie starts and the music starts and that opening sequence begins, it just took my breath away," says Blau. "It was like, *Here is something I've been able to be a little piece of.*"

"I was glad to have been part of that team at ILM," says Johnson. "There was very little animosity and a great deal of professional regard for each other."

"*Empire* is the hardest film I've ever worked on and probably the most rewarding," says Muren.

"I like to work with George and I hope to continue to do so," says Ellenshaw. "There is always a great demand for matte shots, but after *Empire*, I'm going to spend a few months doing nothing, just putting my feet up. Doing two pictures back-to-back is hard work."

"I was asked to transcribe the dialogue from *Empire* in order to create these translation sheets for different releases around the world," says Blau. "But I didn't know anything about the movie; I was just a secretary. I'd seen a lot of storyboards, because I was doing breakdowns and so on as they related to the special effects, but I had only the vaguest notion of what the story was. And so I was listening to this dialogue and I heard Darth Vader on the tape say, 'Apology accepted.' I thought, *Wow, that's different.* But when I watched the movie, I realized that at that exact same moment Darth was using the Force to choke his lieutenant to death!"

"We were able to capitalize on better sound technology in terms of the stability of reproduction and the ability to do stereo effectively," says Burtt. "But it was a real uphill battle, because you can buy the latest equipment, but if the theaters don't also own it, the work all comes to naught."

"George tells me that the wisest thing I could tell anyone is that I'm retired," Hamill told a reporter, as he nibbled nachos at Alice's Restaurant in Malibu. "Then I would have the best of both worlds. There's no pressure to put out a product and, if you do get a part, you can say, 'The role was so good, it lured me out of retirement.' Who knows? I think he's probably right."

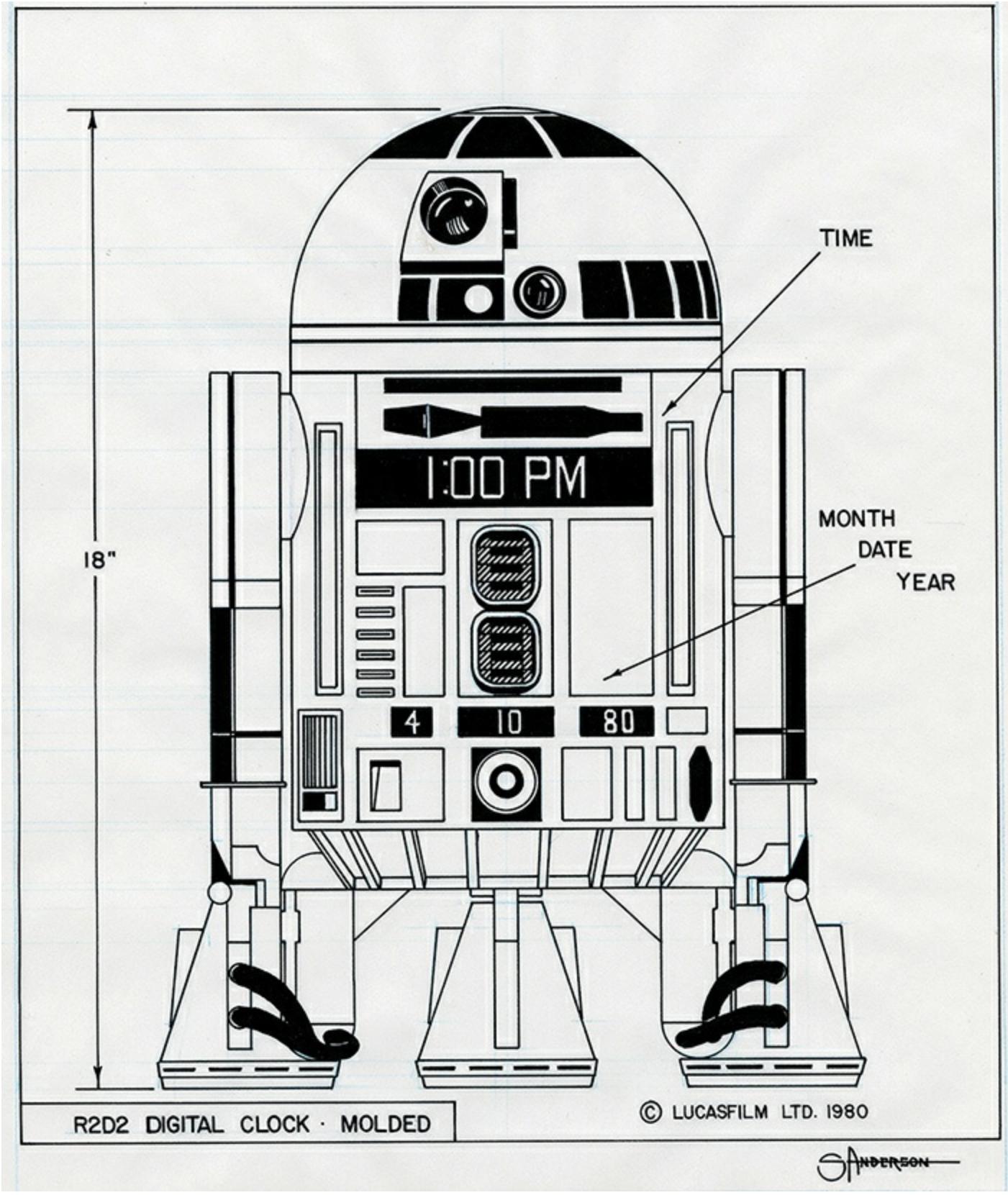
"I get mail from Finland and Japan, from almost every country," Kershner said in 2009. "They send me pictures of myself that I should sign and it's crazy. I get so many letters: 'This film changed my life'; 'I've gone into film because I saw this film when I was young and I never forgot it.' Even a psychologist wrote me a long letter: 'I keep a little statue of Yoda on my desk. I deal with teenagers and I use Yoda as an example of certain philosophical ideas.' "

"To me, film is a historical document and therefore it has practical value," says Lucas. "People 500 years from now will look at our films and be able to figure out what we were like. Our moods, our

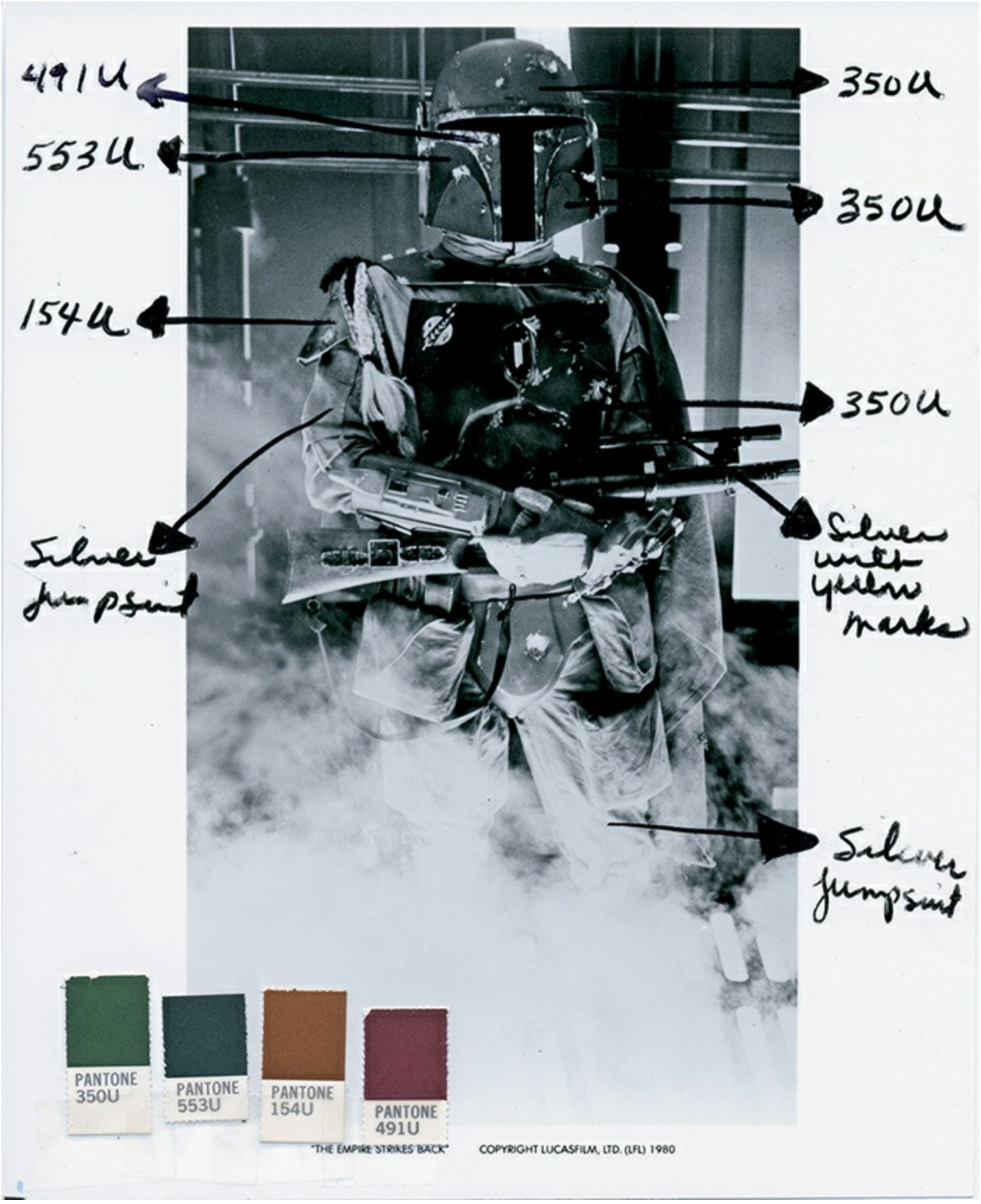
hopes, our dreams will be revealed to them."



The January 1980 issue of *Toy and Hobby World* ran a Kenner ad for *Empire* toys.



Schematic for an R2-D2 digital clock.



