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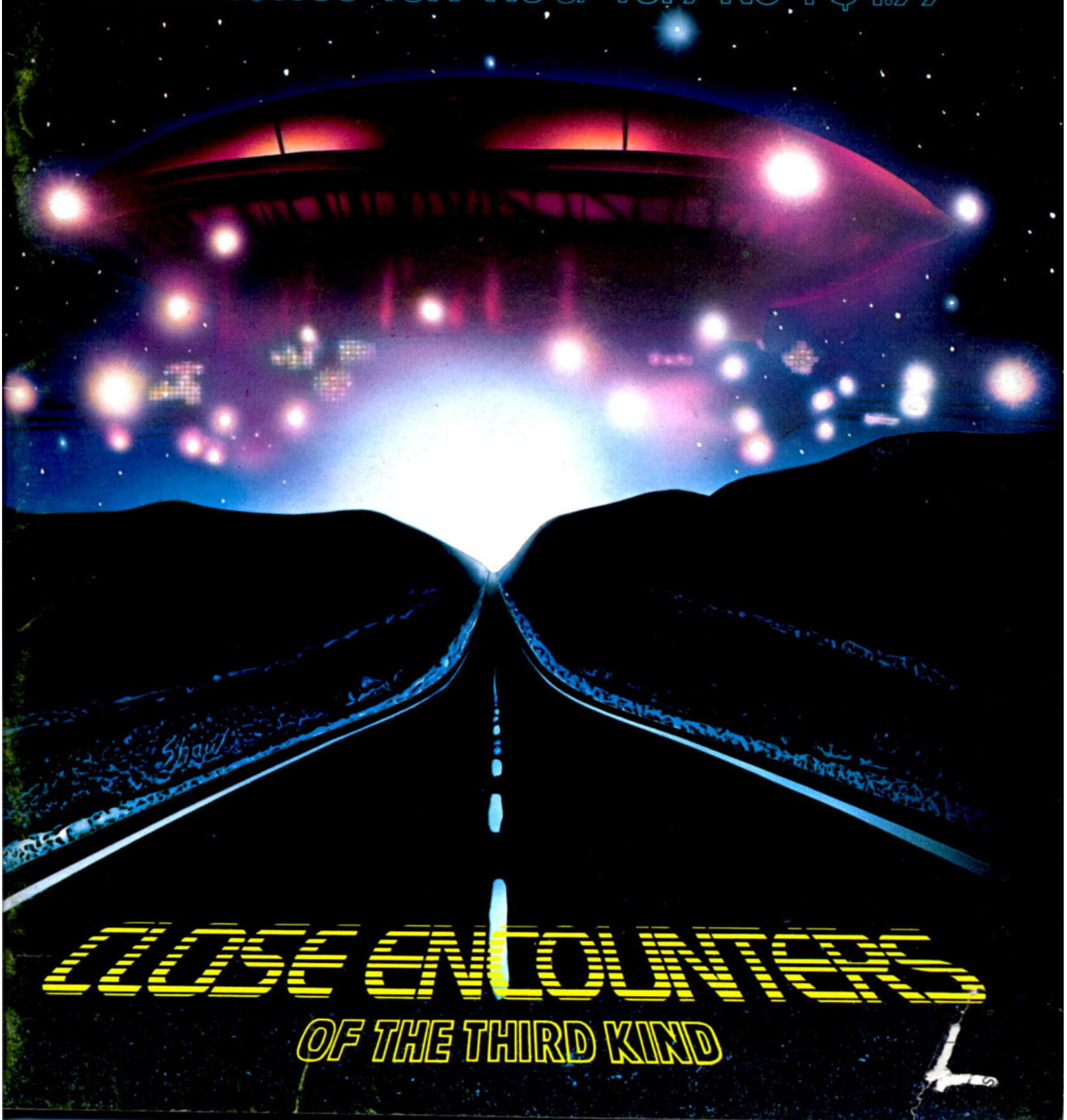
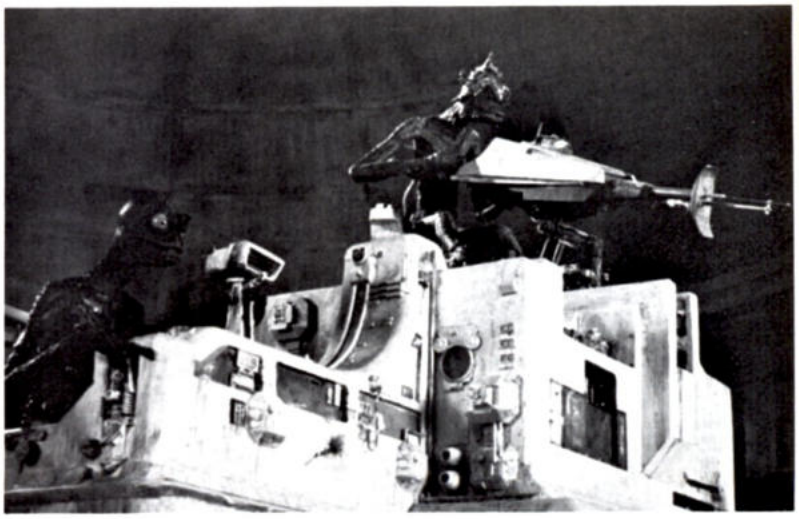


CLOSE ENCOUNTERS

OF THE THIRD KIND

THE PRIMEVALS

Next in CINEFANTASTIQUE (sin-eh-fawn-toss-teek), the review of horror, fantasy and science fiction films, David Allen's THE PRIMEVALS, a unique advance report on the pre-production of a multi-million dollar science fiction epic, to be filmed in dimensional animation and Panavision, a project which promises to be the most exciting, innovative genre film event in years! As producer, director, co-author, and special visual effects supervisor, Allen wields a degree of artistic control unprecedented in the field of dimensional animation films, the creative control to use the vast potential of dimensional animation to its fullest extent. Don't miss this exciting preview, illustrated with eight pages of full color photos, pre-production art, storyboard concepts and effects designs. Subscribe below, and receive your copy direct when it is mailed to subscribers October 2. Published six times a year, CINEFANTASTIQUE is a glossy, large-sized, 48-page magazine, with the latest in news, reviews and articles. A list of all 25 back issues in stock is sent free!



MAKING STAR WARS

A spectacular 96 page double issue, with 24 pages in full-color, including 23 interviews with the actors, artists and technicians who made STAR WARS possible. Ben Burtt, who devised the electronic voice of R2D2 and other dialogue and sound effects for the picture, calls this issue, "Without a doubt, the most complete, accurate, and interesting publication concerning the production to date." Over half the interviews are with the artists and technicians of Industrial Light & Magic, including its founder and supervisor John Dykstra, covering in detail the creation of STAR WARS' amazing special visual effects. Also interviewed are Cantina make-up artists Rick Baker, Doug Beswick and Laine Liska, production artist Ralph McQuarrie, producer Gary Kurtz, and many others, all illustrated with a lavish array of full-color, behind-the-scenes and production photographs never-before published! You can still get this valuable back issue, in limited supply, by ordering an eight or twelve issue subscription below. No single copy orders.

CLOSE ENCOUNTERS

Another spectacular 96-page double issue, with 24 pages of full-color photos, featuring an exclusive, exhaustive interview with director Steven Spielberg, a complete behind-the-scenes account of filming the special visual effects at Future General, and the never-before-told story of the creative genesis of the CLOSE ENCOUNTERS alien! Interviews with Future General's founder and supervisor Douglas Trumbull and thirteen key members of his visual effects crew reveal in detail the techniques used to film CLOSE ENCOUNTERS' ethereal, glowing UFOs, its wondrous Mothership, and more. Alien creator Carlo Rambaldi reveals the story behind the production of his amazing mehcanical extraterrestrial, including full color photos and Rambaldi's original concept and design sketches. Other alien creators, not credited, discuss their work, including full color photos of aliens not used in the final film. You can still get this valuable back issue, in limited supply, by ordering an eight or twelve issue subscription below. No single copy orders.

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*STAR WARS and CLOSE ENCOUNTERS count as double issues on Eight Issue $18.00 and Twelve Issue $25.00 subscriptions.

FALL FEATURES

SENSE OF WONDER
by Frederick S. Clarke

It gives me a great deal of pleasure to present this issue devoted to CLOSE ENCOUNTERS OF THE THIRD KIND for, despite my disappointment in the film as a whole, it is a milestone in the art of special visual effects. And it is to that aspect Don Shay devotes the bulk of this double issue in "CLOSE ENCOUNTERS at Future General." Douglas Trumbull and twelve members of his visual effects staff provide the most fascinating and detailed account of special effects production that we have yet published. And I think, once you have digested it all, you'll better be able to judge who best deserved this year's Oscar for Special Visual Effects.

Don Shay looks at other facets of the production in his accompanying articles. "CLOSE ENCOUNTERS Extraterrestrials" examines the technical difficulties involved in realistically portraying aliens on the screen. The creative artists involved describe three very different solutions to the problem. And last, but not least, Don Shay's interview with the writer and director, "Steven Spielberg on CLOSE ENCOUNTERS," provides an overview of the production in the most complete and exhaustive interview Spielberg has granted to date.

My problem with CLOSE ENCOUNTERS OF THE THIRD KIND is much the same as with STAR WARS. They're both pretty empty-headed. There's been too much talk about how *different* the two films are. Their differences are strictly superficial, mainly in Spielberg's loftier grasp for realism and characterization. In essence, both films are stupid attempts to *anthropomorphize* aliens. Spielberg's good-vibes star travellers, buzzing motorists in their UFOs, are the intellectual equivalent of the extraterrestrial barflies in STAR WARS: creatures in rubber masks doing cute things. I mean, that's about as interesting as Walt Disney anthropomorphizing a racoon, and having it do cute things.

Unfortunately, this kind of drek really appeals to a mass audience: it's instantly recognized and understood and not the least bit challenging—more pap for the "Laverne and Shirley" constituency. But it's real low-grade science fiction, hardly far-removed from the B-film crudity we've been constantly exposed to since 1950. For someone who so loved 2001: A SPACE ODYSSEY, it's a shame Spielberg didn't tap Arthur C. Clarke or some other writer in the field to get some decent ideas to work with. That could have been fun too, and far more satisfying. □

REVIEWS

NEWS & NOTES

PUBLISHER & EDITOR: Frederick S. Clarke. MANAGING EDITOR: Jeffrey Frentzen. CORRESPONDENTS: David Bartholomew, Dan Scapperotti (New York), Don Shay, Jordan R. Fox (Los Angeles), Mike Childs (London).

CINEFANTASTIQUE is published quarterly at P. O. Box 270, Oak Park IL 60303. Single copies when purchased from the publisher are $4 (double issues $8). Subscriptions: Four Issues $10, Eight Issues $18, Twelve Issues $25. Foreign subscriptions are no extra charge. No correspondence can be answered unless accompanied by a stamped, addressed envelope. Second Class Postage Paid at Oak Park, Illinois. Printed in USA.

RETAIL DISTRIBUTION: In the United States and Canada by B. DeBoer, 188 High St, Nutley NJ 07110. Other countries please apply to the publisher for our liberal discount and terms of sale.

With but a few notable exceptions, attempts by filmmakers to depict extraterrestrial life-forms have ranged from the disappointing to the disastrous. Decidedly terrestrial design criteria, calling for human actors in costume or varying types of mechanical contrivances, have seldom produced a convincing extraterrestrial or sustained a proper sense of wonder. And since the alien unveiling is most often a climactic high point in the narrative, what should be the big pay-off becomes instead the big let-down. Even as prodigal a talent as Stanley Kubrick—after months of exasperating experimentation on everything from exotic makeups to slitscan patterns—elected to let his extraterrestrials remain unseen in 2001: A SPACE ODYSSEY.

In part because *Kubrick had side-stepped this thorny problem, Steven Spielberg determined early on that the extraterrestrials in CLOSE ENCOUNTERS OF THE THIRD KIND* would *make a physical appearance. He further determined that they would not be grotesque multi-orbed blobs or sentient energy forms, but would instead conform to the general description of UFOnauts as revealed in a consensus of third kind encounter reports. They would be humanoid, four feet tall or less, with large heads and long arms.*

Since he originally envisioned using more than a hundred of the little creatures, Spielberg reasoned that designing costumes to be worn by children was the only feasible way of attaining his objective. He turned first to Oscar-winning makeup master John Chambers, whose ability to manipulate the human face and form had been amply demonstrated in such films as THE LIST OF ADRIAN MESSENGER, PLANET OF THE APES, and THE ISLAND OF DR. MOREAU. Chambers, however, was in ill-health at the time and declined the picture, suggesting in his stead, Frank Griffin, with whom he had worked on A MAN CALLED HORSE and EMBRYO. Griffin had started out in the motion picture business as an actor in Columbia B-westerns and was later signed to a personal contract by Howard Hughes at RKO. At age thirty, he abandoned acting for makeup, and his extensive film and television credits included WESTWORLD, STAR TREK, TIME TUNNEL, and others. Griffin was just finishing up on the telefilm SHERLOCK HOLMES IN NEW YORK and agreed to accept the assignment.

FRANK GRIFFIN

I had a meeting with the unit manager, Clark Paylow, and after we'd agreed money and got all that straightened out, I met

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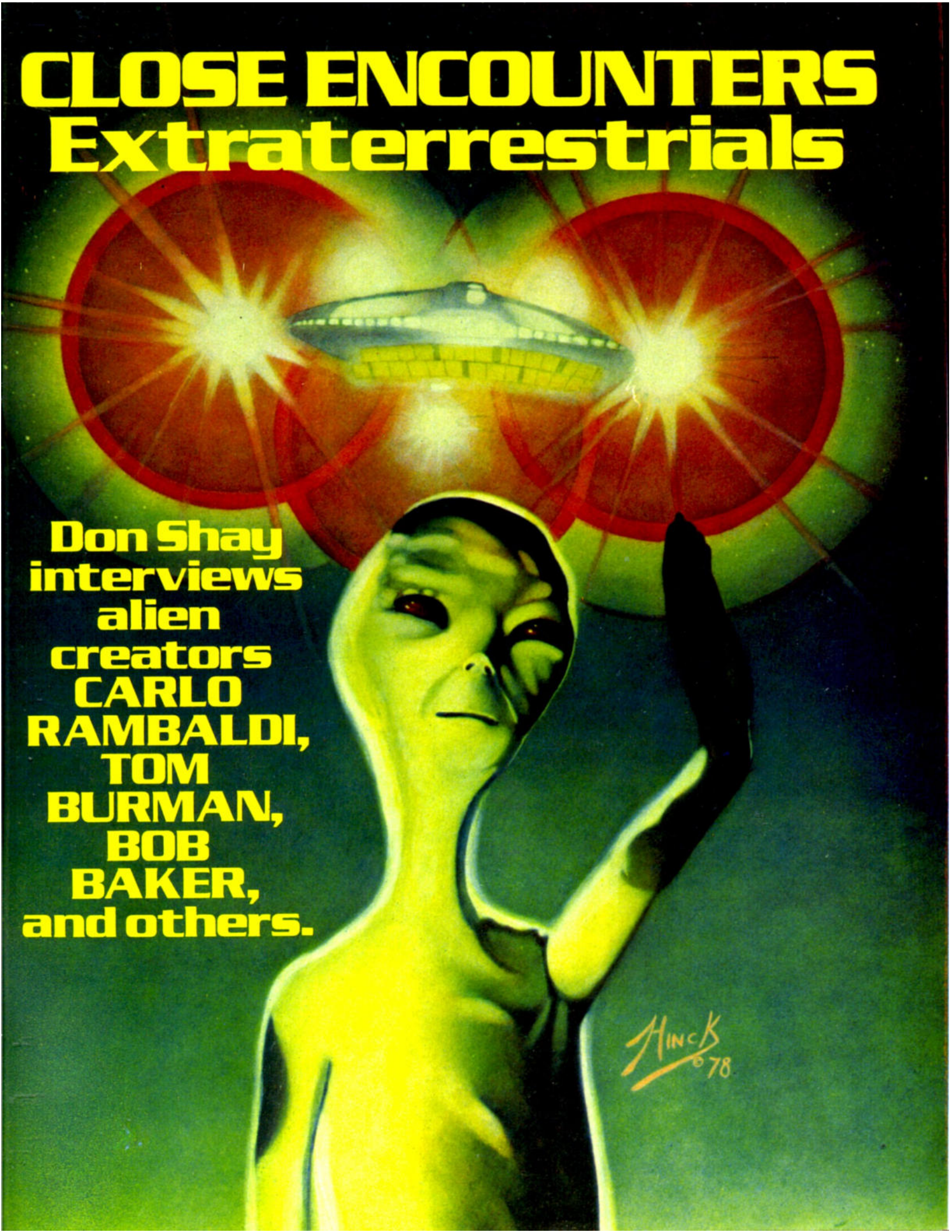
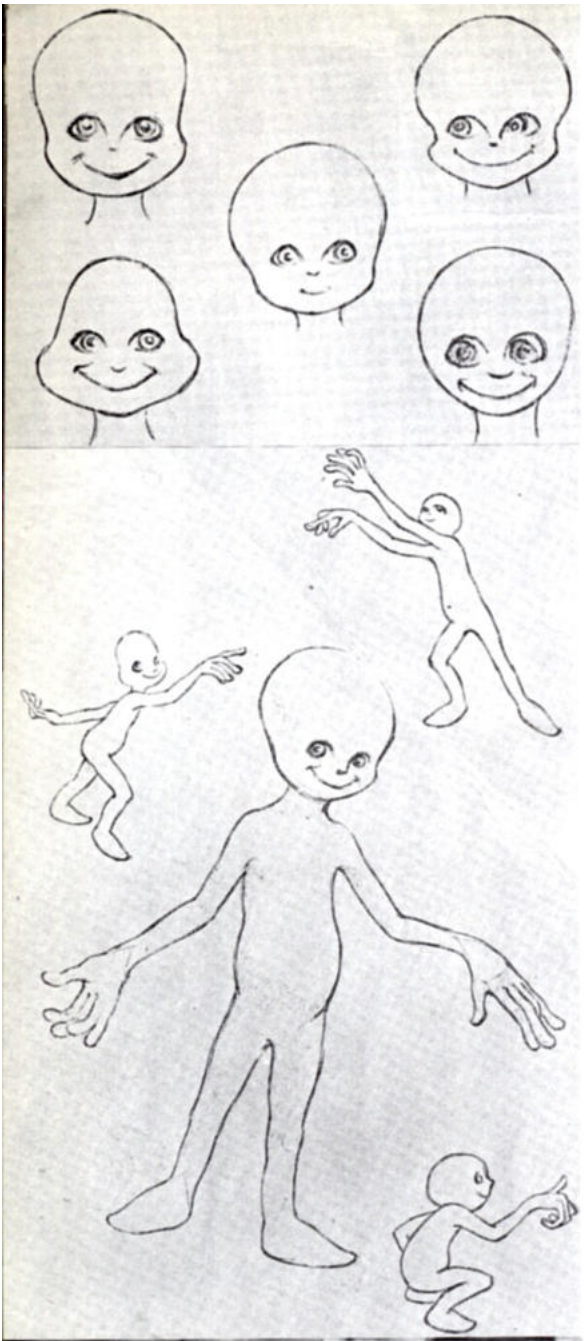
The creative artists responsible for the aliens seen in CLOSE ENCOUNTERS OF THE THIRD KIND. Top: Bob Baker with his marionette alien, the last one filmed, seen only briefly as the mothership opens its hatchway door. Middle: Tom Burman with an alien head as it comes out of the mold—no eyes and no mouth cut in yet. Burman manufactured, but did not design, the masks worn in the film. Bottom: Carlo Rambaldi, in front of the full-size sketches for his mechanical alien, sent to director Steven Spielberg for approval prior to construction. Only Rambaldi received credit in the film. Right: Artist Fred Hinck captures the impish, friendly spirit embodied by "Puck," Spielberg's benevolent alien concept beautifully realized by Rambaldi.

CLOSE ENCOUNTERS Extraterrestrials



Don Shay interviews alien creators CARLO RAMBALDI, TOM BURMAN, BOB BAKER, and others.

HINCK '78



Above: Sketches by The Burman's Studio of Steven Spielberg's concept of the extraterrestrial, which became known as "Casper, the ghost," for reasons that are self-evident. The elongated arms and articulated hands had to be abandoned because of budgetary and technical considerations. Bottom: Special effects makeup artist Tom Burman exhibits the three-piece mold used to form the slit rubber masks worn by the background aliens.

with the director. Originally, I was going to do the show with Eddie Butterworth, who is a really brilliant sculptor and makeup artist; but after we got about three or four days into it, that dissolved. Eddie wanted to go do something else—plus we didn't have a lab. I was determined not to use the lab on the studio lot because I knew the background over there and I figured our work would be all over town before we got the picture started. So that's how Tom Burman came into it. I needed a big lab; and he and his brother, Sonny, had one.

Tom Burman began as an apprentice makeup man under the tutelage of John Chambers, learning his trade on such films as A MAN CALLED HORSE, PLANET OF THE APES, and its sequels. In 1973, he went into business with his brother Ellis ("Sonny"), opened The Burman's Studio in Van Nuys, and worked on numerous films including THE DEVIL'S RAIN, PHANTOM OF THE PARADISE, THE MAN WHO FELL TO EARTH, and THE ISLAND OF DR. MOREAU. He won an Emmy in 1974 for his work on the PRIMAL MAN television series. For CLOSE ENCOUNTERS OF THE THIRD KIND, Frank Griffin was to devise a concept that met with Spielberg's approval, and coordinate the makeup activities with the director and anyone else concerned; Burman was to handle the laboratory work and the technical aspects of producing the aliens. It was then late-February 1976, and the extraterrestrials were to go before the cameras in June.

FRANK GRIFFIN

All together, I guess we had maybe eight or ten meetings with Steven Spielberg; but by then it was so hectic and there were so damn many problems, we might get only a minute or two with him. I liked Spielberg a lot. He was the hottest director in town, but you could still voice an opinion or tell him you thought he was wrong, and he'd listen to you. A lot of them get a little fame and they think they're God.

Spielberg's first idea was to have little alien forms with large heads and very long arms and fingers; and he wanted to use four- and five-year-old girls. So I said to him, "Do you have any children of your own?" And he said, "Oh, no." And I said, "Well I've had six; and let me tell you, a four-year-old girl is like a puppy—she'll play the game only so long." He said, "We're going to shoot in Mobile, so we won't have the problem there with the child labor laws or anything." And I said: "It's not a matter of that. A four-year-old child can only go so long and then she's out of gas." Eventually, I guess he settled on six- and seven-year-old girls, which is what he used.

Everything was always sort of abstract. He'd have all these sketches and he'd say, "I'd like a little bit of this, and a little bit of that—give me a little bit of that eye, and a little bit of that nose." So we'd end up working from bits and pieces of maybe eight different sketches. The original concept for the head looked sort of insect-like—almost like a cricket or an ant's head. Mike McKracken was our sculptor at the time, and it would take him about a week to come up with a rendering. Then we'd take it over to Spielberg and he'd say, "Well, that's *almost* right, but I still feel it should be this or that." What it amounts to is that it's just so damn hard to get into another man's mind and know what he wants. *He* knows, but all you can do is try to interpret what you think he wants. And even Spielberg was changing all the time—he was always bobbing and weaving and searching for some new angle. So we never got a firm yes or a firm no—it was always "a little bit of this; a little bit of that." Gradually it evolved into something we called Casper, because it looked like Casper the Ghost—but it changed again, even after that. We were on the show a good two months before we got the final go-ahead from Spielberg, but we *never* had a firm blueprint. And once they left for Mobile, we never saw Spielberg again until Tommy went down with the finished heads.

TOM BURMAN

Once we got the concept down, we had to make two kinds of heads. One was a closeup head that had to be articulated—the eyes had to be able to move up and down, and from side to side; and the mouth had to move. We built five of those; and since we couldn't expect the children inside the suits to trigger all the mechanisms by themselves, we designed them to be operated remotely with a small model airplane radio control set. Then we had about sixty background masks that were just slip rubber masks and sat on the kids' heads.

We did the basic modeling in wax, because it has kind of a high polish; and then we had plaster molds made. We made three different sizes for different sized kids. Except for the eyes, which were vacuum-formed plastic, the entire mask was just cast out of rubber—with rubber filler added to make it a little stiffer, so they weren't too flexible. They were originally cast without mouths because Spielberg wanted the creatures to have no mouths; but it turned out that the kids needed them to breathe, so we ended up cutting them in after we got down to Mobile. The skin was covered with a clear polyurethane to give it a kind of odd shiny texture, and then painted.

FRANK GRIFFIN

The heads were painted to match the costumes the kids would be wearing. Spielberg wanted tight clinging body stockings without any visible seams, so that in the back-lighting, you would never be sure whether the aliens were wearing something or if they were nude. His original intent was that they look very unisexual. That's one of the main reasons he wanted to use little girls—so there would be no obvious sexual organs of any kind. They tried shooting midgets; but of course, that didn't work, so they went back to the little girls. Wardrobe spent about three or four months looking for a fabric they could use, and finally ended up with a four-way stretch cloth, which tends to cling quite well; and once they finally decided on a color, they gave us a swatch of it and we'd try to match it.

For the articulated heads, Spielberg told us he wanted the eyes to track naturally, and follow you; but he also wanted the eyes to be able to move separately. It hap-

The Burman's Studio aliens, little girls in body stockings with rubber masks and hands, mostly edited out of the finished film.

pened to be really busy that year and all the good effects guys were tied up; but fortunately, we were able to get Del Rheaume. He was working on hydraulics and stuff for THE WHITE BUFFALO at the time, but we were able to get him to moonlight with us for awhile at night. Now, Del is really clever, but once he got into it, even *he* said it would be impossible to build a system where the eyes could move independently and then be able to lock back into a tracking system—at least if you wanted to make it small enough and light enough to sit on a child's head. We finally ended up using a model airplane radio with two controls. He could do just about anything with those eyes that a human could do, but they wouldn't move independently. What one eye did, the other had to do. Human eyes tend to cross or spread as distances close or separate; but once those eyes were fixed, they were fixed—which meant you had to maintain a certain distance from the heads or else the eyes would get kind of a staring look.

We shot some test footage at Columbia, but the little girl they had in the costume couldn't even keep her head up—it kept flopping forward or to the side. And some of those guys at the studio would say: "Why can't this little girl hold her head up? It can't weigh more than four or five pounds." So I said: "Figure body weight. The head's probably ten percent of her gross body weight. Could you hold up twenty pounds on *your* head all day?" So we decided to use little boys for the close-ups with the articulated heads, and use the little girls for the full-figure shots to maintain the unisexual look. They picked out six or seven boys down in Mobile, and Tommy and I flew down there around March or April to take head impressions of them.

TOM BURMAN

We needed an impression of the children who were going to wear the heads so we could come up with something that would fit each child exactly, because these things were going to be a little heavy and the kids had to support them. To give the articulated heads a bit of individual personality, we made three versions, all slightly different. David Ayres, my brother, and I each sculpted one, based on Mike McKracken's approved design. Sonny's and mine were duplicated to bring the total to five. We sculpted those heads over the castings we made in Mobile, and then made outer surface molds in a dental stone material—we needed those so we could use foam rubber, which requires a certain amount of curing time in an oven at about two hundred degrees. After we took the molds out, we had to lay a layer of clay on the inside, and then take another mold of the inside of that, so that we now had the outer skin and a mold for the armature that the skin would fit over. We made the armature out of fiberglass and used it to mount all our mechanics—servo motors and whatnot, to run the eyes and everything. This would then sit directly on the kid's head like the liner in a football helmet.

FRANK GRIFFIN

The hands turned out to be a real problem. We went all over town trying to find a good animator and finally ended up at a place called Show Craft. They made one mock-up hand for us, and it was really nice because the fingers could contract and flex and everything. But it took a long time to get into them because you had to strap them quite a way up the forearm in order to get a good firm movement. So I said to Steven, "By the time you get those heads and those hands on fifty kids, the first ones are going to want to be getting out to go to the john or something—and you'll never get a shot." Plus, the cost was just prohibitive. It was going to come to like five or six hundred dollars a pair.

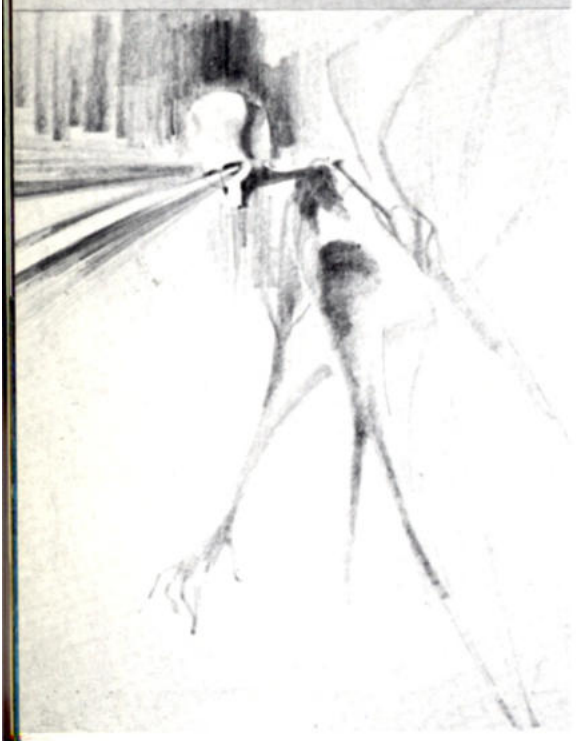
So Tommy took an impression of one of the kid's hands, and from that we made a false hand out of something called methyl methacrylate, which is used in dentistry—when it dries, it looks almost like bone or teeth. It had long, spindly fingers and we made it so the first joint covered the entire finger of the child's hand; and we put springs and levers in between so that by manipulating their fingers, the kids could bend all the succeeding joints. We had one pair made, but it took a little strength and the girl they had testing it just wasn't strong enough. We discussed it all with Spielberg again, and finally ended up just making the hands out of slush rubber. They were inanimate and fit on like gloves. The kids could move them a little bit with their fingers, but that's about all.


LEATHER

Bob Baker's String Puppet Alien

"What intrigued me about this figure was that there was no way a human being could have dressed up in a suit to play the part."
—Bob Baker

When the aliens supplied by The Burman's Studio proved unsatisfactory, Steven Spielberg first turned to puppeteer Bob Baker (right). Baker exhibits his five-foot tall prototype for a planned series of three or four eight-foot tall marionettes which were never built. Production illustrator George Jensen produced paintings of Spielberg's concept (inset and bottom left) for Baker to work from. The aliens had no feet and seemed to float through the air, their epidermis constantly regenerating, leaving the body and trailing off behind them.



Pencil sketches by production illustrator George Jensen of Steven Spielberg's concept for a marionette alien. Top: The figure stands slightly off-center with just a slight indication of humanoid anatomy in the limbs. Flowing epidermis, streaming off and blending into the alien's translucent skin, was to be achieved with transparent plastic materials. Bottom: This sketch illustrates the beams of light which were to emanate from the alien's eyes.

In February, Frank Griffin had taken on CLOSE ENCOUNTERS with the proviso that he had a firm commitment to begin AUDREY ROSE in late July. At the time, that presented no apparent conflict since CLOSE ENCOUNTERS was to have started principal photography in April and finished in June. However, by late July, the production was less than halfway through the hangar shooting and the extraterrestrial sequences were yet to come. Nevertheless, Griffin had to leave, and so Tom Burman assumed full control of the project.

TOM BURMAN

It took us three months to finish all the heads; and when we did, I took them down to Mobile and showed them to Steve Spielberg—and he didn't like them. He thought they looked too scary and he wanted something softer and more gentle-looking. And that really put me in kind of an awkward position. I was representing the heads, and yet I'd had nothing to do with the design or concept. Frank Griffin had done a couple of film tests with them and they'd been accepted at the time, so it wasn't Frank's fault. It wasn't *anybody's* fault. I guess Steve Spielberg just had a change of mind once he got on the set.

But when Steve Spielberg didn't like them, Julia Phillips panicked. She jumped all over me and was going to sue me for twenty million dollars, and on and on and on. She was really abusive. I'd spent some time in the Marine Corps, so she wasn't catching anybody for the first time, you know. I mean, this woman really came down on me heavy, and it just took me totally by surprise. Under any other circumstances, I'd have probably just walked out the door, taken my plane ticket, and come home. But I liked Steve Spielberg and I believed in the project; and I knew they were in a fix. So I just told her I'd see what we could do about it and what kind of corrections we could make.

I came back with my brother, and together we remade every one of those heads. The background masks only needed minor changes, so we were able to get by with just modifying our previous molds. But we had to re-do the articulated heads completely. Sonny and I sculpted several versions and sent Polaroid pictures to Spielberg by airplane. He called back and told us what changes he wanted made and gave us the okay. Fortunately, the mechanisms were already made, so it was just a matter of reskinning them—putting another look on the outside. We did the whole thing in about ten days, working day and night straight through.

Meanwhile, two other members of the Burman organization, David Ayres and Frank Massarella, remained in Mobile with the rejected heads to work with the children and help get them accustomed to wearing the cumbersome outfits.

DAVID AYRES

We started out with about a hundred of the little girls, but they dwindled down to about fifty after the first day or so. A lot of the kids were complaining about not being able to breathe in the masks, and some of the mothers were getting uptight because their kid only got a peanut butter sandwich when some other child got cheese. And then the kids got tired of putting on the masks and the hands—and they had padding all around to make them look less human and more cartoon-like. They couldn't see out the eyes. Instead, they had to look out the little nostrils on the mask, and the mouth. Some of them could not get used to it, but the ones that did would just pinpoint their vision through one hole, and then they could move it around and get a wide scan of everything. You could see them cocking their heads, and it looked very real. We finally ended up with about thirty-five kids.

In order to get them acclimated to the costumes, we had them practice doing things with the heads on. There was a dancer down there who'd been hired to work with the kids, and she'd have them do jumping jacks and shaking their fingers—kind of programming them for the shooting. She was there, more or less, to mother them all; but she used to drive us crazy, because she'd keep going around to the kids saying: "Are you feeling all right? This costume must hurt. Doesn't it?" And the kids are going: "Well, I don't know. Yeah, I guess it kinda does." And we'd be going around trying to keep her quiet so she wouldn't go talking the kids into anything.

Tom Burman returned to Mobile with the revised heads in mid-July; and intermittently, during the next four weeks, Spielberg shot thousands of feet of extraterrestrial activities—most of which never appeared in the final film.

DAVID AYRES

Spielberg was changing his mind drastically all the time. But he had guts. He'd try *anything* to see if it would work on film. You'd see him just kind of walking back and forth and pacing; and then he'd come up with an idea. He'd try it, and then he'd do it again—and then he'd try something different. They really shot a *lot* of film.

He filmed scenes of aliens coming out of the ship and going over to touch Truffaut and Dr. Hynek and some of the others. And it was really nice, because you saw the curiosity of these creatures. They pulled out Dr. Hynek's pipe and looked at it—and their eyes were moving—and then they stuck it in their nose and their mouth. And they pulled at his tie. At one point the camera was on a dolly mount and Spielberg went running around with it, in and out of this whole crowd of technicians, and people would be jumping away—like a subjective point-of-view for the aliens. And he had them open a can of Pepsi and it fizzed all over. He had a whole lot of wild, crazy ideas.

At one point, they thought the beings should be out of time sync, so they hired mimes for the technicians and had them do everything in slow motion as the creatures ran up to them. Then they slowed the camera down to shoot it, so when the film was run at normal speed, the technicians looked like they were moving normally while the creatures were flitting around like fireflies. I saw the rushes on that, and it was a nice idea—the concept was good—but it just didn't work out. It looked too much like silent movies. There was also supposed to be an antigravity field around the ship and the creatures were going to

Filming Francois Truffaut with the alien masks and hands fabricated by The Burman's Studio, mostly cut from the picture.

float all around. There were large beams that ran above the set, and on one of them was kind of a boxcar on wheels that they used for moving lights around in scenes where the ship is descending on the camp. They used that to locomote the kids. They would have a bunch of them all wired up, and they'd fly about and do spins and acrobatics. It was just like breaking into a spider's nest and seeing all the spiders scurry around.

They shot a lot of footage of the animated heads, with the eyes moving and everything. I thought they looked great and would have added a lot to the film, but I guess it just wasn't what Spielberg wanted at the time. For the really tight closeups, we found it was easier to get rid of the kids and just animate the masks like a hand puppet. They weren't designed that way, but that's what we ended up doing because we just couldn't get the kids to operate the mouths. I was working the mask for one scene when they decided they wanted to show the tongue coming out, so they painted my thumb red—for a while, I thought my thumb would be immortalized on film, but the closeups are all out.

TOM BURMAN

They were originally supposed to shoot only two days with the aliens, but they ended up shooting eight. They worked those little kids for twelve hours a day—and paid them almost nothing. I think they got something like $25 a day. But the little girls never complained. I had little girls climbing all over me—two or three of them; sometimes as many as five. You'd walk out on the set with the children hanging all over you. It was really tiring for them, and it was tough to keep their energy levels up. But they were better than the little boys. We brought the boys in because we felt they would be stronger than little girls, but it turned out that girls actually have more stamina at that age than boys do. The little boys faded out almost immediately.

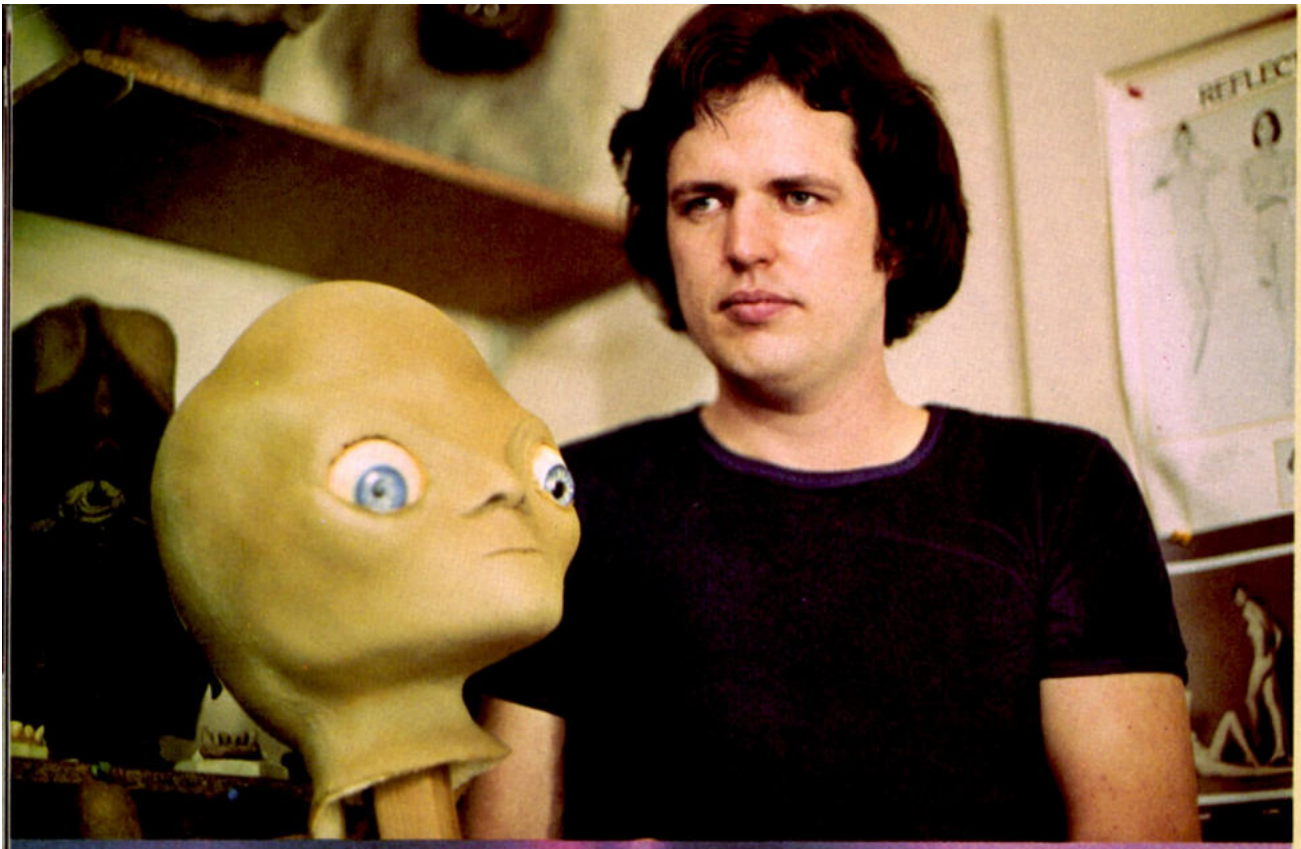
So it was a long haul. I hadn't really wanted to get that involved in it, right from the beginning, but ended up very deeply involved—and a little angry. The irritation was that after coming back and working around the clock like that—out of some sense of responsibility—I didn't even get screen credit on the show. Columbia even put out a statement disclaiming that I had ever worked on it.

Even before he had finished shooting them, Steven Spielberg decided that the Burman articulated heads lacked the degree of realism required for close scrutiny and that once he returned to Los Angeles for post-production he would explore other options. One of the first to submit a proposal was Spielberg's special photographic effects supervisor, Douglas Trumbull.

DOUGLAS TRUMBULL

My concept was to have a single extraterrestrial come out of the ship. It would be maybe twelve to fourteen feet in height. Very thin and gaunt—and almost transparent. If you've ever seen pictures of embryos, they have very thin skin and tissue and you can see the veins and organs inside. I wanted to make this being just like that. Sort of humanoid, but delicate and transparent so you could see his heart beating inside and the blood rushing through his veins, and you could see him breathing and watch his muscles work. And he—or she—would come out and stand up to full height, and do almost a mug shot type thing. He would hold his arms up and turn sideways and then backwards, and just move around slowly so the banks of guys with motorized Nikons and all kinds of meters and testing gear could get a total analysis of him. All this stuff would be coming up on graphs and charts, and people would be trying to assess it and figure out how he worked. It would have been much more of an attempt on the part of the extraterrestrials to reveal themselves, over and above any interactions they might have with Neary or the other characters.

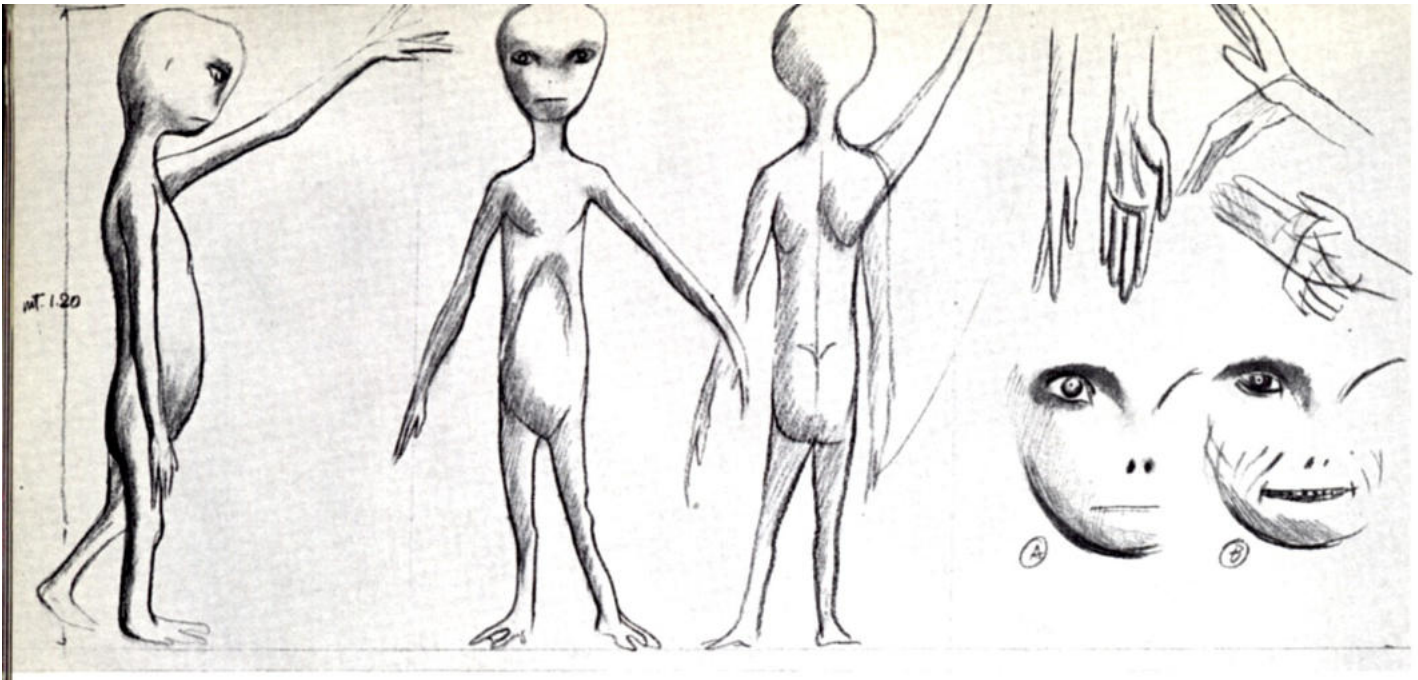
We would probably have had to build it in miniature, maybe four or five feet tall. It was sort of a complicated articulated puppet concept—not a puppet hung by strings, but a puppet operated by thin rods from behind, with all the moving parts isolated away from the being itself, so it wouldn't just be full of solenoids and valves and hydraulic actuators and stuff. All the rod movements would be activated with either electronics or mechanical cams, so you could completely choreograph and program whole sets of beautiful ballet-like



The Burman's Studio Aliens

"It took us three months to finish all the heads. I took them down to Mobile to show Steven Spielberg —and he didn't like them. He thought they looked too scary and he wanted something softer and more gentle-looking. That really put me in kind of an awkward position. I was representing the heads, and yet I'd had nothing to do with the design or concept. Producer Julia Phillips panicked, jumped all over me and was going to sue for $20 million."
—Tom Burman

For shooting in Alabama, The Burman's Studio fabricated five close-up heads with articulated eyes and mouths, and sixty background aliens, slip rubber masks, complete with suits, and hands cast in slush rubber and worn like gloves, with little or no finger movement possible. Right: Neary (Richard Dreyfuss) playfully interacts with the five close-up aliens prior to entering the ship for departure, in scenes that were cut from the final film. Inset: A background alien mask and suit, currently in the possession of Burman's Studio sculptor David Ayres, wearing his photo I.D. badge from the Alabama shooting. The suits were made of four-way stretch cloth to provide a tight, clinging body stocking with no visible seam, and were worn by six- and seven-year-old girls. Top Left: Ayres with one of the prototype closeup aliens. To obtain some degree of individuality among the aliens, two each of the five were duplicated from different prototypes sculpted by Tom and Sonny Burman. The close-up heads weighed roughly five pounds, with two remote model airplane radio controls for the eyes. Because of the added wieght, the closeup heads were designed to be worn by little boys. Bottom Left: A closeup alien interacts with Lacombe (Francois Truffaut). Spielberg discarded the closeup footage because the remotely controlled eyes moved only in unison, and could not be controlled to focus individually.



Carlo Rambaldi's sketches of his mechanical alien, sent to Steven Spielberg for final approval prior to actual construction. The sketch at left indicates the leg, arm, hand, and facial movement capabilities of the 1.2 meter model. The facial sketches at right illustrate head movement and the machanism used to make the model smile.

movements.

At $100,000, Trumbull's extraterrestrial concept proved too costly for Spielberg, who was already thinking in terms of a more conventional puppet-type creature with a long, protruding neck and arms capable of wrapping around a human several times. He first envisioned a creature which could be manipulated from below, but after an unsuccessful bid to interest Muppet-creator Jim Henson in the project, he turned to the Bob Baker Marionette Theatre.

Bob Baker had started out in the picture business as a set builder, puppet maker, and animator on the George Pal Puppetoons. He left Pal shortly before the series was discontinued, and began designing and manufacturing puppets for sale in department stores. He subsequently opened his own marionette theater in downtown Los Angeles, and as a sidelight, over the years had contributed marionette work, usually uncredited, to a number of films–Roger Corman's first independent production, THE MONSTER FROM THE OCEAN FLOOR; George Pal's TOM THUMB; and several Disney features, including BEDKNOBS AND BROOMSTICKS and ESCAPE TO WITCH MOUNTAIN. He also did work for such television series as STAR TREK, VOYAGE TO THE BOTTOM OF THE SEA, and THE WILD, WILD WEST.

BOB BAKER

Joe Alves gave me a call in October and asked if we could build something according to a design. I said sure. He told me he couldn't say very much about it, but he'd drop off the designs. I was out of town when they arrived, but when I got back, I looked at them and thought, "Gee, I'd really love to do something like this"–they were really kind of way out. So I had a meeting with Steven Spielberg, who has a very imaginative mind. He was going along ninety miles an hour: "Can you do this? Can you do that?" And I'm saying, "Yes, yes, yes." So it was decided then that we'd build a prototype–one prototype for three or four others that would be built on a much larger scale. After the meeting, George Jensen made up a full-scale drawing for us to work from.

The thing that intrigued me about this figure, in the beginning, was that there was no way a human being could have dressed up in a suit to play that part. *Nobody* has those kind of proportions; and there wasn't any way you could stretch the human body, even through trick photography, to make it look like that. We were never told anything about the rest of the film, and we were left to work pretty much on our own. Every once in awhile, George would come by and let us know if we were on the right track. There were four of us who were really involved with the figure: Roy Raymond did some of the internal metal things on it; Ho Kusudo helped me make the arms, which were very complex; Dino Williams did all my plastic work; and I guess I kind of lived with it the most of everybody. It's one of the few things in the last few years that I've really wanted to be part of, and do as much of–myself–as possible.

Our alien was about five feet tall, with long arms and legs and torso, and with a head that sat on the end of a very long neck which came forward in a kind of lazy "S." We didn't want to scare people with it, but we wanted to give it the look of maybe an evolved human being; and so we made it as though things that were no longer needed within the framework of the body were being eliminated. Everything was mental–they no longer needed such things as feet, so we had no feet on it. It was kind of a transitional being. The epidermis was constantly regenerating–leaving the body and trailing off behind. And you could see inside the creature and watch his heart beat and see him breathe–the whole chest cavity would go up and down. His temples would pulsate and you could see the brain moving inside. And all this was done with strings and springs and wire–a little bit of everything. Also, in the beginning, they wanted to have light beams coming out of the eyes. So we came up with a little battery-powered light that we beamed through a prismatic device–when the eyes moved, the beam moved with them. But I guess Spielberg thought that was a bit too theatrical by the time he got around to shooting it, so he didn't use it. In fact, *most* of the things we built into our puppet weren't really visible on the screen.

In December, shortly after Baker had begun actual construction on his marionette, Steven Spielberg attended a screening of the new KING KONG and was taken with the sophisticated facial movements designed into the ape heads by Carlo Rambaldi. In twenty years of creating effects for European film companies, Rambaldi, a noted sculptor in his native Italy, had perfected a means of mechanically animating a wide range of otherwise inanimate objects. He had been brought to the United States by Dino De Laurentiis to apply that technology to KING KONG–most obviously in the forty-foot mechanical monstrosity De Laurentiis insisted upon, but also in the seven ingeniously-articulated heads which invested the man-sized Kong with such a wide range of expressions. Following KING KONG, Rambaldi devised the mechanical systems for another De Laurentiis picture, THE WHITE BUFFALO, and then returned to Rome.

CARLO RAMBALDI

Steven Spielberg contacted me in January and asked me to come to the United States to discuss an extraterrestrial creature that he needed for CLOSE ENCOUNTERS. When we met, he told me he wanted something about four feet tall, with a very large head and a slender body, but he gave me no actual designs. So I went back to Rome to develop my concept.

I felt that, though humanoid in form, the extraterrestrials would be at least ten to twenty thousand years more advanced than humans, so I designed the head proportionately larger. But with their increased reliance on pure intellect, they would have a decreased need for such senses as hearing and smelling, and so the ears and nose and other facial features would become much less prominent. And because of their extreme technological orientation, I felt they would no longer smile broadly as we do on earth; but since they would still retain certain emotions, I gave them a slight smile. Also, as the brain expanded, other parts of the body would take an opposite course. The need for muscular movements would diminish, and so their limbs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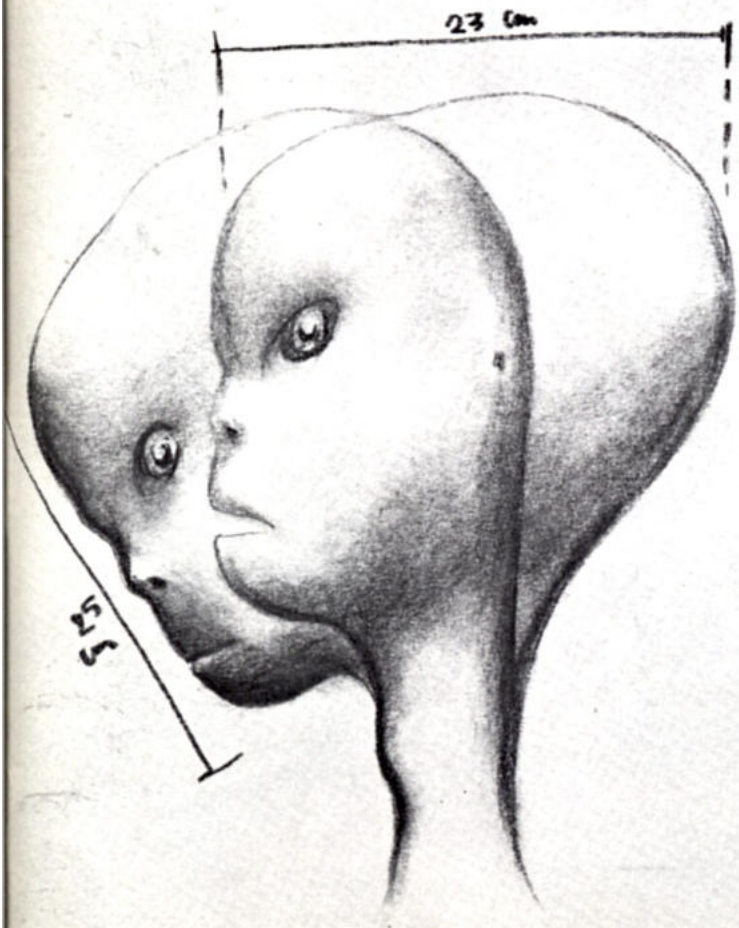
G. RAMBALDI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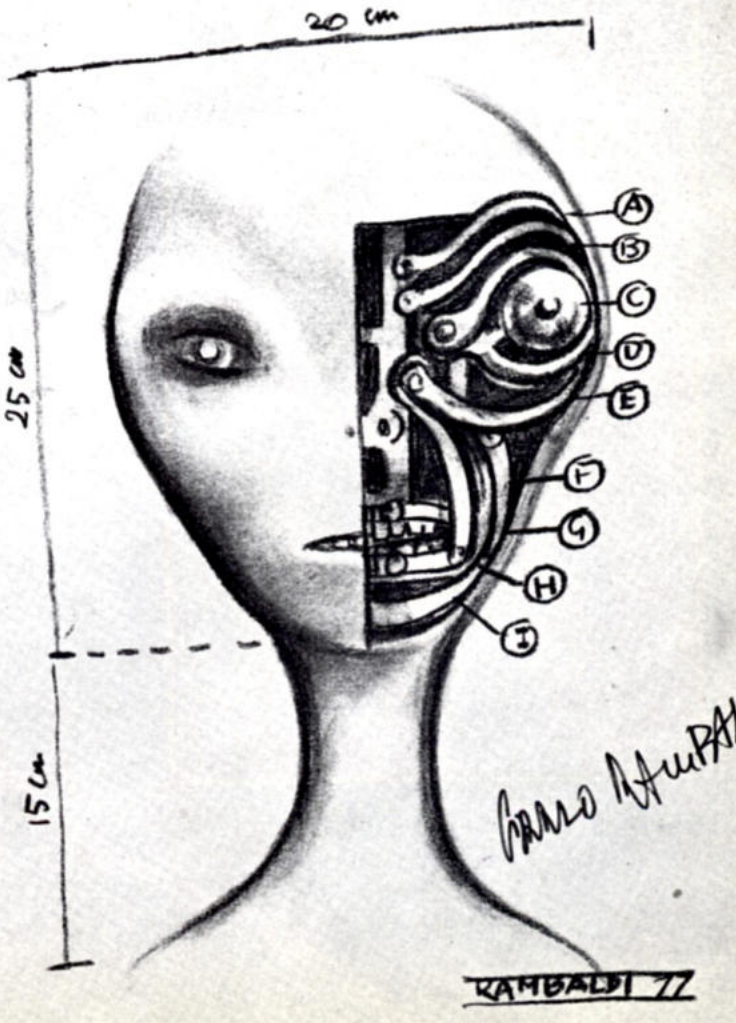
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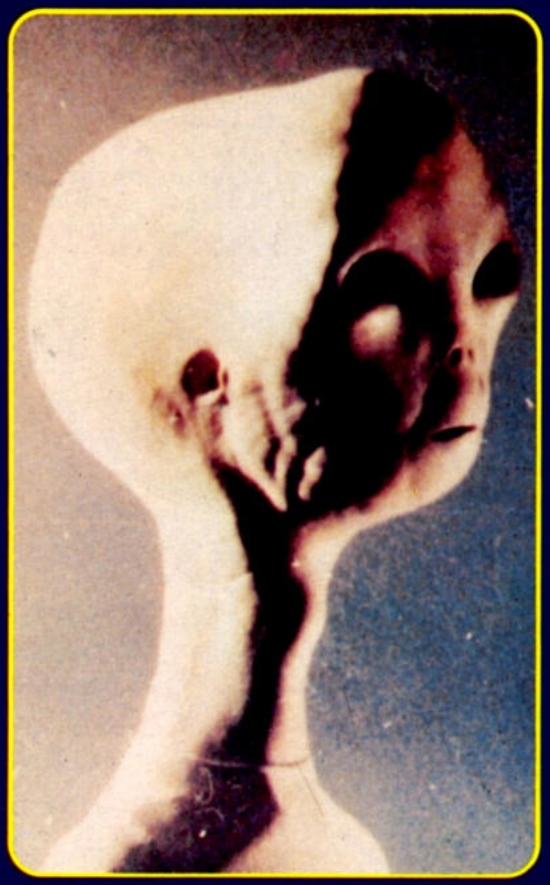
RAMBALDI 77

"Puck," Carlo Rambaldi's Mechanical Alien

"All of the movements were accomplished with flexible cables. Each was connected to a mechanical joint or muscle and ran down through the body and out at the feet. The cables connected to levers, and by manually moving the levers controlling the head, for instance, the cables would either push up or pull down on the mechanical muscle next to the skin to create a facial expression."