ILM provided the licensing branch of Lucasfilm the Pantone colors for Fett's costume.

The Empire Strikes Back Speak-Out!

Dear *Dynamite*,

I've just come back from seeing *The Empire Strikes Back* for the third time! I still can't believe that Darth Vader is really Luke's father! What do you think? Do you think it's true? Or do you think Darth is lying just to get Luke to go along with his evil plans?

I can't wait three years for the next movie to find out! I want to know now!!

Scott MacKenzie, Columbus, GA

Scott, we wish we could help you, but George Lucas and the other *Star Wars* folks aren't talking. Even Mark Hamill doesn't know for sure! But here's one thing we *can* do. We can ask the real experts . . . *Dynamite* readers, what do you think? Is Darth Luke's Dad? Or is this yet another one of Vader's vile tricks?

Fill in *The Empire Strikes Back* Speak-Out Form below. We'll read and count every one. Then we'll publish your best thoughts on this important question in a future *Dynamite*. *And* we'll send the results to George Lucas, himself. Don't delay! Here's your chance to strike back at *The Empire Strikes Back!* Send your form to:

***Dynamite* Strikes Back!**
50 West 44th St.
New York, NY 10036

Name _____

Address _____

Town _____ State _____ Zip Code _____

Is Darth Vader Luke's father? √ YES ___ NO.

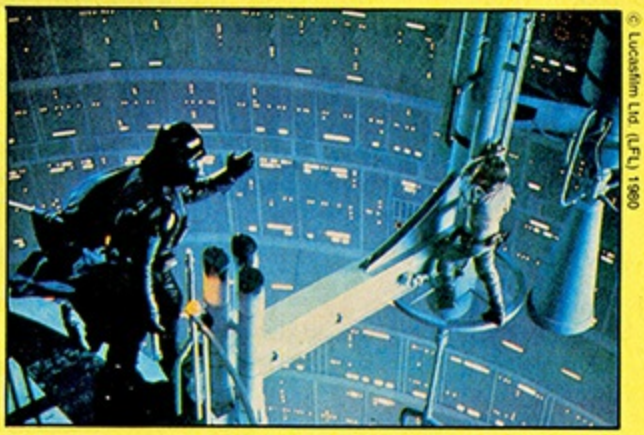
Explain your reasons: Well when Luke went to the dark side he battle Darth, and chopped of his head and the mask split open and his face was in the mask. Thats why I think Darth Vaders his father.

Will Luke defeat Darth Vader in the next film?
√ YES ___ NO

Will Darth Vader defeat Luke in the next film?
___ YES √ NO

Will Luke JOIN Darth Vader in the next film? ___ YES
√ NO

Explain your reasons: [illegible] Luke is a terrific fighter and I have faith in him. But I DO Hope than Solo will come back. Luke tries so hard to become a jedi I think he will make it big.



Fan magazine *Dynamite* asked readers whether Darth Vader was really Luke's father.

Darth Vader's avowal constituted one of the greatest plot twists in cinema history. Its only rival is the revelation at the end of *Planet of the Apes* (1968). Consequently, adults, adolescents, and kids—at home, at the office, in schoolyards, and all over the world—pondered the veracity of Vader's words, as did even those who made the film. One journalist wrote, "Audiences were stunned by Vader's claim, but many were divided over whether he was telling the truth."

Only Lucas knew for sure what was going to happen, and he wasn't telling anyone.

People also wondered who the Emperor was beneath his hooded cloak—and who would be revealed as the other mentioned by Yoda.

Quite a few guessed that the Emperor was a clone, gone bad, of Obi-Wan; Jeremy Bulloch received a letter asking him if Boba Fett was the "other." Kershner conducted his own survey on who believed what. "I found that children up to the age of about seven didn't believe that Darth Vader was Luke's father. They think he's lying. Above the age of seven, they accept it—and it sends a chill up their spine."

"I was very concerned about the ending, that it might be too intense for small children," Lucas says. "That is a pretty intense moment and basically a castration scene. But I spoke to a number of psychologists who basically said that most kids, if it's too intense, will simply deny that Vader is Luke's father. But I was also concerned about leaving kids hanging."

"Darth Vader is a good example of changing a character to please the people," says Hamill. "I think, originally, if you follow classic drama, I would have to kill him in the third episode. But now he's a cult figure and, in a way, George may not want to do away with him. Ultimately, the Emperor should be the main bad guy, someone you try to get through the nine movies—and in the ninth, you succeed. I don't know who the Emperor is, but I think it is fascinating the way they put him together."

Philosophers, critics, and theologians also seized on the Dagobah sequences in particular and debated their meaning. "The whole theological and ethical foundation is more Zoroastrian and Buddhist than it is Judeo-Christian," noted the *Presbyterian Journal* of Asheville, North Carolina. "Evil and, especially, good are impersonalized in an Eastern fashion … Worse than that, the movie has strong overtones of Eastern religion where God is merely an impersonal force."

Christianity Today found Lucas less threatening and much better, morally speaking, than Kubrick, whose *2001* "sends man uninspired through the cosmos." But the paper still found *Empire* lacking as to the "*why* behind all the drama—the main problem in both cases being an absence of Jesus and a righteous God. The more personal Force being too ambiguous, like prayer for its own sake."

To sum up, *Empire* was somehow problematic because its ethics were simultaneously too personal and yet too impersonal (no wonder then that several books have been written since on the theological and philosophical meanings of, and influences in, the films, from Tao to Jung).

"Whenever you have a teacher in a movie, they often carry more weight than the hero does in terms of impacting peoples lives," says Lucas. "Because they usually espouse a philosophy that people are having contact with for the first time; it's taking old truths and reiterating them. I don't think the reaction was surprising to me."

"The Jedi Knights are enlightened warrior-priests," says Kasdan. "Like some of the samurai who had a spiritual level to go with their incredible physical gifts. Luke is initiated so he can use the power of the Force to do some good. The idea of having an evil father and a good father is very common in mythology. The reason these images and stories have been reiterated so often through the ages is we've found that life works out that way, that we have within us the dark side and the light, good and evil, the devil and the angel. We're all full of conflict about which way to go. None of us fully live in the light or

the dark."

"The film *may* have religious qualities, but I wasn't working toward that," Kershner says. "I wanted to stay away from magic and concentrate on people's untapped powers. The picture is supposed to be ambiguous. Someone told me it was Jungian. Someone else told me it was pure Christianity, about man's destiny and freedom of choice. He said Darth Vader is the fallen angel, the closest thing to Lucifer you can find. Actually, Vader wants to bring order to the universe—*his* order, *his* universe. He's the ultimate dictator."

"The Force evolved out of various developments of character and plot," says Lucas. "I wanted a concept of religion based on the premise that there is a God and there is good and evil. I began to distill the essence of all religions into what I thought was a basic idea common to all religions and common to primitive thinking. I wanted to develop something that was nondenominational but still had a kind of religious reality. I believe in God. I also believe that there are basic tenets that, through history, have developed into certainties, such as, 'Thou shalt not kill.' 'Do unto others …' is the philosophy that permeates my work."



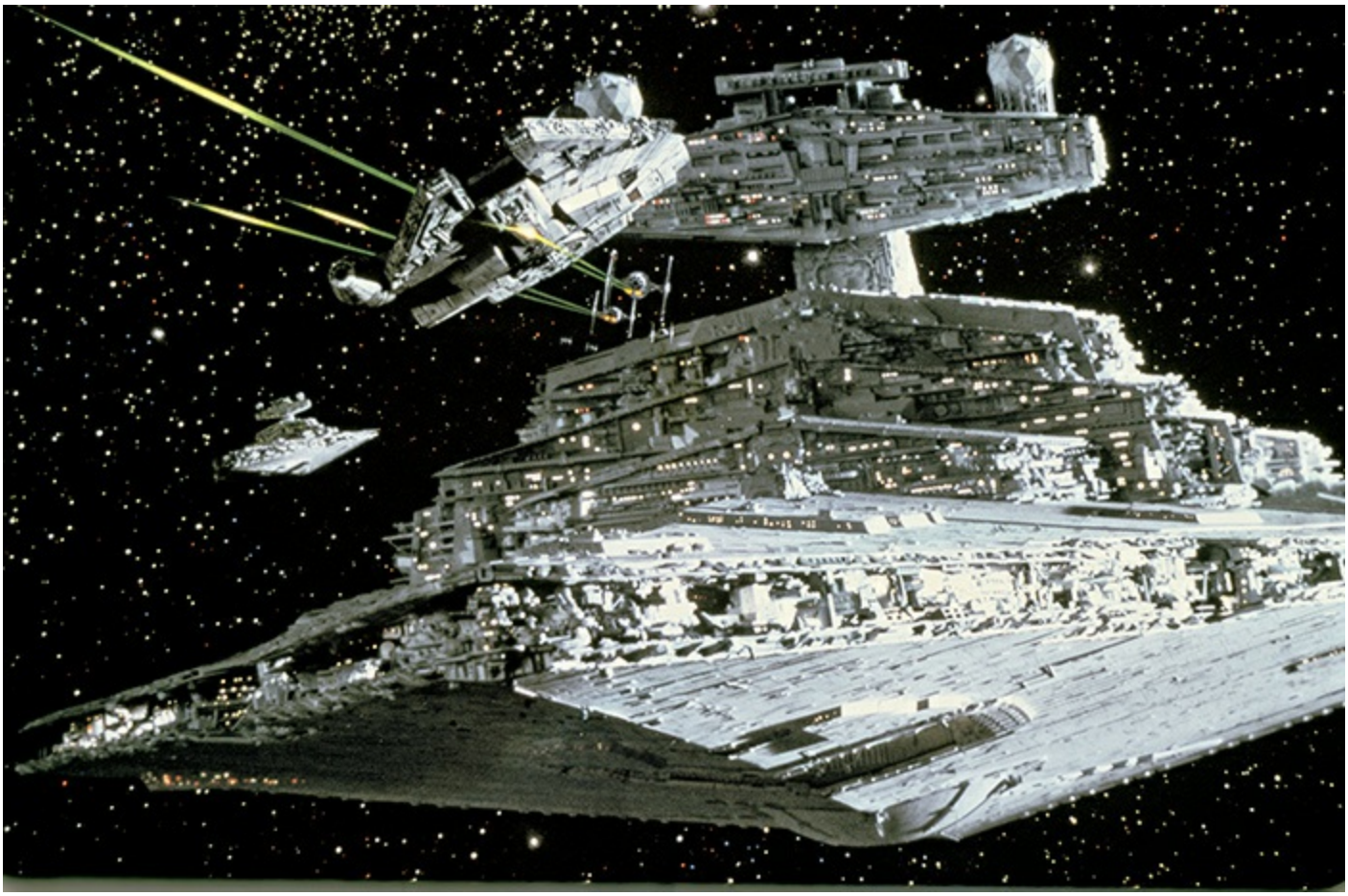
An enhanced key set final frame (in the film Garry Waller created the moving flak bursts, while John Van Vliet and Kim Knowlton used several techniques to add simulated smoke for the ailing snowspeeders).



Notes on the progress of another enhanced marketing image.



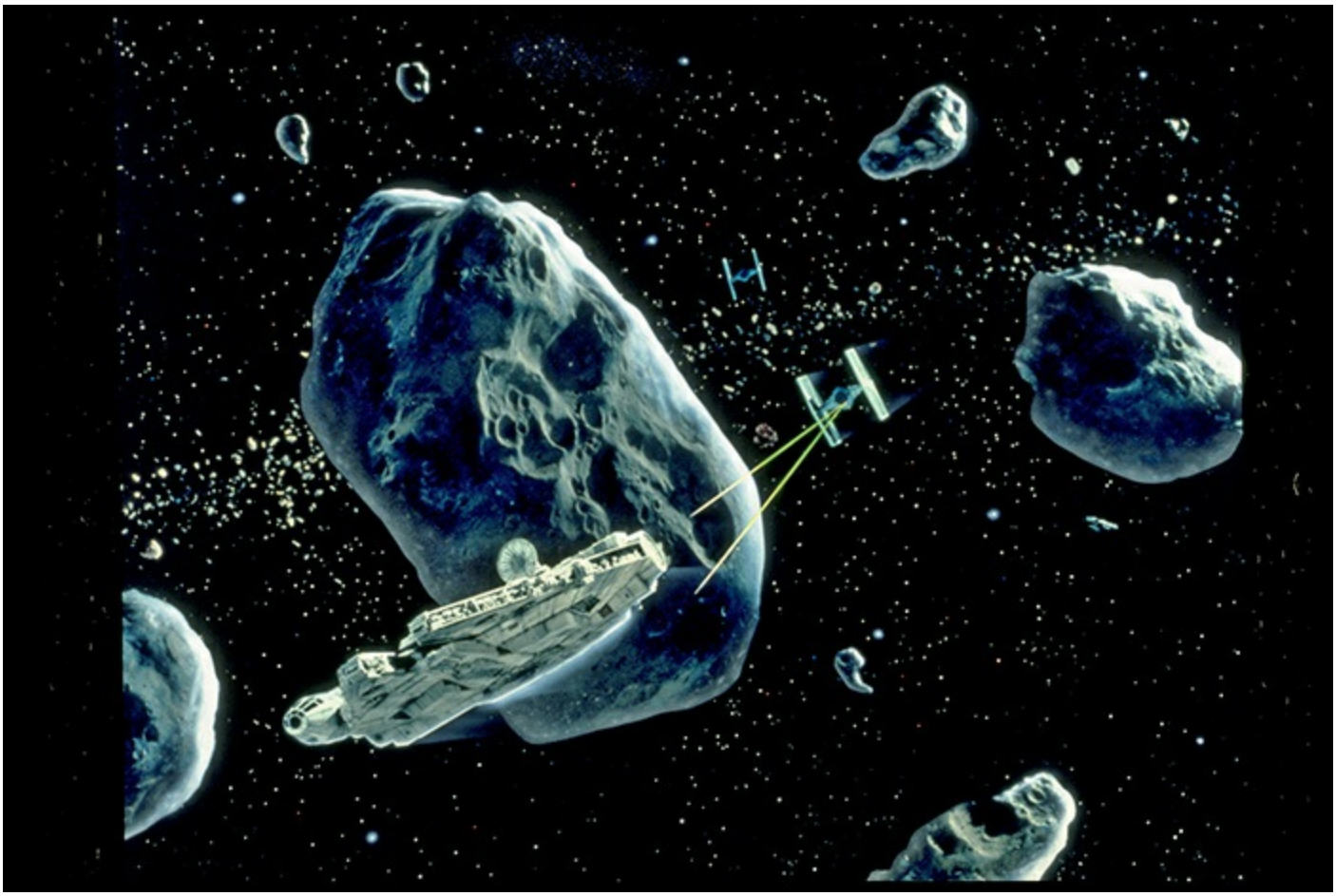
Final touched-up frame.



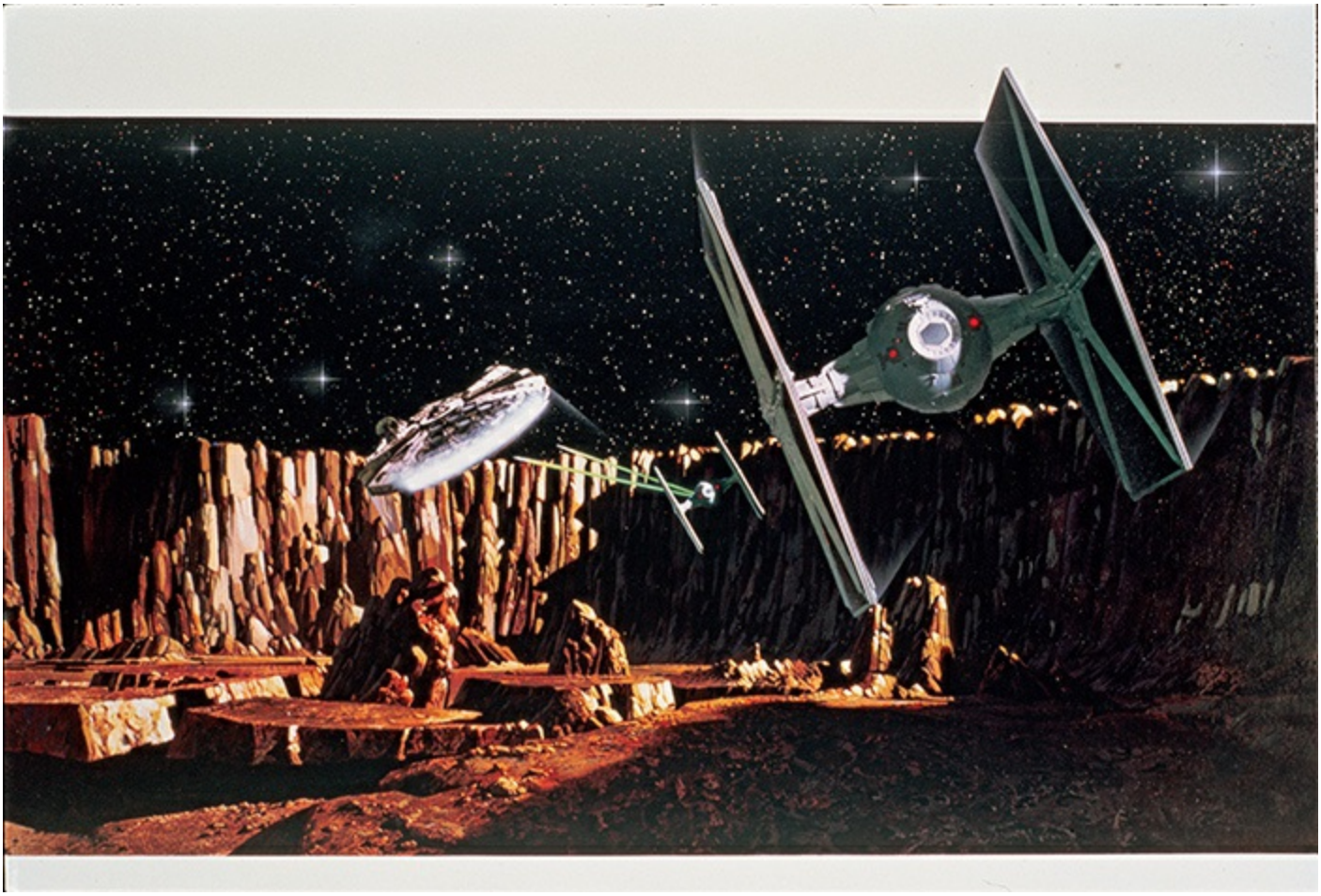
More of the *Empire* key set released for publicity.



More of the *Empire* key set released for publicity.



More of the *Empire* key set released for publicity.



More of the *Empire* key set released for publicity.



A magazine ad for the RSO-distributed *Empire* soundtrack.

FANTASTIC STATISTICS

Even though Fox was merely a distributor of *Empire*, after the film's release the company's stock

jumped $13, to a healthy $53 a share. By September, *Variety* reported, the film had made $160 million (70mm prints accounted for around $69 million), or 16 percent of the total summer revenue at the box office, almost triple that of its closest competitor, *Airplane!*

"What ended up happening is that John Williams's score came out and when Robert Stigwood heard it, he said, 'You only gave me one new song! Everything else is still the old *Star Wars*,'" Weber says. "Stigwood said, 'How can I have paid such a big advance and still expect to make so much?' I mean the record was successful, ultimately [selling one million copies by the end of August]. But there were huge piracy problems and it kinda softened the ongoing relationship and our start-up of the record company with RSO."

The film novelization—written by Donald F. Glut and published by Ballantine—was a more straightforward triumph, with two million copies purchased by the end of the film's first week; it continued to sell as *Empire* continued its long theatrical run. *The Atlanta Constitution* reported that the movie played for more than seven months at the Phipps Plaza, from May to Christmas, raking in $500,000 (the Phipps was one of the original 70mm theaters and had installed Dolby to earn its one-month exclusive run of *Empire*). Two girls informed theater owners that they were going to set a record and saw the film between 40 and 50 times.