—Carlo Rambaldi



would become thinner and longer.

I prepared several sketches of my design and sent them to Spielberg. He said it was exactly what he wanted. We made a contract agreement over the phone and I started to work. I sculpted the form of the creature first in clay, and then made a positive and negative mold. In the negative part, we fused a special polyurethane skin, which was about a quarter-of-an-inch thick, and very realistic. Like human skin, it even changes color when pressure is applied to it. This was fitted directly over a skeleton framework of aluminum and steel. The skull was made of fiberglass, with pieces cut away for the concealed mechanisms used to move the eyes and create expressions.

All of the movements were accomplished with flexible cables. Each was connected to a mechanical joint or muscle and ran down through the body and out at the feet. The cables connected to levers, and by manually moving the levers, the cables operated just as human tendons would. By manipulating the levers controlling the head, for instance, the cables would either push up or pull down on the mechanical muscle next to the skin to create a facial expression. I prefer using a mechanical system rather than an electronic one because I think the human hand is capable of producing a more natural and subtle movement. Also, there are certain places in the body where it would be impossible to install electronic devices, even though miniaturized, because of limited space. For example, I could not have implanted an electronic device in the elbow of the extraterrestrial and yet retained the natural flow of the creature.

When I came back to the United States in March to receive my Oscar for KING KONG, I brought my work with me. I also brought Isidoro Raponi, one of my four assistants from Rome; and along with Dick Cobos, an American makeup specialist, we finished it up at Columbia Studios.

The extraterrestrial had fifteen cables, one for each required movement. It took seven just to operate the facial expressions, and another five to create the arm and hand signals. Esophagus and chest movements we accomplished by pumping air from cylinders in through tubes. We also constructed a walking mechanism which would allow it to take two steps, but that was not used in the film.

Steven Spielberg was very pleased with my extraterrestrial. In fact, he spent a lot of time playing with it. He especially liked the smile; and during the filming, it was he who operated the levers controlling it. All together, it took eight people to operate all the mechanisms and we practiced with it for almost a week before shooting to get it perfect.

BOB BAKER

We had several false starts and design changes, and so it took us three or four months to finish our marionette. But then it just sat around. I had things set up in the studio two or three times so Spielberg could come in and see it in a proper setting, but he never showed up. But we knew he was busy, and so we blessed him and wished him well and went on waiting. Then in May, all of a sudden, he called and wanted us to bring it out to the studio so he could take a look at it. So we took it over there and hung it in an old stage at Columbia—absolutely the most unfavorable conditions in the world. Then, to make it worse, I didn't recognize Spielberg the second time I met him. Usually when you're dealing with directors and producers, a red carpet comes rolling down and there's a big flurry of activity—so you're kind of prepared. Not here. Spielberg strolled in and sat on the set, and said: "What have you got there? What does it do?" I didn't think he was anybody in particular, so I'm just sort of casually showing it to him when I suddenly realize who he is. Talk about embarrassing. Anyway, he took a look at it and just kind of nodded and said: "Yeah, it's kind of interesting. We'll shoot a test tomorrow."

I took my whole crew out the next day and we sat on the stage for twelve hours and didn't do a thing. So we took it all down, and they said: "Can you be on call tomorrow from eight o'clock in the morning until ten? We'll call." By noon, they still hadn't called; so I called them. They said: "Hang in there. We'll give you a call." Well, we hung in there for two-and-a-half months and never heard a word.

Spielberg's enthusiasm for Rambaldi's alien—"Puck," as he called it—completely overshadowed his previous plans to produce several eight-foot-tall marionette creatures. And by the time "Puck" had been photographed—in late May and early June—Spielberg had decided to abandon the marionette concept altogether and use only the Burman extraterrestrials in the background shots and Rambaldi's for the critical closeups. By September, however, he was having gnawing doubts. With only three weeks remaining before the sneak preview, Spielberg decided he wanted the Baker marionette after all.

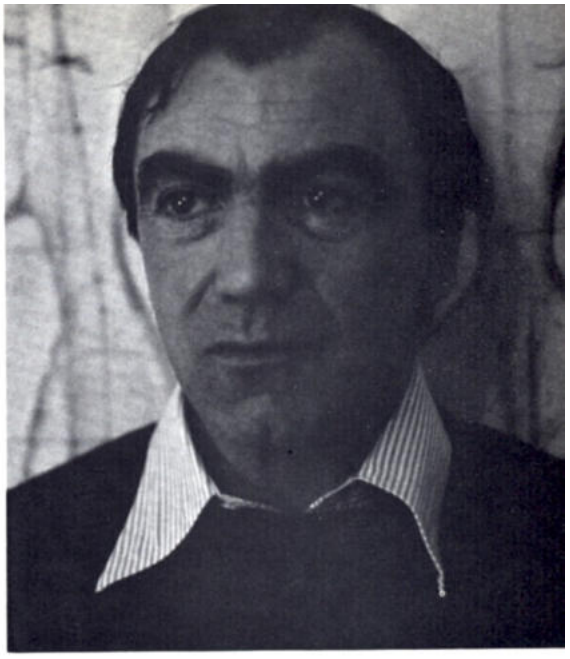
BOB BAKER

Not long before the opening, I got a call from the vice president of Columbia Pictures, and he said: "I hear you have a prototype hanging around there. Can we shoot it?" And I said, "Sure." And he said, "You're not going to stick us, are you?" And I said: "Of course not. You're in the business of making films; I'm in the business of supplying things. Why should I stick you?" After all, we'd been commissioned to do the job, and it was just hanging there. Why not use it?

Since Spielberg was already up to his ears in last-minute details, he called upon Doug Trumbull to direct the marionette sequence; and upon Trumbull's director of photography, Richard Yuricich, to shoot it. A set was being hastily constructed at Columbia, but in order to get an idea of how the alien would photograph in the light-diffusing smoke environment they planned to use. Trumbull had Bob Baker and his crew hang their marionette in the Future General smoke room, where the film's flying saucers had been filmed.

RICHARD YURICICH

We shot a quick test in the smoke room to get an idea on the exposures. Then, the next day we shot the actual footage on a stage at Columbia. We didn't shoot in the smoke room because it wasn't big enough, for one thing; but also because the area was so confined, that with the smoke densities we were using, the room was a virtual bomb. We didn't have that problem with the saucers because we were using fairly low light levels—I don't think there was ever any light inside that room bigger than a 2K. But we needed an enormous amount of light to shoot the marionette. We used about three HMI arcs, which is even more than was used on the stage in Mobile, because we were shooting the marionette in slow motion. So, with all that light, we didn't want to take a chance of igniting the smoke and blowing anybody up.



Carlo Rambaldi

Since they wanted to make the puppet look as though it were a few feet taller than a man—maybe ten feet tall—the whole front section of the mothership was built in miniature on the stage. We had Greg Jein involved while the construction crew was building the set in scale to the marionette. It was just a series of black flats and reflective material; and even though it was a miniaturized version of what was in Mobile, I think it still measured about thirty feet across. Columbia supplied a few of the original electricians from Mobile to help match the lighting, and we were able to do all the shooting in one day.

BOB BAKER

We had only two days notice to shoot; and unfortunately, the puppet had been hanging around so long it had dried out. Originally, the skin was nice and pliable but just the air hitting it had made the thin plastic we used sag and get brittle. We had to practically re-do the whole thing—tighten it up, replace some parts, and re-glue. It was a real bugger. And we were afraid we wouldn't be able to get the same smooth actions again. If we'd known how little they were going to use of it, it would have been no problem. It was capable of doing a lot more.

The marionette had from twenty-five to thirty strings—it varied, because some were removed or added, depending on the shot. And stringing it was a sonofagun, because we had to use such fine line. I had eight puppeteers on the thing—any fewer and

Filming Carlo Rambaldi's Alien

the controls would have been ungodly complicated, because there were so many parts and the strings were so long. Then we had two people on the floor. Sometimes we needed to hold the figure down so it wouldn't sway, so we'd put strings on from below that they could steady it with. There was a special catwalk built for us above the set; but unfortunately, the carpenters who built it didn't understand what they were doing and they positioned it so it was almost impossible for us to work off either side of it. And then the sound stage was filled with diesel smoke, and our eyes burned and we couldn't see what we were doing. Everybody had gas masks on, and Doug Trumbull would be down below yelling things up to us that we couldn't understand; and we'd be yelling things back to him that he couldn't understand. The whole thing was really pretty funny, and it's surprising it came out as well as it did.

When we built our alien, the plan was for it to walk forward, bend down with a very deep bow, and gesture toward the ship with his arm. We were able to do very beautiful hand and head movements, and even in its grotesqueness, it seemed a sympathetic character to us. We were very pleased with the work, especially since it was just a small prototype. If we'd gone on to build the others, as originally planned, they were going to be eight-and-a-half feet tall and we'd have had more volume to work with and could have gotten even more into it. But they didn't want anything very complicated at this point, anyhow. We only did about six different shots —each done a couple of ways—and I think there were about three major set-ups. We started pretty early in the morning, and by about eight o'clock that evening, we were done.

Of the major players involved, only Carlo Rambaldi received screen credit for his extraterrestrial. Tom Burman, who had failed to contract for credit, was nevertheless of the opinion that he had a verbal commitment from the producers to acknowledge his work. He credits Julia Phillips with seeing to it that it was not, and openly resents the fact that his extra efforts on behalf of the production went unrecognized, and apparently unappreciated. Bob Baker is more philosophical, conceding that most producers striving for realistic effects are understandably reluctant to list "Bob Baker Marionettes" among the contributors. And in any event, the end title credits were probably already completed before the decision was made even to add the marionette alien.

Whatever the reasons for credit given or withheld, or for sequences used or set aside, CLOSE ENCOUNTERS OF THE THIRD KIND must ultimately be judged by the images it projects onto the screen and into the mind. And while the suspension of disbelief may not have been total, at least the extraterrestrials work within the context of the film. In that, Steven Spielberg had clearly succeeded where so many of his cinematic predecessors had failed. □

A studio technician (upper right) pumps smoke onto the backlit set during the post-production filming of Carlo Rambaldi's alien on a Columbia sound stage. The individuals ringing the set are manipulating a series of levers (standing upright in foreground, right) to activate the cable-operated creature. Alien designer Carlo Rambaldi supervises, center. His assistant, Jerry Zeitsman, left, operates the levers controlling movement. Inset Right: Producer Michael Phillips (right) and director Steven Spielberg (center) look on. Spielberg operated the smile mechanism of the alien during filming.

Steven Spielberg was born in Cincinnati, on December 18, 1947, but spent most of his youth in northern Arizona. His interest in making films dated back to childhood, and in his early teens he commandeered his father's 8mm movie camera and began "directing" the family vacations. In successive years, he made numerous amateur productions, ranging from westerns, to horror films, to a war picture intercut with authentic battle footage lifted from other sources. His most ambitious effort was a 2½-hour epic called FIRELIGHT, which concerned a scientific investigation into sightings of strange lights in the sky. After graduating from high school, Spielberg enrolled in California State College, Long Beach, where he spent more time making experimental films than he did on his studies.

A 35mm short subject, AMBLIN'—about two young hitchhikers—won him awards at the Venice and Atlanta Film Festivals, and led to a seven-year contract with Universal, which he signed six weeks before his twenty-first birthday. Over the next three years, he directed about a dozen projects for television, including the first NIGHT GALLERY feature, starring Joan Crawford; the telefilm SOMETHING EVIL; and episodes for THE NAME OF THE GAME, MARCUS WELBY, and other series. His most notable achievement during the period was DUEL, a Richard Matheson story featuring Dennis Weaver as a beleaguered motorist singled out for harrassment by a homicidal truck driver. Spielberg's direction was taut and suspenseful, and DUEL's overseas release garnered large boxoffice returns and a number of international awards.

DUEL helped Spielberg land his first theatrical feature, THE SUGARLAND EXPRESS, for producers Richard Zanuck and David Brown. A film in the comedy chase motif, THE SUGARLAND EXPRESS starred Goldie Hawn as a distraut mother who helps husband William Atherton escape from prison in order to rescue their baby from involuntary adoption proceedings.

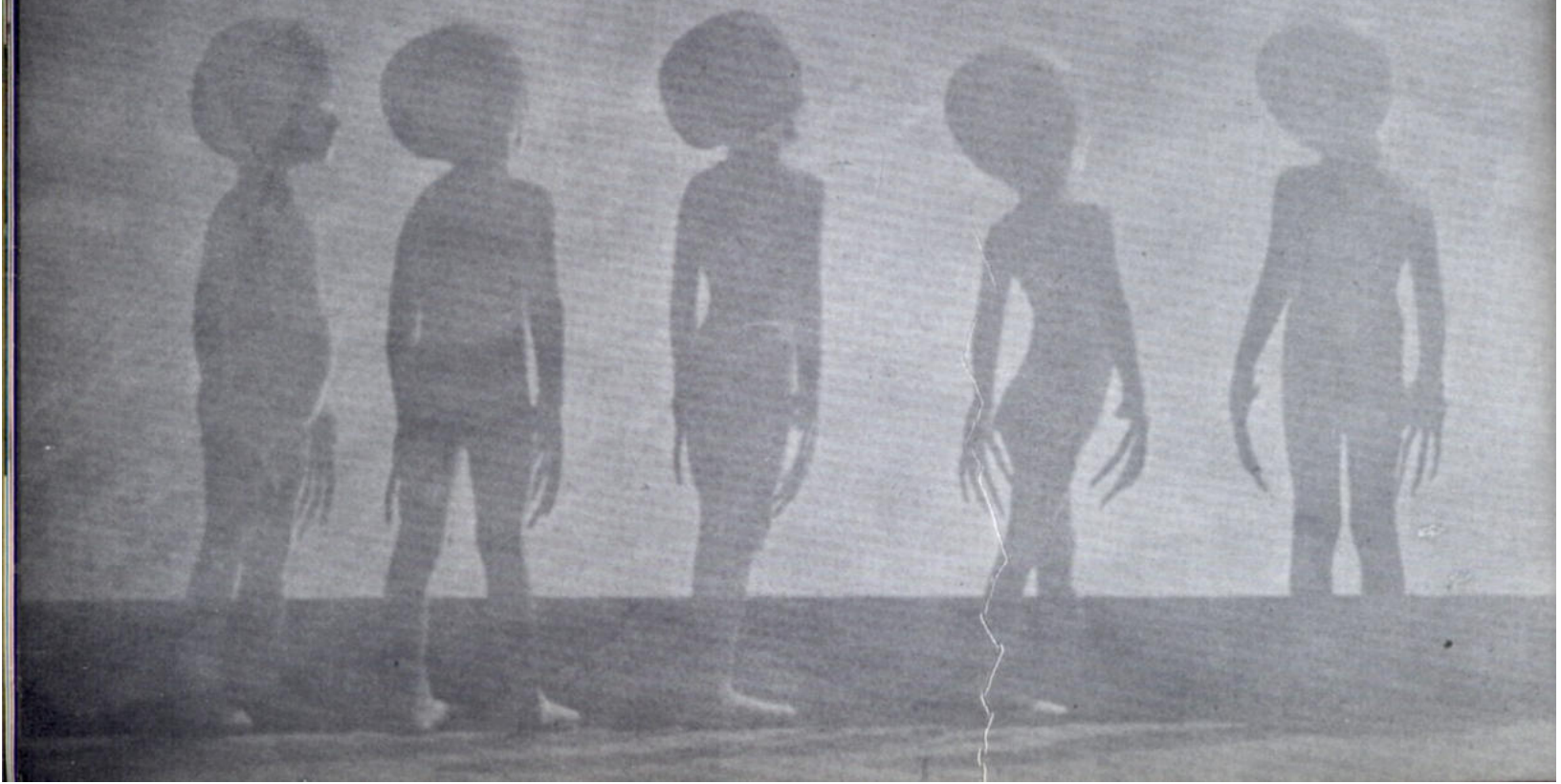
"Had I gotten all my concepts on the screen, we'd still be shooting today. We just ran out of time and money. I had three or four major set pieces that I was in love with that just never got past the R-and-D stage. There was an entire sequence of what I called cuboids, which were going to be like small, fist-sized, self luminescent ferry boats—thousands of them—and I developed over three hundred concept drawings with George Jensen, my sketch artist. The cuboids were to ferry the Mothership from one side of Devil's Tower down to its landing position on the other side."

Steven Spielberg

Though well-received critically, it was largely overlooked at the boxoffice. His next feature, however, proved quite the opposite. Happening upon the yet-unpublished galleys of a Peter Benchley novel in the Zanuck-Brown offices, Spielberg managed to convince the producers that he should direct the film version. JAWS, about an Eastern seaboard resort area terrorized by a great white shark, created an international sensation, earned more than $200 million, and thrust its young director firmly into the public eye. On the crest of his success, Steven Spielberg decided next to explore the UFO phenomenon.

Now that CLOSE ENCOUNTERS OF THE THIRD KIND has gone past the $100 million mark, can you think back a bit to November, just before the opening? How confident were you that CLOSE ENCOUNTERS was going to be a success—particularly on the heels of STAR WARS, which was a similar, but at the same time very different, type of picture?

Frankly, I was confident that CLOSE ENCOUNTERS would *not* break even. At the same time, however, I was also the person who said JAWS would only make $30 million. So you can't listen to me, because when it comes to predicting boxoffice success, I'm probably among the worst crystal ball readers. In a way that's good for me, because I'm insulated against failure by expecting it; and then when it doesn't happen, I can enjoy the success that much more because it's an added bonus. But I was pessimistic about it, because in order to just simply break even on CLOSE ENCOUNTERS, we had to be among the top eighteen motion pictures of all time—and that's a little mind-blowing. I just didn't expect to have two in a row. Nobody expects one mega-hit, let alone two. So, I was not one of those running around saying CLOSE ENCOUNTERS would be a big hit. I was just running around saying, "I hope Columbia can get their money out of it." And then when it became the hit that it did, I was probably the happiest



Steven Spielberg on CLOSE ENCOUNTERS

Interview by Don Shay

Roy Neary (Richard Dreyfuss) enters the mothership, flanked by alien hosts on each side, a magical moment which typifies Spielberg's good-vibes handling of his extraterrestrial theme.

Poloroid shots of one of three alien designs sculpted by The Burman's Studio and sent to Steven Spielberg during shooting in Mobile for his final OK. Spielberg rejected the first set of masks as being too frightening, and requested a softer, friendlier look for the aliens. The other two designs are shown on pages 24 and 26.

of everybody involved.

Did the Columbia executives share your pessimism?

They were too frightened to share my pessimism—they had more to lose than I did. I would just go on and direct another movie, but they would go down with the lady who holds the torch.

If you'd known the cost was going to escalate to $18 million, would you have been afraid to tackle it in the first place?

No, I don't think so. I think I would have made the picture it if had cost $21 million. It was a movie I'd always wanted to make, and I would have gone to great lengths to make it—whether I did it here in this country, or elsewhere. Somehow I would have found the money. It's a movie I'd wanted to make for over ten years, and I figured—especially after the success of JAWS—that I might as well take advantage of that success and get all the money I needed to make this picture right. I'm certainly glad I didn't try to make it *before* JAWS, because at one point I was going to make it right after THE SUGARLAND EXPRESS. But I knew I couldn't make CLOSE ENCOUNTERS for 2½ million. There was no possible way. With the state of the art being what it is and inflation being what *it* is, especially within the film industry, a picture that depended a great deal on state-of-the-art technology couldn't be made for 2½ million.

What prompted this interest in UFOs in the first place?

Well, it began when I was about six years old, I think. I'm very good at procrastinating—even as a kid, I was a great procrastinator. I'd always push things off till the eleventh hour. And I'd spend a lot of time just looking up at the sky. My parents thought it was strange, but I was a real stargazer. Before I was eight, I got into astronomy. My father was into science fiction; I've never cared for it that much, myself. But I remember one night he got me out of bed at one o'clock in the morning to see a meteor shower, and I was absolutely fascinated—I wanted to know what put those points of light up there.

I separate the UFO phenomenon from WAR OF THE WORLDS and EARTH VS. THE FLYING SAUCERS and things like that. For me, the UFO phenomenon has a belief structure which is rather remarkable when you look at the Gallup figures. So, I took it all very seriously—I didn't want to do a slick sci-fi film. I wanted to do a picture that sort of bordered on Ripley's "Believe It Or Not." And that interest stems back to childhood.

How extensively did you research your subject? And how closely do the UFO sightings in CLOSE ENCOUNTERS relate to real cases?

Well, let's put it this way—I ingested a lot of information, but what came out was pretty much representative of my imagination more than documented facts. The design of the UFOs was my own. That was something I just did by making lots of black-and-white pencil drawings with arrows and notes indicating the colors I wanted. But even though the light display on the UFO was mine, the idea of intense acetylene light was something that has been reported tens of thousands of times by witnesses all over the world. It wasn't as though somebody in New Jersey saw a nuts-and-bolts craft with rivets, whereas somebody else in the Ukraine saw a platter of brilliant lights going from red to yellow. There was real uniformity in global reporting, so that a report from Africa was pretty much the same as a report from California. So I based a lot of the UFO design on that plasmic firelight.

Why did you decide to use so many different types of UFOs—to account for differences in actual sightings?

No. I just didn't want the film to be visually boring. I wanted to have a Ferrari and a Lamborghini and a Ford and a Cadillac and an International Harvester—and I wanted every model our imaginations could come up with, and I wanted to fill the sky with a real circus-circus of UFOs.

Films always go through an evolutionary period, and since the origin of this one dates back ten years, I suspect it changed a lot as it developed. How did CLOSE ENCOUNTERS evolve from your original concept to its present form?

The first thing that I remember doing was sitting down and writing a short story called "Experiences," and this was back about late 1970. It was not aimed for the screen and it was not aimed for publication—every once in awhile I just write short stories. It's a great way of exercising. And this story was about lovers' lane in a small midwestern town and a light show in the sky overhead that these kids see from inside their cars. That was my first piece of writing on the UFO idea—the first scene that went down on paper. And it was to the tune of "When You Wish Upon A Star," sung by Jiminy Cricket. That scene and that song never made it into the movie, but I think the mood has prevailed.

Was it always your intention to portray it from a common man's point of view? Your original story would suggest that it was.

Not really. My early thought was to make the leading man an Air Force official whose job it is to debunk UFO sightings, who in turn has an experience of his own—a second kind encounter—that he cannot possibly debunk. It changes his life and takes him into the next phase of encounters. But I threw that concept out because I find it very hard to identify with anybody in uniform—from military to policemen to registered nurses, you name it.

A favorite theme of mine has always been the ultimate glorification of the common man—the Cary Grant character from NORTH BY NORTHWEST, or even the Roy Scheider character in JAWS. A typical guy—nothing ever happens to him. Then, all of a sudden, he encounters something extraordinary and has to change his entire life in order to measure up to the task of either defeating it or understanding it. So that was my theme in CLOSE ENCOUNTERS.

I understand that Paul Schrader wrote the first full script, or at least one of the early versions. What was the basis of that script, and why, ultimately, was it not used?

Well, ultimately it was not used because it was a bad script. Paul went off into a room, locked the door, and came out with what I would consider to be a movie more closely resembling his own Calvinistic beliefs. It had little to do with the UFO phenomenon, and *nothing* to do with the movie I wanted to make. It's a script I've almost entirely forgotten; I think I read it once.

Steven Spielberg directs Richard Dreyfuss as Roy Neary, lost in his truck, at the crossroads of his first encounter.

But that was the end of Paul Schrader, at least as far as CLOSE ENCOUNTERS was concerned. I have a great deal of respect for Paul's writing; I think he's a sensational writer. I guess it was really my fault—I just didn't cast the script properly. But it certainly gave me the courage to say: "Well, if this is what Paul can do, I'd better roll up my sleeves and try it myself. I can't do any worse." So I jumped in and wrote five or six scripts over the next two years.

Were there any other writers besides Paul Schrader?

No. There was just me.

What led you to select Devil's Tower as the central image for the picture?

I needed a key image for Neary's obsession—something that was unforgettable, and incredibly obvious. But it had to have visual simplicity. It would have been very difficult to have the poor guy building Monument Valley in his mashed potatoes—or Mount Rushmore. So we got a book called *Great Mountains of the Western Hemisphere*; and Joe Alves, the production designer, got on an airplane and looked at every national park in this country. He came back with pictures of over twenty-five mountainous formations, and the one that stood out the most—it literally leaped off the page—was Devil's Tower.

Your base of operations was the largest indoor set ever constructed. Did you give any consideration to doing it as an exterior?

Yeah, a lot. But I knew what weather could do to you outside. We lost, I would say, several million dollars on the JAWS location because of weather; and I didn't want to take that chance with CLOSE ENCOUNTERS. I wanted full control of that environment. Also, in order to successfully matte in our flying objects, we needed a very dense black area beyond the lit set. And sometimes at night, when the mist comes in, you get a fog filter effect, which would have contaminated the black areas and made it impossible to pull a believable matte. So that was a major consideration. Also, we rented millions and millions of dollars worth of actual scientific hardware and software, and we couldn't take the chance of ruining that equipment because of rain or snow or blowing dust.

Was the size of your set determined by the size of the biggest building you could find to build it in?

No, we worked ass-backwards. After Joe Alves and I conceived the set, Joe built a model of it that we both fell in love with. It was beautiful, but *gigantic*. And then, when we found out that no sound stage in the world could house anything that big, we said: "Screw the sound stages. Let's go out and find a blimp hangar somewhere." So the size of the original concept on the Joe Alves miniature pretty much dictated the size of the enclosure we needed to contain it.

The first place we went looking was Tillamook, Oregon, where they built dirigibles back in '42. It has the largest interior dirigible hangar in the country today. But housing the crew was a problem, so Joe located another available hangar in Mobile, Alabama, and that became the spot.

Why did you elect to shoot that one short sequence in India?

I didn't want everyone to think of the UFO phenomenon as an American conceit. I wanted to get across the fact that UFOs are a global phenomenon. My first screenplay actually traveled to three foreign locations, and I wanted one of them to be a country where spirituality is much more important than just pragmatism. I wanted a society based on thousands of years of beliefs, and I felt that people in India would be much more likely to accept, without question, something phantasmagoric, than say, people in the Bronx. Statistically, though, India has the least amount of UFO sightings of any country in the world.

In some early news releases, Columbia indicated that after your filming in India, you intended to go to Brazil for some additional photography.

Well, I was going to have the discovery of Flight 19 in Brazil, but I decided to change that to the old fighter planes in the Mexican desert, which panned out directly at the end with the recovery of the lost crewmen. I was raised in the desert—I spent eleven years in Scottsdale, Arizona—and I just felt the opening sequence of the picture should take place in a violent sandstorm. Also, I was tired of traveling. And tired of getting those cholera shots—I got seven shots for India, and I didn't want seven more for Brazil. So I decided to shoot the whole thing in California at El Mirage Dry Lake, and call it the Sonora Desert, Mexico.

You had a sequence in your script

Poloroid shots of one of three alien designs sculpted by The Burman's Studio and sent to Steven Spielberg during shooting in Mobile for his final OK. The bottom shot shows an alternate design for the alien shown here and on page 22. These prototypes were quite similar to the final close-up masks. A third is shown on page 26.

where a long-lost ocean freighter is dicovered in the middle of the Gobi Desert. Was this replaced by the fighter planes as well?

Right. I thought it was redundant, and I wanted to save it for the sequel.

Doug Trumbull was in charge of producing the visual effects for CLOSE ENCOUNTERS, and you have a credit for visual effects concepts. What did that entail, and how did the two of you interface?

Well, first of all, I wrote a very visual script that pretty much gave credence to a lot of what would later be called special effects. I had also produced over fifteen hundred concept drawings, in black-and-white and color of the various craft, the Devil's Tower landing site, the mothership. Just about every visual image in the film was preconceived a year before Doug became involved. So I did, indeed, design the visual effects. But I'm not an engineer, and I'm not a matte artist, and I don't know how to hire a good special effects crew. I had pretty much come up with the recipe for the cake, but the cake hadn't baked yet because the oven hadn't been built—Doug built the oven.

I set up my editing facility in Marina del Rey so I could cut the picture right next to Future General—it was about a five-minute drive. I wanted to cut *in* Future General, but we needed all the space for the smoke room and for the Oxberry and the matte stand and the staff offices. So we got an apartment right next to the Marina where I could cut in the morning and spend the afternoon at Future General, or vice versa. I pretty much rationed my time between both places.

Doug Trumbull was a complete turn-on. We worked together closely, and I looked forward to seeing him every day. It was, I think, what you could call stimulation-sharing. I would give Doug an idea, and then he would give me an idea; and we'd just kind of bounce things off each other until a new idea grew out of an old one.

To what extent did you actually direct the special effects at Future General?

Well, nobody *directs* special effects—that's impossible. But if Dave Stewart were shooting a UFO, I'd sit with him and describe the move I wanted—how the saucer should tumble; where it should turn; at what point we should have lens flares for a couple of frames; and so on. We would do this all on the Moviola, or on paper—or on the X-Y plotter. And then Dave would sit down and program the motion control system to accommodate these moves. Everybody pretty much directed themselves.

Was Future General able to give you everything you wanted in the picture?

Not a hundred percent. Had I gotten all my concepts on the screen, we'd still be shooting today. We just kind of ran out of time and money. I had three or four major set pieces that I was in love with—and had been for several years—that just never got past the R-and-D stage. There was an entire sequence of what I called cuboids, which were going to be like small, fist-sized, self-luminescent ferry boats—thousands of them—and I developed over three hundred concept drawings with George Jensen, my sketch artist. The cuboids were to reconnoiter the "dark side of the moon"—or DSM, which was our nickname for the base of operations—and then eventually ferry the mothership from one side of the mountain down to its landing position on the other side.

At one point, Roy Arbogast built some physical cuboids for me. We had about a hundred of them built and flying around the hangar, and we were going to combine them with some computer generated animation that Doug Trumbull was going to develop. But they couldn't make 180-degree turns, and they were far too dangerous—if you touched one, you'd die instantly. They were suspended on bare wires with thousands of volts shooting through them. And since it was such a safety hazard to fly the cuboids near people, I was forced to use long lenses to give the impression of cuboids wending their way through the technicians. It just got too dangerous and too time-consuming—we were getting like two shots a day. I shot the cuboids for three days in Mobile and then I threw the concept out.

I understand that you got your inspiration for the mothership design from an oil refinery.

That's an interesting story. It was actually more than that. The first concept of the mothership was something that Joe Alves came up with about three years ago, which was going to be a wedge. It looked like a piece of pie, only it was completely flat on one side and totally black. So when it came across the sky you wouldn't even know that anything was there; but then the stars would begin to disappear overhead until you were suddenly aware that some huge object was blocking your view. Only the stars on the perimeter of the object would define the shape. At first, I called it the "phantom carrier"—that was sort of my nickname for it—because it wasn't going to have any lights. Then, at the last moment, a corona of brilliant sunlight would erupt from the bottom, and thousands of little red points of light would explode on the underbelly. And that was the very first concept of the mothership.

But then, when we were shooting in India, I kept passing an oil refinery twice a day for six days in a row. We would leave for the location at four in the morning and get back about eight at night; so it was dark both coming and going. And on each trip I'd see this *monstrosity* of an oil refinery. It was dirty and unkempt, and it was lit by thousands of small hundred-watt bulbs. We even stopped the car at one point so I could get out for a better look. There were pipes and tubing and catwalks and stairs all over it, and it looked very much like an M. C. Escher painting. It was a fascinating place.

This was in February '77, which was kind of late to start building an entire new concept for the mothership, but when I got back to Los Angeles I described the refinery to George Jensen in detail and he did a color rendering of it. Then, that very same night, I was up on Mulholland Drive—a little stoned—and I got on my head on the hood of my car and looked out at all the lights from the San Fernando Valley upside down. And I thought that would be incredible as the underbelly of this oil refinery from Bombay. So I took those two concepts—a city of light inverted beneath a gothic Escher design—and George did a few sketches. They were still pretty ethereal, though; so I suggested we hire Ralph McQuarrie, whose paintings I really admired from STAR WARS. So, Doug called Ralph, and we all had a meeting. Ralph

Top: Steven Spielberg holds a flashlight while Doug Trumbull makes some special effects calculations in Mobile. Middle: With Trumbull, Spielberg checks the line-up on a shot using the motion control camera. Bottom: Spielberg goes over a sequence on the effects storyboard at Future General with Trumbull.

saw Jensen's sketches and he said, "Well, let me take these home and work out something myself." Whatever Ralph did in the privacy of his home, he came back with what ultimately became the mothership.

Your decision to have the mothership rise up from behind Devil's Tower was certainly an unusual one.

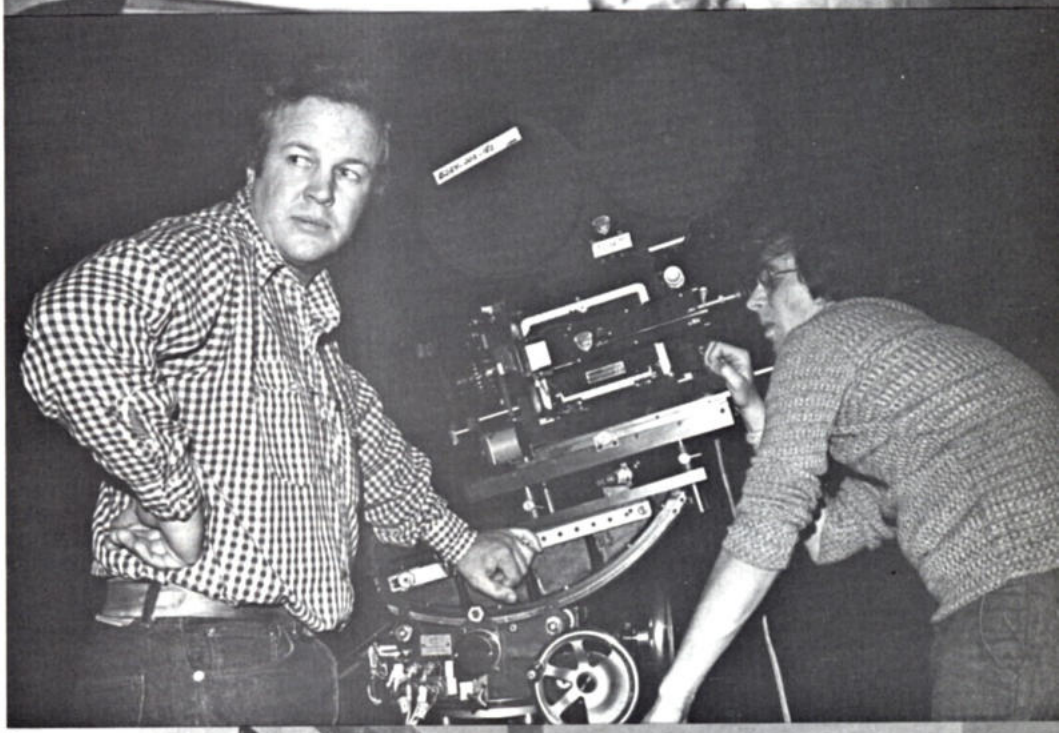
That was another concept I had back in early February of '77. I had George Jensen put it on paper and I gave it to Doug and said, "Whatever the mothership eventually winds up looking like, this is how it should be introduced in the picture—in a long shot as it rises up from behind the mountain." The natural assumption, of course, would have been for it to come from the sky—that wouldn't have been a great surprise. But to see it moving from the ground up, making a mid-air turn, and then landing on the other side of the mountain—I just felt that anything that gothic in appearance needed an eccentric introduction, and I was looking for something at that moment to top everything that had gone before it.

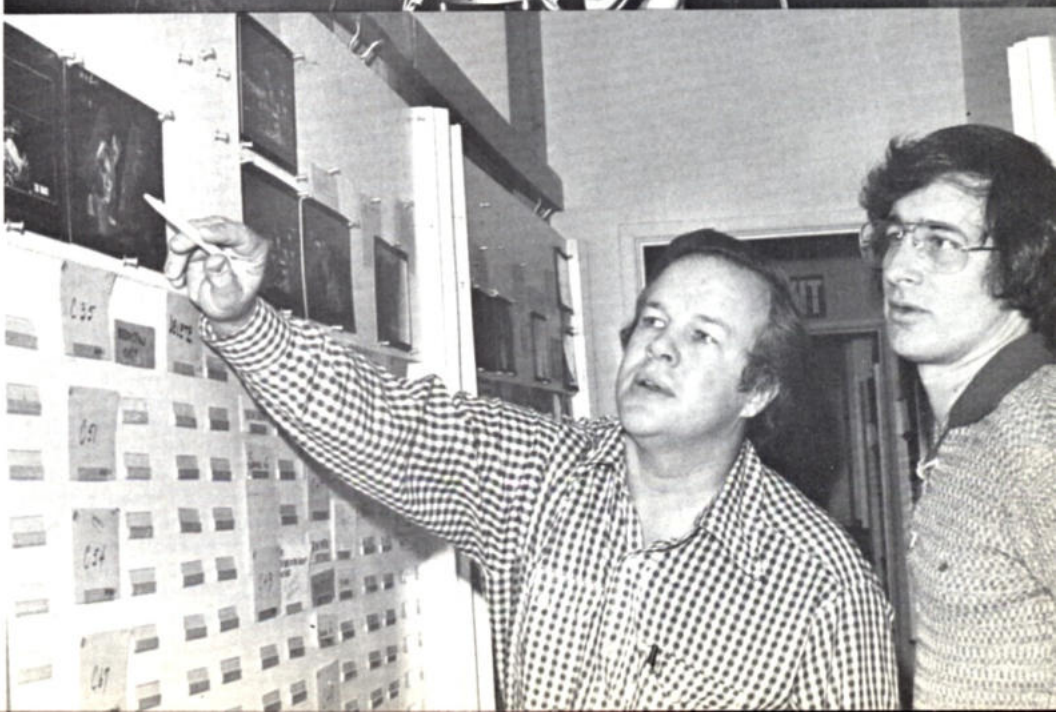
Did you give any consideration to the fact that it would be unlikely for a ship of that design to be stressed for both deep space and for pressures near the earth's surface?

Well, I figured they would have easily solved that problem. My original plan was to have a negative gravity zone around the entire mothership, so that every time a technician got anywhere near the ship, he would suddenly lose his balance and float three or four feet into the air; and other technicians would have to toss him a rope and pull him back into our center of gravity. We did extensive tests on that concept. We rigged seven or eight people to fly, including a man in a wheelchair who would suddenly tumble out and float seven feet in the air, with his wheelchair—wheels spinning—right next to him. Roy Arbogast was supervising all those physical effects, and they were wonderful ideas. But I was walking a very fine line between the credible and the ridiculous; and at that point in the movie, I felt it was a little too tongue-in-cheek for what was about to come with the ETs emerging. It was just too late to play THE TURNING POINT three feet off the ground.

How did you come upon the idea of using music as a form of communication?

That was one of my very first ideas—maybe third after "When You Wish Upon A Star." I think if I weren't a film director, I'd be a composer and a conductor—it's my second love. Johnny Williams told me about the solveggio method which allows composers to speak to each other musically by calling out numbers; and I began reading about a Russian composer, Scriabin, who actually tried some experiments along this line. When communication finally took place between the scientists and the extraterrestrials, I didn't want it to be the obvious thing—telepathic communication. And I certainly didn't want it to be the Richard Carlson alternative: "Take me to your leader." I wanted something unique and not





Poloroid shots of one of three alien designs sculpted by The Burman's Studio and sent to Steven Spielberg during shooting in Mobile for his final OK. This concept is significantly different from the one finally used, and would have required alteration of the background masks as well. Other designs shown on pages 22 and 24.

seen before, and I felt that music was a real universal sign. I really found some mathematical values in communicating with tones and intervals.

Was there any particular significance to the five tones used?

Nothing more than the fact that the intervals were far enough apart, and that the tones were pleasant to the ear, and also unresolved—meaning the last note raises up one tone. When Johnny was sitting at the piano going through two thousand permutations—which took all day, as a matter of fact—the one thing we decided on right away was that we weren't going to write a doorbell jingle or a commercial rhyme. We didn't want it to resolve itself; we didn't want it to make a statement. We wanted the last note to beg for a response.

It wasn't entirely clear how the musical hand signals fit into the whole idea.

Well, the hand signals are simply the Kodaly-invented hand signals for every note in the pentatonic scale. For every tone there is a hand signal, and eventually, an entire alphabet could be transcribed.

In the sequence where the alien returns the hand signals, was that just imitative of Lacombe?

Strictly imitative. In my mind, the being never grasped the significance of the signals.

Was it always your intention to actually show the extraterrestrials?

Yes. That was something I always wanted to do. I never pretended that I would leave that up to the imagination of public. But I also knew that it was the most dangerous move I could possibly make with this movie, and that even Stanley Kubrick had chosen the safer course. But I just didn't want to do that; and I think especially because of 2001, I didn't want to *not* show the ETs.

The thing that saved my ass on the aliens was the idea of photographing them against a furnace of light. And that was in my first draft screenplay—I described the light and mentioned that it distorted the humanoid images and made them even more pipe-cleanerish in appearance. And that's pretty much what I tried to do. We never played the ETs anywhere but in front of that harsh back-lighting, and every ET shot was about a six-stop overexposure. I remember one day we had three days' of dailies that we so overexposed there was no image at all—those *instantly* became sound leader. But I tried to give myself the best of both worlds—both seeing the ETs, and at the same time, not really seeing them. I wanted you to have to strain your eyes to see through the light to interpret what was on the screen.

It never occurred to me, incidentally, that it would be anything but a friendly encounter. And I was frankly amazed at the plethora of questions from the American press, asking: "Why weren't they hostile? Why didn't they fight? Where were the tanks? Where was the ordnance?" I was amazed that anybody would ask me that after seeing the movie. I never intended to make the visitors and the phenomenon anything but benign and pixieish. It just never entered my mind to engage in laser warfare with beings from outer space. Within the UFO phenomenon, there's never been a reported death among all the thousands of reports from around the world. So even that research fortified my belief that the experience would be a quantum leap for man in the sciences *and* the humanities.

What was your original design criteria for the extraterrestrials?

Well, the first design criteria was that it would be humanoid. It was never going to be a form of energized plasma, or something like that. It was always intended to be a confirmation of the global reports about ETs—they would be under four feet tall, with spindly arms and spindly legs, and would pretty much behave like children.

The alien masks that were worn by the children down in Mobile were made by the Burman's Studio. Were you happy with them?

No, I thought the Burman aliens were a complete disaster. Somehow, when you held a concept drawing up next to the actual finished mask, there were just too many liberties taken in interpretation from the two-dimensional drawing to the three-dimensional bust. I rejected the first batch outright and sent them back. When the second batch arrived, I just sighed and said: "I've got to get out of Mobile. I'll be able to do the sequence much better if I can just re-think it later and do it in Los Angeles." And that's pretty much what happened.

So, all the Burman masks were shot in Mobile, and all the closeups were done in Los Angeles. The Burmans had designed some masks with moving eyes and things which I committed to film, but they looked just exactly like masks with servos running the eyes. We did shoot a lot of ET stuff in Mobile, but most of it is not in the film. We had kids flying and tumbling and spinning; and we had encounter sessions with the ETs—forty of them would surround one individual, like Lacombe or Dr. Hynek, and just touch and feel him. They would feel the sides of Francois Truffaut's mouth, and they'd take Dr. Hynek's pipe away from him and put it in one of the openings in their faces. I shot at least ten thousand feet of what I guess I'd call primal encounter scenes. But once again, they bordered on the ridiculous; and I felt they would destroy the credibility that I had hopefully achieved thus far. I was really walking a fine line between reality and fantasy all through the movie.

How did the idea of using a marionette for the first alien come about?

Well, when I got back from Mobile, I came up with a concept for an alien with a very long neck and extremely lithe arms that could wrap around a person three or four times. And I felt the only way to achieve that was with a marionette. Actually, though, before that, I remember trying to contact Jim Henson, who does the Muppets, because I thought we might be able to use a puppet-like thing that was operated from the ground up rather than with strings. I think somebody might have gotten ahold of his organization, but they said he wasn't interested. So then I contacted Bob Baker and he designed and built the marionette we ended up using.

Not long after that, I went and saw the Dino De Laurentiis KING KONG, which I really didn't like very much. But when it got to the scene where Kong blows Jessica Lange dry, I decided I had to meet the guy who made that face. So I contacted Carlo Rambaldi, and together with Bill Fraker—

Steven Spielberg and Vilmos Zsigmond (behind camera), filming on the Crescendo Summit set in Mobile, with producer Julia Phillips (right).

who came on the show as my cinematographer when we got back to L.A.—we came up with what I call the "Puck" concept. That was my nickname for the little ET who does the hand signs. Carlo Rambaldi went back to Rome with that concept and came back with the ET. And I loved it. In fact, I loved it so much, I decided at that point to scrap the marionette idea.

The Carlo Rambaldi creature, by the way, was the most on-time and least expensive thing in the whole picture—and in many ways, one of the most important. But Carlo's little man only cost $30,000, which included shooting time. So in light of my budget, it was really sort of amazing for something that important to come in at that price. It was almost the least expensive item in the entire movie. And if I ever do the sequel, which I'm planning to do, Rambaldi will be even more involved than he was on CLOSE ENCOUNTERS.

Didn't Doug Trumbull submit a proposal for an alien that was similar, in many ways, to Rambaldi's?

He didn't really propose a "being" to me; he proposed a technology that would support it—a machine that would run whatever we wanted to design as the humanoid. But it was just too expensive. It would have cost over a hundred thousand dollars; and at that point, I wanted to spend a hundred thousand dollars on ships and stars, not creatures.

When did you go back to the marionette concept?

Right in the middle of a dubbing session. As a matter of fact, we were almost through with the entire movie. The effects had been completed and edited in, and I was just about ready to turn the movie over to Columbia advertising and distribution, when I had a second thought about the small extraterrestrials being the first impression of visitors from off the earth. And then I started having second thoughts about the *entire* last fifteen minutes of the movie. So I went off to Hawaii for a day or two to think about it, and came back with the idea of introducing the ET segment of the movie with the marionette, which was a much more mysterious and bizarre-looking being.

Did you give any consideration to using stop-motion animation?

Yeah, I did. I've done a lot of stop-action. My first three films were all stop-action, with clay. So, I considered that, but there's just something about stop action that's very unreal. To me, it's an "effect," and I think it's very dangerous combining live action with stop motion if you're striving for realism. It's okay in a fantasy, because you expect it—like in the Sinbad movies, or when you see Raquel Welch doing battle with a Tyrannosaurus rex. But I just didn't think it was right for CLOSE ENCOUNTERS.

Why was only Carlo Rambaldi given screen credit for the extraterrestrials?

Well, the Burmans weren't because I really didn't use very much of their work—I didn't use *any* closeups of the masks. And also, it wasn't part of our deal to give them screen credit in the first place. I think, though, if their work had succeeded for me, I would have been more than liberal in giving credit where credit was due. Bob Baker *should* have gotten screen credit—I'm sorry he didn't.

How did your scientists know that some humans would be returned, and others taken, by the aliens?

Strictly conjecture. They were just being prepared for any eventuality.

In the novelization of your screenplay, all twelve astronauts board the mothership; but in the film, it appears as though Neary is the only one.

That was something I decided to keep open-ended at the last minute. I didn't commit them on board and I didn't hold them back. I just left that up to the imagination of the audience.

A number of critics have remarked that they thought you overplayed Neary's obsession with the mountain. What's your reaction to that, and why did you decide to make it such an overpowering obsession?

Very simply, it would have taken more to shake some of this man's suburban middle class foundations loose than a casual encounter with a mound of shaving cream. That would not have been enough to take a character like Roy Neary and create in him a fixation that he would never abandon. I felt that the character needed constant reinforcement, reminding him again and again that he was no longer going to be part of that plastic, McDonald's, car wash, Laverne and Shirley world that he knew. It's not easy breaking somebody out of weekend America. You've got to go for the jugular. And so I felt, in some cases, I

"I'm going to try something interesting. When CLOSE ENCOUNTERS is re-released a few years from now, I'm going to put "When You Wish Upon A Star" back in. 'Cuz at that point, I got nothin' to lose."

Steven Spielberg

could have stated that mountain image obsession even more.

Was it your intention to make it appear as though the aliens were actually pulling strings with Neary, or was this simply something that was subliminally implanted?

No. Once it was subliminally implanted, it was Neary's own private initiative and his own curiosity about cause and effect that made him go so far and struggle so hard.

On the morning Neary goes around tearing up the neighborhood landscaping, his wife wakes up in the kids' room, which suggests that they probably had a big fight the night before—but we didn't see it.

Yes. There *was* a major fight scene that I eliminated from the movie. Ronnie wakes up in the middle of the night and hears Roy crying, but he's not in bed with her. He's locked himself in the master bathroom. She gets a butter knife and breaks in—and there's a major scene that takes place inside the bathroom, in full view of the children who come into the room to hear what the screaming is all about. But it's no longer in the picture. I cut it out even before the preview.

Why did you?

It was self-defeating. It was such a strong scene, and so shattering, that it needed three or four moments after it was over to allow Neary to pick up the pieces before he could go on to discover the source of his obsession. The scene was so powerful, it was almost another movie—it was like DEATH OF A SALESMAN in CLOSE ENCOUNTERS. It would have been highly recognized as Richard Dreyfuss' best scene, and *cosmically* out of place in the picture.

I understand that Barry's being taken up into the UFO was a very late development in your thinking on the film.

It was very late, yes. And that development was inspired by Hal Barwood and Matthew Robbins who are very good friends of mine and wrote my first movie, THE SUGARLAND EXPRESS. We've always sort of been silent partners. They gave me a lot of input into JAWS, and they had their input into CLOSE ENCOUNTERS. It was actually their idea to abduct Barry all the way in order to create a stimulus for the Jillian character to follow through on. In the original screenplay, her obsession wasn't strong enough, nor did her character really pan out at the end. The whole film concentrates on Roy Neary's obsession; and if I'd developed Jillian's to that extent, the film would have been twice as long. So we had to give her something that every mother and father in the world could identify with—that is, losing your child and wanting him back.

There are a number of television sequences in the film. You show clips from THE TEN COMMANDMENTS, and from some Warner Bros cartoons and a soap opera. Were these specific clips chosen for any particular reason? I could draw a quick climbing-the-mountain analogy between Moses and Roy Neary.

No, I'm not going to give you any easy answers on that one, except to say that in the broadest possible sense, I was trying to juxtapose this contemporary suburban lifestyle against the stars and mystery of space every chance I possibly could. And I felt that by using recognizable products and brand names, not only would *my* belief structure as a filmmaker increase, but I would be building a convincing belief structure for the audience. You really had to believe in earth before you could believe in flying saucers.

Most of the people at Future General refer to the hatchway that comes out of the mothership underbelly as the "monolith." Was this kind of your throwback to 2001?

Not really. I never even heard that before—it didn't come from me at all. As a matter of fact, there are *no* analogies to 2001 in CLOSE ENCOUNTERS, except in certain people's interpretation of Devil's Tower as the monolith. The actual furnace tongue that could drop out of the bottom of the mothership gondola was designed by Joe Alves very simply to give access to the ground.

Then I take it you would not agree with the critic who saw a comparison to Kubrick's prologue sequence in the fact that the first toy to "come alive" in Barry's bedroom was a mechanical monkey.

Well, he can relate it to Kubrick if he wants; but I relate it to James Dean. The first scene in REBEL WITHOUT A CAUSE has James Dean playing with a little toy monkey—and that's one of my favorite movies.

Among the people returned by the mothership are several recognizable people —such as Amelia Earhart and Judge Crater —but no attention is drawn to them. Was this merely a gag?

I wouldn't call it a gag; but I certainly didn't do it with a scowl on my face, either. And it wasn't meant to be pretentious—I didn't have my head screwed on that way at all. I just think it's nice to do things in movies that those who stay with you four or five or six times are going to catch, eventually. It's like *Mad* magazine. You can't read *Mad* just once. You have to read it over and over again to see what the small vignette characters are doing in the background.

It's widely known that you intended to play the original recording of "When You Wish Upon A Star" over the end titles. But I've heard a couple of versions as to why it was actually taken out.

It was a combination of two reactions at two separate previews—two groups of eight hundred people who all very articulately filled out their cards at the end. And quite simply, those cards indicated that fifty percent of the audience hated the song and felt that it spoiled the reality of the experience; and the other fifty percent liked the song, but didn't love it. And so I had to measure my own personal feelings and my belief in the song from day one. It's tough to throw away the very first inspiration that led to the entire movie being made in the first place. It was like ending a life that began one. But at the same time, the coat was just too heavy for the wire hangar, and I wasn't able to keep it hanging up in the closet. The song no longer fit—so I had to take it out.