Not surprisingly, *Empire* finished 1980 as the box-office champ, earning nearly twice as much as the number two film for the year, *Kramer vs. Kramer*. *Empire*'s Achilles' heel was that it didn't get the kind of repeat viewing that *Star Wars* enjoyed—although it did become the third-largest-grossing movie of all time, after *Star Wars* and *Jaws* (1975).

According to a statement of participation sent from Fox to the Chapter II Company, dated July 14, 1981, *Empire* rentals had exceeded $250 million. By October 1981, when *Empire* was reissued, it made another $26.3 million and took second place on *Variety*'s list of all-time domestic box-office champs, overtaking *Jaws* to sit behind *Star Wars*. (By that time, *Raiders of the Lost Ark* was number four, which meant that Lucas had three out of the top four films of all time.)

"I'm just as used to having things fail as I am to having them succeed," says Lucas. "It's a reasonable risk that I'm willing to take, being a reasonably cautious person. But I usually have to bet the store in order to make it work, so everything either sinks or we swim. There is no in-between."

The *Battlestar Galatica* lawsuit took longer to play out. On October 2, 1980, US District Judge Irving Hill threw out Fox's case. On May 8, 1981, the countersuit, pitting MCA and Universal against Fox, was thrown out in turn. In early 1983, the US Court of Appeals ruled that Fox's case "should be settled in a courtroom," according to a United Press article in which the court said, "After reviewing the *Star Wars* and *Battlestar* motion pictures, we conclude that the films do in fact raise genuine issues of material fact as to whether only the *Star Wars* idea or the expression of that idea was copied."

On November 18, 1983, an Agreement for Settlement of Lawsuit and Release was agreed upon and, on March 5, 1984, a $225,000 settlement was paid to Twentieth Century–Fox.

THE STAR WARS SAGA CONTINUES



THE EMPIRE STRIKES BACK

Tom Jung's early painting of the second, or "Style B," poster for The *Empire Strikes Back*. Following Lucas's plan, the second poster had more action than the romance-oriented first poster.



The final version of the second poster began appearing in theaters about a month after the film's release, and ended up featuring: Luke, the droids, Han, Leia, Chewbacca, and Lando (some of whom were not featured in the original artwork).

LUCASFILM Ltd

INTER-OFFICE MEMO

To: ALL EMPLOYEES

From: Anne-Marie Stein

Date: March 9, 1981

Re: ESB CAPTURES PEOPLE'S CHOICE AWARD

THE EMPIRE STRIKES BACK was voted #1 - the Best Motion Picture of 1980 by the People's Choice Awards.

Kersh, Mark and Billy Dee accepted the award at the televised ceremony last Thursday night.

The People's Choice Awards are special in that the general public votes and determines who is #1.

AMS

An internal inter-office Lucasfilm memo let everyone know that *Empire* had won the People's Choice Award for best film of the year.

Even before the award season of early 1981, the National Association of Theater Owners had named Kershner director of the year in October 1980 (the month before, *US* magazine had thanked Hamill for helping its circulation reach 1,200,000 when he was on the cover). In March, the LA *Times* printed a summary of the leading critics' top 10 lists: Robert Redford's *Ordinary People* made it onto 42 lists; *Empire* came in fourth, on 24.

That same month, *Empire* won the People's Choice Award for Best Motion Picture, which was accepted by Kershner, Hamill, and Billy Dee Williams. At the eighth annual Academy of Science Fiction Fantasy and Horror Films ceremony, *Empire* took all the top awards, including best picture, director, and actor (Hamill). For his music, John Williams won a BAFTA (British Academy of Film and Television Arts), a Grammy, and was nominated for an Academy Award; *Empire* was also nominated for Best Art Direction and Best Sound.

Ahead of the nominations, Yoda had been the subject of speculation: Could he even be considered for an Oscar? The LA *Times* ran a piece in which Peter H. Brown wondered if a "nonhuman" could win. Similar questions had been asked before. Mickey Mouse would have won in his day, but the Academy committee had ruled that, "Animation does not qualify." In 1977, the word around town was that C-3PO and R2-D2 would be nominated. In 1980, Miss Piggy had presented an Oscar and then asked why she couldn't be nominated. "Of course the other creation abetted by Oz was Yoda and Fox and Lucasfilm made it official by seeking nominations for Darth Vader (with body by Prowse and voice by Jones), Yoda the Muppet (voice and movements by Frank Oz), and See-Threepio (Anthony Daniels)," writes Brown.

According to the rulebooks, as interpreted by longtime Oscar publicist Art Sarno, "It looks like Darth Vader would be out since Prowse supplies the body and actions and Jones supplies the entire voice. Yoda and See-Threepio might be eligible."

In the end, none of them was nominated. "We tried to get Frank Oz a nomination," Lucas says. "But the Screen Actors Guild said that puppeteers aren't actors, which I thought was outrageous. A lot of acting started out as puppets, a few thousand years ago—long before the Screen Actors Guild. It was a brilliant performance and it *is* acting."

On March 31, after the Academy Awards ceremony had been delayed 24 hours because of an assassination attempt on President Ronald Reagan, *Empire* won for Best Sound, with statuettes going to re-recording mixers Bill Varney, Steve Maslow, Gregg Landaker, and production soundman Peter Sutton. The film also garnered a Special Achievement Academy Award for Visual Effects, shared by Richard Edlund, Brian Johnson, Dennis Muren, and Bruce Nicholson.

Ben Burtt's name had been submitted by Lucasfilm and Fox with the group that won for sound, but Academy rules wouldn't admit him. "We knew up here that we were second-class citizens," says Lucas. "LA doesn't acknowledge what we do up here. They said, 'We only need four people. We don't actually want to have that many people get up there and say, 'Thank you.' I was disappointed because Ben did most of the work. Down there, they don't recognize *Sound Designer* as a credit. I believe in sound designers; I think that's the way it should be done. I can't keep up with their resistance."

"The whole optical printer system won an Academy Award, which is so funny," says Franklin. "Because the printer never got used the way it was planned to be used. It was a two-headed composite printer and the idea was that it was gonna save all this time. And it was never really used that way, but

it has a little statuette that goes with it now. That's the Academy." (Within three years, the optical printer had been split into two conventional printers.)

普慶
東方
紐約
凱聲
利舞台
影都
英華
盛大
獻映

「星球大戰」
金像特技・音樂
專家再度合作

「星球大戰」製片
導演：
佐治洛卡斯
本年又一創新傑作
「星球大戰」原班
人馬：
麥咸美
夏理遜福
嘉莉菲莎
阿歷堅尼斯
再度上陣！
比利狄威廉斯
安東尼丹尼斯
聯合主演！



DOLBY STEREO

星球大戰 帝國反擊戰

從頭緊張到尾！令你喘不過氣！

霍士公司耗資二千五百萬
美金元娛樂片王！

特技千變萬化！令你目瞪口呆！

Kastel's artwork was repurposed (and had walkers added) for the Hong Kong *Empire* poster in Chinese.



The theatrical release poster for Germany was one of the few to have Yoda in it.



A Japanese poster for *Empire*.


THE
EMPIRE
STRIKES
BACK

Jung also painted a poster for the film's re-release in 1982, which featured Yoda and a prominent Han Solo (Harrison Ford being a megastar at that point thanks to *Raiders of the Lost Ark*, 1981).

YOU CAN'T GO HOME

Of course, *Empire* was only Episode V. Audiences around the world knew Lucas was going to provide them with an Episode VI and work had already begun in 1980 on that chapter, which was scheduled for a 1983 release—a long time for fans to wait. Interviewed on the David Letterman show in October 1980, famed science-fiction writer Isaac Asimov exclaimed, "I enjoyed *The Empire Strikes Back* so much that when they finished it, I jumped up in my seat and yelled, '*Start the third part!*' I figure at the rate they're going, they'll do the last few after I'm dead, which doesn't strike me as fair." (Asimov passed away in 1992.)

"The renewed sense of elation is now complicated by freshly created apprehensions and speculations, which can't be resolved for two years at the earliest," Gary Arnold wrote in *The Washington Post*. "The Victorian novelists would keep readers in an anxious state for a month before the publication of a new chapter of a work in progress." The idea of waiting years for the next chapter, he says, may be a "landmark in the history of popular culture."

"What matters at the moment is that there is no sense that this ebullient, youthful saga is running thin in imagination or that it has begun to depend excessively on its marvelous special effects—that it is in any danger, in short, of stiffening into mannerism or mere billion-dollar style," wrote Angell in *The New Yorker*. "I'm not sure that I'm up to seven more *Star Wars* adventures (I'm pretty sure that my son is), but I can hardly wait for the next one."

One big question about the third film had already been answered for the public in August 1980: Harrison Ford had agreed to play Han Solo one more time.

"The next chapter is called *Revenge of the Jedi*," says Lucas. "It's the end of this particular trilogy, the conclusion of the conflict begun in *Star Wars* between Luke and Darth Vader. It resolves that situation once and for all. I won't say who survives and who doesn't, but if we are ever able to link together all three, you'd find the story progresses in a very logical fashion."

"A lot of times, I heard that people were disappointed with the ending of *Empire*," Ford says. "But they contradict themselves every time, because their next comment is always: 'I can't wait for the third one.' "

"I always knew I'd have a problem with *Empire* because it was the second act, a down movie, and didn't have an ending," says Lucas. "I had to get from number one to number three. I knew if I could just get through number two, I'd be okay. In the second film, once we introduce the 'other,' it creates tension over whether Luke's going to die or not. There is also the question, *Is he going to become like his father?* That's what the real conflict is."

While Lucas did succeed in creating perhaps the single most memorable cliffhanger in modern times, *Empire* is, as he says, an incomplete work. It would find its final form only when linked with Episode VI. *Star Wars*, on the other hand, was a complete story, which made it more satisfying for repeat viewers. Moreover, as many of the cast and crew stated, the first film was innocent of success and expectations, and it had not been entirely possible to recapture that mystical quality. However, the third film would build on what came before and would make use of many qualities besides innocence—but to get there Lucasfilm as a business would have to survive.

"*Empire* put the company on the map as a self-financing business entity controlling all its own rights, making its own deals, and moving on to being a large independent company," Weber says. "This put us in an equal position with any big studio, from a business standpoint, which was always George's goal: that we could do business and still have a creative community that was well liked. We had ancillaries in publishing and merchandising, while supporting our own overhead and growing profitably to support the creative side of the business."

"Once we knew that *Empire* was going to be successful, the company went from a state of some anxiety to something more relaxed," says Howard Roffman, who had been hired as legal counsel one month before the film's release (and who today is president of Lucas Licensing). "It had been somewhat of a risky proposition. But afterward, we were flush and we still had a lot of money from *Star Wars*." (Lucasfilm had made $101,801,838 out of that first $250 million in *Empire* rentals.)

"The toy business grew up around the movie, more than we said, 'Oh, here's a big market,' " Lucas says. "But I certainly never got into this business wanting to be rich and famous. Nobody would want to be famous if they knew what it was all about—and making money just to make money, so I can put it in a vault and say that's how much money I've got, is of absolutely no interest to me whatsoever. I just wanted to make movies and that's been my focus ever since. And my hobby is building."

In fact, the one–two punch of *Star Wars–Empire* enabled construction to begin on the Farm Group structures of Skywalker Ranch and allowed Ed Catmull to hire three experts for the Computer Division: The picture editing project would be led by Ralph Guggenheim; the sound editing project by Andy Moorer; and the graphics project, which would become the Pixar Image Computer, by Alvy Ray Smith.

"I want to update film into the 1980s," says Lucas. "Video and sound, the more electronic media, are way beyond film. Film is still a piece of celluloid pulled through gears and sprockets, but the film studios have never been interested in investing any money. We're talking lots of money. Now it takes 150 people on a set to make a movie, so you have an enormous amount of equipment with an enormous number of resources, whereas in an electronic medium, it's much easier. Eventually, you'll be able to take a machine the size of a Betamax with a little camera and make a movie. You'll get professional-quality equipment that is in the electronic mode to give us the quality we now get with film."

"Computers are still adolescents, they're at an awkward stage," says Hirsch. "But I know Francis Coppola and George Lucas have invested a lot of money in video editing, so something may come of it soon. If George manages to realize his plans, I think I could work very fast with the kind of tools he's talking about."

"Everybody knew that was the future," says Tom Smith. "Because it had so much more potential than what we were doing. We were really using 19th-century technology—photography. There were visual effects in still photographs done back in the 1800s that used similar techniques to what we used. But when I first came to ILM, there wasn't even a computer in the building, except inside some of the machines. But George wanted to give the Computer Division an opportunity. George knew this was gonna be something for the future. I had a long conversation with Ed Catmull, who told me all about it and I thought, *Well, that's great. That'd be wonderful* someday."

"We have no government subsidies in the United States," says Lucas. "Nobody's going to turn around and just give me money to make the kind of movies that I want to make, no matter how successful I get. So I want to make a machine that will ensure my ability to make the kind of movies I want without

any concern about their commercial potential. What I did was, I came to learn the system. I learned it and I beat it, and I'm going to use it to make the system that I want to have happen."

DARING DIGITAL

For Industrial Light & Magic, the future was now. "George Lucas told me what he really wanted was that ILM just be functioning three years later when he did the next *Star Wars*," says Smith. "He said, 'Keep it in business, don't go bankrupt.' "

"As we got into *Dragonslayer* [1981]," Muren says, "we really came up with a more elaborate approach, which is essentially a full motion-control, stop-motion dragon figure with motors attached above and below each of the arms and legs and wings and neck, or whatever, with blue rods against a bluescreen so that the entire thing was programmed by these motors outside of it."

"It became pretty clear that if you had more things hooked up to a puppet, you could do more stuff," says Tippett. "And so, when *Dragonslayer* came around, we got the okay to develop a motion-control rig that would accommodate a stop-motion puppet." This enhanced technique and the accompanying blur would be called go-motion.

"We are now working on a new VistaCruiser camera," says Edlund. "It will have an 80-foot track, as opposed to the 42-foot track which we have now. It will have a longer boom arm, be a steadier camera, and have a greater film capacity. It will also have a better video viewing system, a better follow-focus system, and a better motion-control system. Our final vision, or our fantasy, is to make an electronic control system which will feed all of the cameras, including the printer, the Oxberry animation stand, and all of the departments, so that the various pieces of equipment can *talk* to each other."

"In order to do a fantasy film, which is by its very nature unreal, you're forced into using a lot of special effects and a lot of technology to try to achieve these sort of dreams," Lucas says. "So there are certain creative limitations, especially in the conceiving and writing of the pictures; there are things that you just can't possibly do, so you just can't write them. But I think there's a long way that film can go."

"George Lucas stands as the personification of every hope and trait today's creators of special effects have yearned for," wrote Paul Mandell in *Cinefex*, "something that proved untenable in Hollywood."

"It was struggling with Yoda that took me to the next level," Lucas says. "I thought, *Gosh, I wish I could get that character to walk more than a few feet*. That was what really started me on the way to digital characters that could move freely on the set, without having to block everything around the puppeteer."

But even as Lucasfilm turned toward an optimistic future, corporate changes and inevitable personal reasons prompted several departures from the *Empire* crew.

"I've been working in the business for 20 years and I've never been permanently employed by anybody," says Brian Johnson. "I think that George's system is great, but having worked for Stanley Kubrick, Blake Edwards, and others, I know that I would really like to work with as many different people as possible, simply because I like to work with different ideas. You can gain an amazing amount of experience working for different directors."

"George decided to consolidate the company in Northern California," says Richard Tong. "He asked Charlie Weber to come up [in December 1980] and discuss the closing, perhaps, of the Southern California facility. I think George wanted to keep him on as the CEO, but Charlie began to renegotiate a much more lucrative compensation for himself. At first I think George agreed, but then when Charlie left the meeting, George had some second thoughts and decided that it was unworkable. So Charlie was

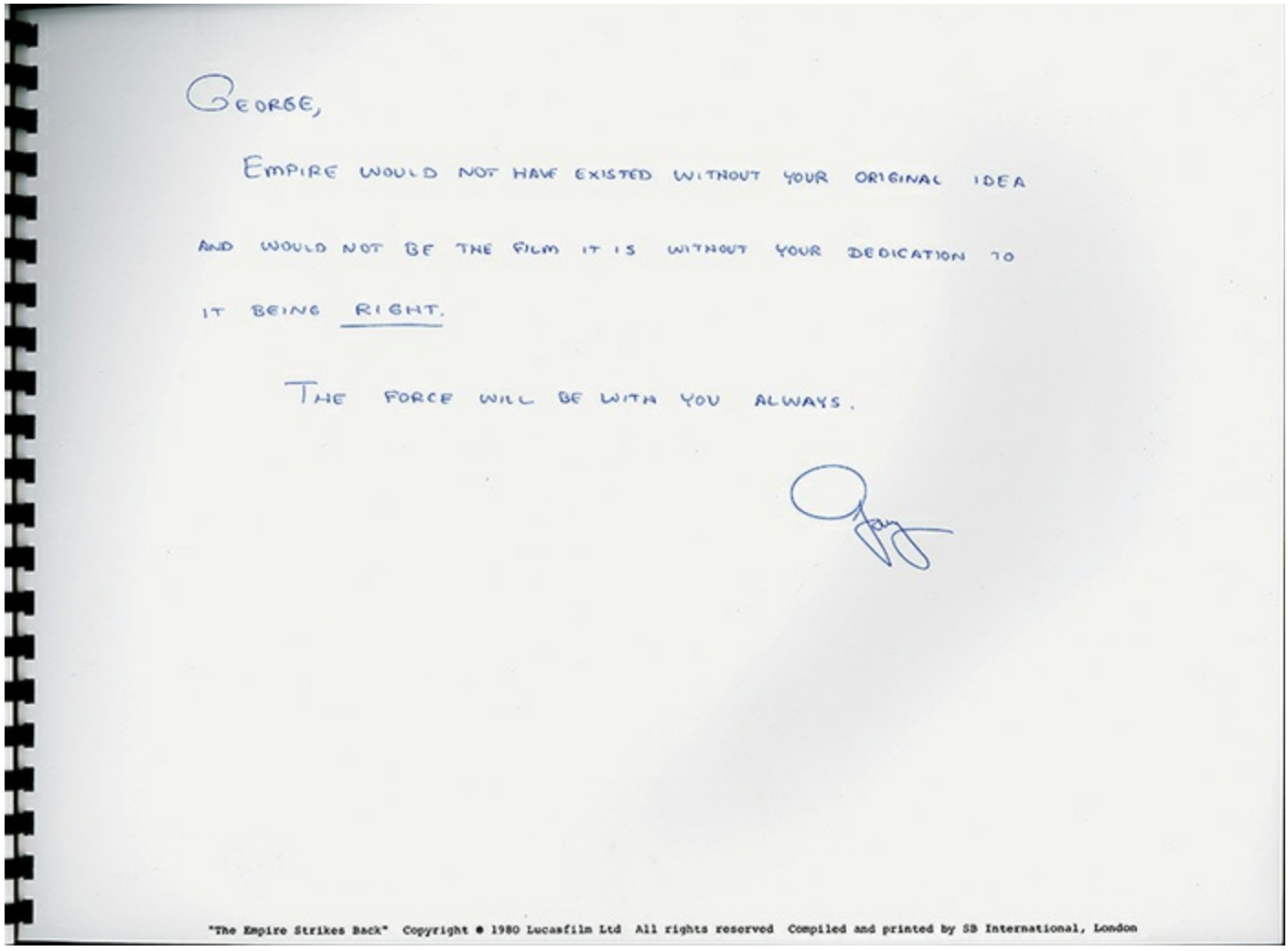
called back from the airport, actually, and then he was let go."