You have a couple bars of it in Barry's bedroom.

Yes, I know. I got a little selfish. I could not get rid of it entirely. But, you know, I'm going to try something interesting. When CLOSE ENCOUNTERS is re-released a few years from now, I'm going to put the song back in. 'Cuz at that point, I got nothin' to lose.

Were there any other significant changes made after the previews?

None really. I shook seven minutes out of the film, but they were basically trims, not lifts.

You've alluded to a sequel. What can you tell me about it?

Nothing really. The secret of the sequel will be even more closely guarded than the first movie.

Which will be difficult to do.

Which will be *very* difficult to do, especially in light of the success of the first one. But I'm going to try my best—and may the best Watergate burglar win.

Are you writing the script for this one?

Yes, I'm writing it right now, and I hope to go into production on it sometime at the beginning of next summer.

Do you anticipate getting Doug Trumbull involved?

I'll certainly make him the offer, because there's nobody better to do the work. Doug has many projects of his own that he wants to get off the ground, so I'm not expecting him to be anxious to jump into CLOSE ENCOUNTERS II. But I'll certainly make him the offer; and if he can't do it, I'll have to find somebody else.

He doesn't like to tread over ground he's already covered, either.

Neither do I. I turned down JAWS II for that reason. I'm sure the sequel will be enormously successful; but for a filmmaker, it's not very stimulating to follow in your own footsteps. And I don't have the pride of authorship with JAWS that I have with CLOSE ENCOUNTERS. And the other thing is, I really feel I have to protect my concept by supervising the next movie; because if *I* don't do a sequel, somebody at Columbia will. It's a very successful film and Columbia owns the rights.

Can you say whether your sequel will follow up with the Roy Neary character? Or will it be something entirely different?

I don't even want to speculate on it. That's getting too close to home.

Your Rolling Stone *interview indicated that you were also collaborating on a joint science fiction venture with George Lucas. Is that still a viable project?*

Yes. It's happening right now.

Is there anything you can say about that?

No, George would kill me. I'm secretive, but he's worse than I am. George is probably not only the best filmmaker of our generation, but he's also the best businessman; and it would be against the Lucas empire for me to say anything about our film right now. □

Steven Spielberg (right) and Douglas Trumbull examine one of the frame enlargements produced by the animation department to aid them in the placement of star backgrounds. They are hunched over the Oxberry animation stand, equipped with a specially modified Todd-AO FC camera. The use of the Oxberry is explained by Robert Swarthe on page 55.

CLOSE ENCOUNTERS at Future General

Interviews with Douglas Trumbull and his Future General effects staff.

For many devotees of cinefantastique, *the occasion of Oscar's golden anniversary was a matter of intense anticipation, not over which picture or pictures would capture the "big four" awards, but rather over whether the Academy Award for Best Achievement in Visual Effects would go to STAR WARS or to CLOSE ENCOUNTERS OF THE THIRD KIND. There was no doubt that both films were deserving. In fact, the Academy drew some critical flak for even forcing a run-off in that category, particularly after having voted separate awards the previous year for two pictures with visual effects decidedly inferior to either of this year's nominees. For almost certainly, it was the brilliance of special visual effects, combined with the artistic vision of two of the industry's most gifted writer-directors, that catapulted both STAR WARS and CLOSE ENCOUNTERS OF THE THIRD KIND into the rarified company of only a handful of other motion pictures in history boasting boxoffice revenues in the nine-digit range.*

STAR WARS was already well on its way to becoming the most successful motion picture of all time when CLOSE ENCOUNTERS OF THE THIRD KIND had its world premiere in November 1977. But both pictures had had a lengthy germination period. Steven Spielberg's interest in doing a film on the UFO phenomenon dated back more than a decade, and in idle moments during the filming of JAWS, he and Richard Dreyfuss would get together and toss about ideas for an epic film chronicle on mankind's first full-scale contact with an extraterrestrial intelligence. When JAWS became the most profitable film in history—a position usurped by STAR WARS, Spielberg found himself in that enviable and select group of filmmakers with boxoffice clout, which he used, with producers Michael and Julia Phillips, to create his epic UFO film on a grand scale.

Realizing that special visual effects of the highest calibre were vital to the success of his project, Spielberg contacted Douglas Trumbull at his Future General Corporation in Marina del Rey. Trumbull, a veritable wizard with light and one of the first to apply space-age electronics to the field of photographic effects, had cut his teeth on the paragon of science fiction films, 2001: A SPACE ODYSSEY, and had later written and directed SILENT RUNNING, one of the few humanist films in the genre. He had, however, become somewhat disenchanted with the picture business.

DOUGLAS TRUMBULL
Photographic Effects Supervisor

RICHARD YURICICH
Effects Director of Photography

MATTHEW YURICICH
Matte Artist

ROBERT SHEPHERD
Effects Unit Project Manager

DAVE STEWART
UFO Photography

GREGORY JEIN
Chief Model Maker

ROBERT SWARTHE
Animation Supervisor

ROBERT HALL
Optical Photography

DON JAREL
Matte Photography

DENNIS MUREN
Mothership Photography

SCOTT SQUIRES
Assistant Effects Cameraman

KENNETH SWENSON
Model Maker

JERRY L. JEFFRESS
Electronics Design

Don Shay is the former editor and publisher of *Kaleidoscope* magazine, one of the earliest publications to seriously survey the fantasy film genre. He is the author of "Willis O'Brien: Creator of the Impossible," the definitive article on the career of the special effects genius responsible for KING KONG, published in *Focus On Film* magazine. Shay is a 1967 graduate of Rutgers University and is currently Chief of Public Information, Headquarters Fifteenth Air Force (SAC).

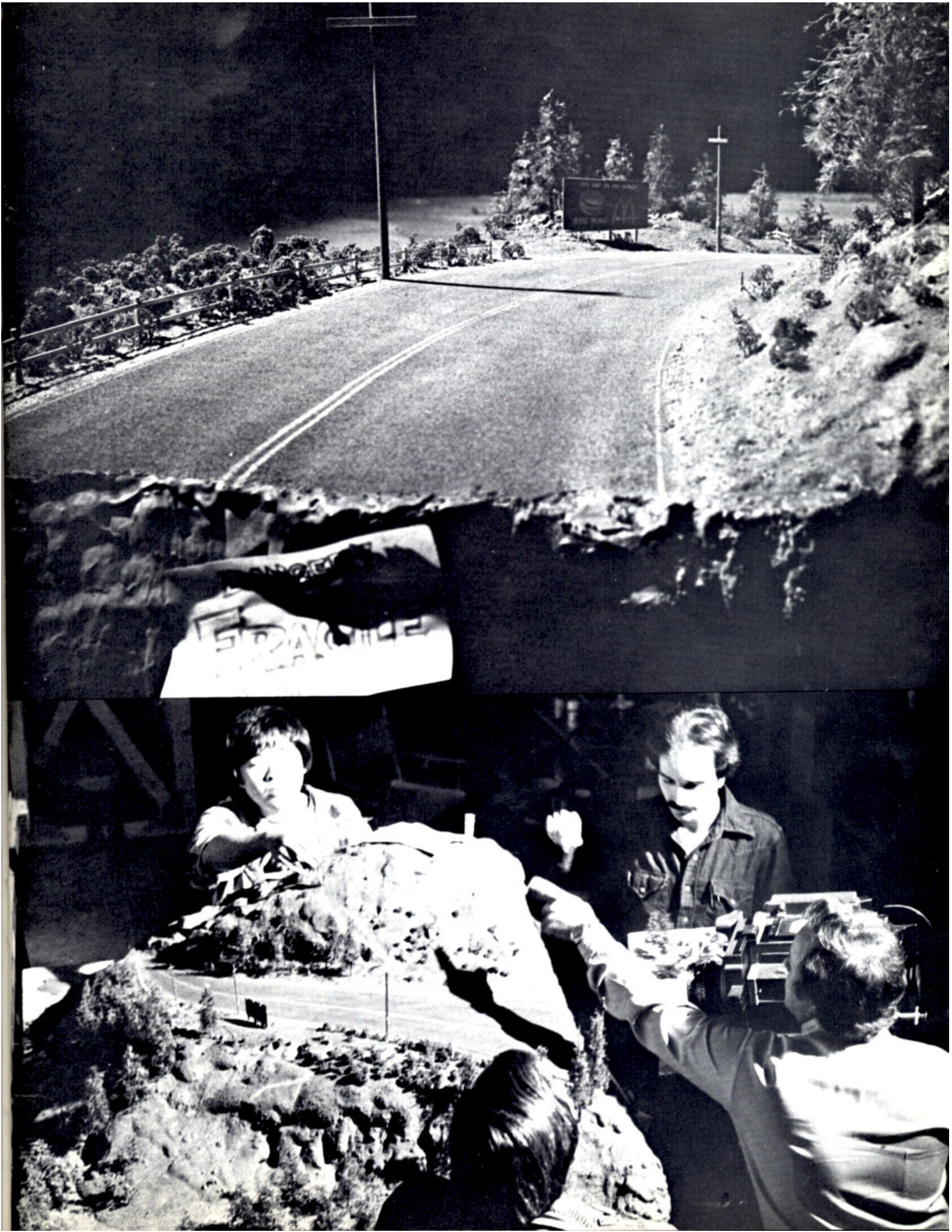
DOUGLAS TRUMBULL

After SILENT RUNNING, I rejected a number of films that were offered me just because I didn't think they were very good and I wanted to develop my own projects—which I did. One of the major ones was a picture called PYRAMID which I was going to make with M-G-M. It was sort of a mind-boggling concept picture set in the extreme future when the sun goes through what everyone predicts is a natural phase—which is that it will enlarge into a red giant and then shrink back down into a white dwarf. And the story was all about how mankind survives that evolutionary phase. We had a complete script and were designing sets and finding locations and building miniatures. But then a lot of political things came up. Jim Aubrey was on his way out as production chief; and M-G-M, for all intents and purposes, decided not to be in the movie business anymore. And I guess I got quite blown out by the fact that we had gotten so deeply into the picture and it all came to a crashing halt.

After that same thing happened to me three times in a row on different projects I was developing, I got pretty disillusioned with the business aspects of making films. I just found dealing with the bulk of studio executives to be *so* painful and unrewarding that I didn't want to do it anymore. And as it happened, I was at the right place at the right time with the right people, and managed to form a deal to set up Future General as sort of a long-term, low-key research and development branch of Paramount Pictures. Our whole objective was to find *new* ways to entertain people, and one of the things we developed was an entirely new process for making movies which we call Super 70 or Showscan—it still awaits a new name. But one of the aspects of the process was that it was to be shot in 70mm film, and Paramount was reluctant to move forward with the whole project forcefully because it was a very expensive system and they didn't quite un-

Shooting the Quarter Pounder sequence at Future General. Top: Close encounters of the miniature kind—a camera angle view of the Quarter Pounder miniature tagged with a gag sign, "Danger! Fragile Wires." Bottom: Behind the camera, Douglas Trumbull directs Greg Jein and Mike McMillen (holding a box of trees) in the last-minute dressing of the Quarter Pounder miniature. The forced-perspective characteristics of the set are evident from this angle. Richard Yuricich stands behind Trumbull.

by Don Shay



CLOSE ENCOUNTERS OF THE THIRD KIND A Columbia Pictures Release. 11/77. In Color, 70mm and Dolby Stereo. 135 minutes. *Produced by* Julia Phillips and Michael Phillips. *Written and directed by* Steven Spielberg. *Director of photography*, Vilmos Zsigmond, ASC. *Special photographic effects by* Douglas Trumbull. *Music by* John Williams. *Director of photography of additional American scenes*, William A. Fraker, ASC. *Director of photography of India sequence*, Douglas Slocombe, BSC. *Production designer*, Joe Alves. *Edited by* Michael Kahn, ACE. *Associate producer*, Clark Paylow. *Visual effect concepts by* Steven Spielberg. *Unit production manager*, Clark Paylow. *Additional directors of photography*, John Alonzo, ASC, Laszlo Kovacs, ASC. *Technical advisor*, Dr. J. Allen Hynek. *Set decoration*, Phil Abramson. *Realization of "Extraterrestrial" by* Carlo Rambaldi. *Art director*, Dan Lomino. *Assistant director*, Chuck Myers. *2nd assistant director*, Jim Bloom. *Assistant film editors*, Geoffrey Rowland, Charles Bornstein. *Music editor*, Kenneth Wannberg. *Supervising sound effects editor*, Frank Warner. *Sound effects editorial staff*, Richard Oswald, David Horten, Sam Gemette, Gary S. Gerlich, Chet Slomka, Neil Burrow. *Production illustrator*, George Jensen. *Dolby sound supervisor*, Steve Katz. *Supervising dialogue editor*, Jack Schrader. *Dialogue editorial staff*, Dick Friedman. *Assistant dialogue staff*, Robert A. Reich, Bill Jackson. *Technical dialogue*, Colin Cantwell. *Production sound mixer*, Gene Cantamesa. *Music scoring mixer*, John Neal. *Video technician*, "Fast" Eddie Mahler. *Camera operator*, Nick McLean. *Construction manager*, Bill Parks. *Special mechanical effects*, Roy Arbogast. *Re-recording mixers*, Buzz Knudson, Don MacDougall, Robert Glass. *Assistant to the producers*, Kendall Cooper. *2nd assistant to the producers*, Judy Bornstein. *Assistant to Mr. Spielberg*, Rick Fields. *Production secretary*, Gail Siemers. *Production staff*, Janet Healy, Pat Burns. *Make-up supervisor*, Bob Westmoreland. *Hairdresser*, Edie Panda. *Property master*, Sam Gordon. *Wardrobe supervisor*, Jim Linn. *AFI intern*, Seth Winston. *Casting*, Shari Rhodes, Juliette Taylor. *Additional casting*, Sally Dennison. *Stunt coordinator*, Buddy Joe Hooker. *Script supervision*, Charlsie Bryant. *Publicity*, Al Ebner, Murray Weissman, Pickwick Public Relations. *Still photographers*, Pete Sorel, Jim Coe, Pete Turner. *Title design*, Dan Perri. *2nd unit director of photography*, Steve Postet. *Location auditor*, Steve Warner. *Location manager*, Joe O'Har. *Gaffer*, Earl Gilbert. *Special photographic effects supervised by* Douglas Trumbull. *Director of photography—photographic effects*, Richard Yuricich. *Matte artist*, Matthew Yuricich. *Effects unit project manager*, Robert Shepherd. *Special visual effects coordinator*, Larry Robinson. *UFO photography*, Dave Stewart. *Chief model maker*, Gregory Jein. *Animation supervision*, Robert Swarthe. *Optical photography*, Robert Hall. *Matte photography*, Don Jarel. *Mother ship photography*, Dennis Muren. *Project coordinator*, Mona Thal Benefiel. *Camera operators*, Dave Berry, Eugene Eyerly, Maxwell Morgan, Ron Peterson, Eldon Rickman. *Technician*, Robert Hollister. *Assistant cameramen*, David Hardberger, Alan Harding, Bruce Nicholson, Richard Rippel, Scott Squires. *Still photography*, Marcia Reid. *Model shop coordinator*, J. Richard Dow. *Model makers*, Jor Van Kline, Michael McMillen, Kenneth Swenson, Robert Worthington. *Camera and mechanical design*, Don Trumbull (B. G. Engineering), John Russell, Fries Engineering. *Mechanical special effects*, George Polkinghorne. *Electronics design*, Jerry L. Jeffress, Alvah J. Miller, Peter Regla, Dan Slater. *Assistant matte artist*, Rocco Gioffre. *Effects electrician*, David Gold. *Key grip*, Ray Rich. *Laboratory expeditor*, Charles Hinkle. *Animator*, Harry Moreau. *Animation staff*, Carol Boardman, Eleanor Dahlen, Cy Didjurgis, Tom Koester, Bill Millar, Conne Morgan. *Production secretary*, Joyce Goldberg. *Production accountant*, Peggy Rosson. *Project assistants*, Glenn Erickson, Hoyt Yeatman. *Editorial assistant*, Joseph Ippolito. *Transportation*, Bill Bethea. *Laboratory technicians*, Don Dow, Tom Hollister. *Effects negative cutter*, Barbara Morrison. *Special consultants*, Peter Anderson, Larry Albright, Richard Bennett, Ken Ebert, Paul Huston, David M. Jones, Kevin Kelly, Jim Lutes, George Randle, Jeff Shapiro, Rourke Engineering.

Roy Neary	Richard Dreyfuss
Claude Lacombe	Francois Truffaut
Ronnie Neary	Teri Garr
Jillian Guiler	Melinda Dillon
Barry Guiler	Cary Guffey
David Laughlin	Bob Balaban
Project Leader	J. Patrick McNamara
Wild Bill	Warren Kemmerling
Farmer	Roberts Blossom
Jean Claude	Philip Dodds
Brad Neary	Shawn Bishop
Silvia Neary	Adrienne Campbell
Toby Neary	Justin Dreyfuss
Robert	Lance Hendricksen
Team Leader	Merrill Connally
Major Benchley	George Dicenzo

ACKNOWLEDGEMENTS: This issue could not have progressed beyond the concept stage without the help of a great many people. Most obviously, I would like to thank all those who allowed themselves to be interviewed—sometimes as many as two or three times before I managed to get all the technical aspects of their work fairly clear in my mind—and to those who provided photographic documentation of this remarkable production. I am particularly grateful to Steven Spielberg, who provided his most detailed interview on the film to date; and to Doug Trumbull, who tacitly allowed me to become something of an office fixture around Future General. I am also most grateful to Dick Yuricich, who helped immeasurably in making introductions, arranging interviews, and generally coordinating my activities. Behind-the-scenes, I would like to thank Lou Paris, who served as my interpreter/translator for the Carlo Rambaldi interview. And last, but most definitely not least, a very special thanks to Ann Dredia, whose tireless efforts produced most of the more than three hundred pages of interview transcripts which form the basis for this issue.

Don Shay

PHOTO CREDITS: Columbia Pictures, Future General Corporation, Scott Squires, Bob Baker, Tom Burman, David Ayres, Carlo Rambaldi, George Jensen, and Steven Spielberg.

derstand it. So, as a fair exchange, they wanted me to make an effort to bring some sort of profitable work into the company—to keep the company going so I could continue my research and development.

I was developing a picture called HIERO'S JOURNEY for Columbia when the studio decided to do CLOSE ENCOUNTERS. And since they weren't about to make two extravagant science fiction epics at the same time, there I was once again with a feature project that had been set aside. So, when Steven Spielberg called and asked if I was available to do the effects for *his* picture, I agreed to meet with him even though I wasn't terribly interested. Just a couple of months before I had said no to George Lucas on doing STAR WARS because I didn't want to work for another director at the time; but also, I didn't want to do another space opera per se, which was, for me, just more of the same thing—you know, spacecraft and planets and stuff. I wanted to do something a little different. But I met with Steven and I liked him a lot. I read the script and thought it was terrific. I liked what the movie had to say and I thought it was worthwhile. And since Steven and I agreed the best way to go would be to shoot all the effects in 70mm, that provided a perfect opportunity for me to use the production of CLOSE ENCOUNTERS OF THE THIRD KIND as a way of establishing a full facility that was geared up for 70mm photography. It was sort of a circuitous route, but it was one way to get there. So essentially, we arranged a deal whereby I provided services to Columbia Pictures, and in doing so was able to set up a whole new facility from scratch, including 70mm cameras and optical printers and slitscan equipment, and a lot of other goodies.

With only about five months remaining before the start of principal photography, Doug Trumbull set to work devising ways of achieving the sorts of effects Steven Spielberg had vividly envisioned. Since most of the crucial sequences had already been heavily storyboarded by production illustrator George Jensen, Trumbull was able to break the script down into special effects elements. Most of the primary effects were to take place on two key locations: Crescendo Summit, a curved stretch of rural Indiana highway where a flight of UFOs perform dazzling low-level aerobatics; and the box canyon behind Devil's Tower, Wyoming, where scientists have constructed a top secret facility to welcome and study the extraterrestrial visitors. Since both locations were to be shot at night and the need for total control was absolute, it was decided that they would be best built as interior settings under the supervision of production designer Joe Alves. However, since the base of operations required a covered structure six times larger than any stage in Hollywood, and since a more remote location was ideal for secrecy and security anyhow, both sets were being constructed in a pair of World War II dirigible hangars on the outskirts of Mobile, Alabama. And because the production demanded a total integration of special effects and live-action photography, Future General was intimately involved in the preparation work.

Doug Trumbull's long-time associate, Richard Yuricich, was signed on immediately as director of photography for photographic effects, a job that was to become virtually all-encompassing as the production progressed. Yuricich, too, had worked on 2001: A SPACE ODYSSEY, primarily in the area of star backgrounds during the closing months of production. He later served as one of three special effects supervisors on SILENT RUNNING, and continued on with Doug Trumbull in succeeding years. His immediate responsibilities on CLOSE ENCOUNTERS involved building a complete 65mm special effects shop and assembling a production team to man it.

One of the first people hired was Robert Shepherd, a gifted art director and production manager who had also worked on SILENT RUNNING and a number of Trumbull's unrealized projects. Along with John Dykstra, yet another SILENT RUNNING alumnus, Shepherd had just completed outfitting the Industrial Light and Magic facility then in use by the STAR WARS effects unit. Together, Yuricich and Shepherd set about tackling the nuts-and-bolts aspects of building a complete in-house special effects facility from scratch.

RICHARD YURICICH

The first thing we did was buy seven 65mm cameras in one lump sum. One was a Mitchell FC High Speed; two were Mitchell BFCs—the big blimped cameras; and four were Todd-AO FCs. The two Mitchells were taken out of their blimps. One became the motion tracking camera used in the production. It was mounted onto our motion control device and we modified its lens mount to a bellows mount for follow-focus. The other became the matte camera that we used on location. It was tested and made rock-steady, and was modified to work only in that area. After the location shooting, it was used at Future General for all the insert photography. One of the Todd-AO FCs went to the Oxberry animation stand, with quite a bit of modification. And since we didn't want to waste any time on the Oxberry with rotoscoping, another Todd-AO camera was built into a rotoscope stand. The third Todd-AO camera became our 65mm front projector, and the fourth we kept for spare parts. John Russell, of JAR Enterprises in Burbank, did a majority of the work on these initial modifications—and under an unbelievable schedule.

For our production facility, we leased a building not far from our home office and ended up modifying it extensively. We built a smoke room to photograph our UFOs, and that was done almost entirely by Bob Shepherd. We had one room that was set aside for the optical camera; another was set up as a line-up room; and yet another was set up for the matte camera. These three rooms were interconnected, but segregated from the rest of the building. They had their own air filtration system which we never did get to work quite right, but the rooms *did* stay clean and our dirt problems were kept to a minimum because the guys had good film handling procedures. We also set up a black-and-white developer so we could run tests and do our mattes in house. And we had a generator that we got from a salvage yard someplace, that took the city's power and converted it to a constant voltage.

Then another building became available

Top: Chief model maker Greg Jein works on the miniature of Devil's Tower. His miniature intercut flawlessly with the real mountain. Middle: The forced perspective miniature used to produce front projection plates (see photo page 41) for the Crescendo Summit sequence and as an added background for the "Quarter Pounder" sequence. Bottom: Detail from the above miniature. The farmhouse, about the size of a nickel, and grove of trees are seen at top right in the above shot.

down the street. We took that over, too, and built an air conditioned animation room for our Oxberry, and a screening facility where we could see our dailies. Later, we shot the mothership footage there, also.

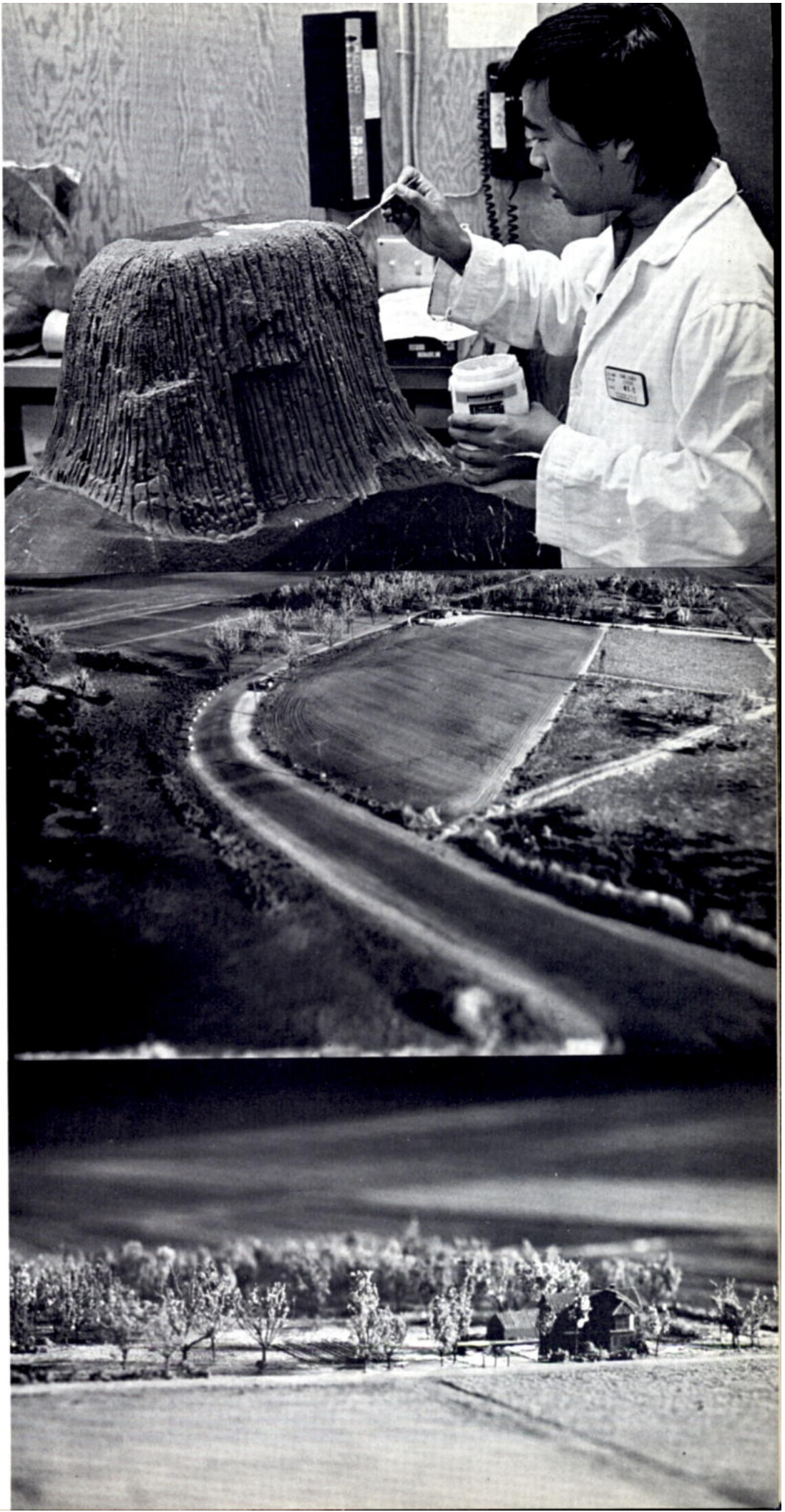
Prior to location shooting in Mobile, Future General had to be ready with its equipment to photograph all of the shots that would later require optical effects. The 65mm flat format was especially desirable for effects work, because it offered increased image quality needed for second- and third-generation duping, and its aspect ratio was compatible with 35mm anamorphic.

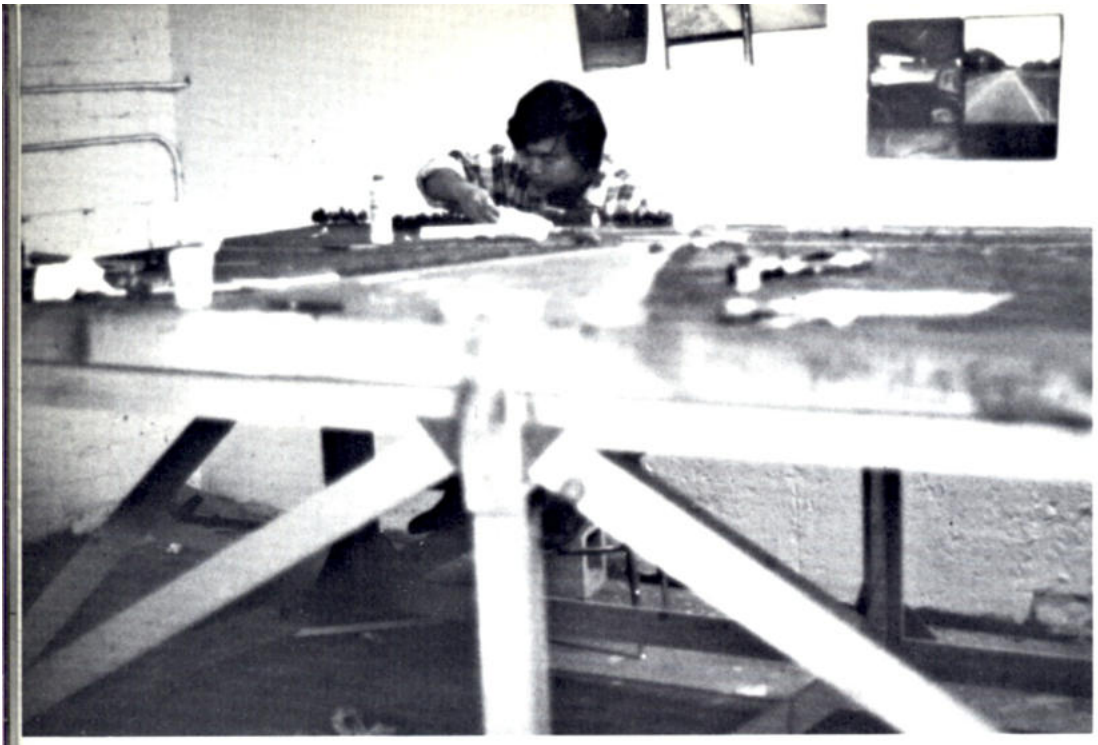
Future General also had to devise a 70mm moving plate front projection system, along with an 8x10 still plate back-up system, for use on the Crescendo Summit set. Front projection, though complex, is more versatile than standard process photography, and eliminates many of the irritating side effects inherent in blue screen work. It has as its basis a unique screen surface capable of reflecting nearly one hundred times more light than is projected onto it– but only directly back toward its source. Therefore, in order to apply this phenomenon photographically, both projector and camera must be positioned at precisely the same spot–a physical impossibility conveniently side-stepped by employing a beam-splitter to align the projected image directly along the focal plane of the camera. The image reflected from the screen is so brilliant that the intensity of light needed to balance the foreground completely obliterates the projected image from foreground objects; and since the projector and camera are in perfect alignment, the foreground objects themselves block any unwanted shadows they may cast on the screen.

As a final prerequisite to the shooting, Doug Trumbull wanted a system that would allow him complete freedom of movement in photographing his miniatures, and a means of combining them with live action in such a way that the hitherto obligatory and bothersome restraint of working solely with locked-off cameras could be avoided.

DOUGLAS TRUMBULL

The whole essence of modern effects photography is to be able to *exactly* repeat camera and subject movement for multiple exposures. Now, I would never denigrate 2001 because I think even CLOSE ENCOUNTERS has a hard time trying to top its kind of awesome simplicity, but that simplicity was really forced upon us by our inability to develop any technological equipment that could vary speeds and directions. Everything just floated by in sort of a balletic continuum. Complicated maneuvers would have been relatively inappro-





Greg Jein works on the table-top miniature shown at right, in its early stages of construction.

priate for that picture anyway, since objects floating through space tend to go in just one direction and everything is constant. But CLOSE ENCOUNTERS, like STAR WARS, called for a lot of very tricky velocity changes, and changes in direction and orientation. So I went back to some work I had done in automated machinery.

It all comes down to a basic function. You have a motor and you want it to do something for you. Since there are exactly two hundred pulses—or steps—per revolution of that motor, you can figure out exactly how many degrees of rotation you're going to get for each pulse. Electronically, you can memorize that data with a tape recorder or a solid core memory. Then, you work out a mathematical curve—like a hyperbolic curve or a parabolic curve—over which would be a logarithmic or linear additive or subtractive number. Once you program that in, you can cause these motors to speed up or slow down correspondingly. And so, by making some fairly sophisticated machinery to record and play back the data relating to a number of different motors simultaneously, you can cause the camera to pan and tilt and shift focus, and an object to float by and tumble and roll and bank to the left and drop in altitude—all in one shot. And be able to repeat it exactly.

Approximately five years earlier, Alvah J. Miller and Jerry L. Jeffress of Interface Systems in Berkeley, had fabricated a computerized, though primitive, motion control system for use in some television commercials Trumbull was producing at the time. The mini-scan, as it was called, could control and direct four pulse motors in interlock, but only at constant speeds. Several years later, Interface Systems was commissioned by John Dykstra to design and build a dramatically more sophisticated system for STAR WARS—subsequently nicknamed the Dykstraflex—which was capable of directing simultaneous, variable-speed movements on twelve different motors. Doug Trumbull wanted a similar device for CLOSE ENCOUNTERS, but with a number of refinements and added capabilities.

JERRY L. JEFFRESS

After the STAR WARS machine was finished and just barely running—we'd gotten maybe two pieces of film off it—Doug Trumbull came through the door one day and he said *he* wanted one. So I quit work at ILM [Industrial Light and Magic] and went and designed another system, which is the one that was used for CLOSE ENCOUNTERS. By that time, Al Miller had finished his work on STAR WARS, and we built the second machine together. That system contained several thousand integrated circuits and maybe a hundred thousand interconnects, and it turned out to be a 24-hour-a-day, no-sleep operation, because we were working on a contract with a deadline. It was being built from absolute scratch and they needed it in ninety days for the shooting in Mobile. Then, when we finished that, we went back and built still *another* machine for the STAR WARS shop—essentially a duplicate of our second one—because they had more work for that first machine than they could handle.

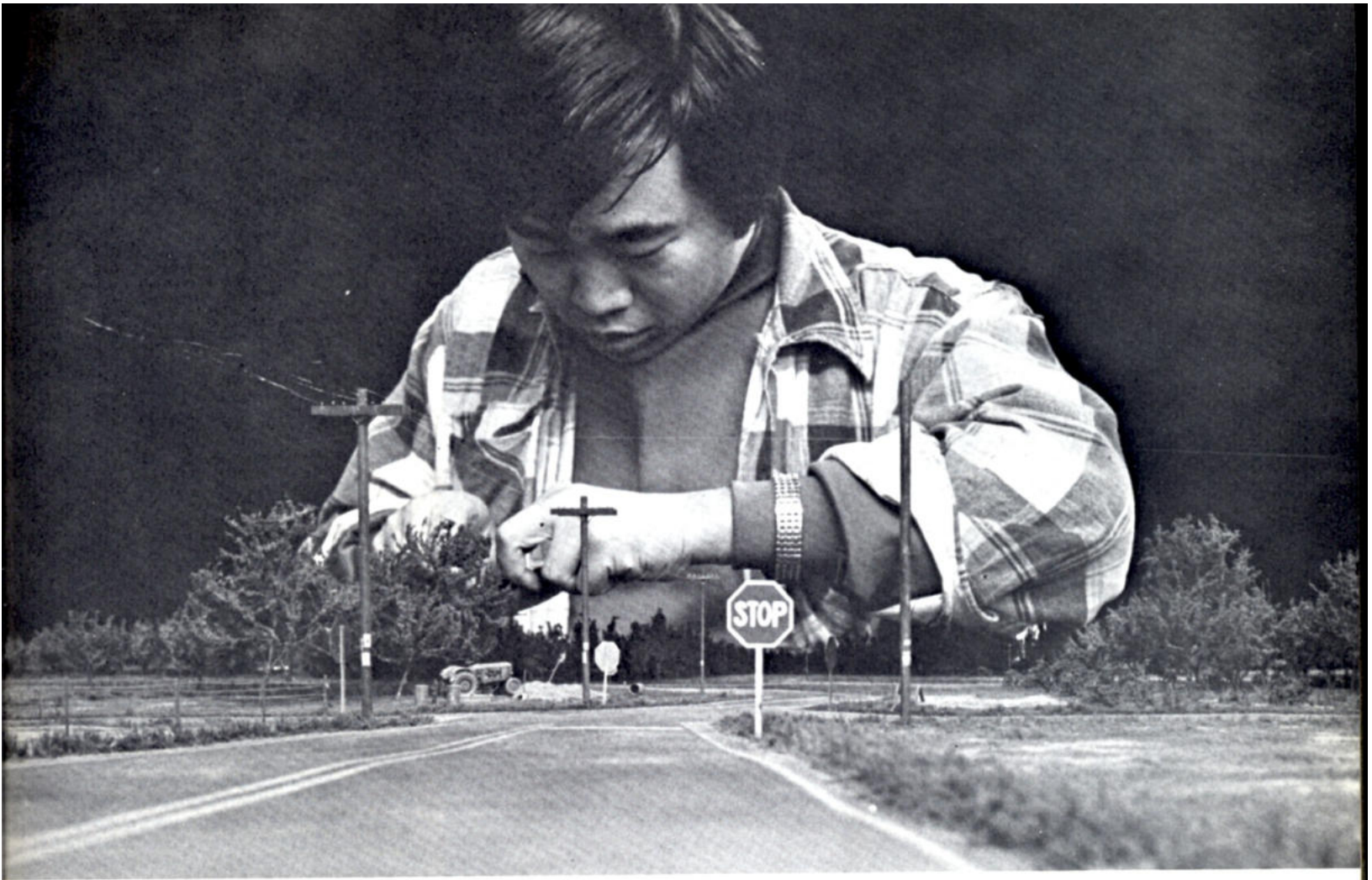
Each of the machines has its differences, but what made them useful was their repeatability. They're all high-precision digital recorders for making multi-channel recordings. And though most of the electronics and design ideas weren't particularly new or novel, their application was. Although both STAR WARS machines can record up to twelve channels, the CLOSE ENCOUNTERS machine was deisgned for only eight. And actually, if you think about it, eight usually does the job. The camera can only do so many things—it can go forward and backward, and pan and tilt. The one at ILM does rolls, also. And then the model typically goes back and forth, and might have roll, pitch and yaw. If you get into articulated models or multiple model holders you can start eating up channels rapidly, but it's sort of rare to get into a shot that actually has the camera panning, tilting and rolling, and the model going through all its possibilities at the same time.

All the motors that run these systems are stepping motors. In other words, the shafts don't rotate smoothly; they step a number of times per revolution. One of the problems with them is that at certain speeds they go into resonance and they'll vibrate everything rather badly. So Al Miller designed a drive system for those motors which is essentially step-free, which means the camera doesn't tend to vibrate as much—and that drive technique was used on the two later machines. All three motion control systems are continuous motion devices. They don't stop-shoot like other kinds of track-driven cameras that take a frame, then move to a new position, take a frame, move to a new position, and so on. The motion control is just like a severe undercrank—everything moves continuously, so that you get all the appropriate streaking.

The last two machines look almost identical, but there are some internal differences. The CLOSE ENCOUNTERS machine not only is programmable via joysticks, like the STAR WARS machines, but it is also capable of accepting encoded inputs from a camera that's run by a normal operator. The Future General machine is the *only* one with this capability and it was used that way during some of the live-action photography in Mobile. The camera itself was normal, in the sense that the operator could use it in the manner to which he was accustomed, but the head was modified with the proper sets of clutches and gears to make the optical encoders spin with the right accuracy. It was mounted on a precision track, rather than a standard crab dolly or something, and was simply pushed up and down the track by a grip to set the speed. Essentially, what our system did was record all the primary camera motions by converting the amount of movement that occurred every twenty-fourth of a second into digital information. This was then stored on cassette tapes so we could repeat the move later in the studio to generate miniature elements that could be composited perfectly with the live action photography—without the need for a locked-off camera which is always a dead giveaway that something phony's going to happen. And it was very accurate. We were able to record twelve binary bits per frame, which allowed us to resolve the distance the camera moved per frame to about one part in four thousand.

In the months to come, as equipment and facilities were being designed and built, Future General began assembling its production staff by signing on key department heads as needs for their services arose. Two of the earliest to join the team were chief model maker Gregory Jein and animation supervisor Robert Swarthe.

Greg Jein's studies in product design and fiberglass sculpture had led him first into commercial work and eventually into building miniatures for such films as FLESH GORDON, DARK STAR, THE UFO INCIDENT teledrama, and the WONDER WOMAN pilot. Doug Trumbull first noticed the DARK STAR miniatures on display at a science fiction convention he was addressing, and subsequently hired Jein to work on a demonstration reel for



Chief model maker Greg Jein details the crossroads miniature seen through the windshield of Neary's truck during his first UFO encounter.

JOURNEY OF THE OCEANAUTS. Jein then transitioned into Magicam, another Paramount subsidiary formed to exploit a Trumbull-conceived video process for compositing live action and miniatures without the flat, cut-out look of conventional chroma key. He was engaged in doing commercials at Cascade Pictures when the call came for CLOSE ENCOUNTERS.

Bob Swarthe's initial contact with Doug Trumbull dated back more than a decade to when both were employed by Graphic Films, a Hollywood-based firm which specialized in non-theatrical space films for NASA and other clients. Swarthe later went on to become a director of live action and animated commercials. In the late sixties, he co-directed, with Bob Mitchell, an eight-minute spoof of 2001, called K-9000: A SPACE ODDITY. In 1973, he and John Mayer produced RADIO ROCKET BOY, a live-action spoof of Republic-type serials; and in 1975, he did another animated short called KICK ME, which was drawn directly on 35mm film and was nominated for an Academy Award.

GREGORY JEIN

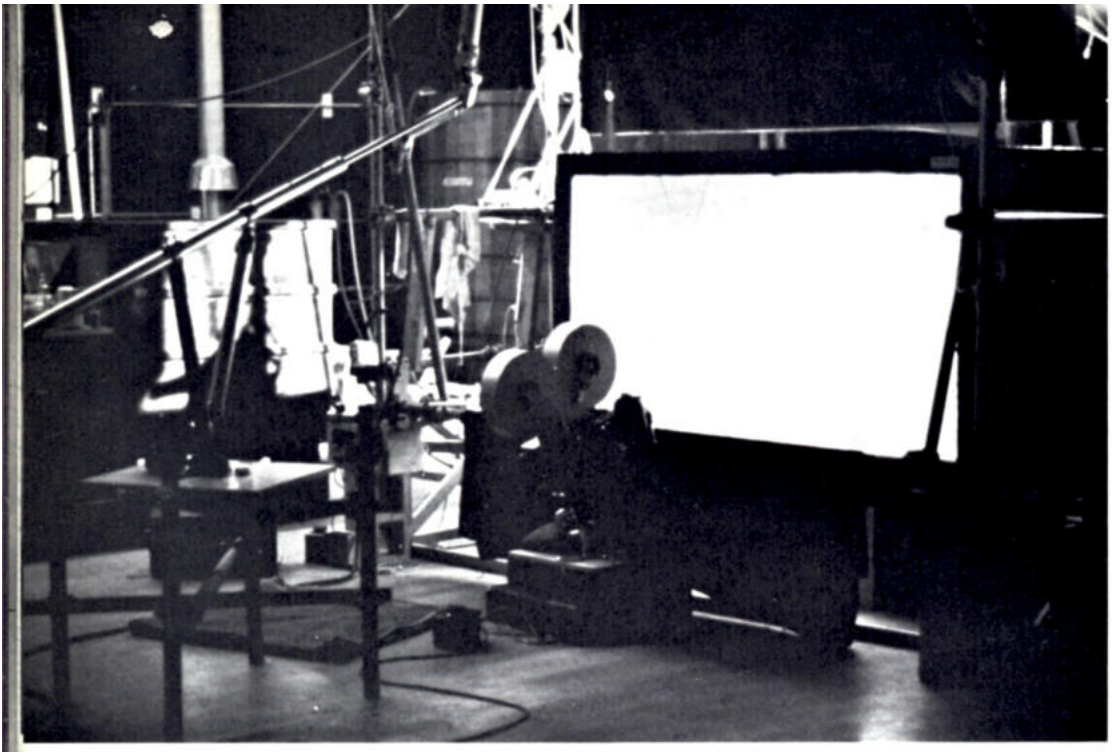
Bob Shepherd called me one day and said Doug had another project in the wind and needed someone for approximately three months to build a few things. So I went right over there after a Hunt's Tomato Catsup commercial, and the three months turned into something like eighteen months. The first thing I worked on was a landscape which was used for a process plate behind Crescendo Summit. That was probably twelve feet by five feet. It was a forced perspective miniature, built with two vanishing spots so the camera could move a little bit, but it was never utilized that way. Originally, we went by drawings made by Dan Goozee, one of the production illustrators. He'd made a black and white drawing of what the scene would look like. Then we made a slide of it, put it into a projector, and projected it onto our table from the same angle the camera would be shooting it. After we painted the terrain white, the black lines from the drawing would show up like roads on the table, and we'd just chart them off and go from there. But we did that only on one miniature, even though all the landscapes were forced-perspective. After the first one, we just did it by eyeball.

Another one was the "Quarter Pounder," as we called it, where the little saucers run around the McDonald's billboard. That was a small miniature—like about five by five—and the horizon and the terrain in the background we got basically by taking the first miniature and wheeling it behind there with a different vanishing point. So we got double duty out of that one. Then there was the crossroads where Neary sees his first saucer. And, of course, the Devil's Tower one that the mothership flies over. There were quite a few little insert miniatures, too—a lot of the shots where the saucers were seen over the ground used miniature terrains so the lights could reflect off them. We also built another miniature that wasn't in the film—it was later replaced by a painting. It was about a ten by six miniature looking down at the area surrounding the base of operations. We used various scales of granite rock, and by the time we got around to breaking it up, it weighed something like eight hundred pounds.

ROBERT SWARTHE

The front projection plates for the Crescendo Summit set were to represent the distant background plane. We shot still photographs of Greg Jein's miniature landscape from nine different positions so it would match different angles on the set. Then we had color enlargements made, which were retouched and airbrushed to add things like lights in the city and horizon haze. We had versions made with lights and without lights; with stars and without stars. All you finally got on the screen was a tiny bit of detail and the airbrushed horizon glow; but we had to cover it every possible way so that when they went to shoot on the set they could have anything they wanted.

Steven Spielberg's script called for several scenes of dense, billowing cloud formations, self-generated by the alien saucers to conceal their presence. And since these clouds were to figure prominently in the Crescendo Summit front projection shooting, they were, of necessity, the first effects undertaken at Future General. Starting from the basic phenomenon of cream poured into a cup of coffee, Scott Squires —who had joined Future General right out



The camera set-up for filming Scott Squires' water tank cloud formations.

of high school shortly before CLOSE ENCOUNTERS began—was tasked with exploring the possibilities of combining various emulsions and fluids in order to create suitable cloud effects which could be photographed in a controlled environment.

SCOTT SQUIRES

I spent a week buying various things and playing around with a small aquarium. Since we planned to use an extremely large glass tank and fill it with large volumes of liquid, we couldn't get into any complicated chemistry. It needed to be cheap and easy, and available thousands of gallons at a time. So we limited ourselves to water. The solution I came up with was to use salt water on the bottom of the tank and fresh water on the top. Then, by mixing up a white powdered tempera paint to the right consistency with fresh water, and injecting that into the top layer, we were able to get the type of clouds that we wanted. We also found that by varying the temperatures we could get different types of clouds. It took a lot of experimenting, just trial and error. Different brands of paint and other substances I tried all tended to drop out at different rates, and others tended to fall through the salt layer. We needed two layers, because if we used just one, the paint would drop to the bottom immediately. But with two solutions, that was less likely to happen because of differences in specific gravities.

Those layers were difficult to create. Our glass tank was seven-foot square and held about two thousand gallons, and we had a couple of one thousand gallon vats like they use for wine and whatnot. We would have one filled with fresh water and one filled with salt water; and we would have to mix up the salt water ourselves. We used pure salt—aquarium-type salt—and then mixed it and filtered it for at least a day to get out all the impurities. Then we'd fill the large tank half-way with salt water and float a thin sheet of plastic on top of that so we'd be able to add the fresh water carefully without mixing the two together. Then we'd slide the plastic out and let it settle to get rid of all the bubbles.

ROBERT SHEPHERD

A tank is a tank, pretty much—but to the extent that anybody designed it, Doug and I figured out photographically how big it had to be and then I got with a bunch of people who understood hydraulics enough to tell me how thick the glass had to be to withstand the pressures. We had a guy in San Diego, who does a lot of the tanks for Marineland and places like that, build it for us. And it leaked badly for a while—he had to come back and recaulk it. Then for the support systems, we used big redwood hot tubs—about six feet in diameter and six feet tall—and we stored the water in those. Also, we found that by keeping the tubs at different temperatures we could create an inversion layer in the main tank which was useful in maintaining our separation.

The injection system for the paint was a mechanical parallelogram—a pantograph, actually—with a set of mechanical hands like they use in atomic energy plants for separation and safety so a guy can remotely handle contaminated substances or objects from behind a thick glass window in another room. Well, not for safety, but in order to maneuver our injection system inside the tank, we rented one of those devices from a company that builds them; and we rigged it up specially for our needs so our operator could sit three or four feet away from the tank and remotely trigger various things to occur inside. Essentially a little too elaborate for our needs, but it did the job.

DOUGLAS TRUMBULL

Most of the clouds were shot with the camera rolling at about 72 frames per second, and we used overhead lighting to give kind of a moonlight effect. The white poster paint mixture was injected into the tank under pressure through a very thin tube which we could move around remotely with our overhead manipulator. I'd be outside, moving the manipulator around in space, and this thing inside the tank would do exactly the same. It was like a remote painting machine. I could paint the clouds three-dimensionally in the tank and make them appear anywhere I wanted by moving this manipulator around. For the cuts where we had bright lights moving through the clouds, we ran fiber optic tubes down into the tank and piped light in through the miniature clouds. Sometimes we'd build the billowing clouds at 72 frames a second; and then, on separate exposure, we'd put in light effects with a whole other tank full of clouds shot at maybe six frames a second—then superimpose the two together. Sometimes it didn't work, but usually we were able to find groupings of clouds with the same general placement and size that would tend to blend together.

SCOTT SQUIRES

Sometimes we'd go around back with a little hand unit, like a big syringe for animals, and we'd inject smaller clouds behind the big ones, because with the big atomic arm we weren't able to get that far back. It took a lot of time because we were trying for perfection on everything. Normally, we'd let the tank settle overnight, and then we'd come back in the morning and start shooting. Doug usually operated the arm, and if by chance he let it go below the fresh water layer and into the salt water, then all the paint would go to the bottom. Or if we filled up the tank to the point where we couldn't shoot anymore, we would have to stop, completely drain the aquarium, scrub it all out, and wash it down. By the time we did all that, and added the filtered water and let it settle down enough so there wasn't any movement at all, it was afternoon. So, at the most, we could get two shots a day. Usually it was more like one.

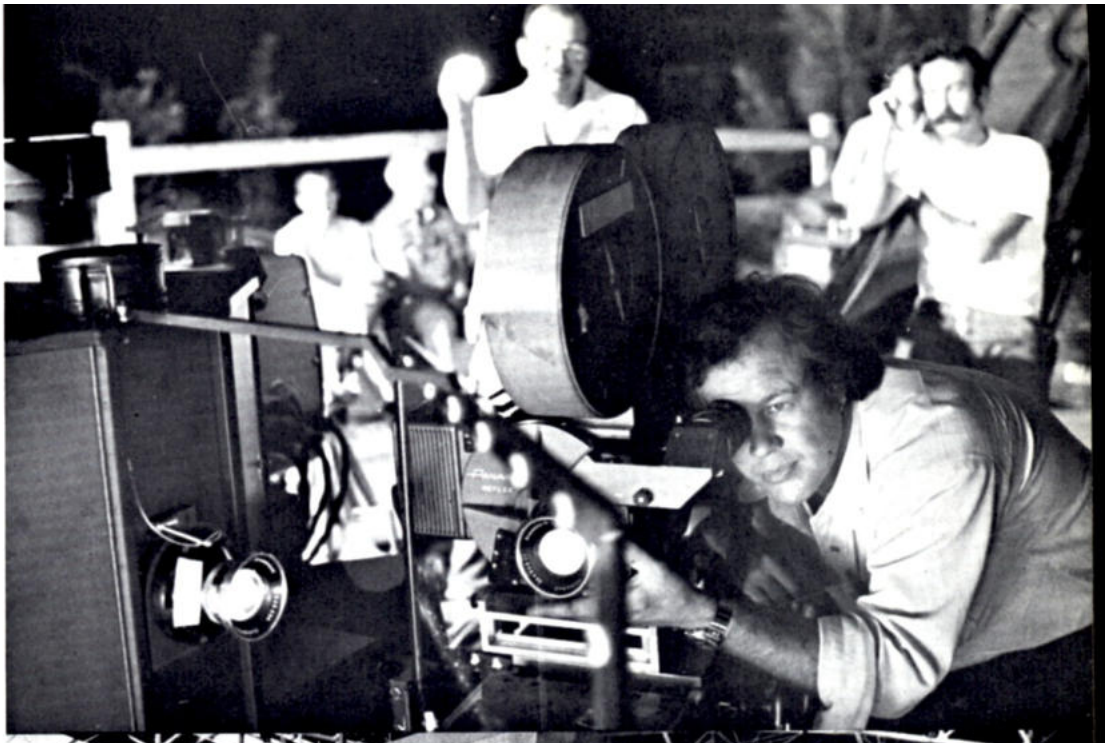
For tax shelter reasons, and before Future General entered the picture, the first shooting on CLOSE ENCOUNTERS had been done in December 1975, at an air traffic control center in Palmdale, California. Principal photography had then been set aside until script and casting had been firmed, and the sets designed and built. By mid-May, the production was underway again as a cast and crew of 114 people descended upon Devil's Tower, Wyoming for two weeks of location shooting.

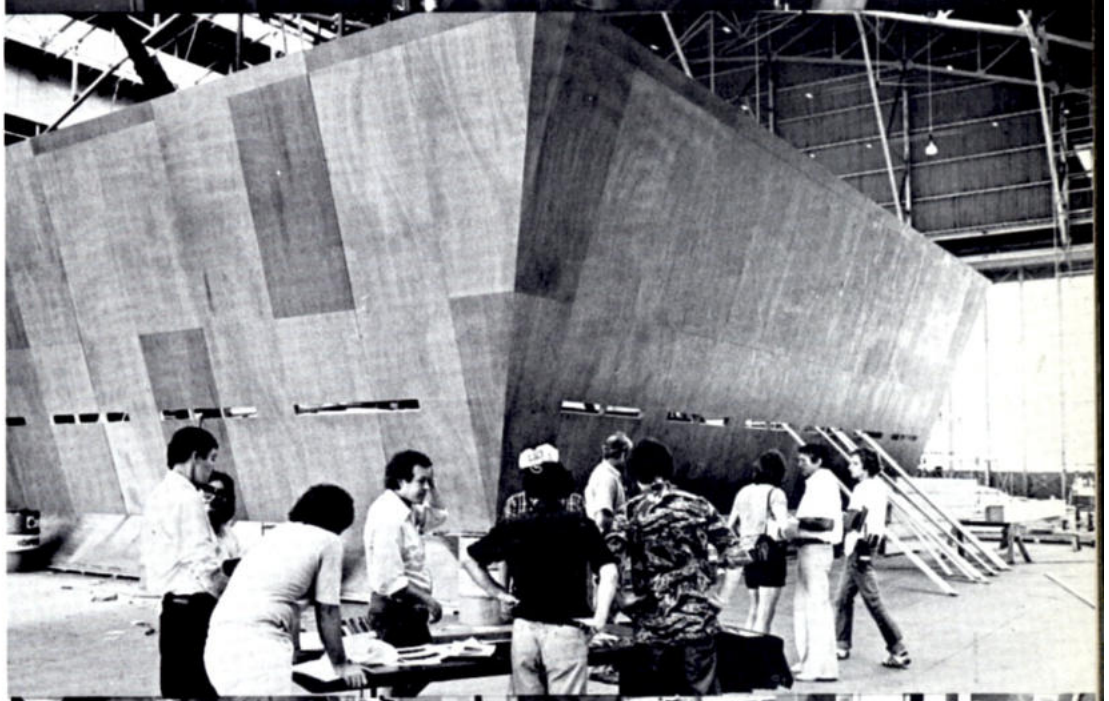
Although the Devil's Tower base of operations set was being constructed in Mobile, the production required location shooting in Wyoming for the Army security encampment on the opposite side of the mountain, and for the scenes where Roy Neary and Jillian Guiler evade troops and helicopters by scaling the Tower and climbing through the "notch" near its summit.

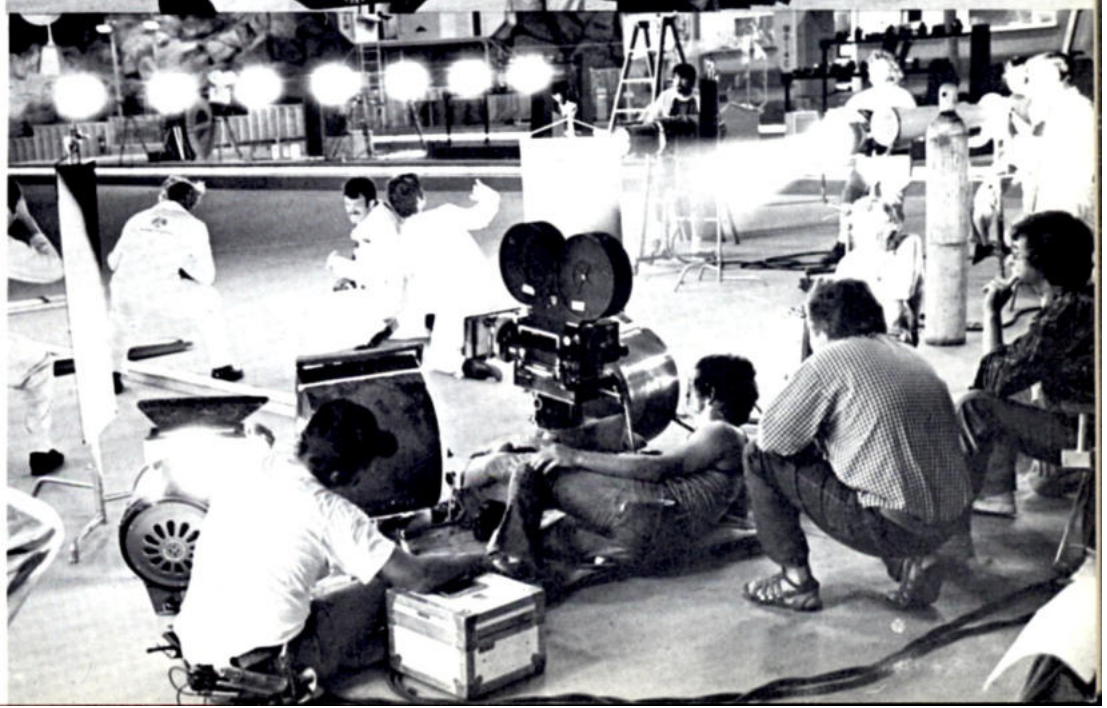
RICHARD YURICICH

Douglas and I went up there to shoot a few simple matte shots; and while we were there, we inherited a few more. Steven and Douglas usually picked the camera angles, but my job was to shoot the shots and make sure that nothing crossed the matte line and no dust rose through it and so on—all the normal things that have to be considered when you're doing a matte shot.

Left: Douglas Trumbull's Future General took active part in the filming in Mobile when shooting involved mattes, front projection or special effects of any kind. Top: Douglas Trumbull sights through the front projection system's Panavision Reflex 65 camera. At left is the projector, which projects onto a beam splitter mounted at a 45-degree angle between the projector and camera lenses, enabling it to throw an image onto the screen precisely along the camera's focal plane. Middle: Douglas Trumbull discusses plans with director Steven Spielberg (eighth from left), production designer Joe Alves (Spielberg's left) and art director Don Lomino (Alves' left), during early stages of set construction in Mobile. The lower hatchway section of the mothership was the only portion of the ship actually built on the set. It weighed twenty tons to insure steadiness and solid registration with the optically composited upper portions of the ship. Bottom: Douglas Trumbull and Steven Spielberg crouch behind assistant cameraman Mike Genne while the UFO hovering sequences is being photographed on the specially modified Future General matte camera.







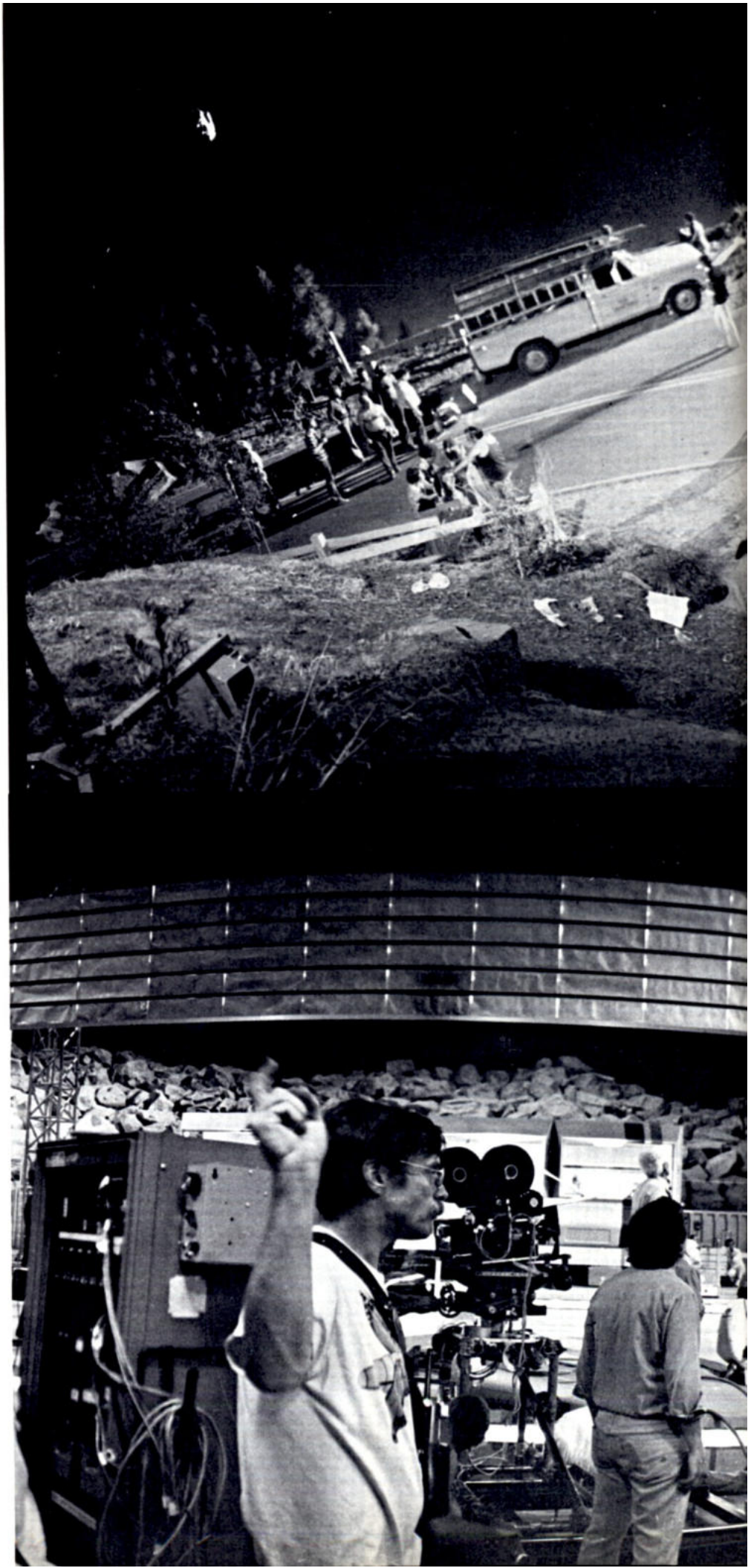
When they first shot on Devil's Tower they were fortunate in getting a beautiful panorama—the sky and the cloud formations were just gorgeous. But it looked different when they came back later to shoot the master shots of the mountain. So, in order to make it look like the production shot, we did a split screen on the sky and put in painted clouds and brought the exposure of the mountain down to match more closely with the earlier shooting. Then, there were three or four shots we did in 65mm while they're climbing the mountain, and we added clouds to those, too.

Later in the sequence, when the sun's gone down, we did the shots which segue from the live action exterior to the interior "notch" set, which was built in Mobile. We used four or five miniature helicopter shots in there which intercut with the real helicopters. We also shot a few closeups of Devil's Tower in 65mm—shot from the base camp point-of-view for the scene when they all look up and see the clouds billowing around the mountain. The long shot of that same thing was done entirely at Future General with a miniature mountain.

After ten days at Devil's Tower, the production moved to Mobile, Alabama, where several more weeks were spent in nearby locations selected to resemble Indiana and Wyoming: a housing tract where Roy Neary and his family reside; the remote farmhouse of Jillian Guiler and her son Barry; the railroad station evacuation center; and others. Doug Trumbull accompanied the unit to supervise matte photography and maintain close contact with Steven Spielberg. Dick Yuricich, meanwhile, returned to Marina del Rey to supervise completion of the front projection plates that would be needed when the unit moved on to the Crescendo Summit set.

The special effects facility was progressing. Optical and matte departments were being set up for eventual utilization by camera operator Don Jarel, who had been induced to leave Metro-Goldwyn-Mayer after more than twenty-five years with their optical department. His long-time co-worker, Robert Hall, was signed on some months later as chief optical camera operator, when the workload became such as to demand a split between the optical and matte departments. And though no matte paintings were originally planned for the

Top: Only a small stretch of roadway was built for the sequence where a police car, pursuing the low-flying saucers, smashes through the guard rail. The remainder of the scene was attained by using the front projection system (lower right) to throw an image onto the screen at the rear. Matte paintings and other opticals were added later. Bottom: Assistant director Chuck Myers (hand raised) signals for silence during live-action shooting for the sequence where Lacombe reaches up to touch the hovering saucer. The scene is being recorded by the motion tracking system (comprised of the special camera mounted on rails to the left, and the computer unit behind it) for later matching of UFO miniature photography.



production, veteran matte artist Matthew Yuricich—an Academy Award-winner for LOGAN'S RUN—was hired at the suggestion of his brother, Richard, on the rationale that having him on the payroll would be cheap insurance against the unforseeable.

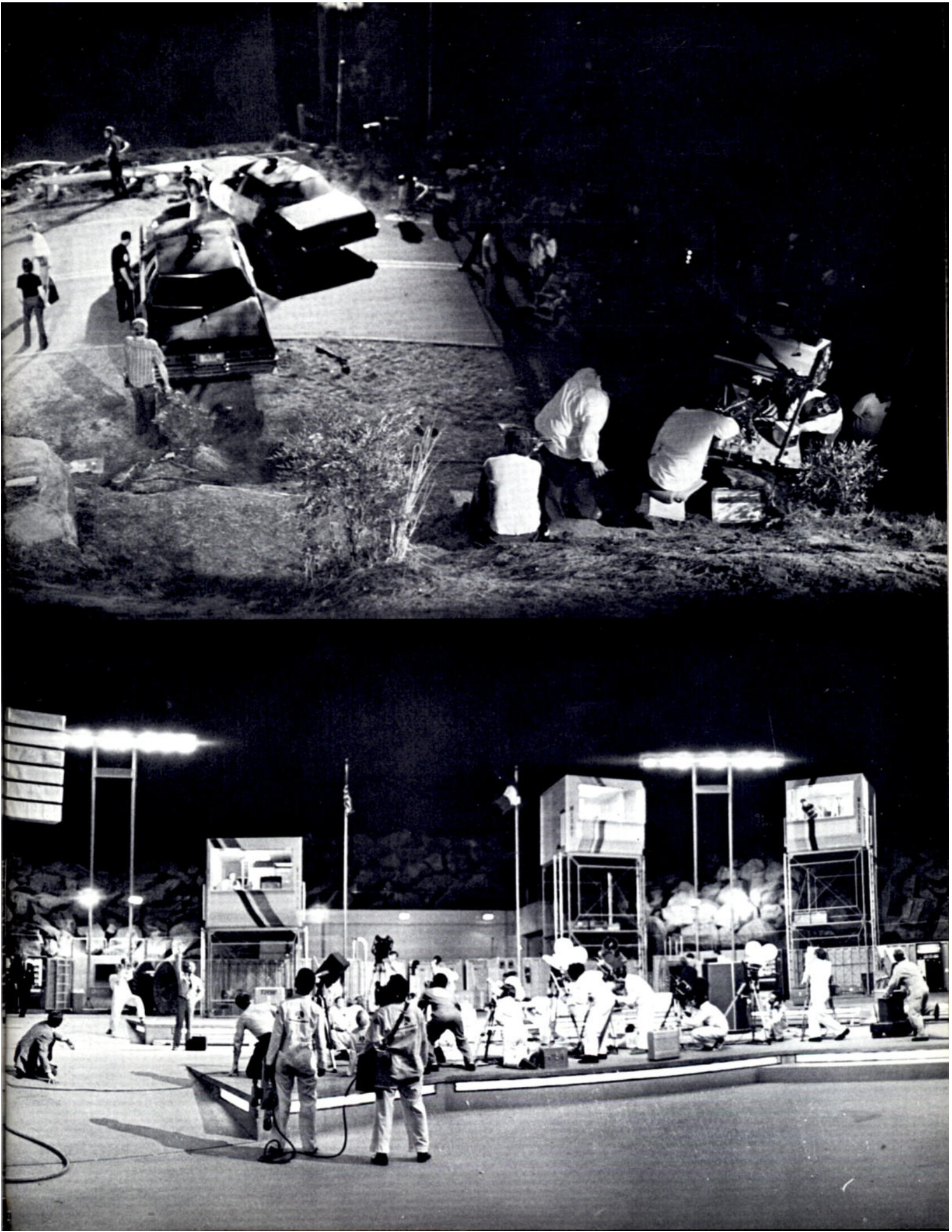
Dave Stewart, an accomplished effects photographer, was hired away from the prestigious Robert Abel and Associates to operate the motion tracking system for Future General. That system, which included the motion control computer, a 42-foot track, and a camera and head specially modified by Don Trumbull—Doug's father—was completed early in July and shipped direct to Mobile where the main production unit was already working on the big set. Jerry Jeffress and Dave Stewart went along with it.

DAVE STEWART

The plan was to use the motion control device to record the camera movements for seven or eight live action scenes so we'd be able to add miniatures and other special effects later. As far as I know, that's the first time it's ever been done that way. We were capable, with the motion control system, of recording every move the camera made—pan, tilt, dolly moves, everything—along with all those little human errors which the eye perceives as more natural than, say, perfectly smooth stop-motion photography. Then we could go back, at a much later date, and replay the exact same move to photograph our miniatures. Sometimes we had to scale up or scale down, ratio-wise, as to size versus distance from the camera versus size of the background or foreground, but we had circuits built into the system to do that.

Essentially, though, what the motion control system allowed us to do was keep our camera moving, which is unheard of in this kind of special effects work. And that is how we were able to get scenes like the one at the beginning of the barnstorming sequence where Truffaut walks out of the booth and the camera pans and follows him, revealing the saucers going over the base camp. Another one was the scene where the camera dollies past a bunch of technicians as the saucer hovers a few feet above the ground and Truffaut reaches up to touch it. Anyone who's thinking in conventional special effects terms must have assumed that we had a giant saucer that somebody built down in Mobile and we flew it around on cables. Actually, it was an eighteen inch model.

Jerry Jeffress and I spent two weeks down there setting up the equipment and fighting the heat and the dirt and everything else to get it used to its location. It



"We were able to throw a rock-steady image onto a screen 100 feet wide from a distance of 180 feet. Our tests looked great, but we didn't get to use the 70mm front projection system in the picture."
—Richard Yuricich

had *just* been built—never tested—and was immediately shipped off to Mobile. That's how tight the schedule was at the time. So we spent that first couple of weeks just testing it out to make sure it could repeat itself and register properly and I was also writing a manual on the use of the system. By the third week, they were just about ready to start shooting with it when I got a call from Dick Yuricich. He was still shooting miniatures and 70mm front projection plates and just didn't have the personnel on hand to get the work done.

So he rushed Jor Van Kline down to Mobile, and I was able to teach him the fundamentals of the machine in about ten hours. Actually, it wasn't too bad, because all we had to do there was record what the live action cameraman was doing with the camera. And that was just three channels of motion control—the dolly, the pan, and the tilt. There was no need for creating anything or editing anything. All he had to do was press the right buttons in the right sequence to get the information being fed to the machine from the optical encoders onto magnetic tape—just like a tape recorder.

So I flew back to L.A. where they were sweating out one helicopter scene that they *really* needed to get finished because it was going to be front projected during the Crescendo Summit shooting. There are about four or five miniature cuts of it coming across the landscape, until it gets up close and then it's a real helicopter. The miniature shots were just light effects, and Dick worked them out by running a small overhead track above Greg Jein's landscape and mounting a fiber optic post scanner on it which we could move around so it looked like a searchlight beam.

RICHARD YURICICH

They were already well into shooting when I got down to Mobile. Douglas had insisted, even though he didn't have to with Steven, that someone from Future General was always there whenever a 65mm shot was made. So we had some of our crew and a lot of our equipment down there, and we spent the majority of the summer in Mobile. We supervised all of the motion control shooting and anything that was going to be used in a matte shot. And there were *numerous* matte shots. *Any* of the shots with the base of operations went through the matte camera. I had gone down there with the production people before the set was even built and took pictures with our location matte still camera—some from a cherry picker sixty feet off the ground—and I carved an X and my initials into the hangar where I thought the camera ought to go.

In order to get the down perspective into the set, we needed to have our camera about fifty feet off the ground; and these shots, of course, had to be made with a locked-off camera for solid registration.

DON JAREL

The secret of getting a good matte is starting right from the beginning. Your camera has to be static. It has to be well-registered, with a steady movement and a steady motor; and when you shoot, it has to be tied down or anchored to the floor with grip chains. Some companies will go out and shoot a scene that's going to be a matte with just a production camera, but if you do that, your painting's probably going to be leaving your dupe and you'll see a bounce on the matte line. While the production unit was still shooting in Alabama, I'd get all the footage that was going to be used for a matte shot, and the first thing I'd do was make grid tests to make sure the original shot was set and steady. And we didn't have one that wasn't.

RICHARD YURICICH

Normally, you'd just bolt or chain your camera down. But Douglas, being the visionary that he is, had the mount welded to the hangar wall so we could always come back to the exact same spot. All of the shots looking down on the base camp from the mountain were shot from this one position—and we're talking about maybe seventy shots. The sizes would be varied in the optical camera, but they were all shot from the same spot and we'd just cheat the perspective and work it in with the paintings.

We also shot a lot of the "notch" sequence with our matte camera, because, even though Neary and Jillian are supposed to be looking down on the base of operations, the base was shot on one set at one time and their shots were done on a different set at a different time. The two sets were built in adjacent hangars, but those hangars were so big that the centers of the stages were maybe a quarter of a mile apart. So every time we had a phone call, it was a half-hour walk to the phone—or seemed like it. The "notch" set was very small. It took up maybe a third of the frame, or less. The terrain, the horizon, the sky—*everything* was faked.

After a full summer of blistering heat and stifling humidity, principal photography was drawing to a close as the production moved on to Crescendo Summit. Here audiences were to get their first real look at the alien saucers; and here also, for Roy Neary, would be the genesis of his spiritual bond to Jillian Guiler and his corresponding alienation from wife and family. Under Joe Alves' supervision, a beautifully detailed stretch of Indiana highway had been constructed—only the giant front projection screen at the rear seemed out of place.

ROBERT SHEPHERD

At one point, they wanted the screen to be 150 feet wide and 60 feet tall, but that got almost impossible. We did, however, manage to achieve one that was a little over 100 feet wide and 37 feet tall. We arrived at 37 feet, because that was the height of the hangar door. The problem with something that large is that it has to be strong enough to support itself; and yet we wanted it light enough so it wouldn't take huge cranes to move it around, because they wanted to be able to reposition it easily on various parts of the stage. So we built a great big tubular steel frame-work on wheels that was sort of a tension structure—it needed the tension of the screen inside for its own strength. We built it here, in Santa Monica-Venice, made it portable, and shipped the whole thing down to Mobile.

Two glass mounted 8x10 front-projection plates, combinations of miniature table-top sets with artwork. Top: Looking down at the Devil's Tower base of operations, a plate not used in the final film. The 6x10 foot miniature, composed of various scales of granite rock, was later replaced by a Matte Yuricich matte painting (shown inset). Bottom: The background horizon and sky for the Crescendo Summit set, a 5x12 feet forced perspective miniature. Inset: The plate utilized as a front projection still background. The moving helicopters were added later, optically.

The problem was that they had to assemble it outside the hangar, and when they unrolled that monster screen and tried to set it up, it became the world's largest sail. The wind came up, and they had about a hundred grips on little wires hanging like Lilliputians all over this gigantic thing. They almost lost it twice—the damn thing nearly blew over—but they managed to save it somehow and get it inside.

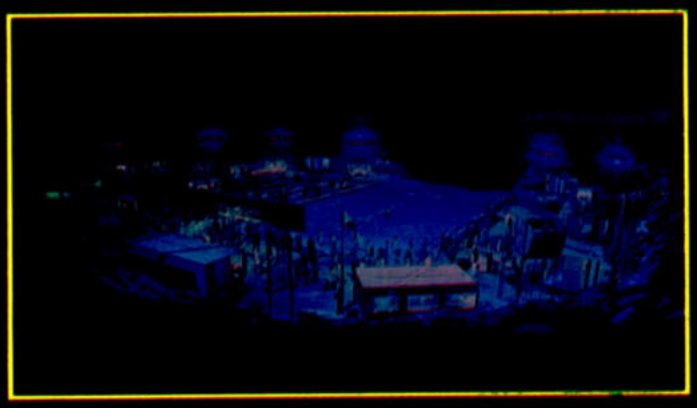
RICHARD YURICICH

Our 70mm front projector was built especially for this production, and was designed totally by Don Trumbull, Douglas, myself, and Doug Fries of Fries Engineering. We started out by modifying one of our Todd-AO cameras. Since the Todd-AO aperture was designed for an eight-perf pull-down, it was so large that there was plenty of room above the pull-down claw to push light through. So it was Douglas' idea to use the movement from that camera as a front projector, and it worked very well. We had to do some modifications to it because the registration pin is two perfs below the actual frame line; but once we did that, we were able to build our whole system around it by using the Todd camera movement as the projector movement. We added a xenon lamp house and Panavision lenses; and we took an O'Connor 100 fluid head, cut it in half, and spread it out so that a small 35mm reflex camera could sit down into the nodal. Then Don Trumbull worked out an interlock sync system for the camera and projector using a cable drive mechanism. Anyway, it was a small unit, and could be fit on a crane and moved all around—and it worked terrific.

In the end, we were able to throw a rock-steady image onto a screen a hundred feet wide from a distance of 180 feet. We shot one test with it—the scene on Crescendo Summit where Richard Dreyfuss is telling Teri Garr about the shapes of the saucers he saw, and the shot had our projected background, with lightning off in the distance, while they were talking. We'd also planned to use it with clouds for a lot of the scenes around Crescendo Summit, and a few shots at Jillian's house. Our tests looked great, but we didn't get to use the system in the picture.

DOUGLAS TRUMBULL

There was a big flap at the end of the



Top: The crescendo Summit set, where Neary, Gillian and Barry encounter their first UFOs close-up, was constructed in another hangar adjacent to the one being used for the base camp. The background for the setting was projected onto the 100-foot long front projection screen at the rear of the set. Bottom: Doug Trumbull studies the line-up for the front projection system. Behind the camera (left to right) are Don Trumbull, Doug's father, who designed the front projector and other mechanical systems for the film; director Steven Spielberg; and cinematographer Vilmos Zsigmond.

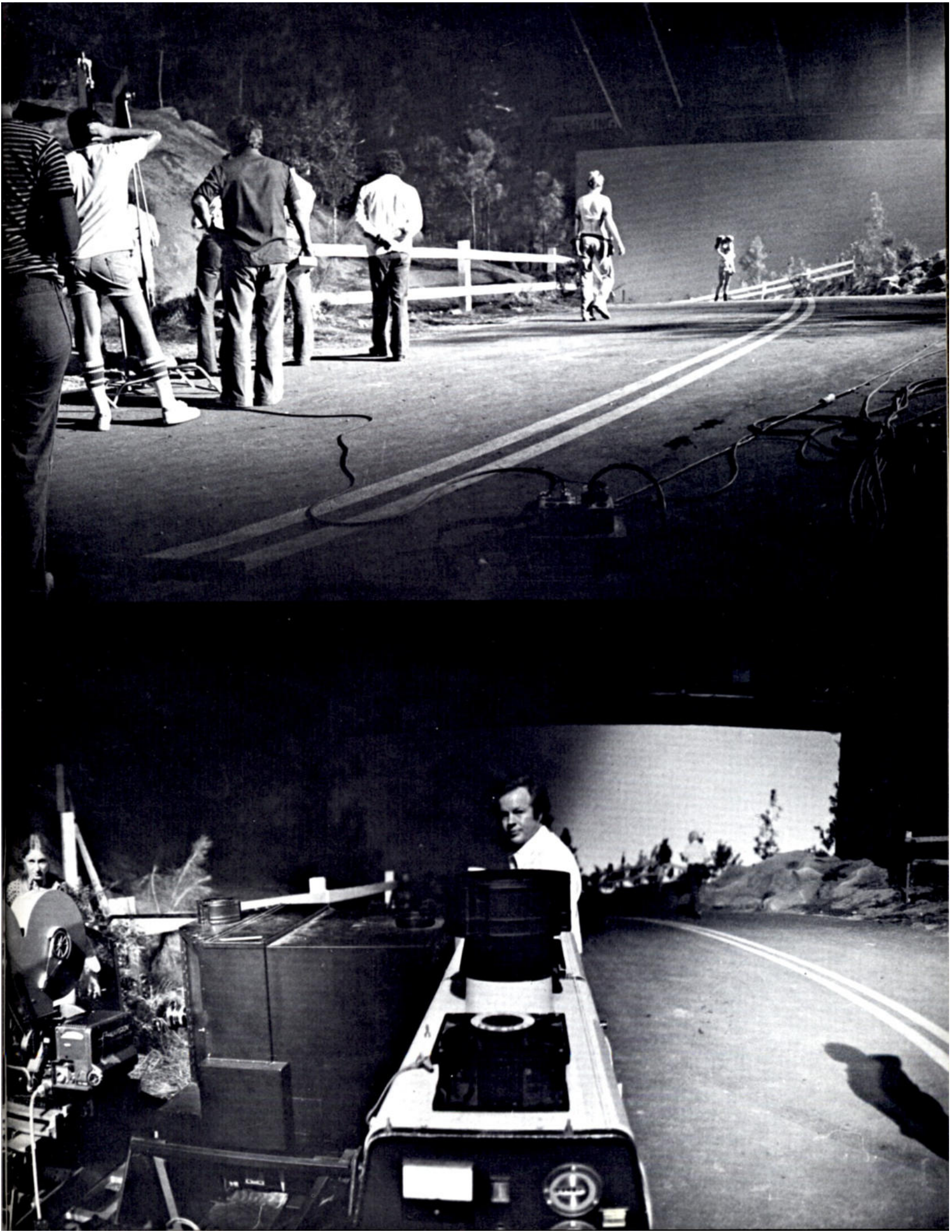
shooting in Mobile and the studio wanted to get the production out of there. And since the process photography had been left for the very last, they came on the set one day and said: "Okay, we're shooting front projection today." Well, I'd had huge fights with the producers about the need to test those aspects of the production, but I could never get stage time with a crew and lights and everything so the plates and foreground lighting could be balanced. So they ended up blowing a whole day's shooting, because the process plates looked fine but the foreground was not lit right—it wasn't balanced to the plates. It was nothing that couldn't be ironed out, but they got cold feet and just wanted us out of there. So we never did shoot the 70mm front projection. They decided, instead, to lock off the camera, shoot it without process, and do all that stuff with matte paintings and opticals.

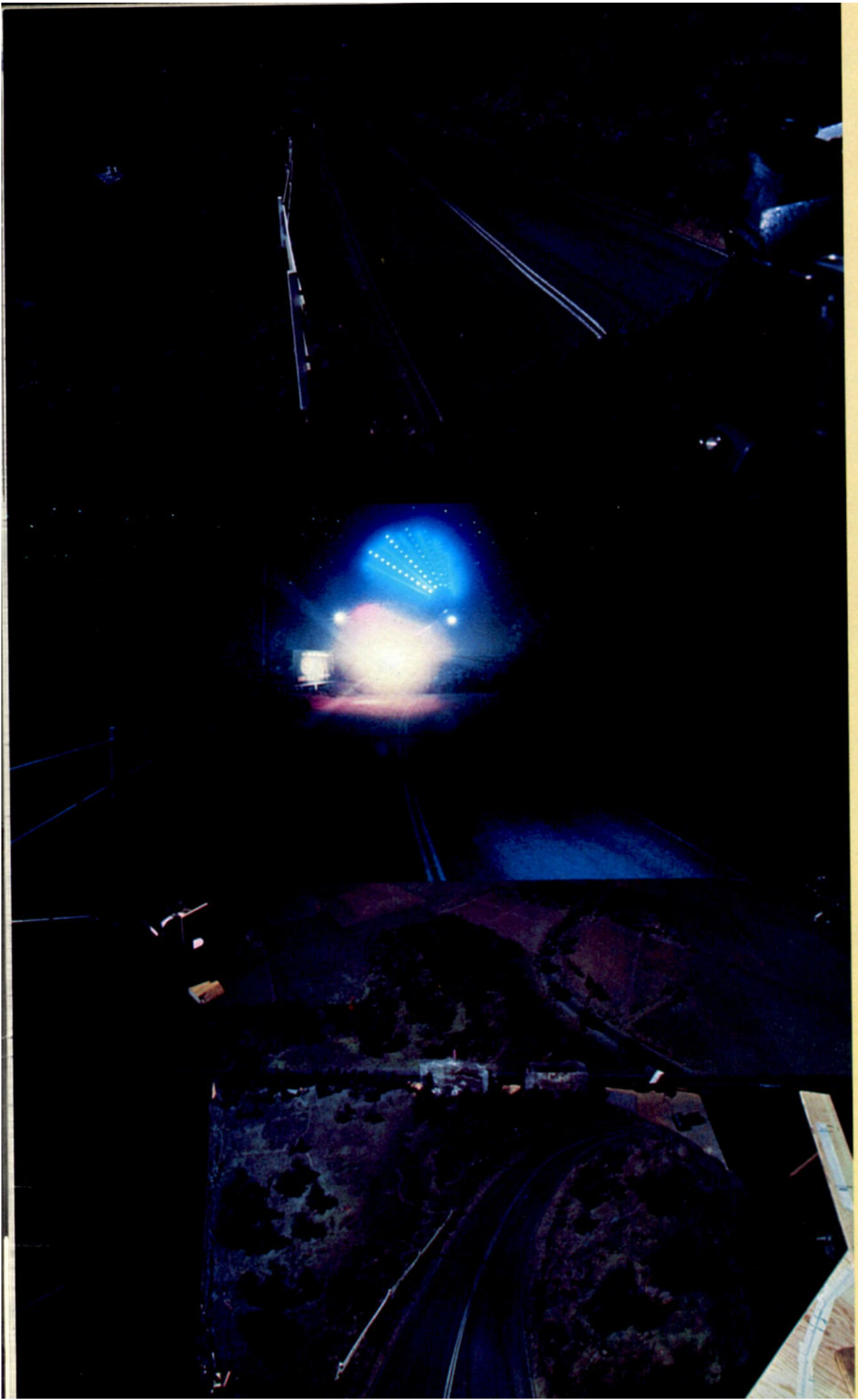
There *is* a fair amount of front projection in the picture, but that was done with the still plate projector. Using that, we were able to project the 8x10 process plates we'd made out onto our 100-foot wide screen to give the feeling of being outdoors at night. It was extremely subtle in the final film, but there was no other way to do it. You just can't photograph what the eye can see at night—it's simply too dark.

RICHARD YURICICH

We took the 8x10 front projector along as kind of insurance. Don Trumbull had built that system earlier, and we just modified one of our cameras to work on it. Dan Slater was partially responsible for the line-up system, which involved projecting light through the reflex end of the camera as a quick way of getting front projection line-up. The original plan was to shoot the front projection footage in 35mm, but I insisted on taking a pin-registered 65mm Panavision reflex and mounting it on the 8x10 front projector. And it turned out to be a marvelous tool. Panavision steady-tested their camera for us and just gave us incredible cooperation; and Don Trumbull designed a special mount for us. In the end, what the system allowed us to do was shoot our front-projected miniature background onto 65mm film stock along with all the foreground action. Then we could bring it back and, in turn, add saucers or stars or other things to it. So, effectively, we had two hits at the negative.

CLOSE ENCOUNTERS OF THE THIRD KIND wrapped principal photography in September. For Future General, the rush to ready themselves for location shooting was past; but the bulk of their work still lay ahead. The saucer concepts had not yet been fully realized, other effects still need-

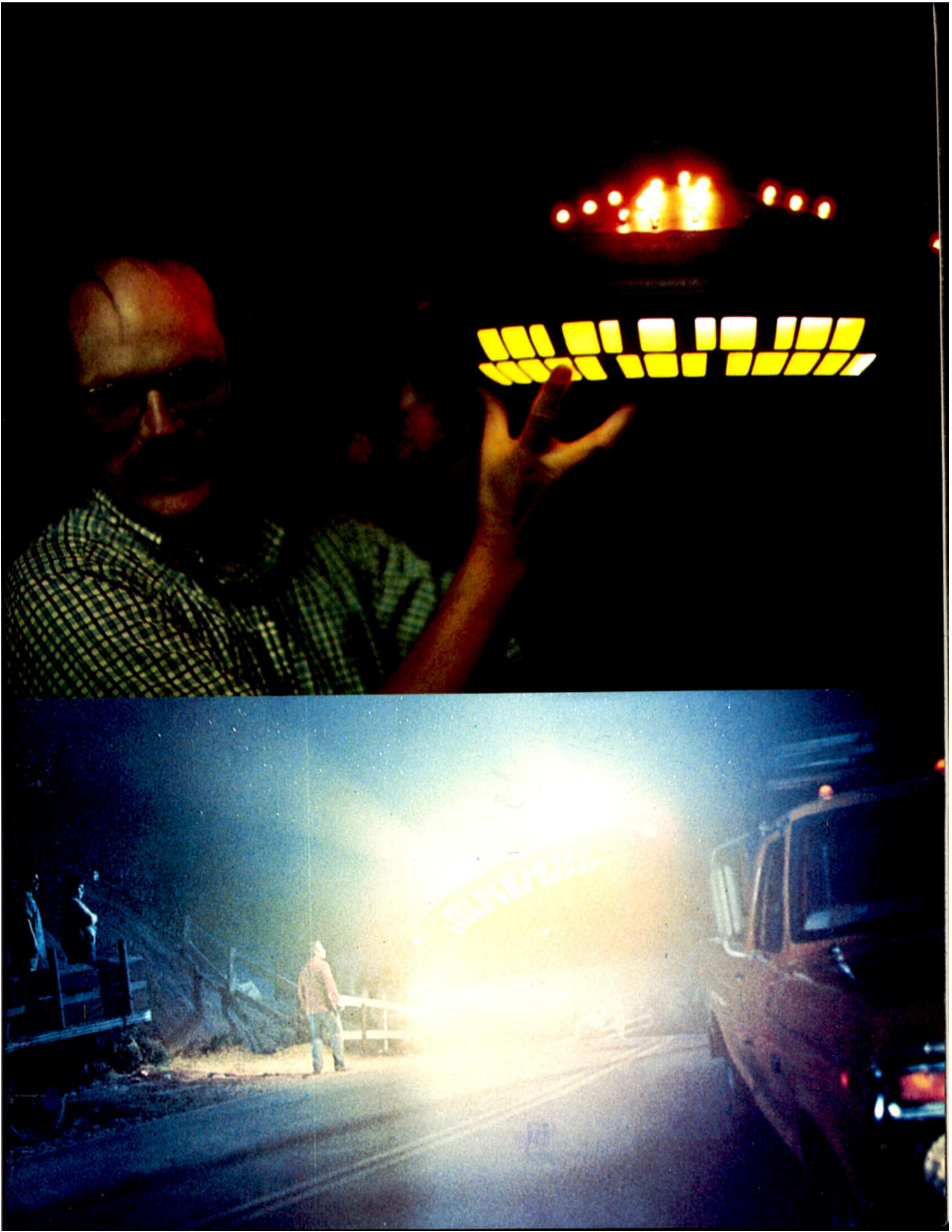




The Quarter Pounder Shot

"All the saucer shots were made up of various passes—different exposures all laid over each other and all done originally in the smoke room camera. So every time you see a saucer, it's gone over that piece of film maybe five or six times to build up the image that you see in the final scene. We never shot more than one saucer at a time. In scenes where several saucers are in the shot, we'd often composite them all in-camera onto the original negative. It all took a tremendous amount of time, especially considering that some of the smoke room exposures took up to sixteen seconds per frame."
—Dave Stewart

Top Right: Model shop coordinator J. Richard Dow makes an adjustment to "Saucer D," one of the more prominently displayed UFO configurations in the film. Bottom Right: "Saucer D" comes barrelling over the heads of little Barry (Cary Guffey) and his mother (Melinda Dillon) on the crest of Crescendo Summit. Neary (Richard Dreyfuss) stares in amazement. Note that the two women in the truck at left appear to be staring at the wrong place. Middle Left: After racing over Crescendo Summit, the ice-cream cone shaped saucer stops briefly to flash its light on a McDonalds billboard—dubbed the "Quarter Pounder" sequence. Top and Bottom Left: Two views of chief model maker Greg Jein's forced-perspective miniature used in the scene. Looking past the camera (top) with a miniature mock-up model of the mothership placed in the set. The aerial view of the same set (bottom) illustrates the forced-perspective nature of the miniature. The second table, placed above and adjacent to it for background detail, had already been used in shooting the Crescendo Summit front projection plates.



"Spielberg worked very closely with me, and also with George Jensen, who was his storyboard illustrator. From their drawings we established some fundamental similarities and devised sort of a saucer kit, which was basically a circular metal disc, about eighteen inches in diameter, with different vacuum-formed plastic shrouds which fitted onto the top and bottom."

—Douglas Trumbull

ed to be worked out, and the Marina del Rey facility—though active—was still incomplete.

Steven Spielberg, meanwhile, moved into an apartment house nearby where a suite of rooms had been converted into a fully-equipped post-production facility. Working in close proximity to Future General, he was able to divide his time equitably between editing the picture and maintaining a close liaison with Doug Trumbull and the special effects crew. No aspect of the work was beneath his interest, and his enthusiasm and ingenuity were contagious.

DOUGLAS TRUMBULL

All the data Steven had gathered together regarding UFO incidents—verbal accounts, and even drawings—always emphasized brilliant lights. Whether it was square or rectangular or oblong or spherical or ellipsoid or disc-shaped or whatever, it was *always* bright lights. For the most part, if you see a black shape against a black sky, there's nothing to define the shape except the lights themselves. And since all the sightings in CLOSE ENCOUNTERS took place at night, the nebulosity of the whole thing became integral to the concept. We would have needed a totally different approach for a daytime encounter, and it would have sort of defied our desire to keep it mysterious. We never wanted to give the impression that the UFOs were just metal-hulled objects hovering. We wanted to create for the theater audience what other people had actually experienced in real life—so that seeing the movie would, in a way, be like a UFO experience.

Since our basic concept for the saucers was that shape and surface detail were irrelevant, some of the first work I did was just experimenting with lens flares. No flying saucers or anything—just lights shone into the camera. These tests enabled us to select the correct lenses and lights we would need to create the flare effects we wanted. The saucer shapes, in turn, became simply armatures out of which light would come in certain specified patterns.

Steven worked very closely with me, and also with George Jensen, who was his storyboard illustrator and sort of right-hand man. Whenever Steven had an idea, he would articulate it verbally to me, but he would also have George try to do a painting or sketch that represented what he was thinking. Well, Steven had George do a whole bunch of saucer drawings, independent of the shots they would go into—just different ideas for saucers. And one of the themes that he was constantly after was a way of arranging these bright lights on the saucer so that at certain moments, when it tumbled or rotated or whatever, it would reveal something that looked sort of face-like. We toyed a lot with that and did a lot of drawings. But it was a very conscious attempt to give the saucers something that would cause you to do an interpretive function.

Then, from the drawings, we established some fundamental similarities and devised sort of a saucer kit, which was basically a circular metal disc, about eighteen inches in diameter, with different vacuum-formed plastic shrouds which fitted onto the top and bottom. Some of them were disc-shaped; others were spherical or ellipsoid or conical—and they all fit interchangeably onto this metal armature so we could mix and match them. For example, if you put a cone shape on the bottom and a dome shape on the top, you'd end up with something that looked like an ice cream cone. Others we had looked like hamburgers. We used various combinations because, even though brilliant light effects seem to be a fairly consistent observation, UFO shapes are often described as circular or rectangular or triangular. So we had many different UFOs, and all of them, except for a couple of oddball jobs that were just plexiglass light boxes, were done with our basic saucer kit. But the shapes themselves are very ill-defined in the film, and usually you see them only when they pass in front of something. Essentially, it was the lights we used which implied the physical shape. And to create these sources of illumination, we cut away holes in the plastic shrouds and built some fairly sophisticated neon light systems inside, with fiber optics and color filters and stuff.

We had a ring of light around the edge of the disc, and if you tipped the saucer in one direction, it seemed to smile; and if you tipped the saucer the other direction, it seemed to frown. And we just toyed around with combinations of light patterns that could be taken for eyes, or a nose, or ears, etc. Most of them were very indistinct, but the human mind is always searching for an anthropomorphic identification, and we played on that. We wanted to project a feeling of involvement with some *being*—not just a piece of hardware sailing by two feet off the ground.

One of the things we did with the saucers was an idea I came up with to shoot them in a smoke environment. When you have a brilliant light source in the real world—for instance, car headlights or even landing lights on an airplane—you see a beam of light coming out. The bright light scattering in the air creates sort of an air glow. But when you try to create an effect like that with miniatures—for instance, with one-twentieth scale miniatures, which is fairly close to the scale ratio we worked at—it simply does not occur unless you make the air twenty times dirtier than it is in reality.

So we built a system which we called the smoke room, and by using electronic controls and infrared sensors we could control the density of the smoke inside. Then we photographed the objects moving through this smoke environment, which created an air glow around them. For example, we'd put neon lights inside the saucer to create an orangy neon glow all around it when we did that exposure in the dark. Then we'd wind back to frame one and maybe shoot some light beams coming from the saucer, which we did with little focus lamps which shone light out into the fog. Then, if we wanted to create two bright lights on the sides that were simply lens flare rings—diffraction rings or something—we'd go back to frame one again, and we'd clear all the smoke out of the room and shoot these exposures that didn't have glow. So all the saucers were combinations of some exposures with glow and some without, to get a mixture of air glow and lens flare effects. We tried to stick with just a few lenses because we could predict that if we had a certain exposure with a certain filter and with a certain kind of light at a certain brightness, then we could get a lens flare of a certain type. And we had to be able to count on it, because we wanted the lens flare qualities to remain constant throughout the film. So we did most of it with just two lenses—a 30-millimeter and a 40-millimeter. We used a 50-millimeter some of the time, but we tried to keep the lenses matched.

KENNETH SWENSON

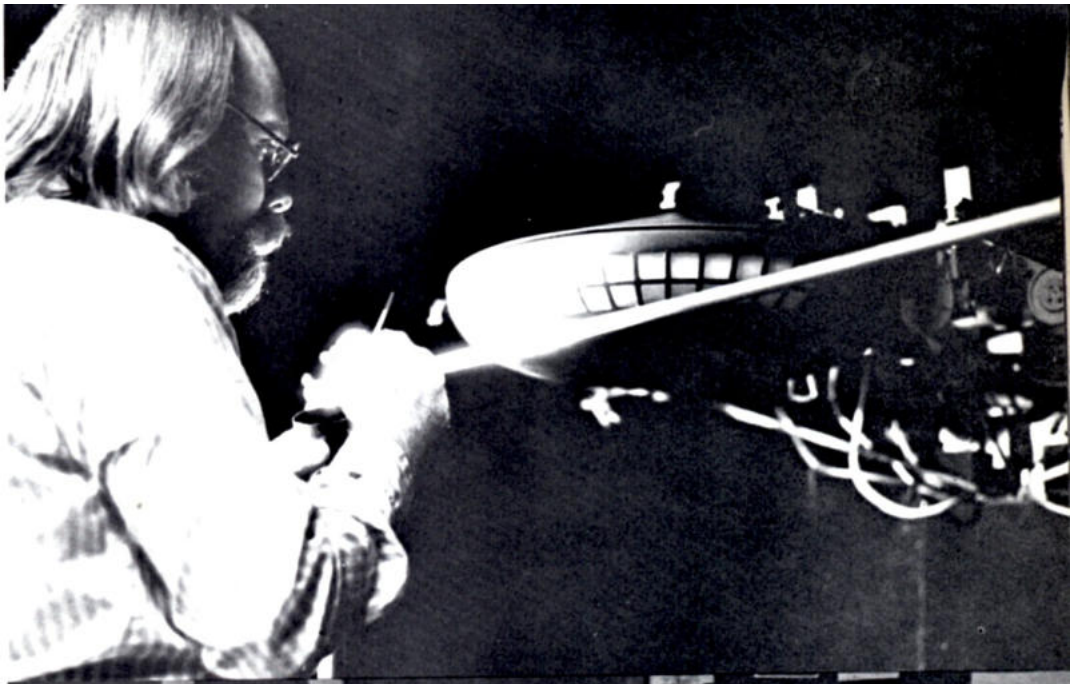
The basis of the saucers was an eighteen-inch metal plate which connected to our motion control rig. The saucer shapes, which could all fasten onto the same plate, were vacuum-formed by Lorne Peterson and John Erlund from sketchy line drawings made by Doug Trumbull. Then the shapes came to us and we had to install the lights and other working parts. We used mostly neon light sources—some xenon. Also, we used a lot of small grain-of-wheat bulbs, which are tiny incandescent bulbs used primarily for model railroad layouts. And we had post scanners mounted on some of the models—they were like miniature motorized searchlights that flared into the lens. The shapes themselves were just painted black and had no surface detail. And since they were all interchangeable, we could have theoretically made something like seventy-two different saucers, but we only used about seven.

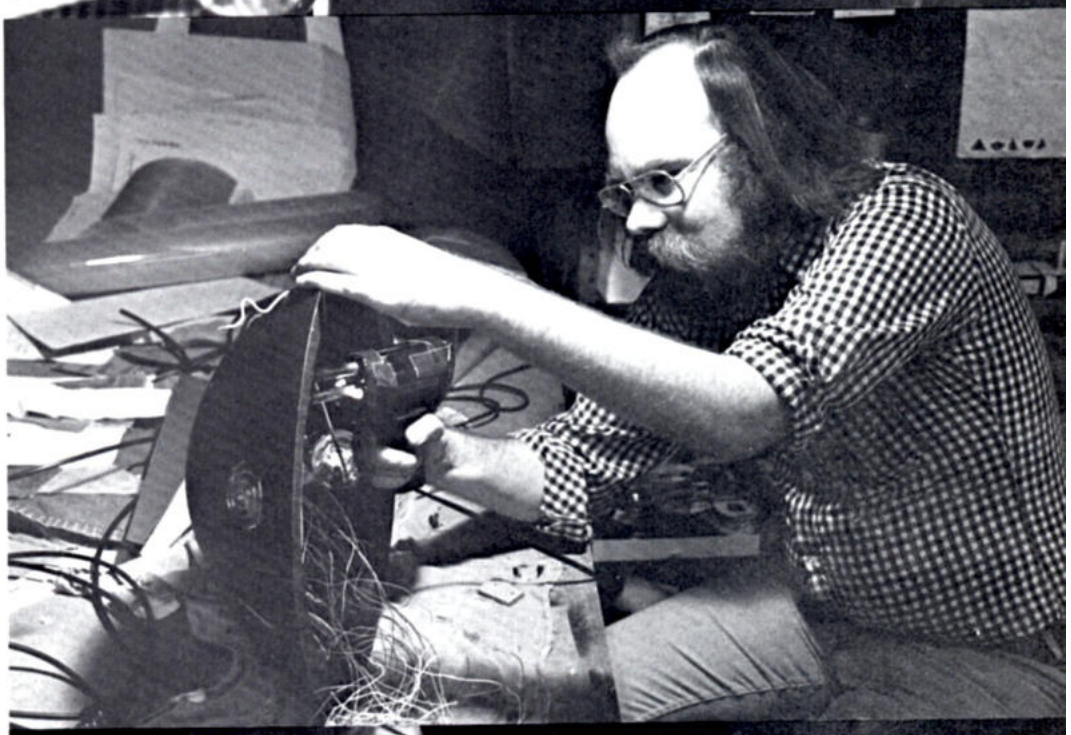
ROBERT SHEPHERD

Once we decided on a size for the room, we went ahead and built it. We tried to seal it off as much as possible so the smoke wouldn't seep out, and we covered it completely with black velvet on the inside. Then, to circulate air in and out of the room, we had a system built that was kind of like a forced-air furnace, with a big motor and a giant exhaust fan.

We experimented quite a bit with various smoke-producing mediums. Our requirements were that we get a white, homogenous smoke that would linger. For instance, we couldn't use carbon dioxide or some other gases because they're essentially water vapors; and as soon as they heat up, they disappear. So we needed something that wasn't temperature sensitive in terms of whether it's visible or not. And it had to be something we could produce simply and cheaply. But the biggest thing was whether people could live within it. There are lots of things that produce really nice vapors and smoke, but they're toxic or otherwise harmful. We tried all kinds of things—heavy-duty cigars, exotic resins from India—everything we could think of. Finally, we came back to Mole-Richardson bee smoke, which is readily available and is

Top: Special consultant Peter Anderson applies touch-up paint to a UFO mounted on the smoke room's maneuverable model holder. Middle: Anderson attends to the complex wiring of a dome-shaped saucer shroud. Bottom: Model shop coordinator J. Richard Dow substitutes one of the interchangeable vacuum-formed shrouds onto the metal plate which served as the basis for the saucer kit.





kind of a standard throughout the industry. Essentially, it's just a low-grade diesel fuel which is vaporized, rather than burned, so you get a fine mist of suspended oil in the air. It's not the best stuff in the world to breathe, but it *is* breathable.

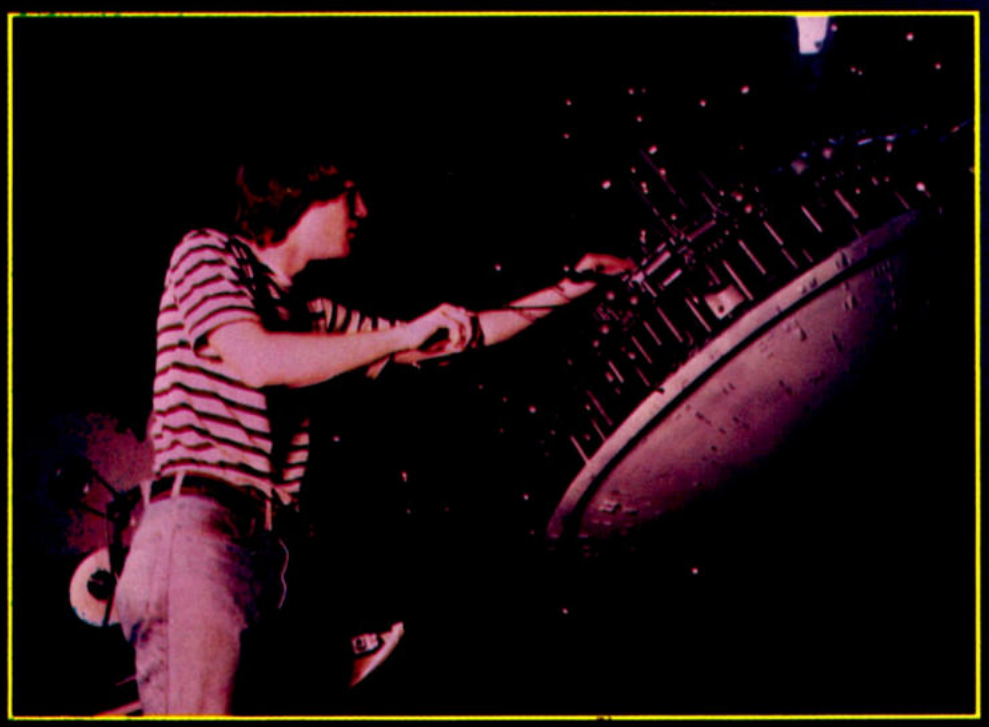
Outside the room, we had a large plenum where we would inject smoke by means of an electrically heated and triggered device that would squirt the liquid smoke stuff across a hot burner which vaporized it. Then it would be picked up by the fans and blown into the room. Since we were using the smoke as a diffusion filter, it was important that it be totally homogenous—we didn't want to see waves in it. We put about 20 fans in the room, pointing every which way, to continually stir up the stuff. To control the density, we had an optical smoke sensing system that would shoot infrared light beams across the room to receiver units. These would trigger an analysis device, and if the reading was getting low, it would automatically direct the smoke machine to pump some more smoke into the room.

DAVE STEWART

When I got back from Mobile, I started running tests in the smoke room—just shooting Polaroid things and so forth—to start sorting out all the problems we needed to solve. We spent weeks just doing multitudes of tests—adjusting light intensities and smoke levels, not just to create beams of light, but to give aerial perspective to the saucers so that thirty feet of distance in the smoke room would look like miles in reality. And the smoke gave great perspective to things. It was also very important to get size relationships so that the eighteen-inch models always appeared to be a predetermined size, like, say, twenty feet across. Those are the things we constantly had to deal with.