In addition, Kurtz was not asked back to produce the last film of the trilogy. "When we finally wrapped up *Empire* and shipped it off, George and I had a long talk about it and it was clear he was unhappy with what had happened," says Kurtz. "The cost, and then the other things. And I was weighing the option of joining Jim Henson to do *The Dark Crystal*, which we had talked about over the years, from way before *Star Wars*, when I worked with him on *The Muppet Show*. So it was mutual. George didn't really want me to do the next film and I didn't think I really wanted to do it. It was just better for us to part company there without making the relationship worse."

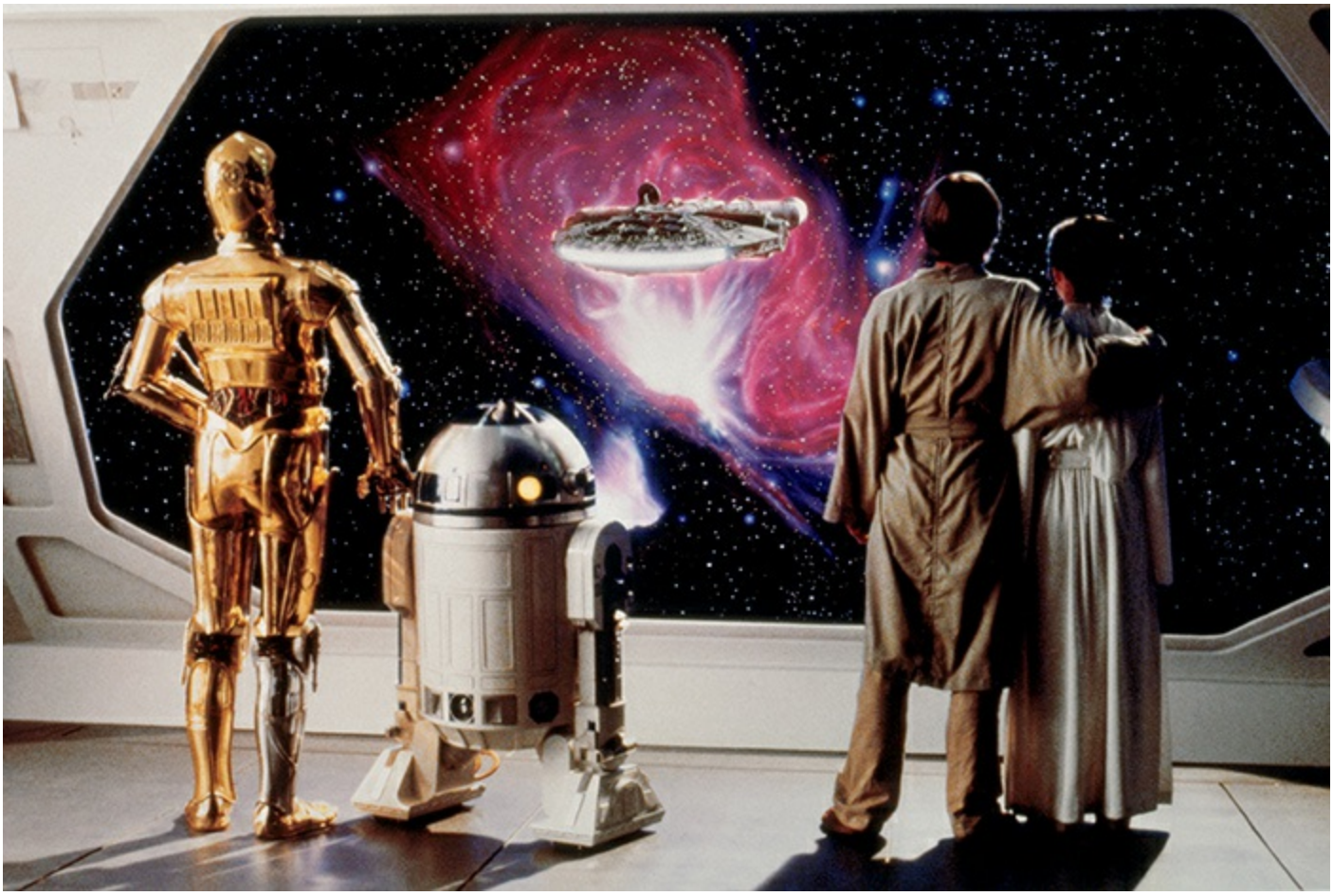




McQuarrie sent two of his sketches to Carol Titelman for possible *Empire* tie-in book covers, August 1980.



Kurtz inscribed the last page of the film's glossy PR brochure to his boss, George Lucas.



Key set final frame.



McQuarrie painted “The Lucasfilm Family We’re Moving” announcement in September 1979, when Lucasfilm South moved into the

Egg Company building. In 1981, Lucas would move the company again—up to Northern California (this "moving" card has often, mistakenly, been used to show the move north).

APOSTLES OF CINEMA

While *Empire* was at one time part of an ephemeral 12-film plan, by the time it was released, the number had been reduced to 9—though it sometimes resurfaced as 12. Depending on who was being interviewed when, the details and time periods would subtly shift.

"People were always asking, 'Are you going to do *more* sequels?' " Lucas says. "Sometimes I got carried away."

"Now George is talking about three more films," says Hamill, "a fourth trilogy that would have hardly anything to do with space, but would be these esoteric, philosophic, inner-directed films. Can you believe it? George has all this in his head, all figured out. The guy's incredible."

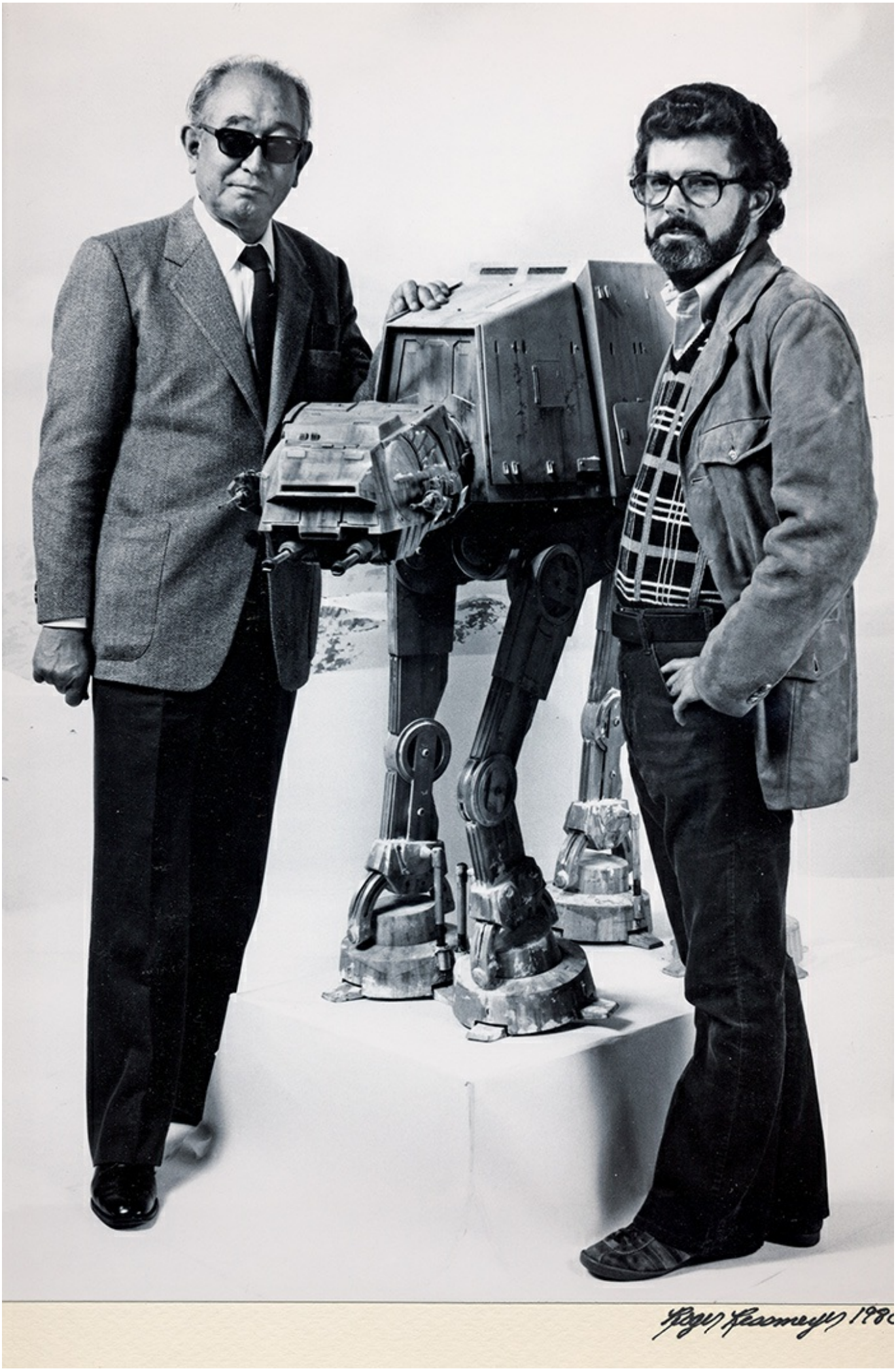
"The prequel stories exist—where Darth Vader came from, the whole story about Darth and Ben Kenobi—and it all takes place before Luke is born," Lucas says. "The other one—what happens to Luke afterward—is much more ethereal. I have a tiny notebook full of notes on that. If I'm really ambitious, I could proceed to figure out what would have happened to Luke.

"There are six original stories that were written—really, seven; one was an odd film. But six original—two trilogies—and they're complete and they were written really during the first one. When I wrote the first script, it was part of those six films; and then, after the success of the film, I added another three, another trilogy after this. Where before I had one odd story, which didn't really involve a lot of the characters, now I have three odd stories. They're very strange kinds of movies, which don't really have anything to do with the saga per se."