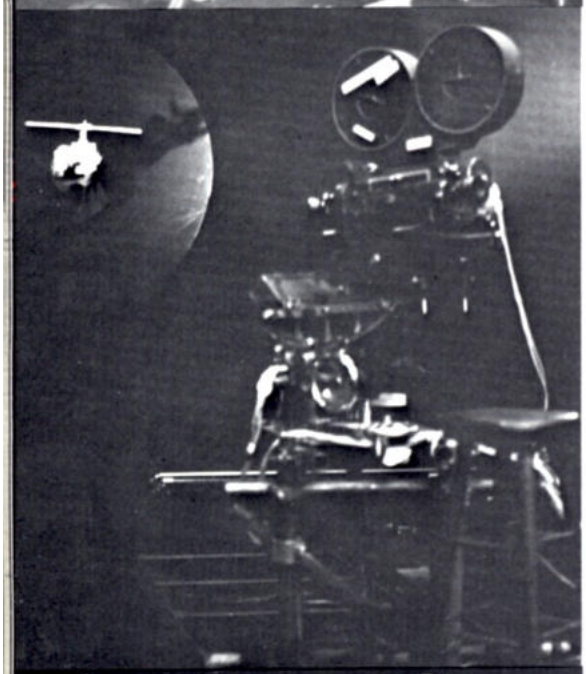
Once the motion control system had accomplished its task in Mobile, it was shipped back and set up in the smoke room. The room itself was 54½ feet long, 25 feet wide, and 12 feet high. The 42-foot track broke down into three 14-foot sections, and we used a theodolite to level it so it would always be within certain tolerance factors. With the track, the camera was capable of moving toward or away from the models; and, of course, the camera itself was sitting on a pan and tilt head. We also made a motorized mechanical model holder that was capable of going up and down, left and right, rotate, yaw, pitch and tilt down. And all these movements were controlled by the motion control computer. Now, when I say computer, I don't mean that all you have to do is walk up to a bunch of lights, push a few buttons and say, "Do that." You have to go through the basic movements yourself, and then it's just there on tape—digitized information that you can recall and play around with. It'll play the move back, and blow it up or

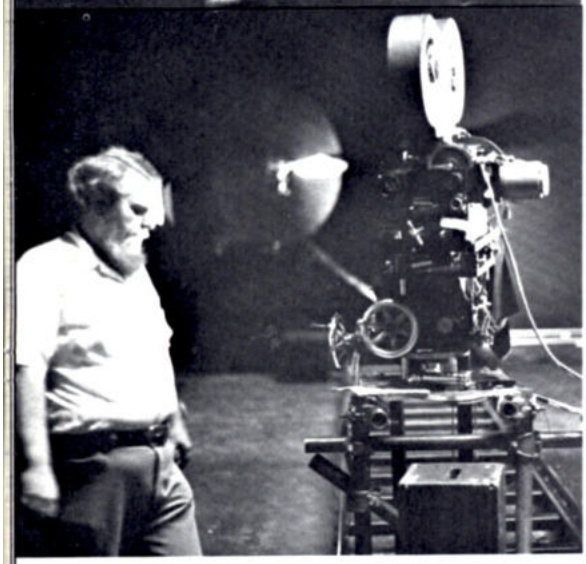
Above: The mothership in the smoke room environment, being filmed in an upright position for the end-title sequence in which it drifts off into space among the stars. The smoke, actually vaporized oil, provides a soft light-diffusing glow to the ship. The motorized mini-scan camera, on tracks in the foreground, automatically photographs the scene. Below: Assistant mothership photographer Scott Squires makes careful adjustments to the mothership during filming of the turn-over sequence.



THE MOTHERSHIP

"I was up on Mulholland drive—a little stoned—and I got on my head on the hood of my car and looked out at all the lights from the San Fernando Valley upside down."
—Steven Spielberg





Top: Dave Stewart behind the motion control camera in the smoke room. Middle: The motion control camera set up to photograph a miniature helicopter which was later intercut with actual helicopter footage during the climb up Devil's Tower. Bottom: Dave Stewart watches the movement of the motion control camera in operation as it photographs a matte of a miniature UFO—a duplicate of the one used in primary photography, but painted white for sharp contrast against the black velvet background.

shrink it down, or expand it or contract it, depending upon what you tell it to do. But, of course, you have to tell it to do *everything*.

JERRY L. JEFFRESS

All the channels are independent, and the operators tend to use that in programming their move. One of the things they'll usually do first is they'll take the joystick and fly the camera toward the model—just a fixed model, without any movement. And that'll give them a feel for how fast the model grows in the frame. Nothing to do with position at all—just the speed of the primary truck shot. They'll record that and then they'll switch it over to memory and play that recording backwards, which will cause the motors to drive the camera truck back to the initial starting point. Then they'll play the first move again and at the same time record a pan and tilt movement with a two-dimensional joystick to position the model in the frame. They could do the pan and tilt separately, but in that case it's sort of easy to do it together. The model will still be standing static, but they can move it around in the frame with the pan and tilt. Then they'll switch those over to memory, back off the whole system again to the initial starting point, and then go to a joystick on the model itself. Now, if the model's supposed to start off sideways in the frame and then turn toward the camera and go up and over the top, each of those moves is added to the system—usually one axis at a time. And when they've gone through the whole process, they've created an integrated move. Up until now, the camera's just been going along for the ride. At this point, they'll put film in the camera, set the exposure time on the motion control equipment, and let the system step through the prerecorded move at whatever speed is necessary to meet those exposure requirements.

DAVE STEWART

In addition to our eight motion control channels, we also had other—what we called "dimwit"—channels that weren't recording information or anything. Maybe one would be running a motor that was spinning at a constant rate, or something like that. It wasn't necessary for those to be controlled by the computer except for their start and stop positions—all we had to do was make sure that they started spinning when everything else started moving, and stopped when everything else did. So there were times when we had maybe nine or ten different things happening at once.

Since the smoke was like a light diesel oil we had to use masks in the room, and we ended up going through various types. The first ones we tried were like firemen's masks that go completely over the head and everything, and pump air inside. But those were very constricting. The people inside the room—which usually included myself and an assistant or two for rigging the models—would tend not to use them because you couldn't see through them very well and you couldn't hear anybody because of the air flowing in. So we abandoned those and ended up with like a paint mask over the mouth and nose which kind of filtered it out—and then we just suffered through the rest.

We did have an air conditioned booth in the room, but that wasn't so much for the protection of people as it was to protect the equipment. Most computers operate under strict atmospherically controlled conditions, and here we were with this sophisticated piece of electronic equipment and we were squirting diesel oil all over. So I felt it was necessary to have a sealed booth in there to try and maintain temperature control and cleanliness. Of course, we always had an operator in there running the machine, and maybe one or two other people outside in the smoke.

The first thing we shot in the smoke room with the motion control was a miniature helicopter which was used in a few cuts when they're climbing the "notch." The helicopters are starting to lay down their sleeping gas, and there's a sequence of them coming around from behind the mountain where we intercut several model shots with the real helicopters—and it matched beautifully. That's the real test of model photography—if you can intercut reality with miniatures and nobody notices. We did a lot of testing on it, but it was relatively easy to shoot because we were dealing with a known quantity and with fairly simple moves.

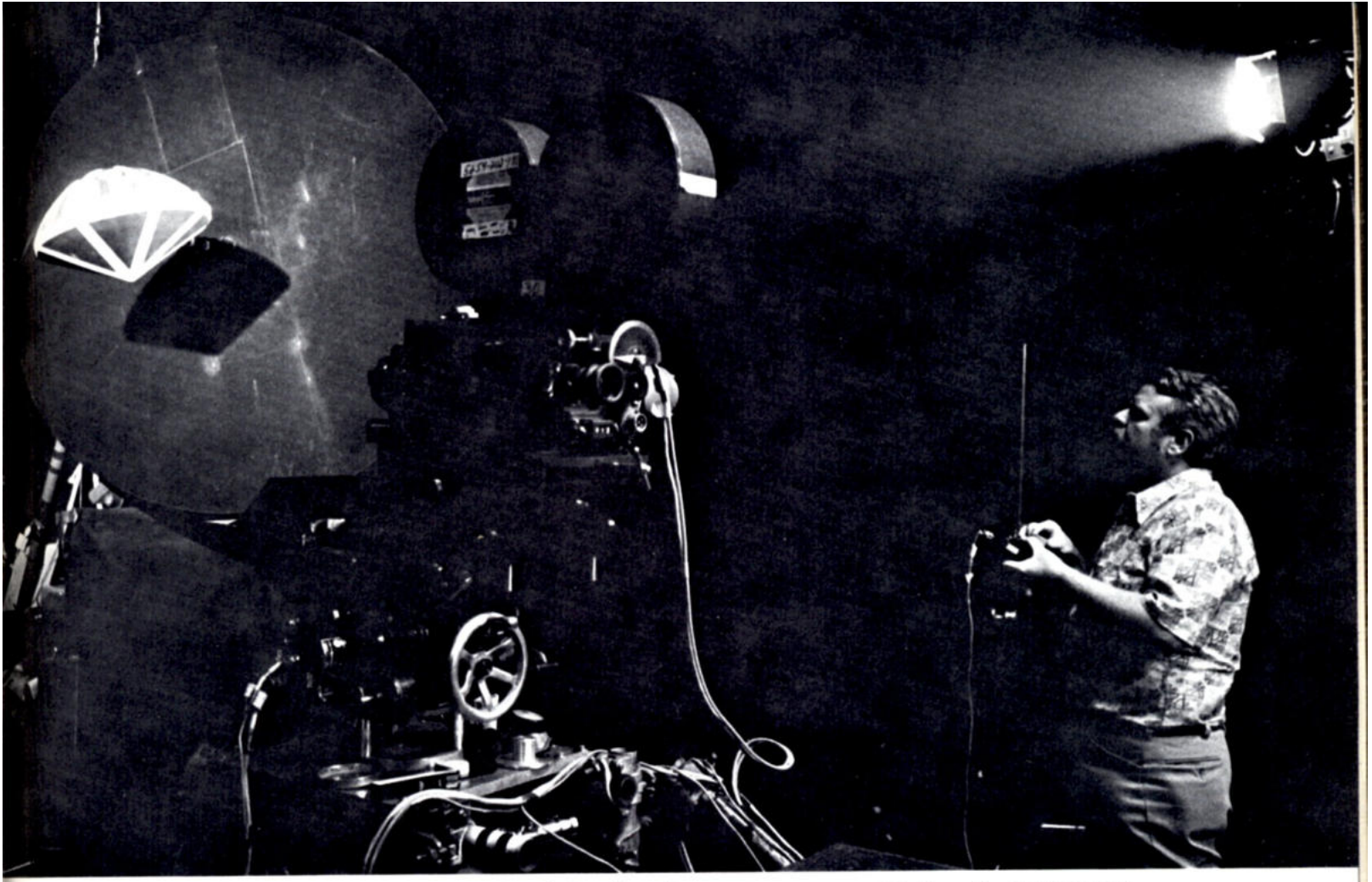
KENNETH SWENSON

The helicopter itself was a Monogram kit—the Phantom Huey—about three feet long. We put a small motor in it, with a flexible shaft going back to the tail—Jim Dow did most of that, and there were many days when he wished he could have thrown it up against the wall. We also put some post scanners on it and there was a light to illuminate the top rotor and the back rotor. And we had LEDs in the cockpit to indicate the instruments, but you never saw them in the film.

DAVE STEWART

It was December before we actually started on the saucer footage, which was much more complex. All the saucer shots were made up of various passes—different exposures all laid over each other and all done originally in the smoke room camera. So every time you see a saucer, you can figure it's gone over that piece of film maybe five or six times to build up the imagery that you see in the final thing. And we never shot more than one saucer at a time. In the scenes where several saucers are in the shot at once, we'd often composite them all in-camera onto the original negative, but those were all separate shootings, each one being made up of five or six different passes. Often times, like in the barnstorming sequence where there are as many as eleven or twelve saucers in the sky at once, I usually composited three or four saucers onto one piece of film, and maybe another three or four onto another piece of film. And then those were combined in the optical camera. But it all took a tremendous amount of time, especially considering that some of the smoke room exposures took up to sixteen seconds per frame.

We usually programmed our move with a white saucer, identical to the one we were using in the shot, just because it was easier to see against the black background. Even on the simple shots, like a saucer



UFO photographer Dave Stewart manipulates the joystick used to program saucer moves into the motion tracking system.

flying through space and maybe doing a roll or something, that could take a couple hours. Then we'd shoot a test on high-contrast film that we could process quickly and look at, just to make sure all the moves were smooth and the saucers were going where we wanted them to go. With objects that small, you really couldn't tell that much through the viewfinder. You could program out a move and think that it's perfectly smooth, but until you put it on a piece of film, against some other object that was static, you couldn't really tell whether that move was smooth or not. So we developed a technique of shooting tests with a locked-down grid on the same piece of film to see whether the move was smooth relative to those grid lines.

This was especially important on the landscape scenes, because when you're putting something that's moving against a lock-down foreground or background, any deviation in smoothness on that moving object will stand out like a sore thumb. At first, we told ourselves that flying saucers can do *anything*, and that they're known, by some reports, to be erratic and bumpy. Even real aircraft can be bumpy on take-offs and landings, you know. When you see that for real, your brian sort of sorts it out. Get a bump with miniatures, however, and your mind immediately screams out, "Model!"

In addition to smoothness, we had to be in proper perspective. The size relationships between things had to be right. We did not, of course, have to program our camera moves for the motion control shots that we recorded in Mobile; but we *did* have to program our saucer moves, and in order to make sure the sync marks were correct, we actually composited the live-action footage with our tests. For *most* of our locked-down shots, however, we'd photograph our landscapes first, or at least get a film clip of the miniature. Then we'd rotoscope a frame of that clip on the Oxberry and get a line drawing of the major portions of the landscape—the road, the hillside, trees, whatever. Then we'd put that in the viewfinder of the motion control camera, and I'd pilot my move with it. Since the landscapes were in a fixed position, I could fly the saucer and the camera according to the contours on the drawing and maintain proper perspective. Then we'd shoot a test on that, and if it was a fairly simple shot—or at least relatively simple—I could run that high-con test and a clip of the landscape through a synchronizer, in quasi-registration, and just check it with an eye loop over a light table. From that, we could see whether or not the saucer flies down the road, misses that tree, and goes around the corner—and whether it diminishes in perspective as the road does.

When we started getting into some really complicated moves that whole process could really take a long time. The "Quarter Pounder" shot is a good example. It took us several days to do that one. We had to have three saucers flying down the road and around the corner. And one of them had to stop, turn, throw its lights up and down on the billboard, turn again, diminish its lights, and take off backwards on down the road. Needless to say, with all that stopping and starting, we had quite a few bumps to iron out. Since it was very difficult to tell on the motion control device where the bumps were occuring relative to what was being put on the film, we ended up using an X-Y plotter, similar to what computers use, to analyze our program tapes. By playing the tape back through the X-Y plotter, we were able to get a visual line of acceleration and deceleration for each motor. And our bumps would show up on that line. We couldn't really edit the tape, but we *could* go back over it, reprogram the move, and eliminate the bump.

KENNETH SWENSON

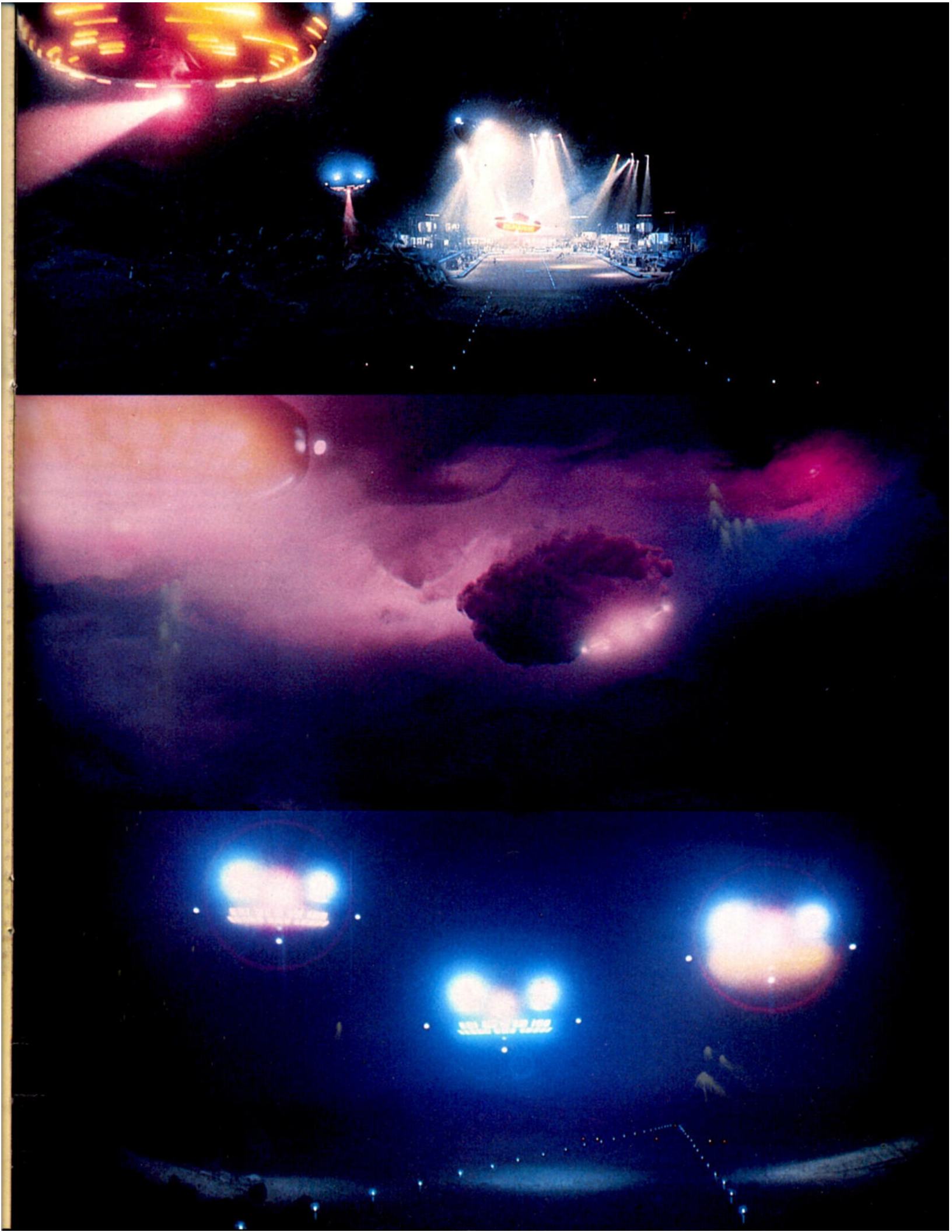
If we'd been able to get our lights all up to the same intensity, then we could have shot the saucers in one exposure. But we couldn't, because the xenon was so bright, and the grain-of-wheat bulbs were dull, and the neon was kind of subtle. Then we had the motorized post scanners which we could program off the motion control to aim the beam wherever we wanted it to go. They used a quarter-inch fiber optic and usually flared into the lens. So we needed a different exposure time for the neon, and a different exposure time for the xenon light, and a different exposure time for the grain-of-wheat bulbs.

The longest pass, I think, was about three hours—*very* slow exposures on some of them. And a lot of that time we spent just trying to make sure the saucer lights

Future General's Glowing UFOs

"I came up with the idea to shoot the saucers in a smoke environment. When you have a brilliant light source in the real world you see a beam of light coming out. The bright light scattering in the air creates sort of a glow. But when you try to create an effect like that with miniatures—for instance, with one-twentieth scale miniatures, which is fairly close to the scale ratio we worked at—it simply does not occur unless you make the air tenty times dirtier than it is in reality."
—Douglas Trumbull

Top Right: UFOs begin barnstorming the Devil's Tower base camp. UFO photographer Dave Stewart shot the saucers in an oil smoke environmet to create their hazy, glowing ethereal quality. The technique required generating soft-edged mattes to hold out the backround image not only from the saucers but from their surrounding glow as well. Middle Right: Prior to the barnstorming, the saucers first appear behind billowing cloud formations, created by Scott Squires by injecting white paint into a water tank. Bottom Right: Three UFOs hover ominously over the landing lights of the base camp, a Matte Yuricich matte painting. Each UFO is filmed separately on several passes to obtain different lighting effects. The landing lights are burned in on a separate exposure. Top Left: The tollbooth sequence—a skilled composite of the live-action tollbooth, model saucers, and superimposed light patterns reflected off a forced-perspective miniature replica of the real tollbooth, made by Greg Jein. Middle Left: Model shop coordinator J. Richard Dow places "Saucer D" into position for filming. Bottom Left: Lacombe (Francois Truffaut) reaches up to touch a hovering UFO—the only saucer built with detailing of any kind. The other UFO shapes were used solely as armatures for the exotic light patterns which gave each its distinctive character.



"Steven Spielberg said: 'Hey! Let's make a pickup truck.' So we took a Tonka pickup, dressed it with little wheat lights and stuff, lit it from behind, and shot it. You can see it in silhouette, just starting to come through the clouds."

—Dave Stewart

didn't blink on and off. We had some hectic moments. One bulb did go out when we were just at the end of about a three-hour shot. I think the exposure was about six seconds per frame, so the shutter was open for six seconds and then closed for six seconds. Well, I was in there, all covered with black velvet, frantically trying to change this bulb while the shutter was closed so we'd only have maybe a couple of frames with the bulb out and we wouldn't have to do the whole shot over again. So there I was, and David Hardberger was back by the camera saying, "Shutter's closed!"—and I'd get in there and try to change the bulb. "Shutter's open!"—I'd duck down. "Shutter's closed!"—I never saw myself move so fast. But we did it; and saved the shot.

DAVE STEWART

For the shot during the barnstorming sequence where the saucers come barreling out of the clouds, we started out with five guys behind the cloud tank, each with a fiber optic probe. Doug and Spielberg were directing out front, and they'd call out for each guy to push his probe through the cloud until it started to come through the edge. Then the next guy would do the same thing.

After that, I had to take the film and analyze it to see *exactly* where those light probes were and which ones were coming out of the clouds at which time. Then I had to match my saucers to each one of them, just as they were emerging. All five of those saucers were shot separately, but on one piece of film. The fifth one, by the way, is a pickup truck. It was on towards the end of the shoot, and Steven was starting to get all kinds of wild ideas. Evidently, there've been all kinds of flying saucer reports where people have said they looked like a pickup truck, or a horse, or whatever. So Steven said: "Hey! Let's make a pickup truck." So we took a Tonka pickup, dressed it with little wheat lights and stuff, lit it from behind, and shot it. You can see it in silhouette, just starting to come through the clouds, and then the scene cuts.

RICHARD YURICICH

The tollbooth sequence we shot down in San Pedro. We had already done a couple of shots that night, so it was about two or three in the morning by the time we got to the bridge. And it wasn't until then that I found out Steven planned to have UFOs going through the toll gates. I told him we could do it, but it would take a long time because we'd have to hand rotoscope every frame in the sequence in order to create the proper lighting effects as the saucers go through. And I told John Alonzo, the cinematographer, that we'd have to make a second take on the scene with just the inside of the tollbooth illuminated—with tissue paper in the windows—so we could pull the mattes we needed. But by the time we got to shoot that set-up, the sun was coming up and there was no time to do the matte take.

Since we had so much optical work to do already, I came up with the idea of having Greg Jein build a miniature tollbooth set with everything in there but the road, which was left open. It had all the proper shapes and surfaces and was painted a medium gray, except for the little plexiglass windows which were left clear. Then we mounted our miniature saucers on a little I-beam track Don Trumbull and Bob Shepherd rigged up, and ran them through the miniature set to create all the lighting effects that would have been natural to the real tollbooth, right down to the shifting shadows and reflections in the windows. Then we simply double-exposed that onto the original tollbooth footage—without a matte or anything.

GREGORY JEIN

The one miniature that gave us the worst headache—I mean, literally, a headache—was the forced-perspective tollbooth. It was mainly a non-detailed model, just to superimpose highlights over the real tollbooth. But it had to line up *perfectly* with the live-action plate. So we had to keep sighting through a film clip in the camera viewfinder, and then run out to the miniature with a white stick and try to figure out where the line was. It drove us crazy. In fact, it got to the point where, just to break up the pandemonium back there, some of the guys would put charcoal on the eye piece and try to catch everybody looking into it. That model was about four feet by four feet, but it was in a weird, rapidly diminishing perspective.

I also built the saucers for the tollbooth sequence. They were forced-perspective half-saucers, rather than whole saucers—the largest was about twelve inches in diameter—and they were built to match the standard saucers that were being shot in motion control. With the exception of the one detailed saucer was made, those were the only UFOs I actually worked on.

DAVE STEWART

After each saucer was shot, we'd have to go back again and shoot a matte. Normally we did this by taking down the black saucer with the lights in it and replacing it with another saucer the exact same shape, only in white. Our saucer mount was all registered so we could do that. Then we would light that saucer against the black background and shoot a duplicate pass on high-contrast black-and-white stock to get our matte.

For a couple shots we weren't able to do that, though. We had one saucer—"Saucer H," we called it—which had a lot of surface detail. Most of them did not, but this one did, because it's the one that hovered over Dreyfuss' truck at the beginning, and the one Truffaut reaches up to touch at the base camp. With all the antennas and minute detail on it, trying to replace that with another saucer *exactly* the same would have been next to impossible. So we ended up putting a white card behind our basic model and shooting our silhouette matte that way.

RICHARD YURICICH

In a couple of long shots in the barnstorming sequence, where you see the saucers flying by and the large mountain in the background, we had to come up with a way of showing the lights from the model saucers shining onto the ground. That's something you'd miss if it weren't there; but once it *is* there, you don't really notice it. Anyway, Bob Shepherd rigged up a little overhead flex arm with a fiber optic, and set it up over the miniature mountain and terrain that Greg Jein had made. Then, based on a drawing that showed how the ships were going to travel, we physically marked the light paths. We had Mike McMillen dress up in black velvet from head to foot, and we'd sit there in the dark and animate this thing by hand, a frame at a time. Sometimes we were able to shoot at speed, depending on the exposure—when we shot blue light, the exposures were longer than they were with yellow or red, for instance. But shooting in the dark, you didn't get anything but the light itself and we just put that right into the original photography without having to mess with mattes or anything.

In all, Dave Stewart and his crew—assistant cameraman David Hardberger; model riggers Jim Dow, Ken Swenson and Peter Anderson; and a handful of others who, from time to time, became available—spent more than six months shooting UFOs in the smoke room. The UFOs, however, were but a single facet of the Future General operation. The optical, matte and animation departments were also in full swing, performing subtle miracles geared toward making the fantastic as acceptable as the commonplace.

ROBERT HALL

Optical can mean a lot of things, but the opticals on CLOSE ENCOUNTERS were mainly used as a vehicle to combine all of the elements that we shot, either in production or on our effects stages. Through editorial, all these elements were gathered together, and it was decided by Doug and Richard and some others of us which things were going to be encompassed in each shot. And in essence, the optical camera was used as a final step in almost all cases to bring together all these things, and to make composites of one or two, and sometimes as many as ten or twelve elements. The optical camera is a very versatile piece of equipment. It's sometimes referred to as an optical printer—because it looks more like a printer than a camera, I suppose—but it *is* a camera sitting on there, and you're not just printing as you do in a lab printer where you put a piece of negative and a piece of color print raw stock in contact and print. With an optical camera, you can increase or decrease your image size, or you can make eccentric zooms and all kinds of wipes and flips—you name it. We even did the end titles for the picture, which I thought were quite beautiful. The optical camera can do almost anything—practically turn itself inside out.

Ours was a George Randle 65mm camera mounted on a Cinema Research base. It was a single-head optical unit, which in effect, is just a light source, a projector, and a camera. There *are* aerial-head units,

Model maker Michael McMillen (top), dressed in black to avoid camera exposure, manipulates a fiber optic light to throw searchlight patterns from UFOs onto Devil's Tower for the barnstorming sequence. Only the light spots themselves were recorded, and were then combined with the miniature terrain and saucer footage to give a dimensional, textured look for the searchlight patterns. Bottom: A different, fuller perspective showing the size and detail of the Devil's Tower miniature. Richard Yuricich (middle) and Robert Shepherd (right) watch.

which essentially have an extra projector head in the light path so you can carry two to four separate elements without having to bi-pack your camera at all. This supposedly allows you to eliminate a matte line before you ever get it on film, by visually lining it up. But we didn't have one of them. If we had, our work might have been faster, but I don't think the quality would have been better—maybe not quite as good.

DON JAREL

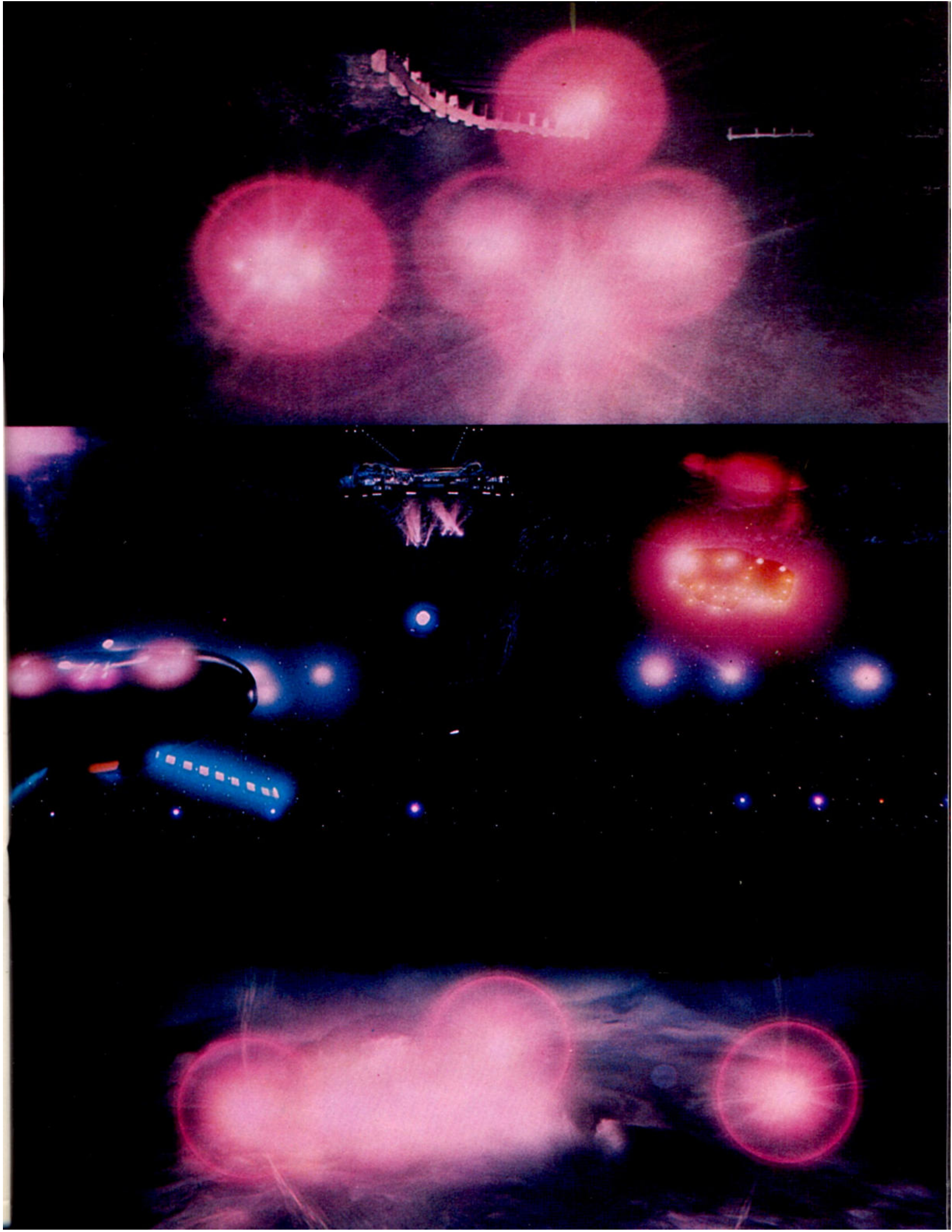
I think the single most important thing we did in this picture—considering the time element and the amount of work we had to do—was that we did all the optical work on intermediate film. Now, if you're going to take an original scene and make a duplicate of it, you can go one of two ways. First, you can make YCMs [Yellow-Cyan-Magenta separations] which is like the old Technicolor method. What you do is you make a color separation and break your footage down into three black-and-white elements which you then have to rephotograph through filters to come back to color. The other way is to use intermediate film. With that, you take your negative and you make a very fine grain color positive from it; but it's not something you'd project on the screen, because the colors wouldn't look the same. And from that, you just duplicate back onto the same stock one time to get an internegative. We found the quality to be excellent.

A lot of studios say you can't do matte shots on intermediate stock—that it takes too much time, and you can't fine-tune the color as much as you can with YCMs—but I'll stack our matte shots up against anybody's for quality. In some of our shots we had as many as fifteen elements, and if we'd been working with separations, that would have tripled. Not only would it have been more time-consuming, but there would have been more chance for error. With all the steps we had to go through, a couple of those elements might have gotten scratched or out of register or something, and we'd have had to go all the way back to the beginning.

The whole trick to intermediate is that everything has to be timed for color and for density, which was one of my jobs. I'd have to take each different element of a scene and make color tests and density tests to make sure "A" was going to be compatible with "B"—because if it wasn't, it could really stand out.

ROBERT SWARTHE

There are only two scenes in the whole movie where the primary effects are animation. One is the scene where Jillian and Roy get to the base camp and they look up in the sky and see the Big Dipper forming.



Top: UFOs descend from the clouds on an Indiana horizon. The sky and tress on the horizon are Matte Yuricich matte art. Middle: UFOs barnstorming the Devil's Tower landing zone. The saucers cast light onto the Devil's Tower landscape (see photos page preceding), actually a detailed miniature. Bottom: UFOs follow after a police car when it plummets off the road at Crescendo Summit. Half the railing, the trees, the continuation of the road, the horizon, clouds in the sky—all are Yuricich matte art elements.

Those little dots were all shot on the Oxberry. The other one was earlier, when a meteor flies over Devil's Tower, coasts to a stop, and splits into four little lights which all move off into space. Both effects set the stage for the barnstorming sequence that follows.

We used no frame-by-frame drawings for any of this. It was all back-lit artwork involving bed moves on the animation stand. The Oxberry has a number of cranks on it which make the bed—which is your table top or working surface—move. And there are numerical counters on each one for determining accurate degrees of movement. You can move the bed north and south, which would be up and down on screen; or east and west, which would be left and right. Or you can rotate it a full 360 degrees.

Each individual star required a separate pass, so in the case of the Big Dipper, there were seven. We'd find a start position and a stop position for each of those stars; and then we'd calibrate our moves by figuring out how long we wanted them to take to get from start to stop, and where we wanted them to slow down or speed up. By moving the bed according to our calculations, we created each of those individual light movements a frame at a time—all on the same piece of film. It was really kind of old-fashioned animation. There are computerized animation stands that'll do that sort of thing, but we could hardly have justified hundreds of thousands of dollars worth of computer equipment for one or two shots. So we did it the more traditional way. After we finished with the animation, it was optically combined with the top of the mountain, which in this case was a retouched still photograph that we shot on the animation stand. After they were combined in the optical department, we got the scene back and burned in all the rest of the stars onto the internegative.

In the sequence where Roy goes back out to the Crescendo Summit area and sees what turns out to be helicopters, the first three shots of those lights were animation effects done on the Oxberry. The rest, when they get closer, were done by Dave Stewart on the motion control rig.

Whenever you see a very tiny point of light moving in the sky, that's animation. We had little points of light that Doug called "missiles," which you may or may not have noticed in the film, but were designed to sort of make you think maybe there's a UFO coming. The easiest one to spot is in a shot where Roy's truck is going across the screen from left to right, and just as it's about halfway across, this little bright point of light starts entering at the top of the frame, moving a little bit faster than the truck. There's also one when Barry runs away from Jillian's house; and we had another one we called the "Eastern Airlines" shot, which was supposed to make you wonder whether it's a UFO or an airplane.

RICHARD YURICICH

Since the base of operations was shot in one place and the scenes of Neary and Jillian looking down on it from the mountain were shot in another, those elements had to be optically composited. To help in determining the proper sizes and perspectives, I came up with the idea of making still photographs of the scenes in various sizes. We could lay those over our 24-inch wide field chart and position them around so we could deal with size and perspective problems and determine what we'd need in the way of paintings and other miniatures. So, in effect, what you had was Douglas Trumbull and Steven Spielberg playing around with a bunch of cut-outs. Then, once the pasteups were made, Bob Swarthe would take this artwork and rephotograph it on the matte stand, both with and without the field chart. These could then be used as line-up for the optical cameraman. When he reduced the base, for example, he could place that artwork in the finder of his optical camera, and from that he'd know just how much of a reduction to make. We also found them useful in determining what areas were left that would have to be filled in with matte paintings or miniatures.

Once the sizes were established and approved, we could reduce the base from the original negative, and then strike off a reduced-image interpositive and another piece of the interpositive as a clip. For our reductions, we used a Snyder lens I bought for the optical camera which was designed to work in the area of four-to-one and five-to-one reductions. Then we'd take the clip, do a dip test, process it, put it in the matte stand and rotoscope—or project—it onto a white board. Then I would personally take a black airbrush and blend a black matte into the base. This was then rephotographed on high-con stock and processed to give us a cover matte. This cover matte, being made in the positive position, could then be bi-packed with the latent undeveloped interpositive—and we wouldn't need a matte. The surrounding areas of the interpositive would be burnt in, and the base area itself would become simply a burn-in. So that was the key to the success of our optical system; and that's why you don't see any matte lines in the base shots.

ROBERT HALL

The use of high-contrast mattes is one of the hardest things to understand—even for those of us who work with them, sometimes. There are lots of ways these mattes can be made. Some are pulled right off the original color negative as black-and-white high-contrast elements. Then, if you don't have the density you need or the matte isn't filled in, you make contact printbacks—whatever number of generations you need—to get a matte that will either hold out or burn in the areas you're trying to combine for the final composite. With the motion control system, we were able to obtain quality matte material on our miniatures by shooting a separate black-and-white pass to get a crisp silhouette.

We also used a lot of stationary glass mattes in CLOSE ENCOUNTERS. Glass mattes can be any size, but in this picture

"On the saucers, we wanted to give just a suggestion of a shape or body to all those lights that were going by. So we ended up having to jiggle our matte densities so they would either hold back completely or allow some degree of contamination or softness."
—Robert Hall

they were about six feet by three-and-a-half to fit the matte stand we were using. They were generally painted white, and we'd take a blade and cut out the areas that we wanted the matte to represent. Then we'd generally drop black velvet behind it and shoot it front-lit on black-and-white high-contrast stock so we'd have a white matte, with a black area that was the opposite of it. That way we'd have both sides, and by making contact printbacks of it in the optical camera, we could use it either as a cover or a hold-out matte.

However it was done, we ended up with two high-contrast mattes. Now, these might be composite mattes—which they were in many cases. The barnstorming scene, for example, probably had the most composites in it. I expect we had maybe ten elements that went into that. But all those elements had to be composited into one matte so that that matte could protect all the areas on our internegative that we didn't want contaminated. We'd take the male composite matte, or hold-out, and run it with our color interpositive to protect our background areas; and then we'd come back with our female, or cover matte, to protect the areas we had already put in and burn in those areas that we wanted to add.

We weren't however, using mattes just to hold back areas. Sometimes we used them as actual effects. For example, on the saucers, we wanted to give just a suggestion of a shape or body to all those lights that were going by. So we ended up having to juggle our matte densities. These were measured on a densatron and could be varied by using neutral density filters or variations in light source voltage—sometimes both—as the matte was being manufactured. Depending on the density of our matte, it would either hold back completely or allow some degree of contamination or softness. In some cases we used both, dissolving different densities in and out within a single composite matte. We used this, for example, in a shot where a UFO was coming right toward the camera. In the back, when it was far away, it had to be dense; but if we'd kept it the same all the way up, it would have looked like a cardboard saucer going by. So we had to make a sync lap back in and have it come out to where it had almost no density at all as it went past the camera.

DOUGLAS TRUMBULL

Generating soft-edged mattes was a major problem in creating the nebulous lighting effects for the saucers. STAR WARS is a good example of comparison since they are both contemporary films. STAR WARS used all—or almost all, I think—hard-edged mattes. You have a spacecraft, which has a definite edge to it; and the matte, which is the silhouette that creates the hold-out of

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Scenes from CAPRICORN ONE, now in release from Warner Bros. Middle: Mission director (Hal Holbrook) explains to astronauts James Brolin, O. J. Simpson, and Sam Waterston why they must fake their Mars mission. Right: On a television stage, Brolin descends from the Mars lander as the TV cameras simulate in slow motion the condition of Martian gravity. Left: The astronauts make a hair-breadth escape in a Lear jet in an attempt to blow the lid off the cover-up of the mission failure.

CAPRICORN ONE

CAPRICORN ONE A Warner Bros Release. 6/78. 124 minutes. In Color & Panavision. Written and directed by Peter Hyams. Produced by Paul N. Lazarus III. Director of photography, Bill Butler, ASC. Music by Jerry Goldsmith. Film editor, James Mitchell. Production designer, Albert Brenner. Associate producer/unit production manager, Michael Rachmil. Art director, David M. Haber. Set decorator, Rick Simpson. Costume designer, Patricia Norris. Special visual effects by Van Der Veer Photo Effects. Key special effects, Henry Millar.

Robert Caulfield . . . . . Elliott Gould
Charles Brubaker . . . . . James Brolin
Kay Brubaker . . . . . Brenda Vaccaro
Peter Willis. . . . . Sam Waterston
John Walker . . . . . O. J. Simpson
Dr. James Kelloway. . . . . Hal Holbrook
Hollis Peaker. . . . . David Huddleston
Walter Loughlin . . . . . David Doyle
Betty Walker. . . . . Denise Nicholas
Elliot Whitter . . . . . Robert Walden
Capsule Communicator. . . . . Alan Fudge
Judy Drinkwater . . . . . Karen Black
Albain . . . . . Telly Savalas

CAPRICORN ONE begins at T-minus-30-minutes and counting in the NASA $4 billion project to land three American astronauts on Mars. It will be a first in history. At T-minus-3-minutes and counting, the astronauts—James Brolin, Sam Waterston, and O. J. Simpson—are taken from the capsule atop the steaming rocket and spirited away from the launch site by van, helicopter, and Lear jet. No one, not even NASA, in the immense Houston launch center, but a small coterie of men led by Hal Holbrook, the head of the U.S. space program, knows. Sometime later, after Holbrook has explained that a defect in the life-support system would have killed them three weeks into the flight, the three astronauts, detained in an unused base in an unused hangar find themselves staring at the surface of Mars.

Unlike the film's space flight, CAPRICORN ONE, written and directed by Peter Hyams, has not one giant defect but many small ones. The idea is spectacular—thought up by Hyams, who used to be a reporter, who then tried unsuccessfully for many years to sell it to a studio—, but it is never quite brought to fruition.

Hyam's most compelling theme in the film, although it is never fully or subtly worked out on all its available levels, is technology. The awesome power of it—and at its strongest, it seems uneasily leashed by man, its creator—and its sheer evanescence are exhibited in nearly every scene of the film. Hyams carefully details the massive amount of technology needed to bring off the still somewhat inconceivable feat of a space mission (any space mission), and by the same token, the amount needed, as marshalled by Holbrook's forces, to play a dirty trick on it. Technology has no feelings, and it can't *think*, which are two reasons why it is so easy to fool.

Hyams also looks at a slightly different kind of technology, more earthbound, as practiced by the skilful hands of Holbrook's "other people out there," the kind that can, for instance, effectively erase the entire existence of the technician who notices that something is wrong. (His fate foreshadows that planned for the three astronauts once their roles are played; they know too much and at the proper time will be "burned" to a crisp, and celebrated as selfless heroes for the rest of history, due to a "heat shield separation" problem in "reentry.") The erasure is complete, smudge-free, right down to all the mundane details like the subscription labels on the magazines on the coffee table of the "real" tenant, who innocently acknowledges having lived there for a long while, in the technician's apartment when Elliott Gould, a TV reporter, knows damn well she hasn't. The most chilling part of CAPRICORN ONE may be the technology's mind-altering power—to which inanimate objects like cars are comparatively easy to "fix"—is so huge that the tenant really *believes* she has lived there all that time and could probably pass a lie detector test and produce countless witnesses, including all the neighbors, to prove it.

The movie occasionally reaches satisfyingly into a complex absurdity: we must believe that only one mere technician of hundreds begins to doubt that there really are men on board the craft. The crux of the film rests on a problem of perception; the film is realistic in that the Mars flight, as well as our own historical space flights are *real*, yet the "realness" of both is verifiable *only* by the clattering evidence of machines behind which humans, with their limited senses and intelligence, look pretty small indeed.

CAPRICORN ONE, as well as several other '70's pictures, have completely eradicated the '30's and '40's notion of heroics and natural justice, that if a wrong is brought to the attention of the "law" or "the people," by a crusading reporter or a courageous cop, for instance, it will be righted. Our cynicism is too prevalent and well-founded for that, which is why at the end of the film, Gould and Brolin *must* turn up at the astronauts' memorial service covered "live" by television and radio. These TV cameras, swiveling from Holbrook to focus on the pair, represent the ultimate safe proof of Holbrook's deception and Brolin's plight—the surfacing of truth. And once again it is due to technology. The irony is that earlier TV cameras were used to "lie," in the faked "live" transmissions supposedly from another planet but actually only from a relatively nearby movie-like set (which looks, incidentally, in its blocky surface, like an hommage to the "set"-y lunarscape of DESTINATION MOON, one of the very first characteristically "realistic" '50's science fiction movies).

Yet despite these intriguing ideas, the basic problems of CAPRICORN ONE are on the script level. One wonders why all the Sir Lew Grade projects are so curiously similar, in that all are excellently budgeted, as productions are all technically proficient, internationally star-casted (sometimes incongruously), and all suffer from the same thing: weak or inadequate scripting. Here, in CAPRICORN, the plot contrivances crucially subvert the film's necessary believability, and like all '70's science fiction pictures (excepting the rosy fable STAR WARS), the film rests entirely on its believability. CAPRICORN

by David Bartholomew

"The idea is spectacular, but it is never quite brought to fruition."

ONE's contrivances include: the presence of only *one* defect in the sophisticated, interdependent construction of the craft; the flight is so routine that the tapes recorded during simulation exercises suffice in keeping Houston unaware of the true situation (and how are the *nine months* of tape able to be physically stored onboard and transmitted over such a long period of time on cue?); the one technician who discovers the hoax just happens to be Gould's dearest friend; Gould and Savalas in the pokey bi-plane immediately find Brolin (at a desert gas station that looks like the same set used in DAMNATION ALLEY) when Holbrook's forces have been looking without luck for days; Gould easily finds Brolin's medal in the rubble of the huge hangar/set, proving Brolin's having been there (and how did it get there, in the Mars dust, to begin with, as we last saw Brolin use it to pry off the door bolts in an office area of the building?) And there are more.

Our knowledge of the plot makes insupportable and tedious the protracted scenes of Vacaro's wife-and-mother mournfulness, particularly the bed-time reading of the Dr. Seuss *Fox in Socks* story (a deftly witty tongue-twisting exercise that CAPRICORN should may well have used as a conceptual model) and those of Holbrook's smooth hypocrisy.

Many of the film's ironies, such as the President's pre-taped message at the landing and Brolin's first-steps "journey of peace" speech, are self-conscious and lack subtlety. Hyams also strangely handles the "landing" sequence, which is shot and edited for traditional science fiction movie suspense, from the point-of-view of the waiting wives, and it doesn't work at all. We know far too much for this ploy to work; I'm surprised that Hyams would attempt it. Even if meant as irony, it is far too over-blown and extended.

Make no mistake, the film is thoroughly American, even down to the paradox of the storybook heroics and at-all-costs initiative displayed by Gould and Brolin which when shown by the technician only gets him liquidated. Actually, Holbrook functions, more than the other two, as the more true American "hero" in the film, as even a cursory reading of U.S. history would bear out. (More often than not in the U.S., it's the scoundrels who persevere and win.) Holbrook operates from an understandable blend of patriotism (the U.S. must succeed in the world's eyes) and pragmatism (the space program is a political football drifting away from public interest and congressional support, which an expensive "busted" flight would likely harm if not end). If part of his long speech to the three astronauts yields a message of "There's nothing left to believe in," Holbrook remains very much an idealistic figure, stretched out by a post-Watergate mentality that allows for any means being justified as long as a universally acknowledged good end is reached.

One of the problems of the film is that there are indeed no outright villains. We have no one to blame for what happens. More to ease the plot than anything else, Holbrook drags in an amorphous, all-powerful, never identified network of evil: "There are people out there. . .grown-ups." But representing them, we have only the pair of cleverly anthropomorphized helicopters buzzing after the trio like deadly mosquitos. At about its midpoint, the film feels over, and it turns disappointingly into a pair of Man Vs. The System simple-minded adventures, carried out, ultimately successfully, by two combatants on two different levels: Gould's dogged investigative reporting and Brolin's elemental physical survival in the desert. (At that, CAPRICORN is better off than THE MEDUSA TOUCH, which similarly wound up a whopping good story, then ran out of imagination and turned into a feeble disaster picture.)

The acting is fairly acute and involving, with Holbrook and Brolin coming off well, and Gould, trimmed down and energetic for once, is convincing as the reporter. (He *is* slow to rouse—can you imagine him as the Beatty character, also a reporter, in PARALLAX VIEW?—, especially after, in quick succession, his best friend worse than disappears, his car runs away with him trapped behind the wheel, and he's shot at, especially for a guy who has apparently made a career of crying "Wolf!" by sighting Patty Hearst twice and uncovering a second gunman in the JFK assassination.)

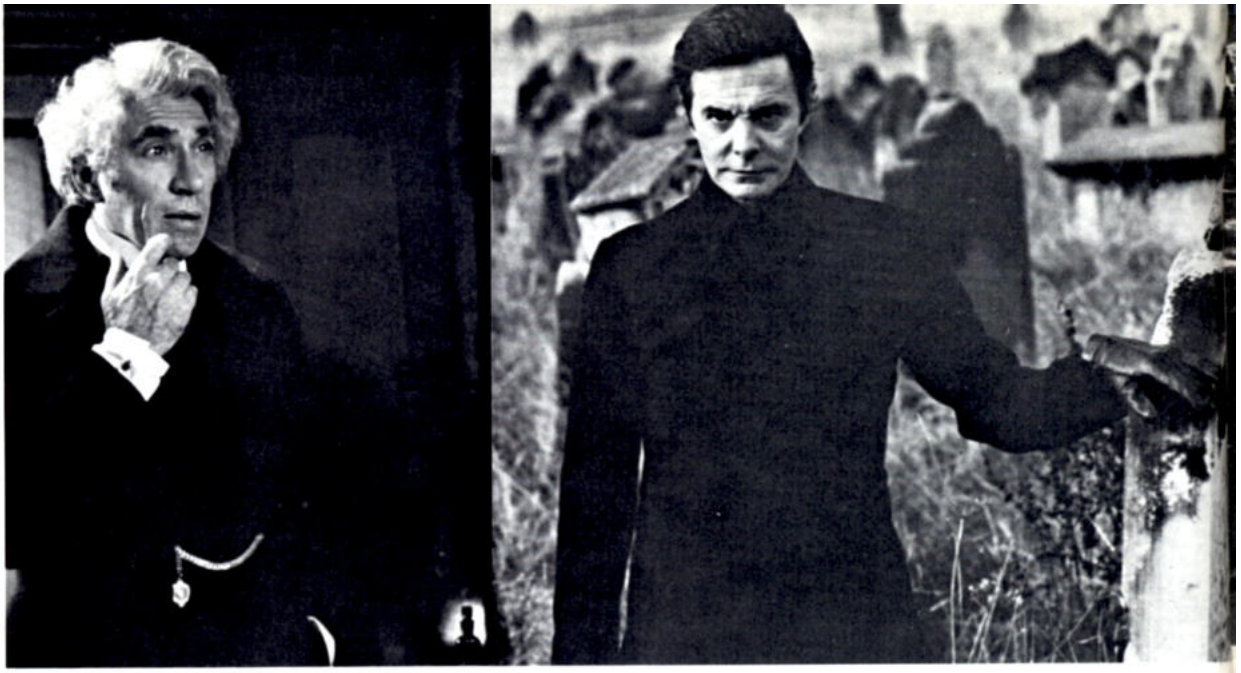
Hyams' dialogue interestingly wavers between technological jargon and human repartee (the latter particularly good between Gould and Black and Gould and his long-suffering assignments editor).

There are a few shrewd directorial touches, chief among them, Hyams showing us most of the flight *only* on a pair of monitors in the space center, which is how we view "real" flights at home, on TV. It's a nice paranoid-inducing touch, because it implicates *us* in the movie (i.e. we all may have been similarly fooled already. . .).

And what covers up a lot of the scriptural defects is the often extremely effective sweaty-palms stuff, and here Hyams excells in several action sequences: Gould's accelerating runaway car, shot with a low-level camera; the three astronauts' takeoff/escape from the base (although the sequence is ruined by Warners incorporating most of it in the movie's TV trailers); and the mid-air, canyon-flirting duelling of Savalas' crop-duster and the helicopters.

The film seems to want desperately to be pessimistic (and perhaps the idea requires it for full effect, beyond the quickly forgotten deaths of Waterston and Simpson). But Hyams, Grade, and Warners all know that the realities of U.S. and world boxoffice decree a happy ending (although it yields yet another plot contrivance: Gould and Brolin too quickly drive an enormous distance to turn up at the memorial service).

However, Hyams may have put an edge on it after all by his use of ever-slower slow-motion as the pair run toward the grave site. And having them end in a freeze-frame (perhaps significantly, *before* they reach the group), Hyams seems to imply a certain failure to their efforts, perhaps in a larger historical sense, or at the least, a futility. After all, Holbrook's "people out there" are still *out there*, all around us, invisible, ready to act whenever needed. □



Scenes from COUNT DRACULA, telecast on PBS. Left: Frank Finlay as Professor Van Helsing. Middle: Louis Jourdan as Dracula, on location at Highgate Cemetary, England. Right: Judi Bowker as Mina Westenra, Dracula's chaste victim. The three-hour film and tape production is the most faithful yet to Bram Stoker's novel.

COUNT DRACULA

COUNT DRACULA A Public Broadcasting System Telecast. 3/78. Three 60 minute segments of "Great Performances." In Color, Film & Videotape. A co-production of WNET/13, New York, and BBC-TV, London. Directed by Philip Seville. Produced for BBC-TV by Morris Barry. Coordinating producer for WNET/13, Ann Bluementhal. Teleplay by Gerald Savory based on Bram Stoker's *Dracula*. Film cameraman, Peter Hall. Film editor, Richard Bedford. Sound, John Pritchard. Designer, Michael Young. Music by Kenyon Emrys-Roberts. Production unit manager, Denis Curran. Visual effects designer, Tony Harding. Studio lighting, Howard King. Videotape editor, Rod Waldron. Costume designer, Ken Morey. Makeup, Suzan Broad. Title design, Dick Bailey. Executive producer for "Great Performances," Jac Venza. Filmed at Highgate Cemetary, Alnwick, Northumberland, England.

Count Dracula	Louis Jourdan
Professor Van Helsing	Frank Finlay
Lucy Westenra	Susan Penhaligon
Mina Westenra	Judi Bowker
Dr. John Seward	Mark Burns
Renfield	Jack Shepherd
Jonathan Harker	Bosco Hogan
Quincy P. Holmwood	Richard Barnes
Mrs. Westenra	Ann Queensbury
Mr. Hawkins	Michael MacOwan
Bowles	George Raistrick
Vampires	Sue Vanner
	Belinda Meulddjk
	Susie Hickford

John Azzopardi is a regular reviewer for the *East Side Express*, the *Chelsea Clinton News* and *The Westsider* in New York City. He will soon be receiving a Masters degree in Cinema Studies from New York University.

by John Azzopardi

For the most part the horror genre is an interesting nightmare turned into uninteresting movies. The would-be enthusiast is reduced to clocking time at worthless programmers, glaring at mechanically reproduced formulas with an occasional fresh white-wash of Camp gags, and all the while hoping for a sudden, mesmeric image, the unexpected spark and flash of imagination. It seldom comes. Forever, it is always the same Satanic triumphs, the usual exorcisms of the customarily possessed, the expected Christopher Lee charging like a furious Doberman. Essentially, there have been only three original horror films in the past fifteen years, and these are NIGHT OF THE LIVING DEAD, ROSEMARY'S BABY and THE EXORCIST; all the others have been living on these successes like enormous beef fungi growing on tree trunks, feeding on their vitality, their imagination.

Not that any film can be blamed for the simple act of imitation. The history of the cinema is full of copies that far exceed and surpass their originals. What is necessary is that the second version be alive with its own style and its own meanings, but these need not be new styles or meanings. The film must have a human rather than a mechanical source. It must issue from the unconscious and not a stamp press. And a horror film is a nightmare which must be re-dreamed.

With COUNT DRACULA writer Gerald Savory and director Philip Seville have reinvented the tale by rediscovering it. The story of the film is the story of the novel. They have gone down, beneath the thick, muddy layers of cliche to the bedrock of Bram Stoker's original. Savory's script is a terse, exact condensation of the novel, opening in the Balkans, which, for a turn of the century audience was the European equivalent of next-to-nowhere, the Wild West, plus castles. Savory neatly divides the action into three parts. There are a few changes, but the story remains substantially the same. The one absurdity of the original, a cowboy from Texas in Victorian living rooms, is transcribed directly to videotape. And by being faithful to Stoker they have managed, in a strange way, to be original. They have made the oldest version the freshest one.

The least one can say for COUNT DRACULA is that no horror film has been so decently acted, no such film has been so imaginatively cast. In particular, students in American medical schools should be required to study Frank Finlay's imitation of bedside psychology. As Professor Van Helsing, Finlay is a genius of tact, authority, reassurance and well disguised consternation.

But it is with two other actors that Seville and Savory have affected their coup. When I first heard that Louis Jourdan had been awarded the role of Dracula I marked it down as yet another instance of the actor's abysmal luck in receiving parts, ranking with his crude stable boy (!) in THE PARADINE CASE and puritanical bluestocking in CAN-CAN. As an acting personality Jourdan has the cool, Olympian detachment of unflappable graciousness. He looks like an aristocrat born to die on the guillotine with a vague, amused smile. Wait, he may deliver a last, wry wave to the mob! He gives little promise of the Miltonic obsession of Stoker's man who would live forever. For a vampire Jourdan would appear to suffer from the fatal flaw of a sense of humor, something to cut as clean and as straight as a ray of the sun.

But here, bad casting luck has given way to magnificent opportunity. In Louis Jourdan's personification, Dracula is the "charming devil." Jourdan is the handsomest Dracula, easily besting Bela Lugosi, John Carradine and Christopher Lee, not to mention Max Schreck. Like his predecessor Lugosi, Louis Jourdan is the elegant European aristocrat, pouring his guest an extra glass of Tokay, entertaining him with a smattering of his amateur linguistics. Monsieur Jourdan is the perfect gentleman, and his smoothness is the beginning of seduction.

But it is not only my case to begin saying that with the vampire we have repressed sex. Rather, in COUNT DRACULA we watch the marriage of the erotic with the religious. (We've been getting a lot of Freudian vampires lately, but this one is

"A horror film is a nightmare which must be re-dreamed."

definitely a Jungian.) Jourdan's seductiveness is the love of Renfield's "Master" as in the pious epithet "Our Lord;" he is the black Christ.

One recalls the volume cover to C. S. Lewis' *The Screwtape Letters* on which the fiery silhouette of a horned demon is drawn in impecable suit and tie. Lewis' ordinary Englishman's prose lingers longer on the banality of evil, but elsewhere he has commented on its deceiving beauty. For Lewis, as for other orthodox Christian apologists, Satan's attributes include the capacity to draw the soul to him with the tempting mirage of his once angelic, now degraded nature. One must look closely, dangerously near, to notice the true state of this enticing, lyrical corruption. Among the first words of Savory's prince of lies are these lines: "Welcome to my house. Come freely. Go safely; and leave something of the happiness you bring." It is Jourdan's accomplishment that he embodies the charm that sweatens the lie.

Where Terence Fisher's Dracula was a Nietschean devil of the will, smashing the disobedient with the crude force of his bare hand, Seville and Savory's vampire is a solicitous lover, and a generous lord. He might have raged when he opened the door of his study to find his wives about to feast at the Englishman's throat. Instead, he smiles as indulgently as a father at the innocent appetites of his children, and gives them another prize: a living infant. He has not forgotten them, but considers their needs, and loves them. The vampire's arms circle the three sisters. Dracula spreads his cape over his victims as Jesus spreads the folds of His robe over His Church.

Dracula is Christ with fangs. To Renfield he is the Master, a shepherd all of whose sheep are black. The Count's clawed hand is layed over his mad disciple's head with a gesture of episcopal condescension. "I seek disciples," he announces to his interrogators, "just as your Master did." No small part of the horror is that Dracula may be the promised anti-Christ, infecting the world with his disease not like a plague but like a religion.

As many as are touched by the kiss of the vampire will die and rise again. Vampirism is an inversion of the Christian myth. For, the promise of the Christian faith is not that the faithful will be rewarded with Heaven, but that on the last day their tombs will surrender their glorified bodies. They will have not Heaven but a new earth to walk on. Dracula functions as the savior of a new cult for whom every evening is a Satanic Easter; and like Christ he too promises resurrection.

What's curious about the Seville-Savory Dracula is their image of an agnostic devil. Although he preaches resurrection, and his followers turn, snarling at the upraised crucifix, thereby professing faith by way of negation, Dracula expresses indifference to the existence of the soul. "Souls? There is no blood to be drained from souls." Vampirism is emphatically life, or undeath, in a body. In this, Savory and Seville's version differs markedly from the earliest and most respected of Dracula films, NOSFERATU. As Murnau's vampire is about to seize Jonathan Harker, Mina's trembling cry brings a halt to Dracula's attack. The vampire turns his head, as if something more interesting had drawn his attention. But Madame Harker is not just off camera, she is a continent away, in Bremen. Mina's "prayer" annuls physical space, and is audible only in the vampire's inner ear. Thus, Murnau affirms the precedence of an unseen nature behind this one, in which all things participate, even the undead. But for the Seville-Savory Dracula, phantasms are to be left to fantasists.

But despite his professed indifference to souls Dracula sustains an almost Christian fascination with the body. Here, one must approach the devil ever more closely, and appear, for a second, to fall victim to his blandishments. Is what the vampire offers his victims a perversion? Perhaps not. When Dracula interrupts his adversaries in their holy work of sanctifying his earth-filled coffins, they, true to form, raise a cross to stave him off. However, unlike his disciples, he fails to snarl and cringe. He smiles. In close-up the reflection of the crucifix bisects Dracula's face down the center and crosses his eyes, and this "symbol of torture and humiliation" becomes *his* symbol. The vampire is no longer a perverted parody of the resurrected man, rather, he is that man. It is not their sexuality which Jonathan Harker and Prof. Van Helsing wish to suppress, but their Christianity. And the repressed material has returned in nightmare.

If Louis Jourdan's Dracula doesn't end as a disguised hero, it's because the dark and holy claims of Thanatos are reaffirmed by Judi Bowker. Ms. Bowker is the third and most startling casting coup of this film. A young woman of almost preternatural sweatness, she may be the only actress alive capable of personifying a Victorian heroine. (Lillian Gish is still very much with us, but at 81 years of age she is somewhat beyond playing a female lead.) Her's is an archaic beauty, of a kind no film audience has seen since 1925. There is nothing insipid about Ms. Bowker's face, and when she wants it to it glows with sexual excitement. But at other moments it shines with what Charles Dickens would call "simple goodness." It's a face that not only earns love, but by the conventions of Victorian melodrama commands our reverence. Only the blackest cad would soil so pure a heart that beats beneath that radiant face. Thereby, Dracula condemns himself by his own presumption.

There is nothing arch about this film, no affectation of camp mannerism, no condescension. Judi Bowker is not a comic impersonation of moral innocence, but the very image of it. When Ms. Bowker's Mina Harker is awakened from Dracula's vampire marriage, and Van Helsing scorches her with a consecrated host, her screams, "Unclean, unclean! Even the Almighty shuns me," are invested with pathos and conviction. It is that pathos which confirms the evil of Dracula's intent. After all, who can deny the power of his claims? Who of us wants to die?

It is at this very moment, during his desecration of the marriage bed and his consecration of Mina's body to himself, that Dracula's moral status is in the

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Scenes from THE FURY, now in release from 20th Century-Fox. Right: Gillian loses control of her powers and gives Dr. Ellen Lindstrom (Carol Rossen) a cerebral hemorrhage. 2nd: Robin (Andrew Stevens) levitates girlfriend Susan Charles (Fiona Lewis) into oblivion. 3rd: Peter (Kirk Douglas) abducts a couple of hapless off-duty cops. Left: Peter loses his grip on son Robin, who falls to his death, apparently forgetting how to levitate.

THE FURY

THE FURY A 20th Centuy-Fox Release. 3/78. In Panavision & DeLuxe Color. 118 minutes. Directed by Brian De Palma. Produced by Frank Yablans. Screenplay by John Farris. Executive producer, Ron Preissman. Associate producer, Jack B. Bernstein. Director of photography, Richard H. Kline, ASC. Music by John Williams. Production designer, Bill Malley. Costumes designed by Theoni V. Aldridge. Edited by Paul Hirsch. Production manager, Jack B. Bernstein. Assistant director, Donald E. Heitzer. Second assistant director, Kim C. Friese. Script supervisor, Ray Quiroz. Camera operator, Albert Bettcher. Process coordinator, Bill Hansard. Stunt coordinator, Mickey Gilbert. Art director, Richard Lawrence. Set decorator, Audrey Blasdel-Goddard. Property master, Bill Bates. Gaffer, Ed Carlin. Key grip, Howard Mase Hector. Makeup supervision, William Tuttle. Special makeup effects, Rick Baker. Special effects, A. D. Flowers. Assistant editors, Maria Iano, Pat Shade. Construction coordinator, Hendryk Wynands. Men's costumer, Seth Banks. Women's costumer, Margo Baxley.

Peter	Kirk Douglas
Childress	John Cassavetes
Hester	Carrie Snodgress
Dr. Jim McKeever	Charles Durning
Gillian	Amy Irving
Susan Charles	Fiona Lewis
Robin	Andrew Stevens
Dr. Ellen Lindstrom	Carol Rossen
Kristen	Rutanya Alda
Mrs. Bellaver	Joyce Easton
Raymond	William Finley
Vivian Nuckells	Jane Lambert
Blackfish	Sam Laws
Robertson	J. Patrick McNamara
Mrs. Callahan	Alice Nunn
LaRue	Melody Thomas
Cheryl	Hilary Thompson
Lander	Patrick Billingsley

The real fury in Brian De Palma's latest film THE FURY should be in the eye of the beholder. Not so much because as "an experience in terror and suspense," it simply bears out that American penchant for commercial overstatement. Rather because this tempest in a can unreels itself only as a windy waste of good talent, money and time.

With a valet like John Farris who adapts his novel for the screen like someone with an advanced degree in schizophrenic logic, De Palma is helped into a pit of gratuitous humor and violence and, regrettably, the straightjacket of self-satire. If he has in the past slickly used cinematic gimmickry to blend suspense with sadism (in this respect—despite critical consensus—OBSESSION was his best), he here slips on his own celluloid into a pot boiling with inconsistencies.

Too often, for instance, De Palma trips so fantastically with his lightness we wonder if he would have *preferred* making a comedy. If he really aspires to become another master of suspense in the Hitchcock tradition, why devote so much time to the loquacious maternalism of Mrs. Callahan (Alice Nunn) at a time when Kirk Douglas, hotly pursued by his more humorless Judas John Cassavetes, fears for his very life?

And why during a daring flight across a fog-bound bridge are we subjected to nervous banter between Douglas and two off-duty cops, one of whom, astounded when his new hijacked Cadillac emerges from the cat-and-mouse chase unscathed, has to watch with the rest of us in even greater astonishment as Douglas runs it off into the river anyway?

Or what about the scene at the Paragon institute when Amy Irving as the gifted Gillian, on passing all her psychic tests, graduates with a demure giggle to a veritable *month* of sundaes with her girlfriend? (Carrie Snodgress came out of Oscar nomination obscurity just to be her girlfriend? Douglas' on-again, off-again bedfellow? Surely not just to be the plot vehicle for getting Ms. Irving out of the place to help Douglas. Surely not to be duly rewarded by De Palma who, when he's through with her, runs her over with another vehicle of considerable more substance!)

Neither can De Palma pass up a chance for two agents in the tight security network surrounding Paragon to exchange bon mots over a cup of coffee.

All for a drunken-porter-like relief from nervous tension? Or, we begin to consider by this point, from cinematic tedium?

These happy happenstances happen too frequently and inauspiciously to qualify as impish Hitchcockian asides. Sadly, De Palma would have been far better off had he made up his mind to do it *all* for laughs. For can we ever take seriously such an incredible plot randomly splattered with gore that, in so many senses, hardly ever proves organic to the real story?

Okay, we need that staged assault by "Arab nationalists" in the beginning so that Andrew Stevens as Robin mistakenly thinks his father killed and Douglas can begin feeble retaliation against Cassavetes, thus setting in motion the film's only clear conflict.

Granted even that Ms. Irving, telepathically linked with the captive Stevens, should get back at Dr. McKeever (Charles Durning) by making him bleed supernaturally on the same steps where he earlier tried to thwart Stevens' escape attempt.

But why, while clairvoyantly sharing Robin's horror at being "brainwashed" (tortured?) by a replay of his father's supposed assassination, should she make her *good friend* Dr. Ellen Lindstrom (Carol Rossen) suffer nothing less than a *cerebral hemorrhage*? Just an excuse to show us the fruit of Robin's discontent—a plot necessity—the same time we suffer the indiscriminateness of Gillian's nascent powers? Or one more attempt to squeeze the bloodiest pulp out of a stale tomato?

Nowhere are the sadistic plot machinations as apparent than in Stevens' revenge which the script insists is precipitated by his character's "fury" over the frustration of a superior mind in an inferior body.

But why then should Stevens take out his jealous rage over girlfriend Susan Charles (Fiona Lewis) by making a carnival ride spin so fast that two Arabs take another ride through the high windows of a posh restaurant? It would make more

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Steven Dimeo is editor of *Transition*, The Literary Magazine for a World of Change. He has reviewed films for the *Oregon Daily Emerald* and the *Utah Daily Chronicle*.

by Steven Dimeo

". . .a windy waste of good talent, money and time."

sense if he were *then* to do what he later does to Ms. Charles back in that secluded Lake Forest mansion—suspend her in the murky air, bring blood to her eyes and make her head spin so fast that she beautifully redecorates the room in Grand Guignol Red. We learn, however, that he has just displayed this newfound talent (symbolizing the director's?) for bringing tears to our eyes (for the wrong reason) merely because he's *tired* of her. Women of the world, beware of tired psychics.

De Palma, indefatiguable himself, does not stop here with his bloodlust. In the midst of his room's mist (which seems to have seeped there from THE EXORCIST), Stevens, apparently invoking the true significance of his character's christian name, takes to the air himself, hovering over the doorway for the long-awaited reunion with his daddy. Some scene! Powered only by high wires and De Palma, Stevens flies down into his pa with a pow, taking them both out the window (shades of THE EXORCIST again; how imaginative!). With a departing pointless scratch at the rather baffled face of his father, Stevens then plummets to his death, curiously forgetting those powers of levitation he has just exploited when he never needed to. Douglas, overpowered with another kind of fury now (at the script?), also forgets he's survived any number of near-disasters in a dauntless search for his son, and follows in his son's cloven footsteps by hurling himself more intentionally from the roof. And poor Ms. Irving. Left with no reason why she even became Stevens' only psychic link with the outside world except for that dueced *dues ex machina* plot, she musters all the supernatural powers she can to save her soul mate by gaping in horror and making her eyes turn blue!

With the principals out of the way, what then? Cassavetes unctuously trying to win over the callow Ms. Irving, of course. Unfortunately, THE FURY—despite all these contrivances to the contrary—has not yet cranked itself to a close. In a scene which stands as a strange climax in Cassavetes' irregular career, Ms. Irving, mining her presumably limitless reservoir of psychic abilities, suddenly "thinks" him into *vibrating* to death. No mere bleeding for the evil likes of him. With a little assist from the special effects of Rick Baker (who was better off confined to the King Kong suit in the De Laurentiis fiasco), she actually makes Cassavetes *blow up*, scattering (in luxurious slow motion, of course) blood and guts and a plastic head to kingdom come.

And—nothing. The end? What are we supposed to think of Ms. Irving now, alone but apparently aided by the blue-eyed soul of the dourly departed Stevens? Today Cassavetes, tomorrow the world?

It is not so much these impossible plot manipulations for buckets of blood that ring up "No Sale" on this bit of garish commercialism. Neither is it the sloppy inconsistencies that, for instance, have Douglas one minute sobbing over the death of his car-crossed lover and the very next pleasantly talking of his son. It is more the wasted talents of the 36-year-old director. Perhaps spirited upward by the boxoffice returns of CARRIE (eminently forgettable but for the brilliant ten-minute finale in the high school auditorium and, of course, the transcendent charms of Sissy Spacek), De Palma has let his own powers of imagination rise instead to another kind of inflatable head. And his talent for losing it has deflated the potential of all the talent here at his disposal, including even John Williams who creates a murky score void of the brilliance that studded his past films like JAWS and STAR WARS.

We are all naturally entitled to our failures—so long as they are not touted as successes. Critics aren't helping De Palma any. Neither is the ever reliable American public which reasons like both De Palma and Farris that *anything's* okay so long as lots of people pay lots of money for it.

The discerning among us who hate to encourage sensational senselessness must finally be a little forgiving. If we blush from the gases of a film self-destructing out of its own excesses, we should remember that, even if his actors never are, Brian De Palma himself is still only human. □

COUNT DRACULA by John Azzopardi
continued from page 61
ascendent. Throughout the film vampirism has been puritanism, a feast of the dead upon the living. Now, the Count slits open his own chest and returns to Mina her own blood. Vampirism becomes symbiosis, a circle of blood running from the living to the undead to the living again. Without Mina's screams to the Almighty, Dracula would have affected a moral success.

With her full, heavy face and lips, and her whole body heaving breath under the vampire's bite, Susan Penhaligon is a more familiar, more modern feature in the Dracula tale. But with Judi Bowker she creates a Griffith-like world of victimized women. The trees that stand witness to Jonathan and Mina's leave-taking and the ancient oak that presides over the final prayer are echoes of the fairy tale imagery of BIRTH OF A NATION or ISN'T LIFE WONDERFUL? And Judi Bowker is a throw-back to a cinema of fainting heroines of ineffable nobility.

Director Philip Seville has imaginatively recast the vampire attacks by going into negative in enormous close-ups, and has dropped a discreet hint here and there of ever more sharpening teeth. In one image Dracula's wives are seen suddenly lifting their bloody maws, shockingly, over the corpse of an infant. I have had the occasion to quote Gerald Savory's fine dialogue more than once, and the music of Kenyon Emrys-Roberts is appropriately sickly and sweat. Although shot on videotape and film, the show has recourse to the techniques of cinema, and bears little resemblance to the talky metamovies that many series become.

If for nothing else, the makers of COUNT DRACULA have managed the remarkable feat of having produced something fresh out of eighty years of mostly ludicrous banality. It's as if one had never seen a movie version of Dracula before. This is easily the best film of Bram Stoker's novel since F. W. Murnau's very different rendition of the story, NOSFERATU. It is one of the finest horror-fantasy films ever made. □

This Page: DAMIEN—OMEN II, now in release from 20th Century-Fox. Left: Damien (Jonathan Scott-Taylor). Right: Joan Hart (Elizabeth Shepherd) is attacked by a raven, one of the devil's emmisaries.

Facing Page: THE MEDUSA TOUCH, in release from Warner Bros. Right: Morlar (Richard Burton). Left: Lino Ventura attempts to remove Morlar's life support systems to prevent further catastrophes.

DAMIEN—OMEN II

". . .taut, well directed, an efficient summer 'popcorn' movie. . ."

DAMIEN—OMEN II A 20th Century-Fox Release. 6/78. In Panavision and DeLuxe Color. 104 minutes. Directed by Don Taylor. Produced by Harvey Bernhard. Screenplay by Stanley Mann and Michael Hodges. Story by Harvey Bernhard based on characters created by David Seltzer. Coproducer, Charles Orme. Director of photography, Bill Butler, ASC. Music by Jerry Goldsmith. Edited by Robert Brown, Jr. Associate producer, Joseph "Pepi" Lenzi. Production designed by Philip M. Jeffries and Fred Harpman. Casting by Lynn Stalmaster. Isreal sequences photographed by Gil Taylor, BSC. Miniatures photographed by Stanley Cortez. Miniatures by Chuck Taylor. Los Angeles Crew: Production manager, Joseph "Pepi" Lenzi. First assistant directors, Al Nicholson, Jerry Ballew. Second assistant director, Richard Luke Rothschild. Script supervisor, H. Bud Otto. Set decorator, Robert de Vestel. Property master, Bill MacSems. Construction coordinator, Hendryk Wynands. Makeup, Robert Dawn. Camera operator, James Connell. Key grip, George Hill. Gaffer, Colin Campbell. Underwater photography, Al Giddings. Process coordinated by Bill Hansard. Special effects, Ira Anderson, Jr. Raven trainer, Ray Berwick. Stunt coordinator, Max Klevin. Chicago Crew: Camer operator, Jack Richards. Assistant cameraman, Ed Nielsen. Second assistant director, Bob Dahlin. Associate set decorator, William Fosser.

Richard Thorn	William Holden
Ann Thorn	Lee Grant
Damien Thorn	Jonathan Scott-Taylor
Paul Buher	Robert Foxworth
Charles Warren	Nicholas Pryor
Bill Atherton	Lew Ayres
Aunt Marion	Sylvia Sidney
Sergeant Neff	Lance Henricksen
Joan Hart	Elizabeth Shepherd
Mark Thorn	Lucas Donat
Pasarian	Alan Arbus
Murray	Fritz Ford
Dr. Kane	Meshach Taylor
Teddy	John J. Newcombe
Butler	John Charles Burns
Bugenhagen	Leo McKern
Michael Morgan	Ian Hendry

Sequels to horror movies don't have it easy. They usually either cash-in on something that wasn't much good (but was financially successful) the first time around, or they render a few interesting ideas meaningless through repetition.

Having been thoroughly unimpressed by Richard Donner's THE OMEN (which I considered a flabby series of mechanical vignettes), I was prepared to be equally bored by its sequel. Don Taylor's DAMIEN—OMEN II, however, turns out to be a taut, lean reworking of the most interesting ideas from the first film, written and directed in a style which is the exact opposite of Donner's pretentious approach. And with a good deal of exposition already out of the way (via the first film), there has also been room to introduce a political undertone of unsettling subtlety.

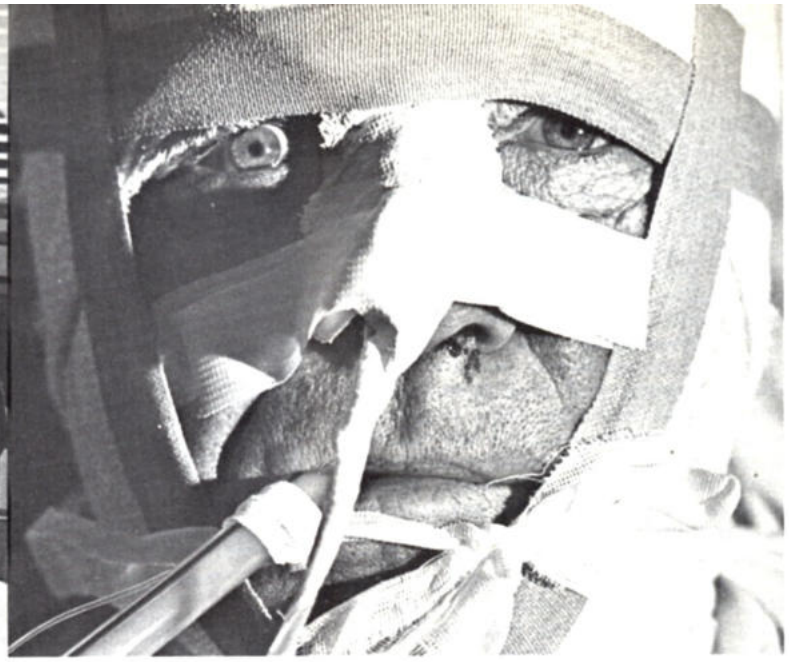
Obviously, if one goes to a movie expecting the worst, and encounters something that is even mediocre, there is a danger of overpraising it. But I had liked Taylor's last film, THE ISLAND OF DR. MOREAU (for its energy and its macabre fatalism), and I knew that director Michael Hodges (who made the intriguing GET CARTER of a few years ago) had worked on the DAMIEN script before being dropped from the project—so I was willing to assume that a total disaster might have been avoided. What I didn't expect to find was a film that stretches the limits of its genre while still remaining true to the form of an efficient summer "popcorn" movie.

In premise and execution, DAMIEN is about the closest modern equivalent you'll find to a typical mid-to-late Sixties Hammer film (when they had lost their classic status, but were still slickly professional and better than the competition). You know Damien and his protectors are going to bump off a certain number of victims; it's just a question of whom, when and how—and will the filmmakers do anything intelligent with the intervening passages? As in the better Hammer Films, the strength of DAMIEN does not lie in one single element (such as directing or acting), but in several. The three-pronged viewpoint of the storyline, several commanding performances, the laid-back menace of the story's most frightening implications (which are doubtless being saved for the projected third OMEN), and the tight direction (which does not segment the film into episodes, but sweeps it briskly along a straight line) offer a refreshing break from most of the big-budget entries in Hollywood's current horror parade.

Damien—for the benefit of the three or four people who missed THE OMEN—is the Antichrist predicted in the Book of Revelations, sired by a jackal and destined to plunge the world into darkness and chaos when Satan decrees it. Secretly adopted by the American Ambassador to the Court of St. James (whose own child was stillborn at the moment of Damien's birth), Damien spent the duration of THE OMEN killing his surrogate family and everyone else who stepped in his way, a job that took him six years. In the sequel, he is 13, and having apparently spent the past seven years uneventfully (in the home of his uncle, aunt and cousin), is just now beginning to sense who he is—thanks to the influence of one of his teachers and an executive in his uncle's corporation, both emissaries of Satan.

Since the movie's main drawing card is the spectacular havoc Damien will wreak, it could easily have become the live-action equivalent of a Roadrunner cartoon. But the narrative is not kept that primitive. Damien himself has no memory of his past misdeeds—hence the development of a subplot in which he is made to understand his identity, and tries to resist it. This is nicely complemented by the growing ambivalence of his uncle (a splendidly charismatic performance by William Holden), who begins to catch on at about the same pace as Damien. With three different paths to follow—Damien's, his uncle's, the Satanists'—and a solid director to keep out the dead weight that burdens most expensive horror movies, DAMIEN not only delivers chills, but lays a strong dramatic foundation. There is also a very effective snap ending, which

by Bill Kelley



THE MEDUSA TOUCH
". . .the kind of disposable cinema that can be enjoyed in spite of itself."

took me entirely by surprise, although clues for it were planted throughout the film.

Although DAMIEN is a superior sequel –in itself an estimable achievement, considering what usually happens–it should be noted that it is by no means a great film. The killings are dealt with imaginatively and, for the most part, tastefully, but the movie never completely transcends the crass device of an obligatory gruesome death every several minutes. At least one such sequence (Lew Ayres' drowning during a hockey game) drags on so long that we have a chance to think about what we are seeing, which, while exciting, is also fairly implausible. The killings are also brought into the film so quickly that there is scant time to establish mood before people start dropping like flies. At the showing of DAMIEN I attended, the audience (who seemed to enjoy the film) laughed during the most audaciously violent scenes–presumably because there was relatively little atmosphere (compared to, say THE EXORCIST) to suspend their disbelief.

DAMIEN, then, is stylistically at odds with itself. Its ambitious qualities–Damien's absorption into the military/industrial complex (never stated, but explicit nonetheless), the religious iconography, the uncle's probing of a few innocuous details which quickly suck him into the macabre scenario–all slow down the visceral momentum of the narrative. On the other hand, for moviegoers who feel these muted touches are the best part of the film (like me), the flamboyant gore is sometimes an annoying intrusion. Certainly, subtlety and horrific violence can exist harmoniously in the same film (look at the early Hammers), but here gimmickry too often dominates, and the chemistry is off.

Still, DAMIEN is far better than THE OMEN gave us any right to expect it would be, and if its sequel is a further improvement, a memorable fantasy film might emerge before this bizarre trilogy is spent. □

THE MEDUSA TOUCH A Warner Bros Release. 3/78. In Panavision and Technicolor. 100 minutes. Directed by Jack Gold. Produced by Anne V. Coates and Jack Gold. Screenplay by John Briley based on the novel by Peter Van Greenaway. Executive producer, Arnon Milchan. Associate producer, Denis Holt. Music composed and conducted by Michael J. Lewis. Photographed by Arthur Ibbetson, BSC. Production supervisor, Colin Brewer. Art director, Peter Mullins. Supervising editor, Ann V. Coates. Assistant director, Derek Cracknell. Camera operator, Freddy Cooper. Editor, Ian Crafford. Sound recordist, Ivan Sharrock. Dubbing mixer, Gordon K. MacCallum. Sound editor, Jonathan Bates. Special effects supervisor, Brian Johnson. Location manager, Chris Kenny. Assistant art director, John Siddall. Second assistant director, Richard Jenkins. Production assistant, Iris Rose. Construction manager, Albert Blackshaw. Set dresser, Jack Stephens. Property master, Dave Jordan. Makeup, Eric Allwright. Casting director, Irene Lamb. Optical effects, Doug Ferris. Assistant editors, John Nuth, Jeremy Hume.

Morlar	Richard Burton
Burnel	Lino Ventura
Zonfeld	Lee Remick
Assistant Commissioner	Harry Andrews
Barrister	Alan Badel
Patricia	Marie-Christine Barrault
Parrish	Jeremy Brett
Fortune Teller	Michael Hordern
Dr. Johnson	Gordon Jackson
Publisher	Derek Jacobi
Pennington	Robert Lang

"I have a gift for di-ZAW-ster," announces Morlar (Richard Burton) in his oh-so-dry English manner to psychiatrist Lee Remick. And this guy isn't kidding. Using his advanced powers of telekinesis, he causes jumbo jets to crash into skyscrappers, and overbearing acquaintances to perish through untimely "accidents." So it is no surprise that when someone bludgeons the decidedly friendless chap to near-death with a statuette (of Napoleon?) one evening, Scotland Yard is left with precious few suspects.

Director Jack Gold is best known for his respectable BBC productions, but occasionally lets his hair down and turns to the film genre of what a friend calls "the pretentious junk thriller," a term that aptly describes THE MEDUSA TOUCH. Wisely, he and writer John Briley (working from Peter Greenaway's novel) have avoided ripping off CARRIE, instead fashioning a convoluted science fiction whodunnit. While trying to solve the mystery of the assault, sleepy French police inspector Lino Ventura deciphers a cryptic entry from Morlar's diary which indicates that another catastrophe is shortly forthcoming: the collapse of Bristol Cathedral (on the day the Queen and a throng of followers is scheduled to visit, naturally).

There are a number of things wrong with this movie: the unconscious parodies of Lumet's EQUUS; the overdrawn, unsympathetic characters (or should that be caricatures?); the often laughable dramatic sequences (like Morlar's parents getting knocked over a cliff by their runaway car). There is also insufficient explanation as to why Burton feels compelled to cause these tragedies, when people he does not even know are often involved. An appealing Third World theory is offered–he knocks a group of astronauts out of orbit to protest the millions spent on space exploration over feeding the hungry –but it is inconsistently supported.

In retrospect, THE MEDUSA TOUCH is the kind of disposable cinema that can be enjoyed in spite of itself. The opening scene is a grabber, and the twist ending–Burton has his life support plugs pulled, but his brain continues to thrive–has audiences hooting for more. Lee Remick is fine in yet another undemanding part, and Burton's performance, if too reminiscent of his tortured, monologue-ridden doctor in EQUUS, is shrewd in its showmanship. "I am responsible for most of the world's di-zaw-sters," he says at one point, and; considering the last ten years of his career (and recent travesties like THE HERETIC) one can only admire him for his honesty. □

by Kyle B. Counts

CAPSULE COMMENTS

THE GARDEN [Victor Nord] Middle East Film Ltd, 6/78(c76), 92 min, color, English subtitles. With: Melanie Griffith, Shai K. Ophir.

Calculating real-estate developers are pressuring an old man to sell the spacious Eden-like garden behind his house in Jerusalem. Fleeing from a group of motorcycle punks, a strange, mute girl (Griffith, who seems to prefer getting along without clothing) seeks refuge in the garden. From the old man's point of view, she seems to appear in a shaft of sunlight: he believes her to be an angel or possibly Eve, and her presence gives him the faith to go on. A beautiful film which could have been pretentiously "arty" but for director Nord's deft, light touch. Ethereal panoramic vistas, and the enchanting photography, music, and sound effects mesh well in creating a delicious ambiguity. At the end, when the girl disappears suddenly, we are left wondering if she ever really existed at all.

Jordan R. Fox

HEAVEN CAN WAIT [Warren Beatty & Buck Henry] Paramount, 6/78, 100 min, color. With: Warren Beatty, Julie Christie, James Mason, Jack Warden, Charles Grodin, Dyan Cannon, Buck Henry.

Perhaps sparked by the boxoffic success of OH, GOD!, comedy/fantasy is coming back *big*. Who would have believed you could turn HERE COMES MR. JORDAN, Columbia 1941, into a hit in 1978? Credit co-writers/co-directors Warren Beatty and Buck Henry, in their directorial debuts, with the feat, almost as miraculous as their own scenario. A top cast in top form helps immeasurably, especially Charles Grodin in some nicely timed comedy. We have THE WIZ upcoming—what's next, STAIRWAY TO HEAVEN or CABIN IN THE SKY?

Frederick S. Clarke

JAWS II [Jeannot Szwarc] Universal, 6/78, 123 min, color. With: Roy Scheider, Lorraine Gary, Murray Hamilton, Joseph Mascolo, Jeffrey Kramer, Collin Wilcox.

Just when you thought it was safe to go back in the movies. Most of the characters are depicted as incompetent, weak, vulnerable and ignorant of "sharkfacts." Ergo: they are no match for the Great White, the true hero of the film, and except for a few random moments, there is no suspense. No effort was made to study how Verna Fields and Steven Spielberg achieved the tension of JAWS. This does, however, have one of the best *trailers* ever made—showing nothing more than dark, forbidding waters. *Robert Stewart*

Irwin Allen and his dull bees.

MR. KLEIN [Joseph Losey] Quartet 6/78(c76), 123 minutes, color, English subtitles. With: Alain Delon, Jeanne Moreau, Suzanne Flon, Michael Lonsdale.

Kafka and Borges stalk occupied Paris of 1942 as Robert Klein (Delon) attempts to find another man named Robert Klein. In the course of his obsessive search, Klein pulls the net of Nazism around himself, tighter and tighter. Black cars huddle on the wet night streets, rooms are filled with TRIAL-like files, PRISONER controllers study maps of movements, walls are erected to partition humanity, and still Klein walks to his inevitable doom. Losey's first film in French is nightmarish, chilling, detahced, ambiguous; it is precise and skilled filmmaking, reminiscent of the shifting identity psychological drama seen in his SECRET CEREMONY.

Robert Stewart

THE SWARM [Irwin Allen] Warner Bros, 7/78, 116 min, color. With: Katherine Ross, Michael Caine, Richard Widmark, Richard Chamberlain, Olivia de Havilland, Ben Johnson, Lee Grant, Jose Ferrer.

After SAVAGE BEES, KILLER BEES and DEADLY BEES comes Irwin Allen's dull bees. The special effects are merely okay, but mediocre acting (with the exception of Henry Fonda), an atrocious script by Stirling Silliphant, and Allen's inept direction make entertainment value nil. THE SAVAGE BEES drove a bee-covered Volkswagon into the Astrodome and then turned down the air-conditioning, a clever denoument. Allen's preposterous solution to beat the bees is to burn down Houston, Texas! Obviously, THE TOWERING INFERNO left quite an impression on him (would that he confined his direction to only the action scenes here). And Allen's finale is right out of BEGINNING OF THE END, Bert I. Gordon's '50s B-picture about giant grasshoppers, which come to think of it, was a hell of a lot more fun! *Robert Stewart*

THE TORMENTED [Mario Gariazzo] Tiberia Film Int'l, 6/78(c77), 86 min, color. With: Stella Carnachia, Chris Avram, Lucretia Love, Gabrielle Tinti.

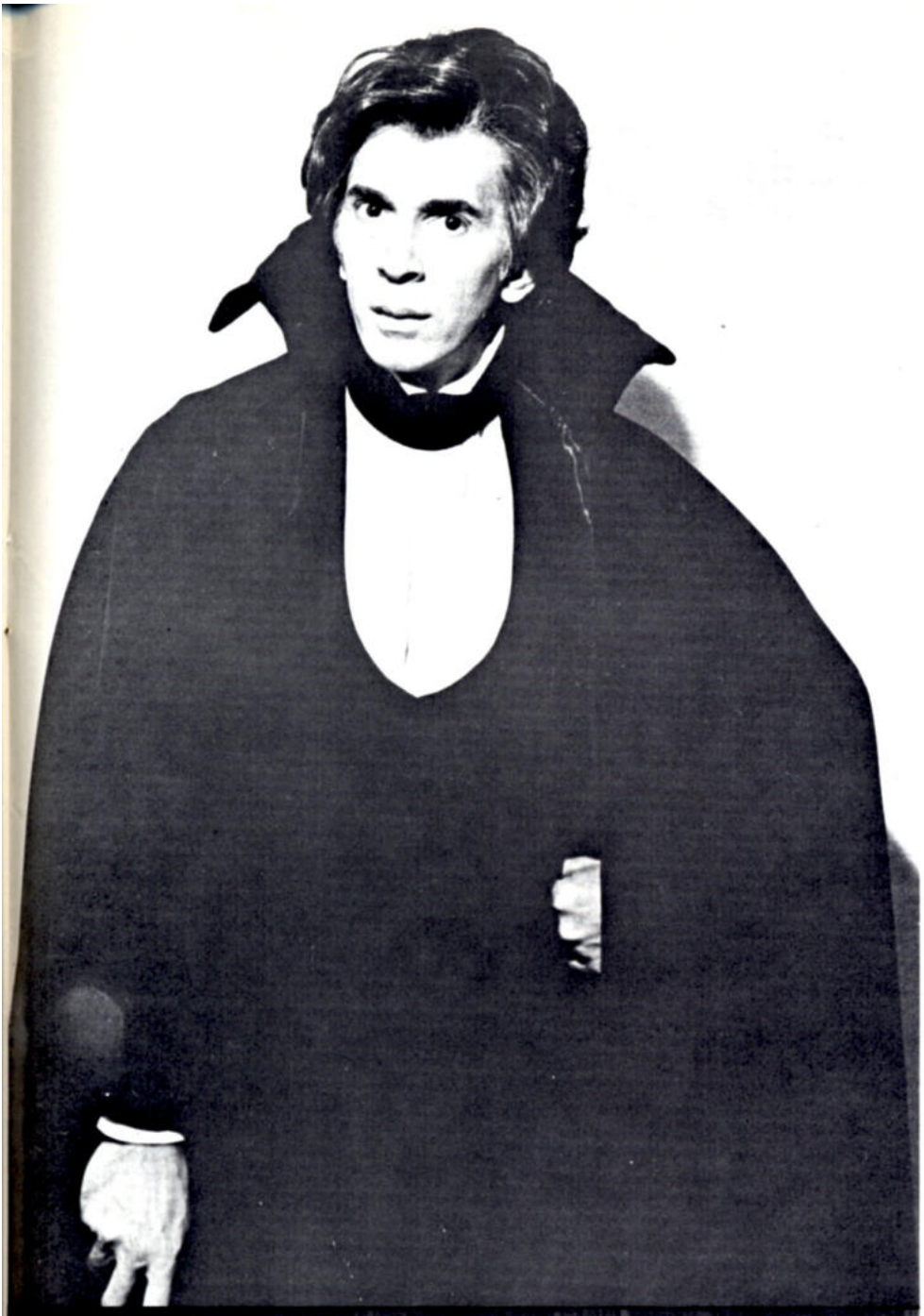
This deadly Italian import quickly reveals itself as one last dim, forlorn echo of THE EXORCIST. Carnachia plays a rabbit-toothed art student who, for personal studies, removes a life-size figure of one of the crucified Calvary Thieves from a deconsecrated church. During a late-night vigil the statue animates itself. Before you can say "orgasm" Stella literally finds herself fucked-up by her own work in this outmoded brew of soft-core porn and violence. It's all ho-hum thereafter, until the Great Ecclesiastical Hermit decides to come down off his mountain-top and put this foolishness to an end. Handsomely lensed and mounted, with picturesque native locales, but the current trend towards technical polish in exploitation films will never disquise the hollowness of their intent. *Paul M. Sammon*

VILLAGE OF THE EIGHT GRAVESTONES [Yoshitaro Nomura] Shochiku, 5/78(c77), 137 min, color & scope, English subtitles. With: Kenichi Hagawara, Miyumi Ogawa, Kyoko Nakano.

There is a strange dichotomy created by this fairly good mystery/horror film, reportedly a top grosser in Japan. The set-piece here is a harrowing, seven minute sequence describing the treacherous murder of eight Samurai warriors at the hands of corrupted Medeival villagers, one of the most terrifying I've yet seen. But the Samurai's curse, which takes us up to modern times, is obscured by, of all things, Edgar Wallace-type twists and pulp-novel red herrings, in an overlong, extremely convoluted scenario. The curse and the detective work dovetail at the end, in a tantalizingly ambiguous denoument, if you can manage to sit through it all. *Jeffrey Frentzen*

Left: A heavenly way station—next stop the Pearly Gates—from HEAVEN CAN WAIT. Right: Unexpected company drops in—JAWS II.

DRACULA ON STAGE



Having run out of fresh material, the original stage production of "Dracula" has hit Broadway. Written by Hamilton Deane and collaborator John Balderston, this production opened at the Fulton Theater (now known to New Yorkers as the Helen Hayes Theatre), on October 5, 1927, exactly fifty years before. The immortal Bela Lugosi originated his classic role here, which co-starred Nedda Harrigan, the wife of director Josh Logan.

The current Broadway version stars Frank Langella as Dracula, quite a far cry from Lugosi. Admittedly, Langella is quite a fine actor, especially popular on Broadway, but he is *not* Dracula by any stretch of the imagination. He first approached the role from a suave, romantic angle, but this tends to make the Count come across more like a playboy rather than a bloodthirsty vampire. Langella is a little too smooth and self-assured to portray a character as unusual as Dracula. At times, he is pathetically laughable as he swings his cape around the stage, snarling like an animal, provoking titters from the audience rather than chills. Laughs, it appears, is what the audience is after, and Langella and the play have become a big hit. The actor has been signed by Universal Pictures to appear in a film version of the play, exactly paralleling the circumstances which launched Bela Lugosi to horror film stardom.

The current Broadway version, and presumably the anticipated film, plays it straight, but the audience takes it all as humorous *camp*. Many well-remembered lines and circumstances are chuckled at, and mere use of words like "Blood," "bat," or "anemic" provoke further giggles. (Let's face it; this *is* 1978. New Yorkers aren't taking a revival of "Hair" seriously!)

The cast members all try hard, and Jerome Dempsey as Van Helsing brings dignity and intelligence to the role, as well as realizing when a certain line will get a laugh. Of the actors, the part of Renfield, the madman, comes across as the most colorful and memorable. The part seems larger in this show than it did in the original Dwight Frye version, and Richard Kavanaugh has realized the character beautifully. With a pasty-white face, frizzed hair, striped pajamas, and a sadistic laugh, Kavanaugh hops and leaps around the stage like some demented leprachaun. He alone comes closest to almost equalling the classic interpretations created by the original cast of the 1931 film.

The most noteworthy aspect of the Broadway "Dracula" is the astonishing and beautifully Gothic sets, created by Edward Gorey (who has also designed the costumes for the show). Mr. Gorey has several books published with his inimitable Gothic drawings, and sadistic writings. As for Gorey's "Dracula" sets, I have never before seen a show where,

Top: Frank Langella as Dracula, in the Broadway stage production, soon to be filmed by Universal Pictures starring Langella. Bottom: Lucy Seward (Ann Sachs), Jonathan Harker (Alan Coates) and Dracula (Frank Langella) in the first act, illustrating Edward Gorey's inspired Gothic sets, done totally in shades of gray.

by Richard Buonanno

once the curtain goes up, the audience applauds the *set*! When the curtain rises (actually, it is a white partition with bats painted over it), you are greeted with a purely Gothic library, complete with fireplace, brick stones, and bookcase. The amazing aspect of the settings is that they are all done in shades of black, white and gray. (The second act set is Lucy Seward's boudoir, and the third act set is the vault where Dracula sleeps, and is eventually destroyed.) In the first act, the only color than can be seen is a glass of red wine, and in the second act, a red rose sits on Lucy's bed. Excepting Dracula's violet cape, blacks and grays predominate throughout, a touch of genius on the part of Gorey.

Stage versions of "Dracula" are now popping up all over the country. There just seems to be no end to the Dracula saga. Audiences are having a good time with the Broadway show, and it does have its moments. But, alas, Langella... is no Bela. □

Universal's new DRACULA has plenty of competition.

Sparked by the tremendous success of the Broadway revival of "Dracula," producer Walter Mirisch will film a new adaptation of the play for Universal Pictures, with Frank Langella recreating his stage performance in the title role. But likely to reach screens first is LOVE AT FIRST BITE, a comedic version, already in production and previewed at right, or any one of three other Dracula films in the planning stages, not to mention a television documentary!

W. D. Richter is adapting the original Hamilton Deane and John L. Balderston play for the Universal film, which the studio filmed originally in 1931 starring Bela Lugosi. Richter recently adapted the Jack Finney novel for the forthcoming remake of INVASION OF THE BODY SNATCHERS. The Universal DRACULA, a major big-budget production, will be directed by John Badham, responsible for one of last years biggest money-makers, SATURDAY NIGHT FEVER. Filming is due to begin this Fall for release in the Spring or Summer of 1979.

Other competing Dracula films in the planning stages incude: NOSFERATU, a remake of the F. W. Murnau silent classic to be directed in Germany by Werner Herzog, starring Isabelle Adjani, for distribution by 20th Century-Fox. BRAM STOKER'S ORIGINAL DRACULA, a Meta-Philm Associates production to be directed by Ken Russell in association with Leonard Wolf, author of the popular scholarly works *The Annotated Dracula* and *A Dream of Dracula*. PRINCE DRACULA, a $3,000,000 comedy from independent producers Benjamin Melniker and Richard K. Rosenberg, written by Nick Felix, to be filmed in Dallas, Texas. And COUNT DRACULA: THE TRUE STORY, a 90-minute television special by Harry Bernsen Productions, filmed on location by Jerry Yurek Filjalkowski in Rumania. Latter is a documentary.

Universal...a real bloodsucker

In 1930, Universal Studios paid Bela Lugosi a painfully modest $3500 to repeat his Broadway delineation of Count Dracula on celluloid. In 1938, following the actor's humiliating stretch of publicized unemployment, the studio exploitatively hired the Hungarian at half-salary to create Ygor in SON OF FRANKENSTEIN. And in 1948, Universal magnanimously contracted Lugosi to play Dracula in ABBOTT AND COSTELLO MEET FRANKENSTEIN only after his agent performed a passionate 11th hour appeal.

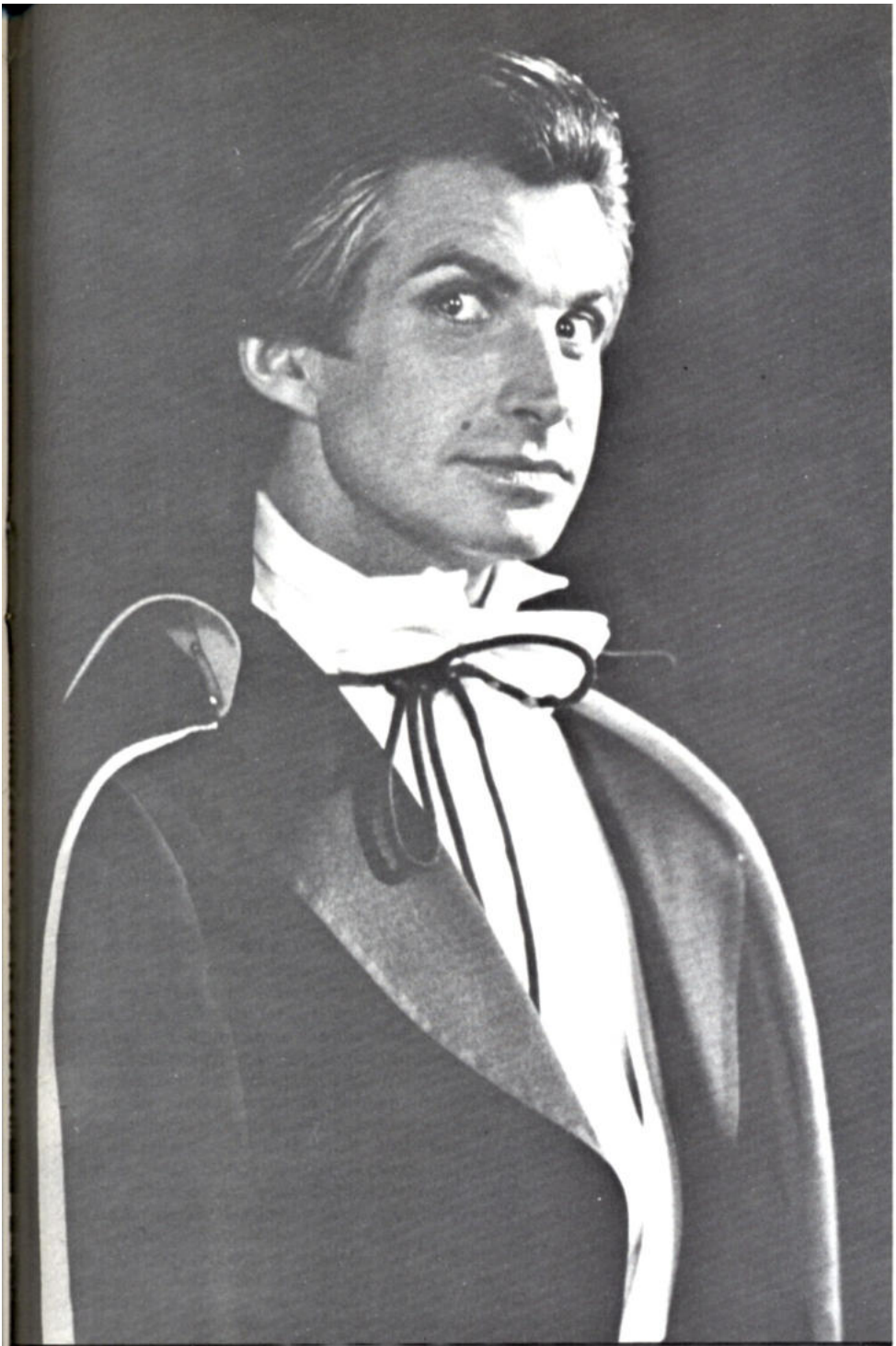
Well, Universal isn't finished. Having financially screwed Lugosi to the proverbial wall during his lifetime, the lot which made millions via the demonic charms of the unique Lugosi appears intent on wringing blood out of his corpse. In 1974, Lugosi's heirs, son Bela George Lugosi and widow Hope Lininger Lugosi sued the studio in an effort to cease their merchandising of Dracula plastic models, toys, etc. bearing Lugosi's likeness. In a widely publicized, precedent setting court decision, the heirs received the late actor's "Right of Publicity"—Lugosi's right to be compensated for the use-for-profit of his name or likeness. However, Universal has stormed the U.S. District Court of Appeals in Los Angeles and succeeded in June of last year in overturning the heirs' victory, arguing that the survivors have sought to limit the studio's "freedom of expression" and that Lugosi himself exercised no such rights during his lifetime.

In addition to invalidating the "Right of Publicity" judgement, the U.S. District Court scrapped a damage judgement estimated near $100,000, as well as an injunction preventing the studio from any further merchandising of the Lugosi likeness. This latest decision has been loudly hissed by the old guard of Hollywood actors, especially since the widows of Laurel and Hardy and the heirs of such stars as Clark Gable and W. C. Fields have won similar suits since the '74 decision, victories which now appear doomed by the appeals courts.

The heirs, nursing sad memories of a bitter, ailing, near destitute Lugosi in his last years, have appealed the U.S. District Court reversal to the California Supreme Court, where it is now pending. Boris Karloff once remarked, "Poor Bela—he was worth a lot more than he got." Or his heirs are ever likely to get from Universal.

Greg Mank

LOVE AT FIRST BITE



"We all secretly want to be Dracula, and we're all afraid that we are really turning into Van Helsing." Such is the perversely original sentiment of writer (GETTING STRAIGHT, DIVORCE: AMERICAN STYLE) and co-executive producer Robert Kaufman, whose film, LOVE AT FIRST BITE, has just completed shooting. The Mel Simon production, budgeted at just over $2 million, appears to stand a good chance of getting some fresh ore out of a mine many had assumed to be exhausted.

Vampires are coming back into fashion again, with several Hollywood projects in the works—including one by Roger Vadim and Paramount's INTERVIEW WITH THE VAMPIRE—but Kaufman insists his against-the-grain conception, dismissed in some quarters as a B-movie tag-along, actually *predates* them all. While admitting he has seen at least a dozen vampire movies, Kaufman finds more inspiration in the "wicked" social comedies of Billy Wilder and Ernst Lubitsch than in the Hammer horror film cycle. "A few of the early ones were good, but after HORROR OF DRACULA, BRIDES OF DRACULA, Fiendishness of Dracula, Dracula Applies For Medicare, and so on and so forth, they began to get derivative of themselves instead of exploring the legend."

George Hamilton, also doubling as the other executive producer, plays a very different kind of Dracula. "Dracula represents the most timely romantic character I've ever come across. This film is a backlash against the death of romance in films. Here's a man who dares to be a man in an age where there aren't any men. We need someone like him today."

Starring with Hamilton are Susan Saint James, his light o'love, and Richard Benjamin, the third corner of the triangle, and a descendant of Prof. Van Helsing. Stan Dragoti directed the film on location in New York, with five weeks of soundstage work in Hollywood and on Los Angeles locations. Dragoti is one of the top directors of commercials on the west coast, whose only previous feature was DIRTY LITTLE BILLY some six years ago.

Master makeup artist William Tuttle (SEVEN FACES OF DR. LAO), who, incidentally, got his full union card replacing Jack Dawn on the 1934 film MARK OF THE VAMPIRE, designed Hamilton's makeup with a nod in the direction of the Universal classics. He commented, "In a way, I feel I've come back to where I started."