In 1980, it was reported that George Lucas would be looking for a boy to play the young Luke Skywalker sometime around 1989. "Nathan looks very much like me," says Hamill, "the same dimple and everything." As it turns out, Nathan Hamill would be cast as an extra in 1999's *Star Wars:* Episode I *The Phantom Menace*, the first chapter in the second trilogy. By 2005, Lucas had created six live-action *Star Wars* films, with no plans for any more.



Key set final frame.



Celebrated director Akira Kurosawa and Lucas (photo by Roger Ressmeyer, 1980); “Kurosawa and Kubrick and Richard Lester and Orson Welles—you can make a whole list of people whose films I admire a great deal and obviously they helped me learn how to make movies.”—Lucas.



Group shot of the ILM team for *Empire*.

"It was the old-time way of making a picture," says Ellenshaw, "where the producer was really the filmmaker: He hired the director to direct and then the producer did everything else."



Left half of the picture with reference numbers.



Right half of the picture with reference numbers.

The ILM crew for *The Empire Strikes Back* (by the numbers):

1. Roberto McGrath
2. Thomas Brown
3. Charlie Bailey
4. Brian Johnson
5. Jim Bloom
6. Richard Edlund
7. Bill Neil
8. Ease Owyeung
9. Ray Scalice
10. Loring Doyle
11. Lhary Meyer
12. Scott Marshall
13. Mark Vargo
14. Marty Brenneis
15. R2-D2
16. Miki Herman
17. Don Dow
18. Tam Pillsbury
19. Rick Taylor
20. Ed Tennler
21. Gene Whiteman
22. Kenneth Smith
23. Steve Gawley
24. Bunny Alsup
25. Tiffany Kurtz
26. Tom Rudduck
27. Laura Crockett
28. Ed Jones
29. Mike Fulmer
30. Dave Carson
31. Warren Franklin
32. Mike MacKenzie
33. Joe Johnston
34. Rick Fichter
35. Bill Beck
36. Dick Dova
37. Ed Hirsh
38. Bob Finley
39. Bob Martin
40. Gary Leo
41. Dave Berry

42. Peter Kuran
43. Tim Geideman
44. Alien
45. Sam Zolltheis
46. Mike Pangrazio
47. Kris Brown
48. Laurie Vermont
49. Tom Rosseter
50. Wesley Seeds
51. Clint Palmer
52. Paul Huston
53. Glenn Phillips
54. Nilo Rodis-Jamero
55. Bruce Nicholson
56. Mike Lawler
57. Conrad Buff
58. Peter Amundson
59. Sam Comstock
60. Patty Blau
61. Lorne Peterson
62. Rick Fish
63. Mike Bolles
64. Mike Kelly
65. Kim Knowlton
66. John Van Vliet
67. Garry Waller
68. Alien
69. Jon Thaler
70. Jim Veilleux
71. Gary Platek
72. Ed Breed
73. Howie Stein
74. Alien
75. Marc Thorpe
76. Phil Tippett
77. Space Slug
78. Ted Moehnke
79. Art Repola
80. Jenny Oznowicz
81. Tom St. Amand
82. Jody Westheimer
83. Udo Pampel
84. Alien

85. Jerry Jeffress
86. Dennis Muren
87. Neil Krepela
88. Duncan Myers
89. Ralph McQuarrie
90. Craig Barron
91. Harrison Ellenshaw
92. Ken Ralston
93. Selwyn Eddy
94. Chris Anderson
95. Terry Chostner (Photographer)

APPENDIX: CAST & CREW

STAR WARS: EPISODE V *THE EMPIRE STRIKES BACK*

Directed by Irvin Kershner

Produced by Gary Kurtz

Screenplay by Leigh Brackett & Lawrence Kasdan Story by George Lucas

Executive Producer: George Lucas

STARRING
Mark Hamill as Luke Skywalker
Harrison Ford as Han Solo
Carrie Fisher as Princess Leia Organa

Billy Dee Williams as Lando Calrissian
Anthony Daniels as C-3PO

CO-STARRING
David Prowse as Darth Vader
Peter Mayhew as Chewbacca
Kenny Baker as R2-D2
Frank Oz performing Yoda

Production Designer: Norman Reynolds

Director of Photography: Peter Suschitzky BSC

Edited by Paul Hirsch ACE

Special Visual Effects: Brian Johnson, Richard Edlund

Music by John Williams
Performed by the London Symphony Orchestra

Associate Producers: Robert Watts, James Bloom

SUPPORTING CAST

Ben (Obi-Wan) Kenobi:	Alec Guinness
Boba Fett:	Jeremy Bulloch
Lando's Aide:	John Hollis

Chief Ugnaught:	Jack Purvis
Snow Creature:	Des Webb
Performing Assistant for Yoda:	Kathryn Mullen
Voice of Emperor:	Clive Revill

IMPERIAL FORCES

Admiral Piett:	Kenneth Colley
General Veers:	Julian Glover
Admiral Ozzel:	Michael Sheard
Captain Needa:	Michael Culver
Other Officers:	John Dicks, Milton Johns, Mark Jones, Oliver Maguire, Robin Scobey

REBEL FORCES

General Rieekan:	Bruce Boa
Zev (Rogue 2):	Christopher Malcom
Wedge (Rogue 3):	Dennis Lawson
Hobbie (Rogue 4):	Richard Oldfield
Dak (Luke's Gunner):	John Morton
Janson (Wedge's Gunner):	Ian Liston
Major Derlin:	John Ratzenberger
Deck Lieutenant:	Jack McKenzie
Head Controller:	Jerry Harte
Other Officers:	Norman Chancer, Norwich Duff, Ray Hassett, Brigitte Kahn, Burnell Tucker

Design Consultant and Conceptual Artist:	Ralph McQuarrie

Art Directors:	Leslie Dilley, Harry Lange, Alan Tomkins
Set Decorator:	Michael Ford
Construction Manager:	Bill Welch
Assistant Art Directors:	Michael Lamont, Fred Hole
Sketch Artist:	Ivor Beddoes
Draftsmen:	Ted Ambrose, Michael Boone, Reg Bream, Steve Cooper, Richard Dawking
Modelers:	Fred Evans, Allan Moss, Jan Stevens
Chief Buyer:	Edward Rodrigo
Construction Storeman:	Dave Middleton
Operating Cameramen:	Kelvin Pike, David Garfath
Assistant Cameramen:	Maurice Arnold, Chris Tanner
Second Assistant Cameramen:	Peter Robinson, Madelyn Most
Dolly Grips:	Dennis Lewis, Brian Osborn
Matte Photography Consultant:	Stanley Sayer, BSC
Gaffer:	Laurie Shane
Rigging Gaffer:	John Clark
Makeup and Special Creature Design:	Stuart Freeborn
Chief Makeup Artist:	Graham Freeborn
Makeup Artists:	Kay Freeborn, Nick Maley
Chief Hairdresser:	Barbara Ritchie
Yoda Fabrication:	Wendy Midener
Costume Designer:	John Mollo
Wardrobe Supervisor:	Tiny Nicholls
Wardrobe Mistress:	Eileen Sullivan

Property Master:	Frank Bruton
Property Supervisor:	Charles Torbett
Property Dressing Supervisor:	Joe Dipple
Head Carpenter:	George Gunning
Head Plasterer:	Bert Rodwell
Head Rigger:	Red Lawrence
Sound Design and Supervising Sound Effects Editor:	Ben Burtt
Sound Editors:	Richard Burrow, Teresa Eckton, Bonnie Koehler
Production Sound:	Peter Sutton
Sound Boom Operator:	Don Wortham
Production Maintenance:	Ron Butcher
Re-Recording:	Bill Varney, Steve Maslow, Gregg Landaker
Music Recording:	Eric Tomlinson
Orchestrations:	Herbert W. Spencer
Supervising Music Editor:	Kenneth Wannberg
Assistant Film Editors:	Duwayne Dunham, Phil Sanderson, Barbara Ellis, Steve Starkey, Paul Tomlinson
Dialogue Editors:	Curt Schulkey, Leslie Shatz, Joanne D'antonio
Optical Coordinator:	Roberta Friedman
Assistant Sound Editors:	John Benson, Joanne Cappuccilli, Ken Fischer, Craig Jaeger, Nancy Jencks, Laurel Ladevich
Foley Editors:	Robert Rutledge, Scott Hecker
Foley Assistants:	Edward M. Steidele, John Roesh
Sound Effects Recording:	Randy Thom
Recording Technicians:	Gary Summers, Howie Hammerman, Kevin O'Connell

Production Supervisor:	Bruce Sharman
Assistant Production Manager:	Patricia Carr
Production Coordinator:	Miki Herman
First Assistant Director:	David Tomblin
Second Assistant Directors:	Steve Lanning, Roy Button
Location Manager:	Philip Kohler
Continuity:	Kay Rawlings, Pamela Mann
Casting:	Irene Lamb, Terry Liebling, Bob Edmiston
Assistant to Producer:	Bunny Alsup
Assistant to Director:	Debbie Shaw
Assistant to Executive Producer:	Jane Bay
Production Assistants:	Barbara Harley, Nick Laws, Charles Wessler
Stunt Coordinator:	Peter Diamond
Stunt Doubles:	Bob Anderson, Colin Skeaping
Production Accountant:	Ron Phipps
Assistant Accountant:	Michael Larkins
Set Cost-Controller:	Ken Gordon
Location Accountant:	Ron Cook
Still Photographer:	George Whitear
Unit Publicist:	Alan Arnold
Assistant Publicist:	Kirsten Wing

STUDIO SECOND UNIT

Directors:	Harley Cokliss, John Barry
Director of Photography:	Chris Menges
Assistant Director:	Dominic Fulford
Second Assistant Director:	Andrew Montgomery

LOCATION SECOND UNIT

Director:	Peter MacDonald
Director of Photography:	Geoff Glover
Operating Cameraman:	Bob Smith
Assistant Cameramen:	John Campbell, Mike Brewster
Second Assistant Cameramen:	John Keen, Greg Dupre
Dolly Grip:	Frank Batt
Production Manager:	Svein Johansen
Assistant Directors:	Bill Westley, Ola Solum

PRODUCTION AND MECHANICAL EFFECTS UNIT

Mechanical Effects Supervision:	Nick Allder
Location Unit Supervisor:	Allan Bryce
Senior Effects Technicians:	Neil Swan, Dave Watkins
Robot Fabrication and Supervision:	Andrew Kelly, Ron Hone
Effects Technicians:	Phil Knowles, Barry Whitrod, Martin Gant, Brian Eke, Guy Hudson, Dennis Lowe
Effects Engineering:	Roger Nicholls, Steve Lloyd
Electrical Engineer:	John Hatt
Electronics Consultant:	Rob Dickinson
Model Construction:	John Pakenham
Effects Assistants:	Alan Poole, Digby Milner, Robert McLaren
Effects Secretary:	Gill Case

MINIATURE AND OPTICAL EFFECTS UNIT

Effects Director of Photography:	Dennis Muren
Effects Cameramen:	Ken Ralston, Jim Veilleux
Camera Operators:	Don Dow, Bill Neil

Assistant Cameramen:	Selwyn Eddy, Jody Westheimer, Rick Fichter, Clint Palmer, Michael McAlister, Paul Huston, Richard Fish, Chris Anderson
Optical Photography Supervisor:	Bruce Nicholson
Optical Printer Operators:	David Berry, Kenneth Smith, Donald Clark
Optical Lineup:	Warren Franklin, Mark Vargo, Peter Amundson, Loring Doyle, Thomas Rosseter, Tam Pillsbury, James Lim
Optical Coordinator:	Laurie Vermont
Laboratory Technicians:	Tim Geideman, Duncan Myers, Ed Jones
Art Director—Visual Effects:	Joe Johnston
Assistant Art Director:	Nilo Rodis-Jamero
Stop-Motion Animation:	Jon Berg, Phil Tippett
Stop-Motion Technicians:	Tom St. Amand, Doug Beswick
Matte Painting Supervisor:	Harrison Ellenshaw
Matte Artists:	Ralph McQuarrie, Michael Pangrazio
Matte Photography:	Neil Krepela
Additional Matte Photography:	Michael Lawler
Matte Photography Assistants:	Craig Barron, Robert Elswit
Chief Model Maker:	Lorne Peterson
Model Shop Foreman:	Steve Gawley
Model Makers:	Paul Huston, Tom Rudduck, Michael Fulmer, Samuel Zolltheis, Charles Bailey, Ease Owyeung, Scott Marshall, Marc Thorpe, Wesley Seeds, Dave Carson, Rob Gemmel, Pat McClung
Animation and Rotoscope Supervisor:	Peter Kuran
	Samuel Comstock, Garry Waller, John Van Vliet,

Animators:	Rick Taylor, Kim Knowlton, Chris Casady, Nina Saxon, Diana Wilson
Visual Effects Editorial Supervisor:	Conrad Buff
Effects Editor:	Michael Kelly
Assistant Effects Editors:	Arthur Repola, Howard Stein
Apprentice Editor:	Jon Thaler
Production Administrator:	Dick Gallegly
Production Secretary:	Patricia Blau
Production Associate:	Thomas Brown
Production Accountant:	Ray Scalice
Assistant Accountants:	Glenn Phillips, Pam Traas, Laura Crockett
Production Assistant:	Jenny Oznowicz
Transportation:	Robert Martin
Still Photographer:	Terry Chostner
Lab Assistant:	Roberto McGrath
Electronics Systems Designer:	Jerry Jeffress
Systems Programming:	Kris Brown
Electronic Engineers:	Lhary Meyer, Mike MacKenzie, Gary Leo
Special Project Coordinator:	Stuart Ziff
Equipment Engineering Supervisor:	Gene Whiteman
Design Engineer:	Mike Bolles
Machinists:	Udo Pampel, Greg Beaumonte
Draftsman:	Ed Tennler
Special Projects:	Gary Platek
Supervising Stage Technician:	T. E. Moehnke
	William Beck, Bobby Finley, Leo Loverro, Edward

Stage Technicians:	Hirsh, Dick Dova, Ed Breed
Miniature Pyrotechnics:	Joseph Viskocil, Dave Pier, Thaine Morris

Optical Printer Component

Manufacturer:	George Randle Co.
Camera and Movement Design:	Jim Beaumonte
Special Optics Designer:	David Grafton
Special Optics Fabrication:	J. L. Wood Optical Systems
Optical Printer Component Engineering:	Fries Engineering
High-Speed Camera Movements:	Mitchell Camera Corp.
Ultra-High-Speed Camera:	Bruce Hill Productions
Color Timer:	Ed Lemke
Negative Cutting:	Robert Hart, Darrell Hixson
Dolby Consultant:	Don Digirolamo
Additional Optical Effects:	Van Der Veer Photo Effects Modern Film Effects Ray Mercer & Company Westheimer Company Lookout Mountain Films

Aerial Camera System by Wesscam Camera Systems (Europe)

Aerial Cameraman:	Rod Goodman
Assistant:	Margaret Herron

Helicopter Supplied by Dollar Air Services Limited

Pilot:	Mark Wolfe

Cloud Plates Photographed with Astrovision by Continental Camera Systems Inc.

Snow Vehicles Supplied by Aktiv Fischer

R2 Bodies Fabricated by White Horse Toy Company

Special Assistance from Giltspur Engineering and Compair

Photographed on the Hardangerjøkulen Glacier, Finse, Norway, and at EMI-Elstree Studios,

Borehamwood, England

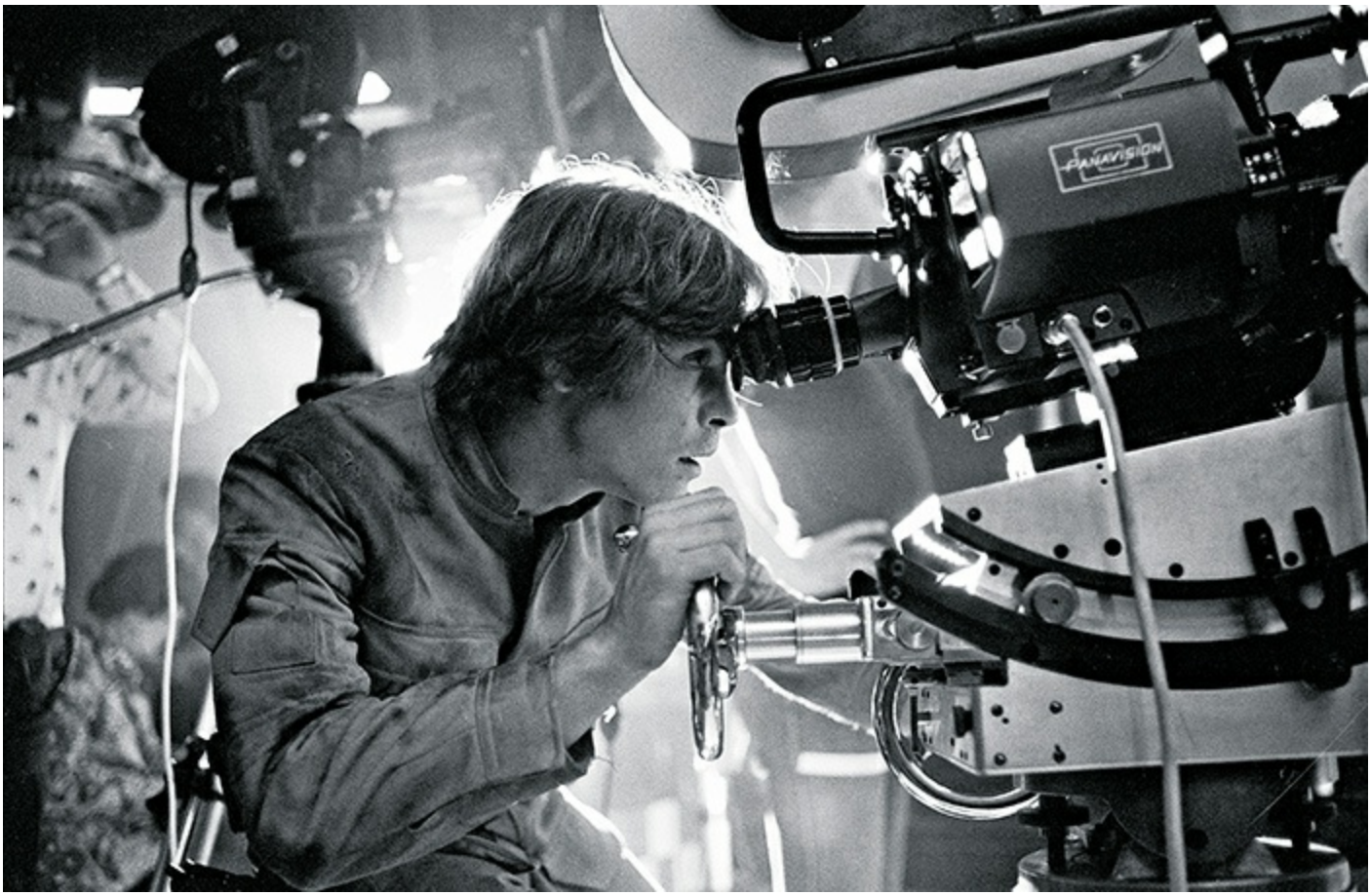
Music Recorded at Anvil Studios, Denham, England

Re-Recording at Samuel Goldwyn Studios, Los Angeles, California

Special Visual Effects Produced at Industrial Light & Magic, Marin County, California

Filmed in Panavision
Recorded in Dolby Stereo

Color by Rank Film Laboratories
Prints by Deluxe
A Lucasfilm Ltd. Production
A Twentieth Century–Fox Release
Original Soundtrack on RSO Records
Novelization from Ballantine Books



Hamill takes a peek through the camera.



Detail of a painting by McQuarrie for the *Empire* portfolio, 1980, of an AT-AT and Luke Skywalker. “I wanted to show that split-second where you have to make a life-or-death decision,” says the artist.

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Fett and *Slave I* model reference shot.