As with most of their films, the Mel Simon organization will not arrange a distribution deal until after the film is completed. The Indiana shopping center magnate's company, widely hailed as the best thing to happen to independent filmmaking in years, has other genre projects in the works, to be announced at a later date. Robert Kaufman is thinking ahead, though, to a possible sequel for LOVE AT FIRST —he calls it "Divorce: Vampire Style." □

George Hamilton as Count Dracula in LOVE AT FIRST BITE, a vampire film with a light, romantic touch from Mel Simon Productions.

by Jordan R. Fox

COMING

A lone cyclist motors down a rugged mountain road desperately seeking help for his plague infected family. The young man comes across a downed telephone line and climbs the pole. Fastened securely to the top of the pole he begins the arduous job of repairing the broken line. The dark night surrounds him as he works. Suddenly he notices a large bat hanging from the line. Several more bats alight on the wire. Looking down he sees that the bottom of the pole is alive with bats, all seemingly ascending the wooden shaft. Moments later the line bends under the weight of the mammals. A sharp blow crashes him against the pole and teeth rip a wound in his leg. His struggles to escape his tormentors are in vain and soon his dangling body is ravaged by the vampires. Thus concludes a chapter in Martin Cruz Smith's novel *Nightwing* (Jove paperback, $2.25).

Before the book had reached store shelves producer Martin Ransohoff had purchased the screen rights to the thriller and Steve Shagan and Edwin Shrake were assigned to adapt the novel to script form. Smith's book concerns the arrival of a hoard of plague carrying vampire bats in the American Southwest. Columbia pictures will distribute the film, being touted as "science fact," though the Smith tome has decidedly supernatural overtones.

Production of NIGHTWING began in mid-April with Arthur Hiller directing a cast of newcomers. Nick Mancuso plays a deputy out to save his girlfriend, played by Kathryn Harrold. Stephen Macht is Walker Chee, an Indian businessman who wants to cover up the bat attacks, a la JAWS. David Warner, decapitated in THE OMEN, faces an equally grim demise here as a revenge motivated scientist whose plans for the bats go awry. Strother Martin is an Indian reservation agent seeking to prevent a plague-caused panic.

Production designer James Vance supervised the construction of a massive studio set on Columbia's stage 16, a cavern housing the ruins of an ancient Indian pueblo where the film's fiery climax takes place. Carlo Rambaldi has created mechanical bats for the attack sequences. Rambaldi's ingenious system mounts each bat on a gimbaled aluminum rod which can always be positioned so that the body of the bat conceals it from the camera. A small electrical motor flaps the wings. Other movements are controlled by hand-held levers liked those used to operate the extraterrestrial in CLOSE ENCOUNTERS OF THE THIRD KIND. The Rambaldi bat can turn its head, snap its jaws and grasp with its claws—just what every vampire film has always needed as the run-of-the-mill rubber bats were always a dead giveaway—and Rambaldi is constructing thirty such bats for the production!

The Smith novel has the potential for a suspenseful picture if the filmmakers can come to grips with the book's sketchy supernatural elements. Hiller and Ransohoff have been involved, separately and in tandem (SILVER STREAK) with some of the glossy films to come out of Hollywood, but this is their first venture into the horror genre.

Dan Scapperotti

STAR WARS II
Magic Light Industries Formed

George Lucas and The Star Wars Corporation are building a mammoth special effects facility in San Francisco, close to the director's home base, which will serve as the post-production headquarters for the STAR WARS sequel, and other projects, including a collaborative effort with director Steven Spielberg, and a stop-motion animation blockbuster. The team-up with Spielberg is not definite, but is only in the preliminary discussion stage, per a Corporation source.

The facility has been dubbed "Magic Light Industries," MLI for short, an odd rearrangement of the Industrial Light & Magic (ILM) moniker of the effects unit formed by John Dykstra for the filming of STAR WARS. As reported last issue, Dykstra will not work on the sequel, and has been replaced by English effects expert Brian Johnson. It is speculated that the sophisticated Dykstraflex equipment will form the basis for MLI's state-of-the-art operation. Curiously enough, the equipment is owned by The Star Wars Corporation, and was only leased to MCA Inc. for use by Dykstra and the ILM crew in the production of BATTLESTAR GALACTICA. No doubt the Corporation now regrets that arrangement in light of the competitive threat to the STAR WARS empire posed by the powerful merchandising capabilities of MCA in connection with a hit television series. The legal battle now raging between 20th Century-Fox and MCA over the John Dysktra produced series is covered on page 71.

Assisting Brian Johnson on the effects for STAR WARS II will be ILM alumni Richard Edlund and Dennis Muren, who served as effects cameramen on the Dykstraflex equipment for the original film, and worked on BATTLESTAR GALACTICA as well. More extensive use of stop-motion animation special effects is planned for the sequel, reportedly to be done by Jon Berg and Phil Tippet, the chess game animators on the original. The story ideas now call for two model animation sequences, and the possibility of providing Darth Vader with two alien, animated body guards for some scenes. One proposed stop-motion sequence involves Luke and Leia attempting to ford a river with a Kong-ish log bridge guarded by a huge aquatic dinosaur. George Lucas met with stop-motion expert Ray Harryhausen, now based in Hollywood, and while a Corporation source termed this meeting a casual one between mutual admirers, a reliable source reports that Harryhausen was offered, and turned down, the stop-motion effects work planned for STAR WARS II.

STAR TREK—
THE MOTION PICTURE

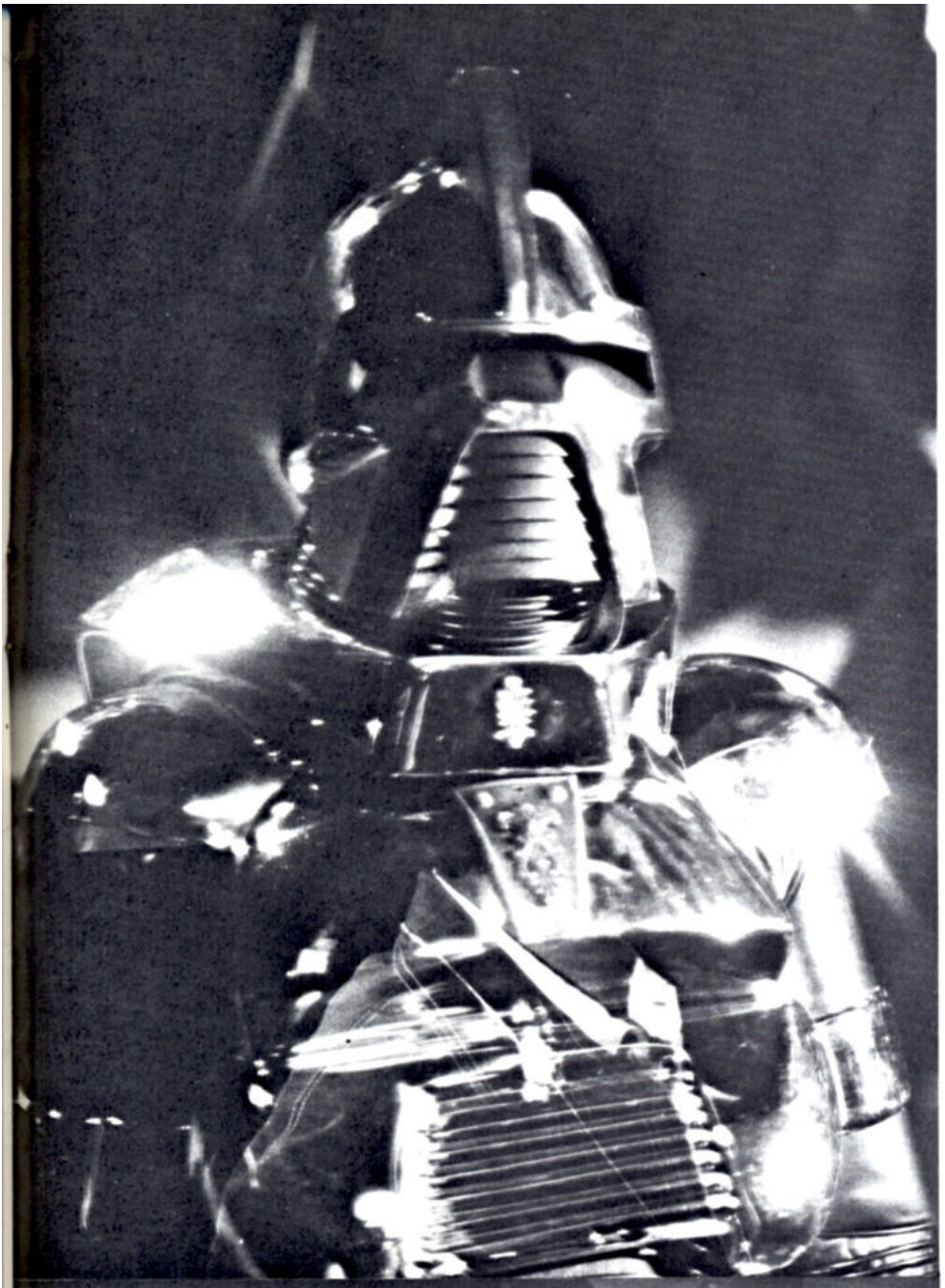
As we go to press, the new STAR TREK feature was due to begin production at Paramount in early August, having already once post-poned a production start first set for July. They're still building sets, and revamping those already constructed for the cancelled syndicated TV series revival. The production's effects unit, headed by Robert Abel, conducted preliminary tests with the VistaVision double-frame 35mm format utilized for filming the effects of STAR WARS. On the basis of those tests, Abel has decided to shoot the film's effects on 65mm film, the format utilized by Doug Trumbull for CLOSE ENCOUNTERS.

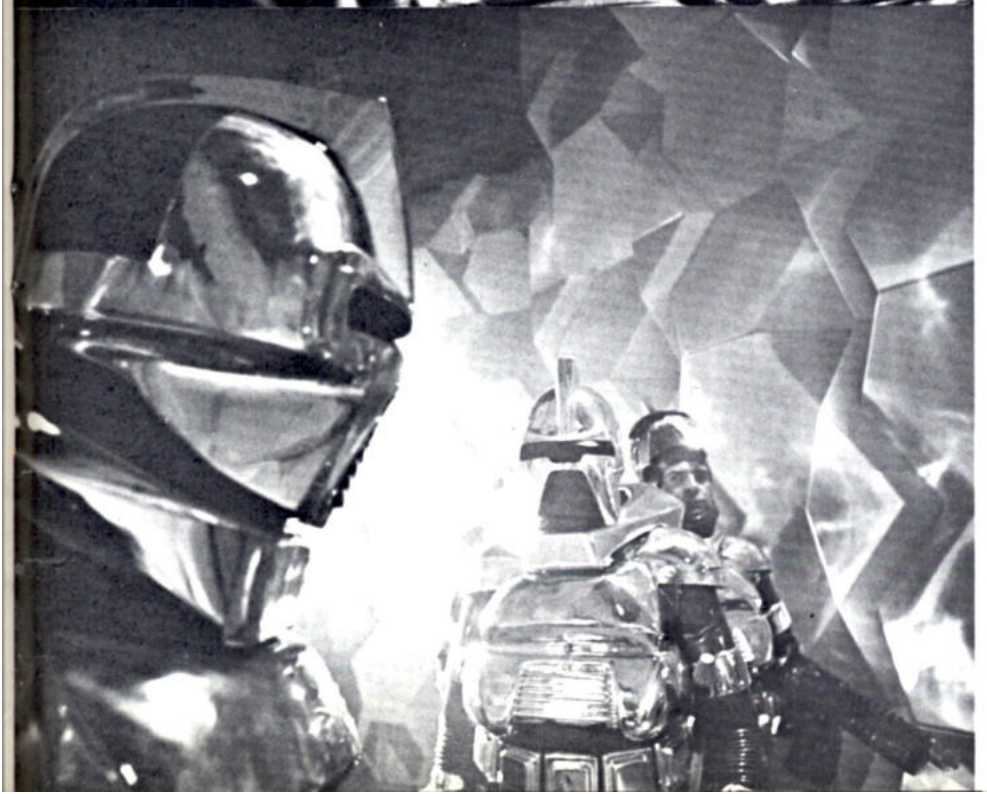
The Magicam company has been designated to produce the models and miniatures for the film, although it is unclear whether the Magicam system itself will be utilized for the production. Magicam is a video-to-film process, although experimentation with film techniques for the system is underway. Cary Melcher at Magicam is excited about the assignment and the prospect of working with a budget (not disclosed) that will result in the best model and miniature work ever accomplished for a science fiction film. With all due respect to his colleagues in the business, Melcher states "We are taking model making out of the garage and into the 'state-of-the-art,' creating a new art form." Assisting Melcher on the assignment, including the construction of Enterprise class ships, Klingon vessels and the space dry dock among others, is J. Richard Dow, the model shop coordinator on CLOSE ENCOUNTERS. No model kit parts or preexisting parts of any kind will be used in the work. Every part, every detail, will be custom designed and fabricated for each model.

The film, due for release in 1979, will be presented in 70mm and Dolby Stereo Sound.

LIMELIGHT FILMS

Lester Goldsmith of Limelight Films announced an ambitious program of science fiction film projects at this year's Cannes Film Festival, including works by thirteen of the top writers in the field. However, at least two of the writers have failed to confirm the announcement. Isaac Asimov, who acts as his own agent, remembered talking to someone about his story "The Bicentennial Man" ("Limelight, is that what they're called?") but stressed that no deal was made or option taken. Said writer Larry Niven, "I told them I didn't want to have anything to do with it. Then they went ahead and used my name anyway." □





BATTLESTAR GALACTICA

Let them burn it.

BATTLESTAR GALACTICA had its theatrical premiere July 8th in Canada to generally rosy business. The TV series will be seen on ABC this Fall, and will be released theatrically by Universal Pictures in other world markets. If you cherish any sanguine hopes about the series, forget them. It's "Son of STAR WARS," with all the faults of its inspiration magnified as though they were virtues: nebbish-like juveniles (one chubby-cheeked young woman is a dead ringer for Carrie Fisher), leaden Buck Rogers style dialogue ("They rely upon you to lead them with your wisdom."), a "plot" that consists mostly of prolonged dogfights between spacecraft that turn and bank like spitfires, and one indignity STAR WARS mercifully spared us, an insufferable, supposedly "cute" little brat with his fuzzy pet "droid."

This time, it's us versus the evil Zircons, or Zyclons—something like that—who wear complete suits of plexiglass armour at all times, and who speak as if they had their larynxes surgically removed (making it almost impossible to understand them). Without the commercials, the film lasts about two hours and fifteen minutes. Originally, it must have been about ninety minutes, but seeking to make it a real blockbuster, an epilogue is tacked on which is doubtless an episode of the projected series: our heroes land on an abandoned planet, and find—surprise!—a gambling casino, filled with tourists, including some unconvincing rubber aliens, free food and drink, etc. Having seen this old wheeze done a hundred times before in LOST IN SPACE, FANTASTIC JOURNEY, LOGAN'S RUN, *ad nauseam*, no doubt you can guess the catch in this "paradise."

The only virtue in all this mess is the special effects work of John Dykstra, who seems to be making a career out of saving ineptly written space operas. But if, as the ads say, they spent $14,000,000 on this film, all I can say is, they were taken.

An interesting development, shortly before release, occured when 20th Century-Fox filed suit in Los Angeles Federal Court against Universal, parent MCA Inc. and ABC-TV to halt the distribution, telecast and merchandizing of the film and series, claiming copyright infringement of STAR WARS. Apparently George Lucas, who supports the action, feels that when he borrows ideas from others, it's inspiration, when they borrow from him, it's just plain theft. In a fitting answer to the suit, MCA Inc. has counter-sued, claiming Lucas stole the idea for STAR WARS from Universal's 1972 film SILENT RUNNING. The Fox suit seeks not only damages, but the impoundment and *destruction* of BATTLESTAR GALACTICA. Will the Universal series be burned? A source close to the production says there's no chance, calling the Fox legal action a "bullshit suit." □

Why do the bad guys in BATTLESTAR GALACTICA all look like Darth Vader? 20th Century-Fox wants to know.

by S. Wise

CONAN

A $12-15,000,000 film version of CONAN is now being readied for production in New York and Los Angeles. The picture will be produced by Edward Pressman (PHANTOM OF THE PARADISE) for Paramount release Christmas 1979, the first in a proposed series of features to be based on the voluminous sword-and-sorcery tales written by Robert E. Howard throughout the 1930s.

CONAN is being scripted by Oliver Stone, whose much talked-about screenplays for MIDNIGHT EXPRESS and BORN ON THE FOURTH OF JULY have made him one of the most pursued talents on the west coast. Stone wrote and directed the Canadian horror film sleeper SEIZURE in 1973 [see 4:2:33]. Stone prefers to let his finished script speak for itself and would reveal only that his script would be "semi-original."

Pressman is trusting Stone to develop the film's scenario on his own. "I specifically know he's taking into account many aspects of the early years of Conan's life and those Howard stories which deal with this period, as well as developing new themes on his own."

Apparently the battle of gaining the rights to film the adventures of the mighty Cimmerian has been going on for a long time. "I think a lot of people have wanted to make a film out of CONAN for many years," Pressman explains, "but projects have been hard to organize because the rights are split up between so many people. We personally had to spend two years polishing up our presentation for a CONAN project before we could even approach the heirs of Howard, and the other writers, L. Sprague de Camp, Lin Carter and Bjorn Nyburg." Ed Summer, the associate producer of the film and a professional expert on comic art, said about the difficulty involved in getting the project off the ground: "I could not believe how hard it was just to get people to listen!" Summer is also acting as story consultant with Marvel Comics' Roy Thomas, publisher of *Conan* and *Savage Sword of Conan* magazines.

"Ed knows a lot of the people involved with the rights to the Conan character through his professional life," Pressman said, "and his being on our team was very instrumental in gaining the rights for us. Everyone knew of him and his deep respect for the character and believed that, with him behind the picture, the screen adaptation would be done properly."

And, noting the abundance of bloodshed and sex contained within the stories, can a screen adaptation be done accurately? "We're not going to change the essence of the Howard stories or the Frazetta paintings. which reflect exactly what we want for the film's visual aspect, which must be both sensual and violent. We are not toning anything down to make the film's appeal more widely palatable. We know we must appeal to a largely adult crowd."

One of the biggest and best surprises associated with the film, and one most probably attributed to Summer, is the signing of Frank Frazetta as visual consultant. Frazetta painted most of the Conan paperback covers, and is the foremost Sword & Sorcery illustrator in the field. Frazetta will work in close-knit association with the art director and production designer to re-achieve, in three dimensions, the haunting landscapes and lusty action scenes found on his canvasses.

Conan, a powerful hulk of a being, will be played by former Mr. Universe Arnold Schwarzenegger (who proved himself a fine actor in Bob Rafelson's STAY HUNGRY two years ago). Schwarzenegger has been signed to a five year film contract with Paramount.

The search is now on for a director, with Pressman talking to several potential candidates in New York City. "Oliver should have completed his screenplay by or around July 4, and then we'll be sending it around to those directors we are now considering. There are a number of established men that have expressed very great interest."

Like who?

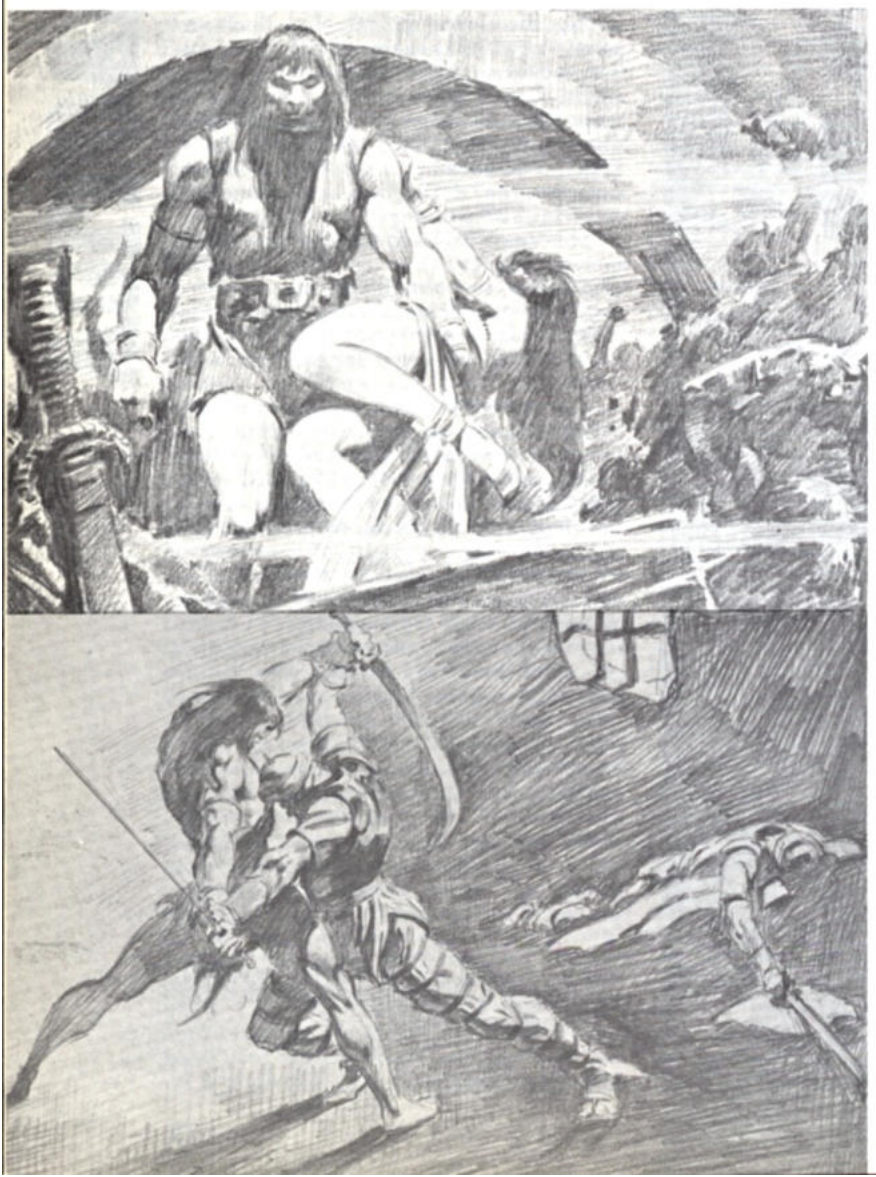
"Well, there is Alan Parker, who worked with one of Oliver's scripts before on MIDNIGHT EXPRESS—which is a very fine film; Ralph Bakshi is interested; John Frankenheimer. The most probable candidate, from where we now stand, however, is John Milius." Milius, director of DILLINGER and THE WIND AND THE LION, has harbored notions of making CONAN a lot longer than Pressman and was named as director/scriptor in one of the property's earlier incarnations.

Model animation special effects are a distinct possibility for the film. Summer says that both Ray Harryhausen and Jim Danforth have expressed interest in the project in preliminary discussions, but that "We're not putting in model animation just for the sake of model animation. It has to be called for in the script." It is unsure at this point what Stone's screenplay will call for, but Summer recognizes the potential of model animation and an early screenplay he penned with Thomas called for it and other extensive special effects to recreate Howard's Hyborean world of sorcery and magical beings. That script didn't deal with the origins of the character, but will be used on the second film in the series.

Bantam Books has made a $1,000,000 deal with The Conan Company for the rights to publish the first six books in a series of new Conan novels, the first of which is a de Camp/Carter original. This will be followed by a novelization of the Stone filmscript, and the script penned by Summer and Thomas.

The crew for CONAN is not due to be fully selected until sixty days after the completion of the script, in early September, with shooting initiated in December in some prehistoric-looking, as-yet-unnamed locale. With this and Subotsky's THONGOR IN THE VALLEY OF DEMONS looming ahead, it seems a new *genre* is ready to bud.

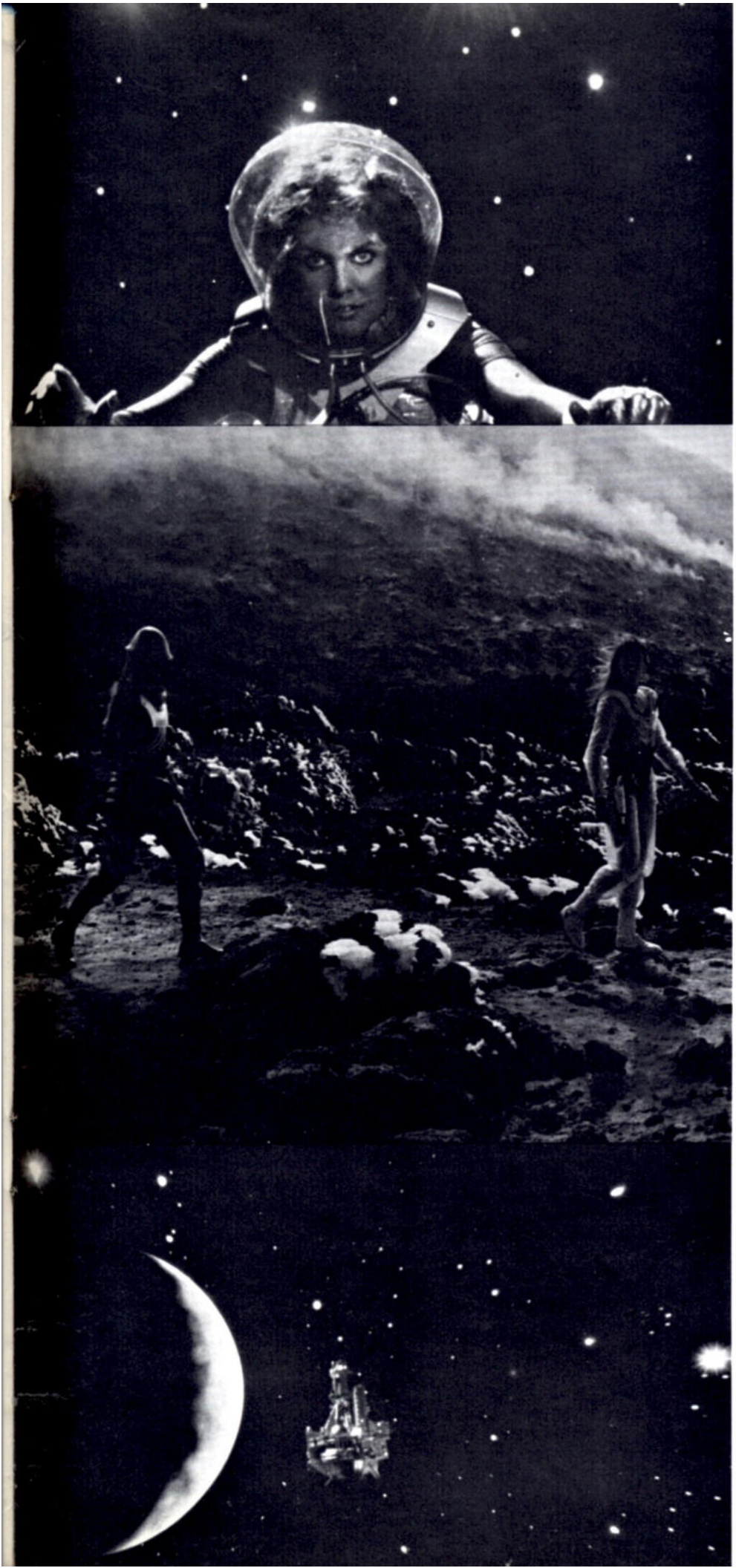
Tim Lucas



"We're not going to change the essence of the Howard stories or the Frazetta art, which reflect exactly what we want for the picture's visual aspect, which must be both sensual and violent."

Scenes from an early version of the script, drawn by artist John Buscema, who also does the Conan comic strip. The drawings were prepared under the supervision of associate producer Edward Summer for an early presentation.

STARCRASH



STARCRASH, filmed in Italy by director Lewis Coates, stars Caroline Munro as interplanetary adventuress Stella Star. Director Coates is in reality Italian film distributor and science fiction fan Luigi Cozzi. The film, to be released this Fall by AIP as THE ADVENTURES OF STELLA STAR, began production last October on Rome, Sicily, Moroco and Hollywood locations.

Director Cozzi, in collaboration with his director of special effects photography, Armando Valcauda, had been trying to launch an interplanetary special effects film in Rome since 1976, when the two put together a seven minute presentation reel of Valcauda's planets and spaceships. Italian producers were impressed but not interested, but then STAR WARS happened along, and Cozzi found many backers, but made his deal with Hollywood-based Nat and Patrick Wachsberger's Film Enterprises Productions. Nat Wachsberger collaborated on the screenplay with Cozzi which is filled with action and special visual effects. Says Cozzi: "My movie has more special effects shots than CLOSE ENCOUNTERS and STAR WARS, and most of them are as good, I think."

To play his outer space heroine, Stella Star, Cozzi chose English actress Caroline Munro, a statuesque beauty with a pouty face who has developed her own fantasy film cult following from roles in Hammer Films' CAPTIAN KRONOS: VAMPIRE HUNTER, Ray Harrhausen's GOLDEN VOYAGE OF SINBAD, the latest Bond film, THE SPY WHO LOVED ME, and many others. Cozzi loved her low-cut costume in Harryhausen's film and has duplicated (and updated) the same tantalizing design in black patent leather! Appearing with Munro in the film is her husband, American singer Judd Hamilton, as her sidekick robot Helle.

Cozzi and his special effects partner Valcauda are unabashed Harryhausen fans and have sprinkled their film with extensive dimensional animation effects sequences, done rear-screen by Valcauda. "One involves a giant mechanical Amazon statue," says Cozzi, "kind of a 'Talos' concept, which pursues Stella and Helle. Another includes two deadly robot soldiers of the evil Count Zarth Arn (Joe Spinell), called 'Golems.' These two robots have a long duel with laser swords against the Emperor's son (David Hasselhoff) and alien Akton (Marjoe Gortner) which is patterned after the 'famous' skeleton duels by Mr. Harryhausen."

While it all smacks of BARBARELLA, Cozzi says "No! I didn't like those strips. It owes something in style to *Vampirella*, but the real inspiration is Eric John Stark from Leigh Brackett's *Skaith* trilogy. I'm a great Brackett fan, and I wanted to do a female Eric John Stark." □

Scenes from STARCRASH, to be released by AIP as THE ADVENTURES OF STELLA STAR. Top: Caroline Munro does some EVA as the title character. Middle: Munro with her robot Helle (Judd Hamilton), during filming on the summit of volcanic Mt. Etna. Bottom: One of Armando Valcauda's split-screen outer space sequences, the Imperial flagship leaves a doomed planet.

by Frederick S. Clarke

THE SHINING

Stanley Kubrick

Stanley Kubrick's newest film project THE SHINING began shooting on May 1, at EMI Elstree Studios in Borehamwood, England. Preproduction actually began on the film just after the release of Kubrick's last film, BARRY LYNDON (December, 1975) when Kubrick acquired the rights to the Stephen King novel from The Producers Circle Company. Producers Circle, headed by filmmaker Robert Fryer, is a group of producers who in the past have co-produced THE VOYAGE OF THE DAMNED and the soon to be released BOYS FROM BRAZIL, based on the novel by Ira Levin about Nazi experiments in cloning.

Jack Nicholson and Shelley Duvall star in THE SHINING as Jack and Wendy Torrance, parents of a psychically gifted boy, Danny, played by young newcomer Danny Lloyd. Scatman Crothers stars as the black, psychic cook, Halloran, and was signed just three weeks prior to the start of filming, after Kubrick failed to get the white actor he wanted for the role.

Kubrick hired an unidentified female writer to work with him in writing the screenplay, which includes some changes from the book in an attempt to avoid comparisons to the current flood of EXORCIST and OMEN imitations. The wasp attack and the intriguing idea of having hedge animals come to life have been deleted. Kubrick checked first with special effects experts in England and abroad and found there was no way to bring the hedge sculptures to life that would satisfy his standards for realism. (The several sequences involving them would have been a tour-de-force for dimensional animation.) In their place, Kubrick devised a hedge maze, 100 yards long in the script, which has been constructed ¼ scale on the back lot at Elstree. The maze will play a major part in the film, and will be the setting for a new ending. The REDRUM concept has been thrown out as being filmically unworkable. But the scenes of the dead woman in Room 217 and Danny's psychic playmate Tony will be included.

Production designer Roy Walker has created huge, cavernous sets on Elstree's stages to duplicate the faded oppulence of The Overlook Resort Hotel, setting for most of the picture. The exterior of the hotel has been constructed full-scale on the Elstree back lot, equipped with artificial snow machines to duplicate the winter setting required. Kubrick is importing Garrett Brown, the inventor of Steadicam, to assist cinematographer John Alcott in the filming of special sequences. Involved makeup work on the film will be handled by Tom Smith, who previously did the complicated work on SLEUTH. To capture realistic winter snow vistas, Kubrick dispatched a second unit camera crew to Colorado this past winter. The crew primarily shot establishing scenes and Halloran racing back to the Overlook on a snowmobile.

Stanley Kubrick is going to scare the hell out of us. According to an article appearing in *The New York Times Sunday Magazine* for 6/16/66, Kubrick once confessed to a friend that "he would like to make the world's scariest movie, involving a series of episodes that would play upon the nightmare fears of the audience." Warner Bros plans to release Kubrick's $13,000,000 horror movie for Christmas 1979. *Jim Albertson*

THE BOOK

Occasionally, there are works in the genre of horror that are able to evoke the subtlest yet the greatest terror. This terror is inspired not merely through the artist's skill in using traditional devices (principally all the "things that go bump in the night") but also in utilizing the elements of the medium to provoke a psychological shudder, a feeling marked by revulsion and a startling if subliminal sensation of recognition as well. For the best works of horror reveal truths about the workings of human consciousness, or perhaps more correctly the human subconscious. Such a work is *The Shining* (Signet paperback, $2.50) by Stephen King, author of *Carrie* and *'Salem's Lot*. An examination of the novel reveals qualities that not only make it an inspired choice for a film, but also closely link it thematically to the great Kubrick trilogy of 2001: A SPACE ODYSSEY, A CLOCKWORK ORANGE and BARRY LYNDON, Kubrick's last three films.

That *The Shining* is unique becomes immediately apparent in King's creation of the protagonist, five-year-old Danny. Danny is gifted with telepathy, called "the Shining." While telepathy is obviously not a new concept, King is the first to successfully explore its psychological implications, which are even more profound in the case of a child. Much of a child's world is strange, incomprehensible, even frightening, particularly the alien ways of adults, of parents. Danny's ability to perceive the thoughts of his parents, primarily during instances of turmoil, despair, and anger is terrifying. It is a great burden, but Danny is able to bear it in part by calling upon his "friend" Tony, the personification of the ageless power within his subconscious that appears to him in the form of his future, older self. Tony's heightened awareness is such that he can "foresee" the future, often warning Danny of impending danger.

Danny's father, Jack Torrance is also gifted, sensitive, but in the artistic sense—he is a writer. And he too is beset by torment, but its source is not the paranormal. He possesses a violent, uncontrollable temper; he is plagued by self doubt; he is an alcoholic—all being factors which contributed to the loss of his teaching job.

His new vocation is to be caretaker of the Overlook Hotel located miles from civilization in the mountains of Colorado. Torrance, his wife Wendy, and his son will be isolated for the duration of the winter. He discovers that the previous caretaker murdered his wife and young girls and then killed himself, but this is only one of a series of macabre incidents at the Overlook that date from the present to the early 1900s. Despite some misgivings, Torrance views the Overlook as his sole salvation, providing an income for his family, and its very isolation inspiring him to complete his play. Unknown to Torrance, Tony has warned Danny of the Overlook in a surrealistic vision of death, destruction, and evil.

There is little point in detailing the events of the book. The only way to appreciate King's artistry is to experience it: his brilliant character portraits of Danny, Jack, and Halloran, the worldly wise old black man who helps Danny understand himself and his gift; the nightmare scenes of terror and suspense, many strikingly original; and the underlying concept of the nature of evil.

Jack Torrance himself becomes the source of evil, specifically the part of his consciousness that resents the burden of his wife and child, the part that wants to be free and independent again. Kubrick has proven himself as a modern day Shakespeare of the cinema in his ability to create lyrical images of man haunted by this inner conflict between social responsibility and personal aspirations. Concurrent with the birth of human intelligence as portrayed in 2001 was the inception of the battle between the savage and the thinker. The battleground is the society (be it composed of a handful of man-apes or the Court of England, there are more similarities than differences) created in part to restrain the animalistic side of man. Kubrick's last three films have detailed this conflict between the individual and his society, and the awful solitude of human consciousness.

Although King might at times demonstarte the Poet's vision, telling of ". . .the bond cracked 'twixt son and father. . . ruinous disorders follow us disquietly to our graves," he has not Kubrick's genius. While I will not hesitate to declare *The Shining* one of the most important works of horror of the past decade, I will temper this judgement by noting that all too frequently the novel is marred by excesses of style, of prose that are unfortunately prevalent in mass media fiction. Kubrick, however, is a poetic genius in his realm, film. Notably, THE SHINING will be his first film since 2001 to deal with 20th century society, and not the past (primal or recent) or future (immediate or distant). One need not "shine" to expect Stanley Kubrick's film, upon completion, to evidence poetic genius.

Peter S. Perakos

by Jim Albertson and Peter S. Perakos

MESSAGE FROM SPACE

MESSAGE FROM SPACE, Toei Company Ltd.'s much heralded science fiction movie, was released on April 29 at major theaters across Japan. It finished its run on June 2, but seems assured of a long life in smaller theaters. While no hard figures are available yet, people at Toei say it looks like it will be one of the year's biggest boxoffice hits.

MESSAGE (in the vernacular, UCHU KARA NO MESSEJI) came in the midst of the current science fiction movie boom here, kicked off by CLOSE ENCOUNTERS OF THE THIRD KIND and the domestic full-length animation feature SPACE BATTLESHIP YAMATO (UCHU SENKAN YAMATO), both of which did very well moneywise. With STAR WARS scheduled for release in Tokyo on June 24 and nationwide on July 1, local companies were looking for a way to cash in, and Toei was no exception.

There is something both new and slightly familiar about the plot line. The inhabitants of Jillucia are being crushed by the Gavanas Empire, described ambiguously as "invaders from outer space." After a prayer meeting, Kido, leader of the Jillucians, casts eight precious "liabe" nuts into the heavens. These interstellar walnuts seek out eight "brave warriors" who are supposed to defeat the Gavanas agressors (who, with their one battlecruiser, are really a rather small outfit). Kido's granddaughter, Emeralida, and a local brave warrior, Urocco, are sent to follow up the nuts in a stubby space schooner complete with sails, pursued all the while by the battlecruiser "Grand Gavanas."

After an hour of second-thoughts and misadventures, the hardy band of eight warriors, among them hot-rodders, a drunken general, and a dutifully cute robot, move against the Gavanas Empire, who have already turned their attention (along with their whole planet, propelled by smoke-belching rockets) toward Earth. It turns out that in order to destroy the enemy planet-cum-spaceship the two young hot-rodders must fly down a narrow tunnel and score a direct hit on a tiny part of a certain power generator, which they do, while the evil Emperor Rockseia duels with Prince Hans, son of an ex-king of Gavanas and the proud possessor of a walnut.

The rip-offs are unabashed, and sadly, there is little attempt to improve on, but only to match, the escapist fantasy of STAR WARS.

Director Kinji Fukasaku is one of the most popular of the new generation of Japanese movie directors. American audiences saw his work in the energetic GREEN SLIME and in TORA, TORA, TORA, and MESSAGE was preceded shortly by his very successful Samurai movie, THE PLOT OF THE YAGYU CLAN (YAGYU ICHIZOKU NO INBO).

Top: Promotional art for Toei's MESSAGE FROM SPACE, Japan's answer to STAR WARS mania. Pictured are Princess Meia's ship, the "Liabe Special" (top), the Jillucian space schooner (center), and heroic charcters from the story, amid a flower motif to represent the magic Liabe plant. Bottom: The Liabe Special and allies Comet Fire and Galaxy Runner.

by David Lewis

MESSAGE FROM SPACE

Production of the latter overlapped with MESSAGE, and many people have remarked on the resemblances, particularly in mood. Hiroshi Ikuina, deputy director of Toei's international division, suggests Fukasaku deliberately evoked a Samurai movie flavor as part of his equation, "30% for science fiction fans, 70% for the general audience." Deliberate or not, the flavor is there. For instance, Emperor Rockseia's imperial mother, with silver skin and a false nose, speaks classical Japanese.

More direct influence on MESSAGE comes from within Toei itself. Tohru Hirayama, one of the producers for MESSAGE and executive producer for Toei's television department, says the original concept for the film originated in his department. The TV department, which produces many nominally SF children's programs, apparently suggested that Toei make a full-length movie drawing on the body of experience they had developed in special effects. Shotaro Ishimori, a leading SF cartoonist who has created many of the children's shows for Toei, headed the group that did the book and designs for MESSAGE. The influences are obvious, especially in costuming and hardware, and unfortunately MESSAGE comes out looking like glorified Saturday-morning kidvid in many places.

Ultimately, a lack of money can be blamed for many of the more glaring weaknesses, such as the use of 1970-era cars and other off-the-shelf equipment in an age that sees ships bopping between the solar system and the Andromeda galaxy in a couple of hours. However, the basic concept of the movie is also responsible. Scientific realism, or even pseudo-realism, is deliberately rejected. I don't want to be one of those who go around protesting, "But so-and-so meant it to be silly," but in this case Fukasaku apparently did. Somebody had to make a conscious decision to have wealthy tomboy Meia and her hot rodder friends jump out of their spaceships in the asteroid belt, wearing only street clothes and respirators, to gather glowing radioactive embers because, preserve us, they look like fireflies, and the one who made the decision was ultimately Fukasaku. He has been quoted as saying that he wanted to get away from the image of space as "cold, forbidding and terrible" and show that it is a warm and fun place. People at Toei say this is one of the things that has gone over best with the Japanese audience, but it may not enchant an American one.

A lot of attention in the media here has been concentrated on the music, American cast members, and special effects. Music was by Kenichiro Morioka, who has Burt Bacharach status, but was distinctly unremarkable, while the Space Sound 4 sound system, ballyhooed but never explained in the advertising, didn't leave any special impression. The American acting team was headed by Vic Morrow of COMBAT, and if the film is shown in the U.S. you will be able to hear, per contract, his original, undubbed voice. Tomboy Meia is played by Peggy Lee Brennan. Philip Casnoff is one of the hot-rodders.

There was no compelling reason to use foreigners as far as the story line goes, but there presence does give MESSAGE a cosmopolitan air lacking from STAR WARS' caucasian universe. Of course, the real reason for the foreign cast had to do with STAR WARS imminent arrival in Japan. Frictions apparently arose during the production, and Vic Morrow is said to have protested the long hours (the longest day of shooting lasted 17 hours), but the story, perhaps apocryphal, continues that eventually even he was so impressed by the diligence of the Japanese staff that everyone pulled together and gave their all. True or not, the fact remains that MESSAGE was produced, from start to finish, in about six months. This is rather long by Japanese standards, but the two weeks spent to edit and complete the show seem to impress even the Toei people themselves. In fact, the sound track was not finished until the night before the first trial screening; the completed movie had to be rushed from the Kyoto studio to Tokyo first thing the next morning.

Top: The Grand Gavanas space cruiser, roughly equivalent to STAR WARS' Correlian cruiser. Middle: Prince Hans (Sonny Chiba) crosses swords with Emperor Rockseia (Mikio Narita). MESSAGE FROM SPACE retains a distinctly Japanese flavor despite its mimicry. Bottom: The Death Star trench becomes a tunnel into the planet Jillucia. Ships make their final run down the tunnel to strike at a crucial target (a power plant) under the planet's surface. The STAR WARS rip-offs are unabashed.

Toei is proud of their special effects, handled by Minoru Nakano, Noboru Takanashi, and Nobuo Yajima. For the first time in Japan a snorkel camera was used, rented from NAC Snorkel Camera System at great cost. One million yen a day, claims publicity manager Kuniaki Fukanaga. (Everybody has a different figure for the total cost of the movie, but the most recent one I have been given is $6 million, as opposed to $1-to-$2 million for a regular Toei production).

In addition to the snorkel camera, Toei used video-to-film techniques for the first time to get chroma key versatility, shown to greatest effect in the "firefly" sequence. Since there were no facilities in Japan, Toei used Image Transform Inc. in Los Angeles, passing through their agent, Totsu ECG Systems.

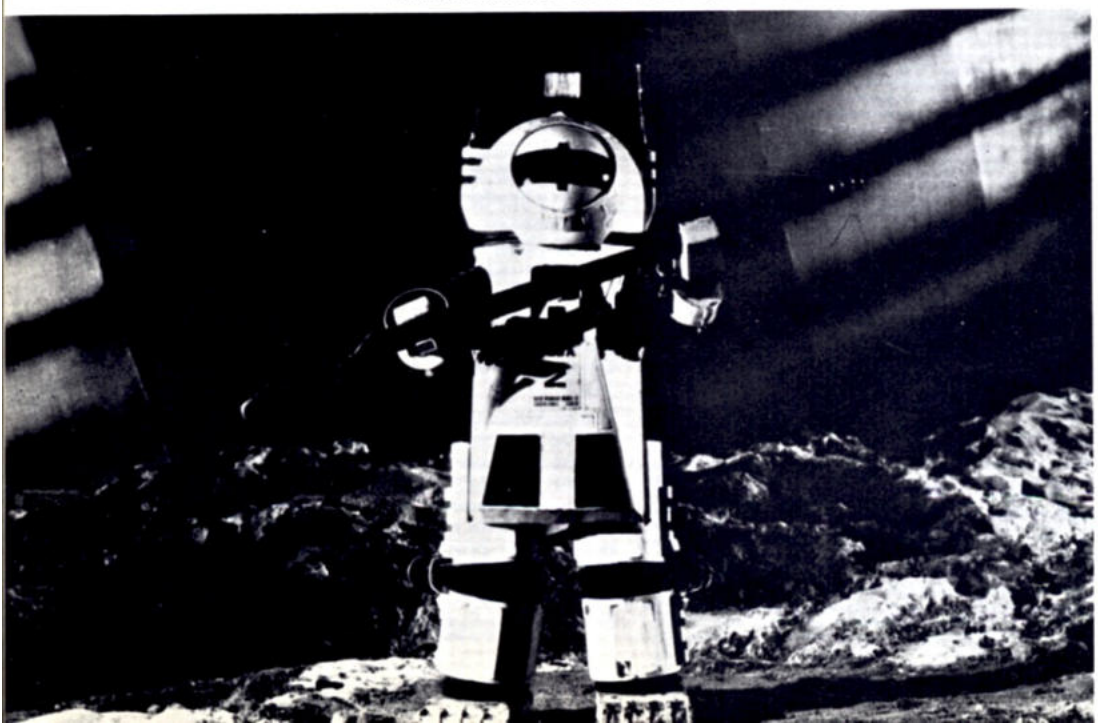
A lot of work went into miniatures. The model of battlecruiser Grand Gavanas weighed forty kilograms and was moved around with a crane truck. Again, a full-scale space schooner was built in the hills behind Kyoto for onboard scenes.

Unfortunately, many of the effects in the movie seem to have taken their cue from STAR WARS (though I should mention the argument popular here that much of STAR WARS took its cue from Japanese TV offerings. Tohru Hirayama of the television department claims Darth Vader is a dead ringer for the villain in his own MUSHA KAMEN. More fuel to the fires.) Production staff were sent to the U.S. in the planning stages to see the competition in the flesh, and the perhaps inevitable results show most clearly in shots of Grand Gavanas. Again, there is an energy whip to parallel the light sabre, and a giant "holographic projection" to counter R2D2's pocket princess.

MESSAGE was shown at the Cannes Film Festival in late May, and due to the great demand worldwide for science fiction films and the lack of any serious competition, it reaped the greatest sales of any feature offered to distributors in the film marketplace. Publicity director Fukunaga went on to New York to check out U.S. distribution possibilities. There was nothing concrete at the time of writing, but several companies, among them Warner Bros and CAT-London apparently expressed interest. MESSAGE has already been sold in France, "edited to make it more suitable for a French audience," for July release, but no other dates have been set for other countries.

At the same time, a television spin-off, using the MESSAGE storyline and sets, but with a different cast, is in TV Asahi's July line-up, with an initial contract for 26 episodes. It's not clear where the MESSAGE saga is going to end, but in early May Toei stated there were no plans for a sequel. One month later they were saying, "We're looking into it." □

Isamu Shimizu as the robot Beba, ersatz R2-D2.



THE LATHE OF HEAVEN
Ursula K. LeGuin on PBS

Ursula K. LeGuin's *The Lathe of Heaven* is to be filmed for the Public Broadcasting system by New York's WNET-13 Television Lab, a project of producer David Loxton, who produced the original teleplay of Jean Shepherd's THE PHANTOM OF THE OPEN HEARTH for PBS' widely acclaimed "Visions" series. British screenwriter Roger Swaybill will adapt the novel, and to insure that the teleplay will be entirely faithful to the story, Ms. LeGuin is serving as script consultant.

The novel concerns the plight of George Orr, who is so average, so perfect a human statistical median that he is unusual. George has one talent, however. He dreams "effectively," which is to say that in dreaming, the strongest desires of his subconscious are frequently transposed on existing reality. Orr seeks the aid of a psychotherapist, Dr. William Haber, who specializes in the study of dreams; he is an oneirologist. Orr wants to be cured of his terrifying ability, a seemingly limitless, god-like power. Instead Haber sees Orr as a tool that he can manipulate to create a better world. The novel describes Orr's struggle, his quest to free himself from Haber's control, a contest that literally evokes nightmarish consequences.

Obviously, THE LATHE OF HEAVEN is not standard television science fiction fare. Loxton and WNET are striving to produce a standard; the two-part film is a pilot for a PBS series devoted to adapting the best works of science fiction by the genre's leading writers. Production details are not set, however, WNET-13 in New York has received just under $1 million in funding for the project from the parent Corporation for Public Broadcasting. Filming is to begin in October in LeGuin's residence of Portland, Oregon, the setting of the novel.

Peter S. Perakos

GREYSTOKE
Serious Burroughs

Robert Shapiro, head of world-wide production for Warner Bros, proudly announced the late 1978/early 1979 start of screenwriter Robert Towne's faithful adaptation of the Edgar Rice Burroughs 'Tarzan' sagas last month. Shapiro called the final draft turned in (after nearly five years of effort) by Towne as "one of the best screenplays we've ever had." Towne will direct the expensive fantasy himself, on location in Africa.

GREYSTOKE, the present title of Towne's labor of love was planned as a movie by Towne in the late sixties but only through the accumulated weight of his various successes (CHINATOWN, THE LAST DETAIL, SHAMPOO) has a major studio given any credence to the project.

Town has commissioned makeup artist Carlo Rambaldi to fabricate upwards of 30 highly complex gorilla suits for the picture. The ape suits range in age from babies to young adult animals, they have to be "one hundred and fifty percent realistic," with the ability to eat, fornicate, defecate and, in general, be, at least on the screen, indistinguishable from actual apes.

Patrick Mark Carducci

LETTERS

As a Bernard Herrmann fan, I noticed composer Hans Salter's "I could say *plenty* but I won't" reserve about him [7:2:20], and I must take exception to one of his criticisms, that Herrmann arrogantly ignored his directors' suggestions and would only do what he himself wanted. I don't think that's quite fair or accurate. Herrmann's frequently "eccentric" or extravagant orchestrations were a direct result of his flair for *cinefantastique* and the dramatic necessity for weird music and unprecedented sounds (as David Raskin once said, "Herrmann was always getting stuck with monsters, mainly because he did them so well"). To my knowledge, Hitchcock was the only director who ever rejected a Herrmann score, and that was because Herrmann refused (as he always did) to write pop songs instead of filmmusic (since Herrmann's score for TORN CURTAIN has now been recorded, anyone who wishes can now judge who was right). Much more typical of Herrmann's methods is the story director Brian De Palma tells of Herrmann's constructive criticisms—gruff, point blank, and brutally frank—which nevertheless beneffitted SISTERS greatly. Or, as Herrmann himself pointed out about his score for THE DAY THE EARTH STOOD STILL [4:4:22], the film was turned over to him and he was "left alone" to do as he wished.

I think Salter may have been just a tad envious. Why? Because when he talks about how the composer often has to finish or even save a film, he sounds just like Herrmann! If I hadn't known it was Salter, I would have thought it was Herrmann talking at that point. Anyway, it would be a nice finish if your issue inspired someone to record, say, a Skinner/Salter record of famous cues from the Universal horror classics.

DR. HARRY W, MCCRAW
University of Southern Missiissippi
Box 395, Hattiesburg MS 39401

Jones' piece on composer Hans Salter
Is as sound as the Rock of Gibralter.
    But most film musicians
    Are merely technicians—
My judgement of them doesn't alter:

These versatile musical scholars
Write measures like Mozart's or Mahler's,
    Stravinsky's or Brahms',
    If you first cross their palms
With the requisite number of dollars.

They're certain to play to packed houses
If their *fortes* all imitate Staruss's—
    Not Johann, the other.
    (His nephew??? His brother???)
No market for false *Fledermauses.*

Tschaikovsky is all very well,
But passe, so today they all sell
    A delicate web, you see,
    Borrowed from Debussy,
Artfully mixed with Ravel.

The bolder ones dip into Stock-
Hausen; timid ones stick to old Rach-
    Maninoff's First Prelude
    For a scene in the nude,
But they're terribly frightened of Bach.

Then, of course, there's Busoni and Spohr. . .
But these verses are starting to bore.
    Is there anyone finer
    This side of Max Steiner?
Please stop me before I kill more!

"BUCK" ROGERS
Santa Monica CA 90405

[*Preston Neal Jones, author of "The Ghost of Hans J. Salter," replies:*

Buck's poem hit bull's-eye, at times,
While listing some film-music crimes.
    The whole thing was swell,
    But wholly irrel-
Event, (though it had witty rhymes).

Just two lines on Hans and "The Ghost,"
Then twenty-eight more roast a host
    Of misdeeds and shames
    By men without names
Whom Buck just refers to as "most."

Old Buck, wielding Everhard Fabers
As though they were Jove's righteous sabres,
    Castigates with asperity
    Those who have the temerity
To be paid—fancy that!—for their labors.

Now, Buck's second point, I'm not quibbling.
Why deny Hans had many a sibling
    Whose attempts at a fount
    Would merely amount
To hectic, eclectic note-dribbling?

But since when did I write on the run of them?
And so what is the point making fun of them?
    Ev'ry *art has disasters*
    But also its masters,
And it happens that Salter is one of them.

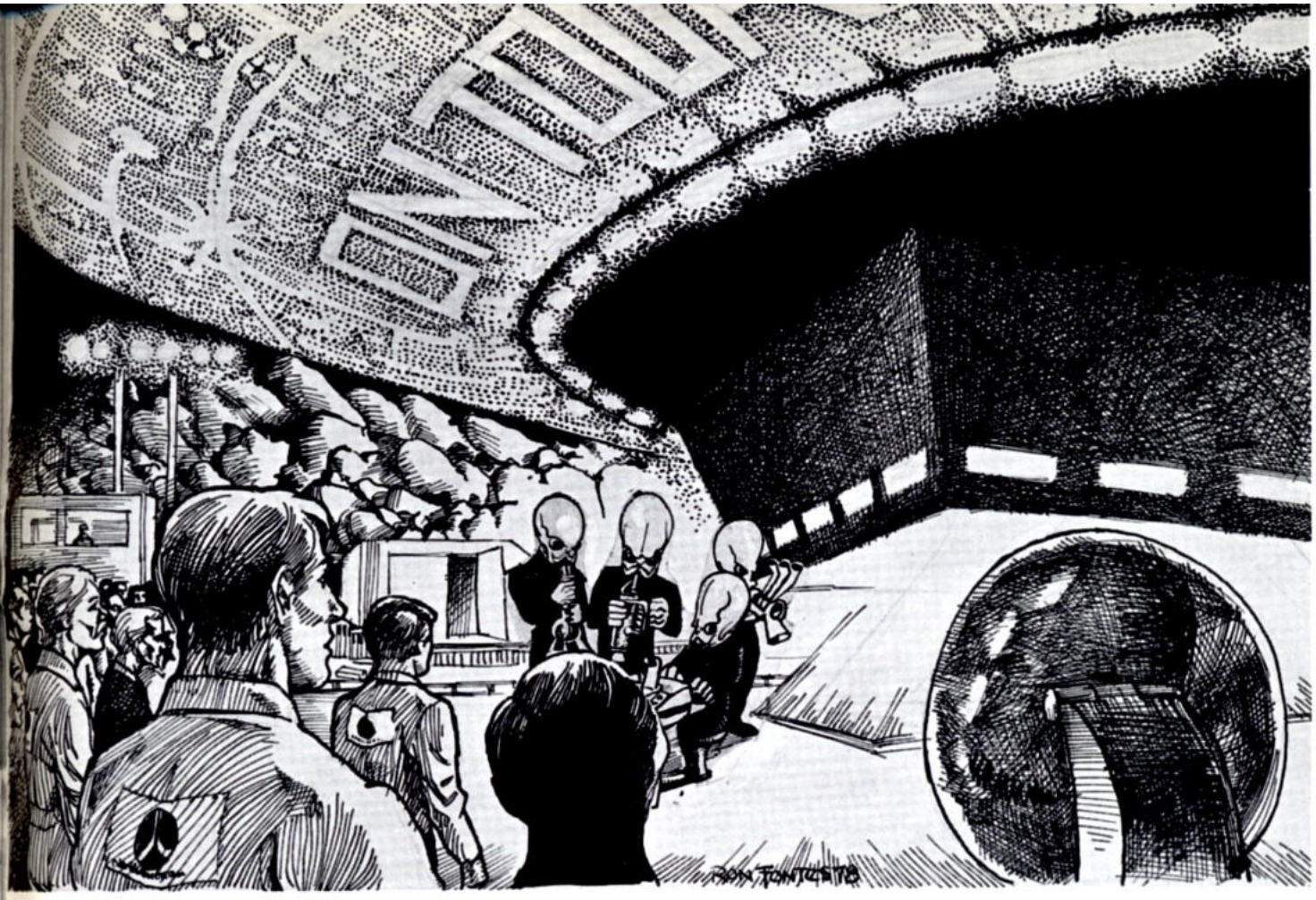
So becalm your adrenalin glands,
Buck, I've never said, "Alter your paus!"
    (Unless, of course, you
    Want to pan Salter, too,
In which case, you've a fight on your Hans.)
Preston Neal Jones]

Let me get this straight. In your editorial [7:2:43] you call CAPRICORN ONE one of the finest science fiction films ever made *after* putting down STAR WARS and CLOSE ENCOUNTERS. *Now* I understand why so much of the film criticism that appears in CINEFANTASTIQUE is inaccurate, inept, and inane (not to mention incredible). CAPRICORN ONE is such a travesty of filmmaking that I'd. . .I'd even put LOGAN'S RUN over it. Your egregious praise of this film notwithstanding, surely anyone with a shred of taste (or sense of wonder) must be appalled by this embarrassingly clumsy film written and directed by Peter Hyams (remember this name, s-f fans).

JOEL FLEGLER
P O Box 720; Tenafly NJ 07670

Your editorial comment [7:2:43] that the next big budget SF film is "based on a comic book for Christsake!", I find disturbing coming from an editor who proclaims having a "sense of wonder." I cannot help but remember how somebody once asked in your magazine how come people who liked SF films when they were kids tend to disregard them as they grow up. The author blamed it on a loss of their sense of wonder, an expression that's been used over and over in CINEFANTASTIQUE. And now you come out and chastise a comic book? The comic-strip is a field as discredited as the *cinefantastique*, and as rich of genuine and profound masterpieces. I can't understand how you can profess respect for one medium while

LETTERS



treating the other with disrespect . . .maybe your sense of wonder is selective? And if you don't remember who wrote those words I was referring to, they were part of the editorial in Vol 1 No 1. Of course, that was eight years ago; people change, don't they?

LUC POMERLEAU
1062 McManamy, Quebec, Canada

[Hoist me on my own petard, will you? Certainly my "sense of wonder" is selective, and still intact, I might add. Passive acceptance of mediocre material, simply because it's part of the genre, is not a requirement. And no blanket slur of the comic book medium was intended. I only wanted to emphasize that the current science fiction film boom has a decidedly juvenile bent.]

Your double issue [6:4/7:1] will certainly stand as *the* definitive information-source on the makers and making of STAR WARS, and in view of your personal reservations regarding the film it's remarkably objective. Incidentally, your remarks about STAR WARS are almost identical with mine regarding CLOSE ENCOUNTERS!

ROBERT BLOCH
Los Angeles CA 90046

What a fantastic issue! [6:4/7:1] My compliments to Fred Clarke, Paul Mandell, and everyone who contributed to the STAR WARS issue. It's a real tribute to all the artists and technicians that helped to make STAR WARS possible.

I was very pleased with the interviews and the great behind-the-scenes shots. What a surprise to see the photo of George Lucas and myself on the set with Greedo!

DOUG BESWICK
San Fernando CA 91401

I'm annoyed that some people find it necessary to denigrate other films in order to enhance STAR WARS. In particularly, I rankle at those who are fond of saying that STAR WARS far outstrips 2001 in terms of visual effects. Kubrick rightfully found the type of effects in STAR WARS unnecessary, because he was seeking realism and believability. I was relieved to read the interviews with the various technicians who worked on STAR WARS' effects and see that they essentially agreed that STAR WARS was not the "ultimate special effects film."

However, I must take exception to comments from producer Gary Kurtz in his interview [6:4/7:1:95]. He would rather have our "astronauts of the future" brought up on an "exciting" STAR WARS universe rather than the "dull" one pictured in 2001. Dullness is unquestionably in the mind of the beholder. Upon leaving STAR WARS, a viewer may feel exhuberant and happy, but the effect is totally visceral—there is nothing in STAR WARS to influence a person's view of life. 2001, on the other hand, leaves the viewer with a sense of awe in contemplating what might be up there waiting for us. I would prefer to think that the future of mankind involves something more than the petty squabbles of space-faring "swashbucklers."

If our "future astronauts" are brought up on STAR WARS, the only reward they are likely to find in space is frustration and disappointment. Space isn't like STAR WARS, and those who attempt to swashbuckle in space will probably find themselves very dead, very fast! "Realism will not make anyone go out and find something for themselves," says Kurtz. As far as I'm concerned, good, realistic speculative fiction generates far more interest in the real world than any fantasy can ever hope for. It would seem that Gary Kurtz is a man of very limited vision.

BOB YANNES
109 E 4th St, Media PA 19063

Thank you for your clear-headed comments on STAR WARS in the face of its admirers' hysterical devotion. I have only one quibble: likening STAR WARS to FORBIDDEN PLANET is very unfair—*to FORBIDDEN PLANET*!

ALAN G. HILL
423 W 120th, New York NY 10027

Publisher and editor Frederick S. Clarke does not like STAR WARS and/or CLOSE ENCOUNTERS but still finds it necessary to waste four issues on them. Meanwhile, movies like DEMON SEED and PHASE IV, et. al. get honorable mentions. Ah, the almighty buck.

MAX ALDAHONDO
87-30 Justice, Elmhurst NY 11373

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that object, is absolutely hard-edged. But in CLOSE ENCOUNTERS, we had all this soft glowy stuff, and yet there still had to be a matte. So Dick Yuricich worked out a way of generating mattes, not only from the silhouette of the object itself, but also from the glow areas. To do this, we'd make a registered color print of the actual saucer as it was on color film. Then, from the color print, we would generate a soft, low contrast cover matte by using high contrast film but bringing it out in a soft developer so it wouldn't generate hard edges. This resulted in a soft mask, so that when we ran it with the background of the scene, it created sort of a soft hole for the saucer to be printed into. We found, however, that lens flares had to be solid, in a sense, because if you could see through them to the stuff beyond, it really looked transparent and faked. So we used combinations of the hard-edged silhouette mattes, plus the soft mattes of the glow itself. And we did that throughout—all the saucers and the mothership and everything.

DON JAREL

One of the things I really liked about Doug and Dick Yuricich was that they were willing to do things that were unorthodox. But that didn't keep me from going home in a sweat some nights over something we'd tried. I'd worked at M-G-M for twenty-six years, and believe me, we did a lot of matte shots. But CLOSE ENCOUNTERS was the first picture I ever worked on where we'd generate our traveling film mattes, which would go unprocessed to the optical camera where they'd be combined with reduction shots of maybe the base camp and the actors on the mountain. Then the whole business would be rewound and canned up and sent back to the matte camera again to add the paintings or the stadium lights, or some other piece of the puzzle—and everything had to be in perfect register so there'd be no matte lines. It was tedious work—and very time-consuming.

Matte artist Matthew Yuricich

DOUGLAS TRUMBULL

We used matte paintings extensively. In fact, there were about a hundred paintings used in the picture. We manipulated scenes all over the place. For example, when you are in Jillian's backyard at the very beginning of the movie and there's a few stars in the sky, but you also see sort of a horizon haze out there and some trees—that's *all* painted. The only thing we shot for real was the house itself, because that was all we could light at night. Everything else was gone. There were many shots like that. In the scene where the police car drives through the railing, half the railing was painted, the trees were painted, the continuation of the road was painted, the horizon was painted, clouds in the sky were painted—very dim, but nevertheless there. For the scene where you see the lights go off in the city, we actually photographed a section of Culver City in the evening from the top of a bank building just a couple of blocks from here. Then the sky and everything was taken out, and the distant horizon was painted back in, and the stars were added in the animation department. Then we just took black paint and painted all the windows and street lights out in sequence.

And then there were a lot of paintings in the end sequence where they're climbing the mountain. When we shot a number of the big full shots at Devil's Tower there just weren't any clouds in the sky, so we had to paint them all in. And then, when Roy and Jillian are looking down over the base of operations, the surrounding countryside is all painted. So is the distant horizon, and the sky. A lot of the rocks are painted. Even the stadium lights were enhanced on the matte stand.

Matt Yuricich was responsible for all the paintings, and he was assisted by a young matte artist named Rocco Gioffre. The matte paintings were painted for the color qualities and contrast qualities of the dupe negative stock we were using, which was a very high contrast stock with a very low ASA rating. Very weird color balance. So all the matte paintings had to be done with weird color balances so that when they were exposed on the dupe stock they would come out looking correct.

MATTHEW YURICICH

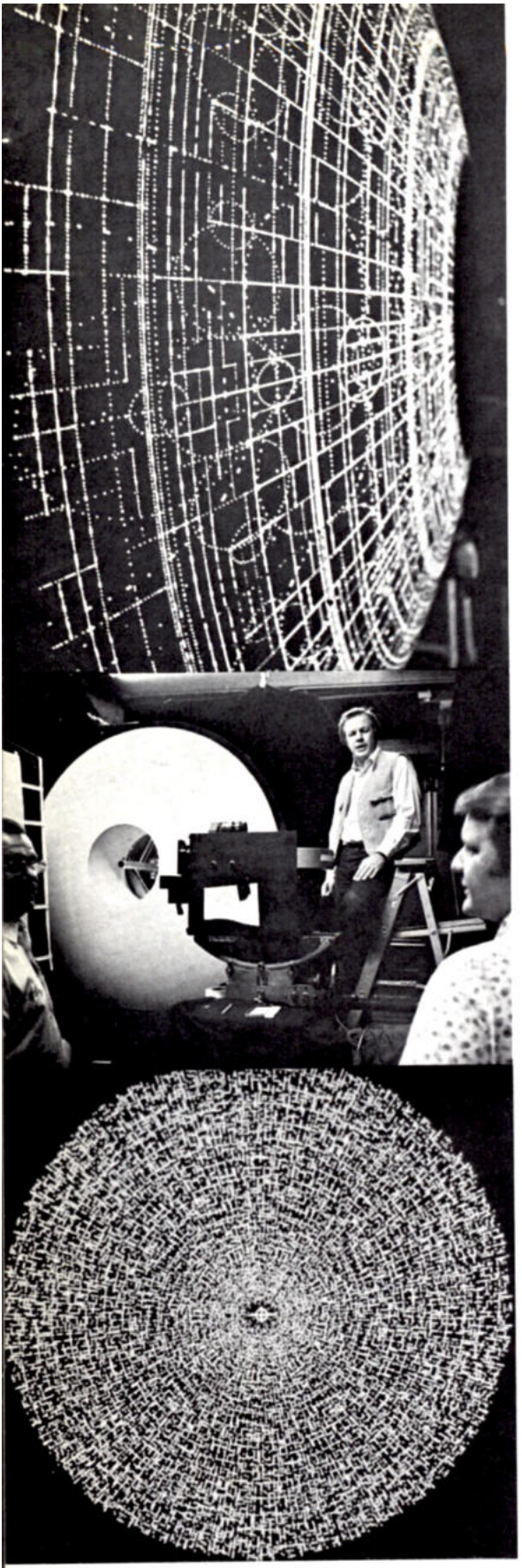
Originally, there were no matte paintings planned for CLOSE ENCOUNTERS—not one. Which is the wrong way to go about it; because ordinarily, if you don't plan for them, it ends up looking like patchwork. But Doug was sharp enough to realize that he might run into some problems since he was being rushed with his front projection and everything, and so he hired me as an insurance policy. As it turned out, I ended up painting in almost every effects shot—tying them together with parts that either didn't work or they didn't have time to set up. All together, there were about a hundred paintings; but not all of them were complete paintings—some were just little pieces.

Top: The matte stand, with a glass matte of Devil's Tower in front and one of Matthew Yuricich's sky paintings executed on masonite in the back. Over one hundred matte paintings by Yuricich (pictured left, paint brush in hand) and assistant matte artist Rocco Gioffre enhanced the picture. Bottom: A scene utilizing Yuricich matte art. Shot at night, only the foreground and house could be lit as Jillian (Melinda Dillon) runs inside from the descending UFOs. The clouds, sky and trees on the horizon are matte art. The glowing clouds are fiber optic probes inside water tank cloud formations, and are superimposed.

We did our paintings in oil on pieces of glass or masonite, about six and a half feet by thirty-six inches. Now, that's bigger than I like to paint on, but they set up their easels that way. The main difference between glass and masonite is that on glass the painting makes its own matte and counter-matte, and on masonite you have to have a separate matte. Obviously, glass is simplest, because the edge of your painting is the edge of your matte line. And the nice thing about glass is that you can scrape away areas, like a sky area, and rear project a real sky through the glass and yet have the painting all around it. The only thing *I* don't like about it is it leaves a sharp edge and if your original photography's a little soft, you're going to have trouble.

You see, matte painting isn't like any other kind of painting. When you first start out in this business—and I think we all go through it—you work at it until you get a painting that looks like a photograph. Nice and pretty, but it photographs like a nice, pretty painting. Sometimes the best matte paintings look really loose and just scribbled in, but the effect is there and that's all that's necessary. That's a problem you have, incidentally, when you do a lot of paintings for people who don't know matte shots. They want the painting to look like what they'll see in the finished product. Like in CLOSE ENCOUNTERS, Steve would look at my film clips and then I'd show him the painting, and he couldn't believe it. Now, I could have painted each rock with a little bit of moss on it and everything—and it would have been a nice painting, but not a good matte painting. I've had people come to me and say, "That line's a little crooked—it doesn't look right." So I have to go into the whole history of architecture and explain to them that even the Parthenon doesn't have a straight line in it. All the columns are curved—entasis it's called—so that when you see them all together, they look perfectly straight and formal. If you're doing a miniature and you make everything perfectly straight, it'll end up looking like a big, stiff miniature instead of a building. It's the same with painting. I can make a line so straight it'll cut you, but on film it'll have a rigid, unreal quality, and it'll look fake.

Same thing with colors. Depending on the film stock and the processing, you often have to paint colors that are completely foreign to the colors you're trying to get. This is especially true when you're



Top: The moire dot patterns projected onto the mockup of the mothership underbelly, as seen by the camera set-up pictured at right. Middle: Technician Robert Hollister, Douglas Trumbull and effects director of photography Richard Yuricich make preparations for shooting the first mothership underbelly shot. Bottom: Animator Harry Moreau's complex dot artwork created moire patterns on the mothership underbelly when sandwiched together, rotated, and projected onto the domed surface.

duping, because you probably won't get back the exact contrast and color you had in your original. Whenever you send it into the lab, it never comes back quite the same. As a result, some of the paintings end up looking garish as hell. With the film process we were using in CLOSE ENCOUNTERS everything goes a little blue, so I ended up painting yellow and red rocks in order to get the nice grayish-blue tones we wanted. In the opening sequences, when the clouds come boiling over and Jillian's chasing her little boy, we had to take the original sky out because it was light and put in a new, darker one so we could add the clouds. We were using 5253 film which increases contrast tremendously; so I had to work in shades of gray, because the exposure they would use on this film would change gray to a solid black. Therefore, my painting had to be lighter than gray, but it couldn't go any lighter than white. When it came on the screen, you could see trees and everything back in there; but on the painting itself, it was almost indiscernable.

So matte painting requires a lot of experimentation. And oftentimes you end up not being able to put all your talent or abilities into your work because you're so busy trying to mentally transpose this blotch of colors up there which may be photographing well, but to the eye, makes you sick.

ROBERT HALL

If you're watching a film and you see a rocketship landing on Mars, you *know* it's going to be phony—you expect it to be. But CLOSE ENCOUNTERS happens on earth today, and so we tried to make it as real and believable as possible. And in fact, there are many shots in the film where we had a phony mountain with phony trees and phony clouds—*everything* was phony. But it looked so real, and was so subtly combined, that most everybody thought it *was* real. A lot of people wanted to know where we did the time-lapse photography on those clouds. On the other hand, there were places where we had to doctor up the real article because the real thing looked artificial. We had shots of Devil's Tower, for example, where the real shadows on the mountain looked like a matte line. So we ended up painting that shadow out and putting a matte line *in* just so it wouldn't *look* like a matte.

MATTHEW YURICICH

CLOSE ENCOUNTERS violates one of the cardinal rules in matte painting—you don't leave it on for the whole picture. Five to eight feet is about all you can get away with. In CLOSE ENCOUNTERS, some of them are on a hundred or a hundred and fifty feet. The best matte painting in the world won't get by for a hundred and fifty feet, but they did it all the time in CLOSE ENCOUNTERS. All those scenes in what we called the "notch," when they first come up and see the encampment down below—there's painting in nearly every one and they're constantly showing those shots over and over again. If you look for them, you can find them, but they got away with it. The fact that it was night helped, and the action was good—people were interested in the movie. If they're not, and they start looking around, you're in trouble.

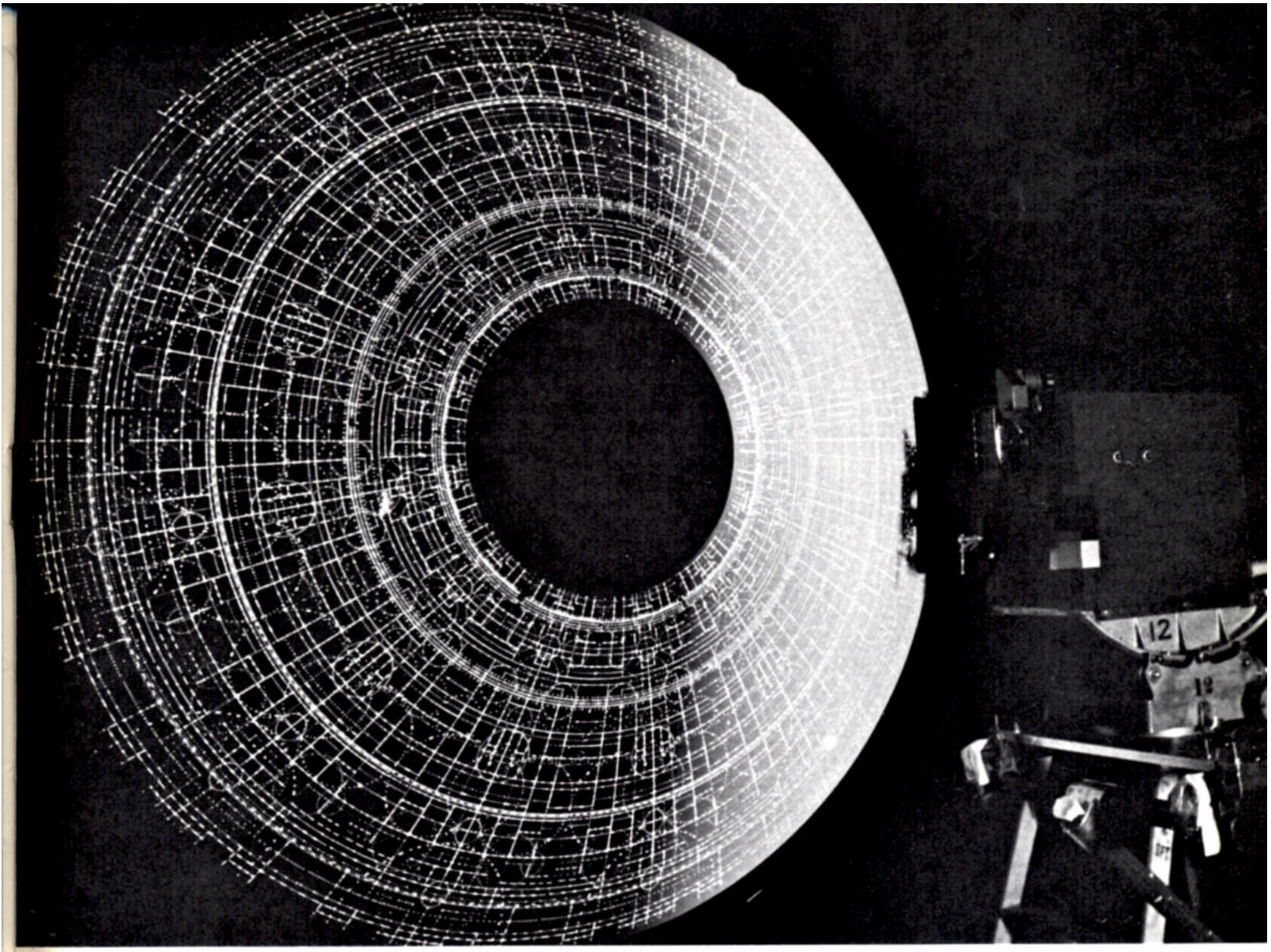
I read about actors and actresses who won't watch themselves in dailies because they always think they could have done better. That's the way I am with my paintings—I don't like any of them most of the time. But I *am* pleased with some of the things in CLOSE ENCOUNTERS. When they're first climbing Devil's Tower—and it's still daylight—I did some sky scenes that were intercut with the real stuff they shot there and it's absolutely indiscernable. And quite a bit of the "notch" sequence—I'd say at least five out of maybe twenty-five of those shots looking down on the camp look very good. And I had to paint all around the camp to make it tie in. What I liked best wasn't even what I'd call a matte shot. It was when they had closeups of people walking around under the musical light board, and there were rocks painted in all around there to match the rocks on the set. Wherever their heads went, I couldn't paint in that area; and yet we needed to have the feeling of rocks going all the way around behind them. Otherwise you could have shot the whole picture in a black cyclorama. And those came out very well, I thought. No fancy-looking houses or mountains or trees, but when we ran it, most of the people didn't even know something had been added—except Steve Spielberg, because he knew his set. And that's the thing. When you do it well enough, and everybody else does their job well enough, you can't tell. That's the ultimate objective.

ROBERT SWARTHE

The stars in CLOSE ENCOUNTERS, with very rare exceptions, are always seen in relation to a real background—and if they were too big, they'd look phony. So, my main preoccupation was trying to make the stars as tiny as possible; but there's a limit to what you can do, because the film can't resolve them at the size they really ought to be. I had some tests that looked very nice in 70mm, but they wouldn't hold up under reduction to 35mm and all the other steps you have to go through to make the final film. So we ended up burning them in directly onto the final optical internegative—after the live action, and Dave Stewart's UFOs, and the matte paintings were all printed. In other words, the stars on the screen are first-generation photography. If they had gone through optical, most of our bright pin-point stars would have disappeared.

But the internegative stock is not designed to be used on the animation stand—it's designed to be run through a printer. So its sensitivity to light is extremely low. As a result, we ended up with some incredibly long exposure times. We had eight thousand watts of light blasting down onto these stars—which were carefully airbrushed splatters of white paint on a black card—and our exposure times would *still* range from a low of about 25 to 30 seconds up to a minute or more per frame. So it was *incredibly* hot and blindingly bright in there. We had crews working 24 hours a day shooting these things, because it might take eight hours to put the stars into an average scene. And there were a helluva lot of star scenes.

The least-creative aspect of our work



The mini-scan camera, mounted on its side, records moire patterns projected on the mothership underbelly.

was the rotoscoping. I set it up so we could make still photo enlargements directly off of either work print clips or a piece of test negative from the optical department. We used them extensively to plan where stars should go. Once we traced the basic outlines in the scene, we could make up a star background for it. Then we had to make hand-drawn rotomattes to hold out the stars where people or objects had to go in front of them. Otherwise, the stars would double-expose through. We'd have a couple of people sitting all day, just tracing outlines of people and moving objects onto cels and painting them in black.

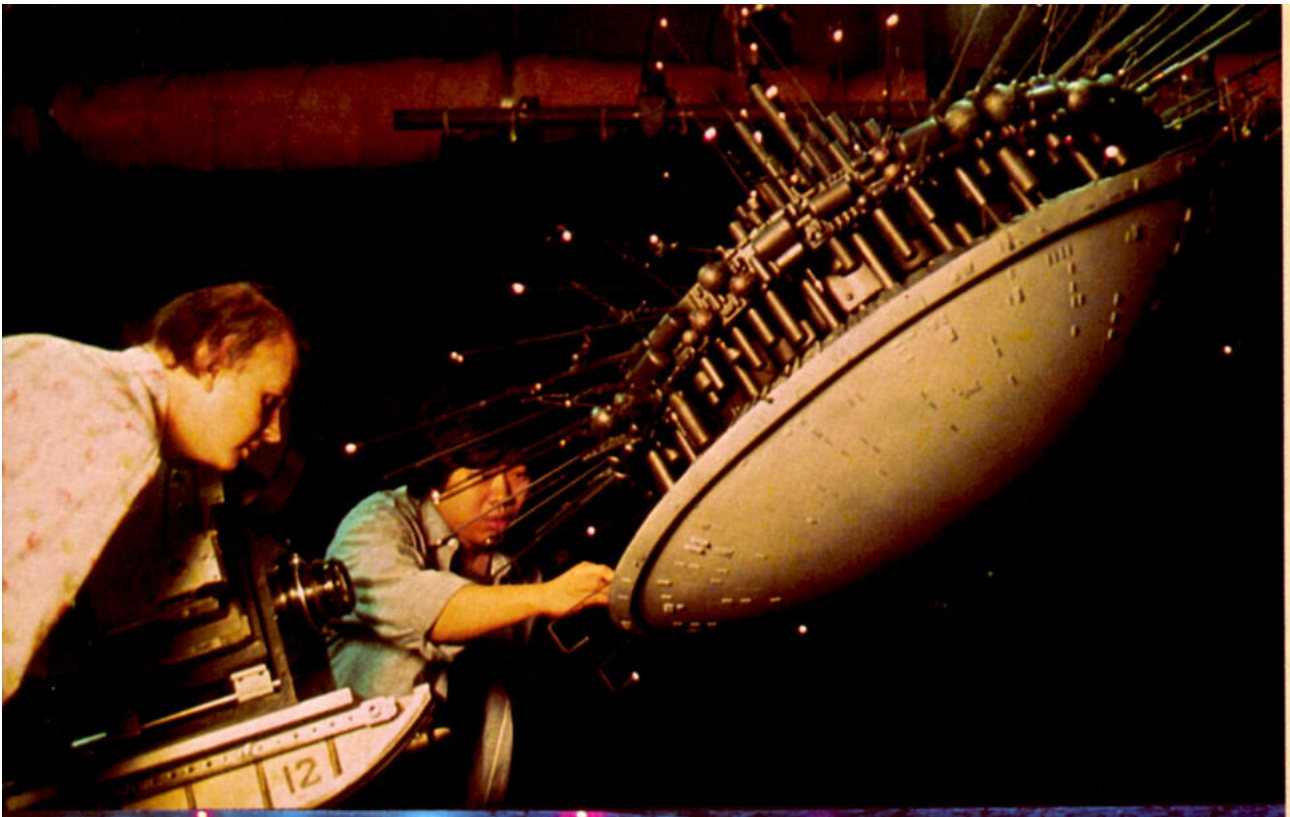
Originally, we had to photograph the stars on the animation stand by physically changing hold-out cels between each frame of exposure. Alan Harding and Max Morgan did ninety percent of the Oxberry shooting and they'd have to put the cel down, push the button, wait sixty seconds or so for the exposure to finish, take that cel off, and put the next one on. It was very tedious and it took an incredible amount of patience. When we got into a real production bind, we set up a Panavision reflex camera for stop motion, and built a temporary stand out of pipes so we could mount the camera in a fixed position relative to a flat bed. We brought in extra cameramen so we could keep shooting 24 hours a day. We were able to put a lot of stars into scenes using that set-up, and at the same time, free the Oxberry to do some of the more elaborate things.

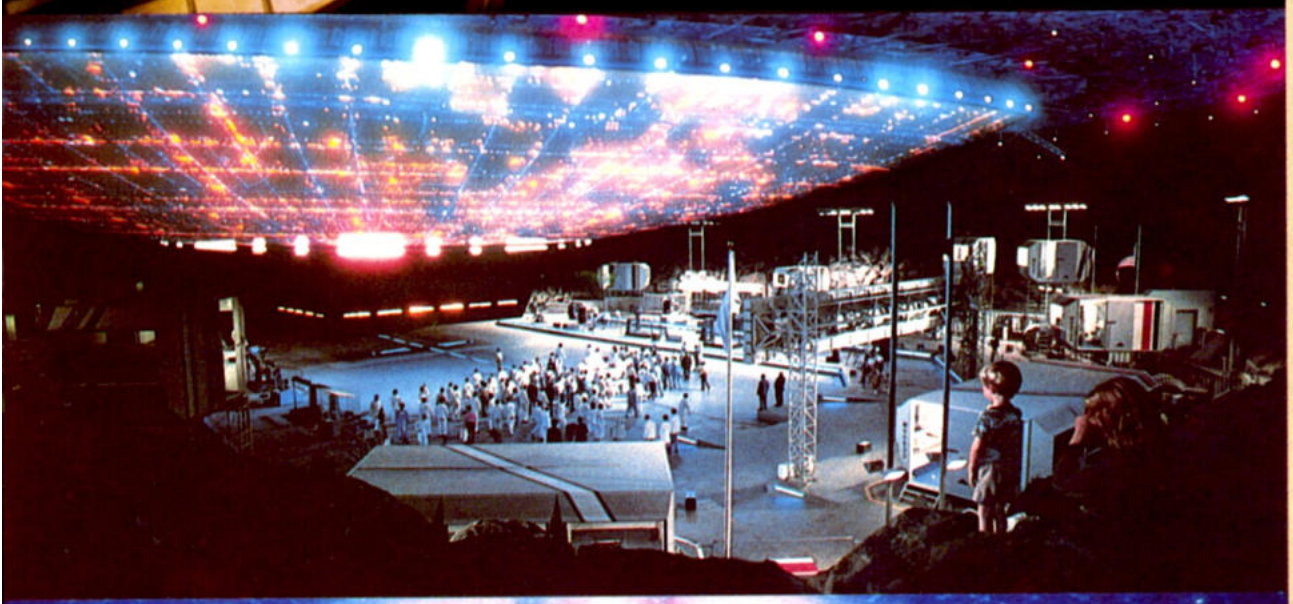
Later on, during production, we were able to shoot the hold-out cels on high contrast film and run them in bi-pack on the Oxberry. In this way, we avoided having to change cels by hand while shooting stars. We used that for the shot where clouds are forming like a big horseshoe around Devil's Tower. There were stars in the sky and the clouds had to cross in front of them, so we needed something like nine-hundred rotoscopes for that scene. It was the longest continuous rotoscope sequence in the picture, and it took *weeks* to do the cels. The problem was that—unlike a person running or a quick-moving UFO—the clouds had soft, slowly-moving edges which were changing subtly all the time; and it was hard to see them. Incidentally, we were lucky to be able to bi-pack that matte, because having to hand-change nine hundred cels and having to wait a minute between changes in that incredible heat would have been terrible—especially since it took fourteen hours to expose the stars and we ended up having to reshoot that scene a number of times to resolve technical problems.

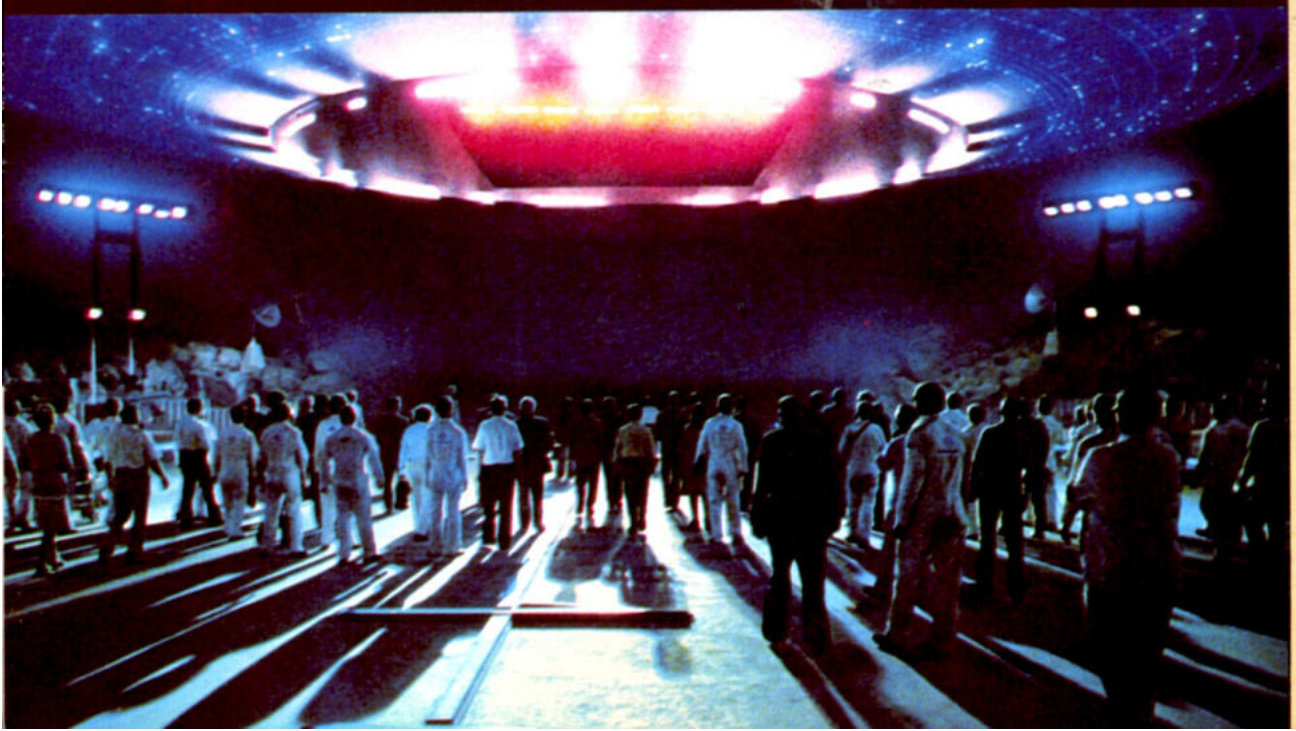
The only stars in the film that are duped stars are the ones for the end titles where the mothership is leaving and all the credits are rolling. We shot those on regular color negative and they were added optically. We were able to get away with it in those shots because we were dealing with only the mothership and the stars. Those stars are bigger and brighter than any of the rest in the film, but they don't look it, because there aren't any trees or houses or other things in the frame to give them scale; so it didn't matter. And it would have been incredibly time-consuming to have done them the other way.

RICHARD YURICICH

We had some two hundred effects shots in the picture, and some of those had as many as eighteen elements. We had a giant storyboard with little 3x5 cards for notes and such, but I really followed the progress of most of those shots in my head. Bob Swarthe carried a lot of it around, too. If anyone had gotten ill, we'd have been in trouble. Larry Robinson, our effects editor, came on a little late, but once he was there, he and his people took care of all our film and the interfacing with Steven



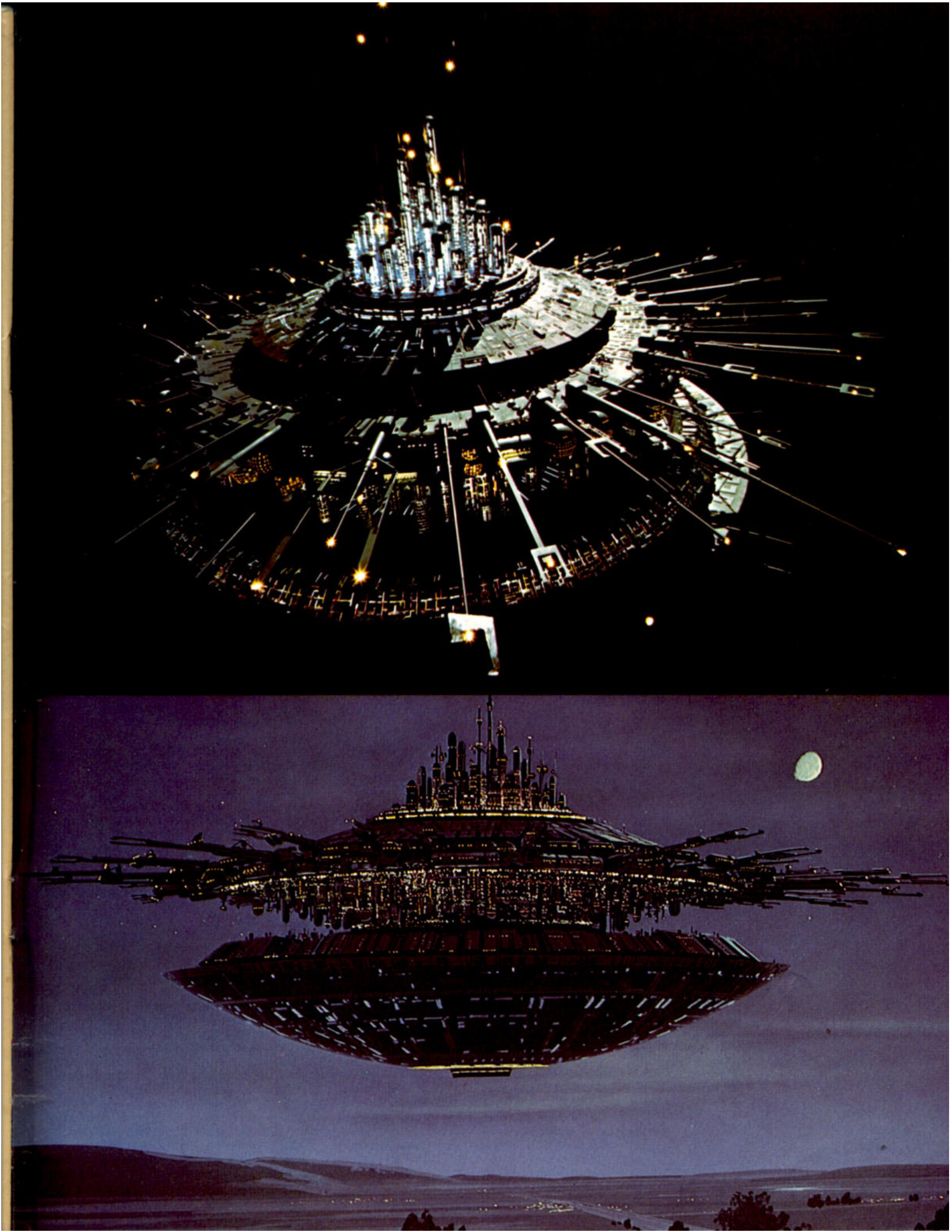


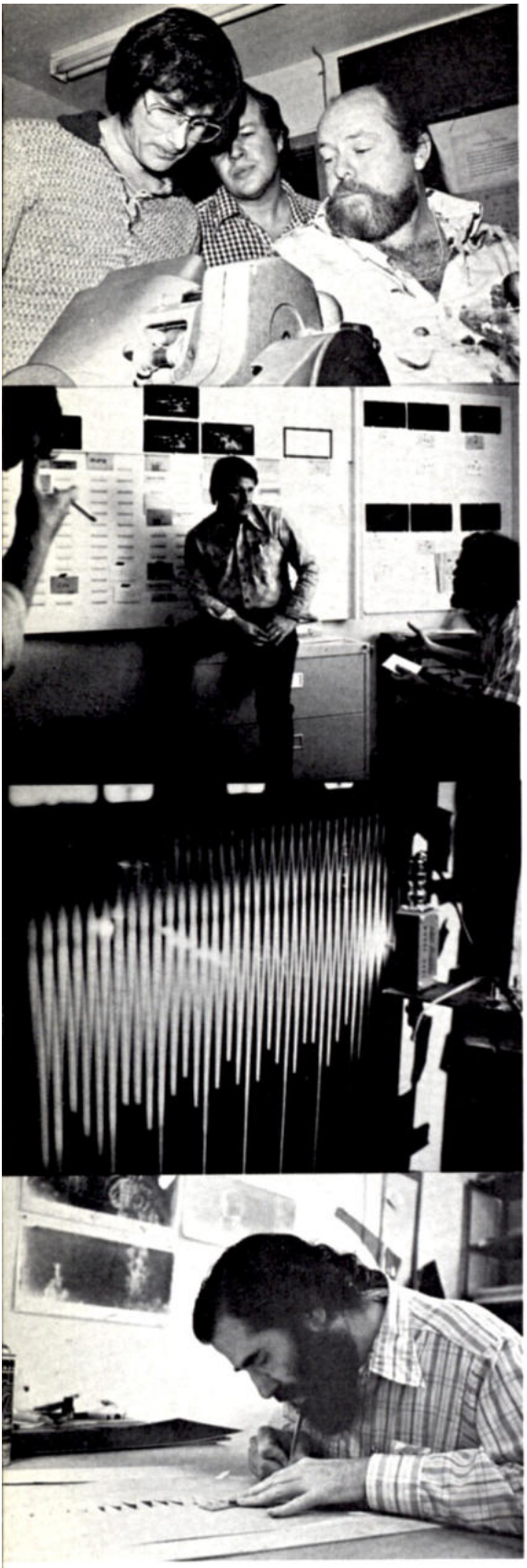


The Mother·ship

"Spielberg came up with the idea of trying to make the mothership look like a huge oil refinery, and I said, 'How about if we also make it look sort of like the Manhattan skyline—a city floating in space.' Steven liked that, so we came up with a rough design which included this curved underbelly I had sort of settled on. We brought in Ralph McQuarrie, who did a series of drawings of it in different configurations, and from that we built the miniature."
—Doug Trumbull

Top Right: Full-shot of the mothership miniature, approximately four feet in diameter and 2½ feet high, with spires adding another foot to its height and another two feet to its diameter. Parts for the complicated asymetrical design were coded like the different boroughs of New York—Manhatten, Staten Island, etc.—to simplify assembly. Construction was supervised by chief model maker Greg Jein, taking 8½ weeks. Bottom Right: Working from the ideas provided by Steven Spielberg and Douglas Trumbull, artist Ralph McQuarrie visualized the mothership in a concept painting used as a guide for the ship's construction. Top Left: Mothership photographer Dennis Muren (left) prepares to shoot one of the shots of the ship turning over, as Greg Jein makes one of the many last-minute repairs on the model. Middle Left: The mothership in place at the Devil's Tower landing zone, as Barry (Carry Guffey) and Jillian (Melinda Dillon) watch. A major refinement to the Ralph McQuarrie concept painting is the moire pattern light display projected on the mothership underbelly. Bottom Left: The mothership begins to lift-off as landing site personnel watch in wonderment. The white ring of variable light at the bottom opening of the ship is referred to as the scanner pattern, a light display created by a fiber optic arm rotating once per frame of film and timed to turn off and on at predetermined intervals.





Top: Steven Spielberg, Douglas Trumbull and effects editor Larry Robinson cutting the effects at Future General. 2nd: Standing before the storyboard used to track the progress of each special effects shot in the picture, Richard Yuricich, director of photography—photographic effects, discusses a sequence with UFO photographer Dave Stewart and animation supervisor Bob Swarthe. 3rd: A photoelectric light beam tracks past linear artwork to create the scanner patterns on the mothership underbelly. Bottom: Bob Swarthe prepares the cut-out artwork for the above. On the wall behind him are frame enlargements used by the animation dept to align star backgrounds.

Spielberg and his editor. And that made things a lot easier.

One of the last key members to join Future General was Dennis Muren, whose experience as an effects cameraman dated back to EQUINOX, FLESH GORDON, WILLY WONKA AND THE CHOCOLATE FACTORY, and numerous television commercials for Cascade Pictures. More recently he had served as second effects cameraman on STAR WARS, and when that production wrapped in February 1977, he transitioned to CLOSE ENCOUNTERS with only a three or four day break between the two pictures.

DENNIS MUREN

When I started with them, I didn't know what it was that I was going to be doing. I just thought it would be neat to work on two big special effects films back-to-back. So they ended up putting me in this little building that was apart from the main facility, and I started shooting these scenes of projected images on top of a dish-shaped sort of thing. I didn't know it at the time, but what it turned out to be was the mothership sequence that ends the film. It was shot in two parts. There was what we called the underbelly sequence, which is when you see the bottom part of the ship after it's already landed; and then there's the entire ship that comes up from behind the mountain and flips over, and then at the end takes off and flies in front of the stars. The first thing I started on was the underbelly sequence, because at that point, the top of the ship had still not been designed.

Scott Squires was my assistant throughout the shooting, and we were in this little room that was only about fifteen feet wide and thirty feet long. The underbelly mockup was about four or five feet in diameter, painted white, with a circular cut-out in the center from which the monolith would descend. It was placed in an upright position in order to accommodate the projector we were using to throw light patterns onto it; and as a result, we had to mount the camera on its side to create the proper angle and perspective.

ROBERT SWARTHE

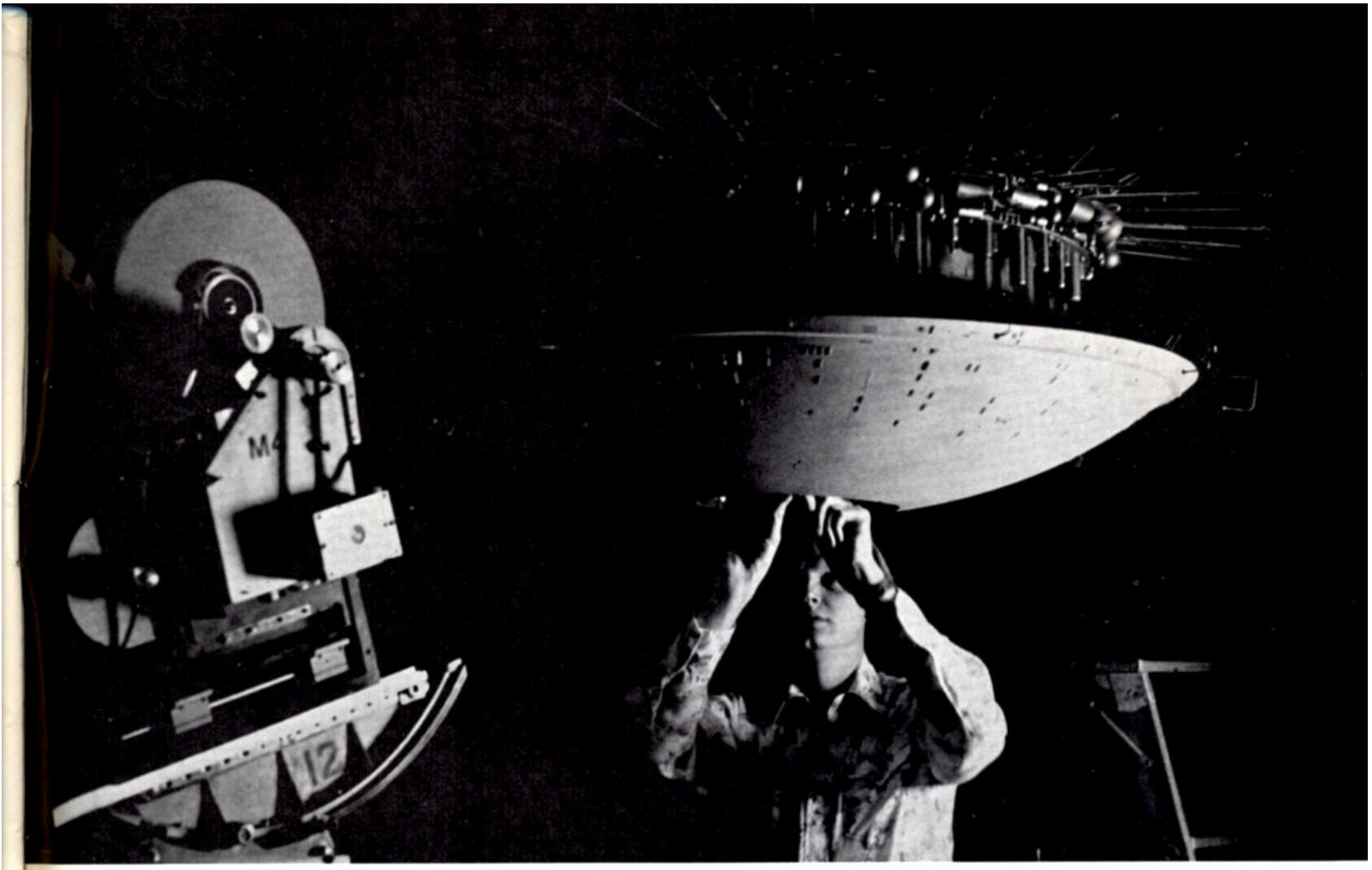
All of the light patterns on the underbelly were actually projections of radial dot patterns. Doug made up a basic guide for the type of thing he wanted. The primary modification that we made was to make the dots incredibly small. Because it's so difficult to make tiny points of light *look* really tiny on motion picture film, I had Harry Moreau, my key artist and animator, draw a section of dots on a card that was actually larger than the model surface it was going to be projected on. He did about a twelve-degree pie-shaped section, and then we made copies of that and pasted them into a circle which was reduced to an 8x10 film negative. When the dots were projected onto the underbelly they were still a little bit smaller than on the original artwork; and I think the size was perfect, because it really makes the ship look gigantic. If the dots had been larger, it would have diminished the scale. We did about three versions of those patterns; and Harry spent many, many days making thousands and thousands of those little dots.

DENNIS MUREN

The patterns were reduced to 8x10 kodaliths, mounted in pyrex glass, and projected onto the underbelly with an 8x10 projector—the same one they had used for front projection in Mobile. Don Trumbull had engineered a motorized system so that we could put two slides into the projector and rotate one while the other remained fixed. We also had a motorized vertical axis, but we never used that. So, by projecting through two moire plates with different designs, one rotating against the other, we got the effect of lights going on and off and moving. We usually had two or three different colored light patterns going at any given time, and each one required a separate exposure. We'd shoot one, wind the film back; shoot the second one, wind back—and so on. They were all double and triple exposures. The orange-yellow moving lines would be one exposure; the little blue-white dots another; and the deep blue radial lines and cross lines that were always static, with maybe a slight rotation, were a third. We were using an arc projector, but the light level was so low on this stuff that in order to get the lights to flare out the way Doug and Steven wanted, they really needed to be overexposed quite a bit. And those exposures really pile up. For example, we had about a three-minute exposure per frame on just the orange-yellow lines. The white ones were about a minute and a half exposure per frame; and the deep blue ones were only about a twelve-second exposure. For one scene, when the ship is landing, we had a fourth exposure—radiating bright yellow lights coming out over it—and that one took seven minutes per frame. So you're talking about some shots—maybe 200 or 250 frames—that might take sixteen hours to shoot.

Incidentally, most of this was all worked out by Doug and Richard before I even started. Scott and I just added a few finishing touches. Richard did the first shot and I guess everybody loved it; and I think they originally thought they could run it by themselves without bringing anybody else in, but they ended up getting into exposures that were *so* long that they just decided to get out from under that and bring me in to make sure the stuff got done. They were hoping that Scott and I could do shift work, but there was just too much of a chance for error. My whole philosophy on this sort of work is to get it right the first time; and this stuff was just too complicated for one person to do. So we worked together—he checked me; I checked him. We constantly monitored everything that was going on; and if anything happened, there was always somebody in the room. Once we started, we may have split up and taken shifts; but we always started together, and most of the time we finished up together. Sometimes, if we had extremely long exposures that ran late into the night or into the following day, we would bring somebody else in just to babysit the equipment. If anything went wrong, they would just shut it down. But that only happened once or twice.

One of the main things I did on the underbelly stuff was try to find interesting dot patterns. By throwing two similar moire patterns slightly off-center, you wouldn't just get dots, necessarily—you'd get a sweep as the two start to line up a



little bit. You'd see like a bunch of colors appearing over on one side of the dome and then sweeping overhead and across. So I tried to find certain areas that looked nice and would sweep through the shot within the frame count that was dictated by the editor.

Once we finished with the moire patterns, we'd make a final pass on what we called the scanner. The scanner was a tiny arm that rotated around the cut-out area of the underbelly. You can see that area in one or two of the full-sized mothership shots, too, but there it's just a little neon ring. At the end of the scanner arm was a fiber optic which led down to a piece of flat kodalith artwork and a small electric eye. The artwork was mounted on tracks and moved along in front of the electric eye. As it did, the scanner arm rotated around the edge of the cut-out area—one full revolution per frame of film. Actually, though, because of the monolith in the center, it only needed to make about a 300-degree rotation and then return to its starting point. At any rate, as it moved, the fiber optic light went on and off according to whatever the electric eye told it. When it went in front of white, the light went on; when it went in front of black, the light went off. Then, by shifting the start point for the artwork each time in small increments, we ended up with little white lights which expanded or contracted or rotated—or at times just sat there—depending on how the artwork was created and what it looked like. Although Scott and I did the basic scanner with this sort of streak photography system, all the scenes where the lights expand and contract and change colors to specific musical cues were done in the animation department.

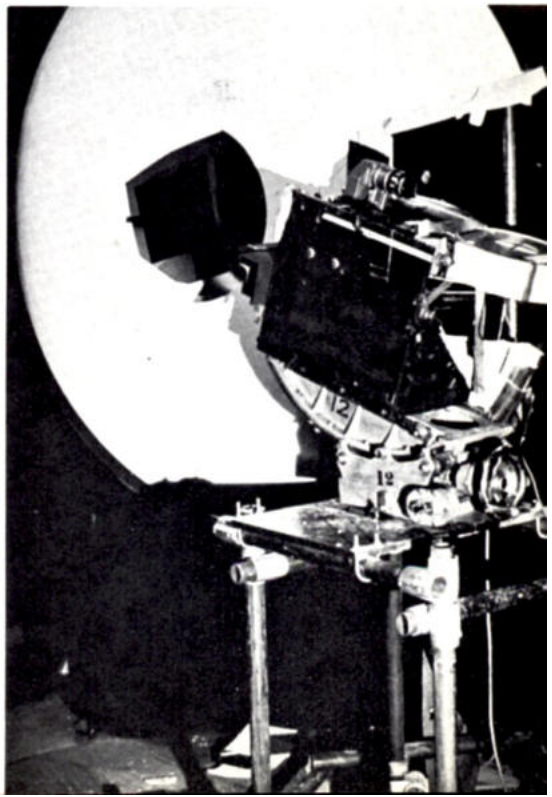
ROBERT SWARTHE

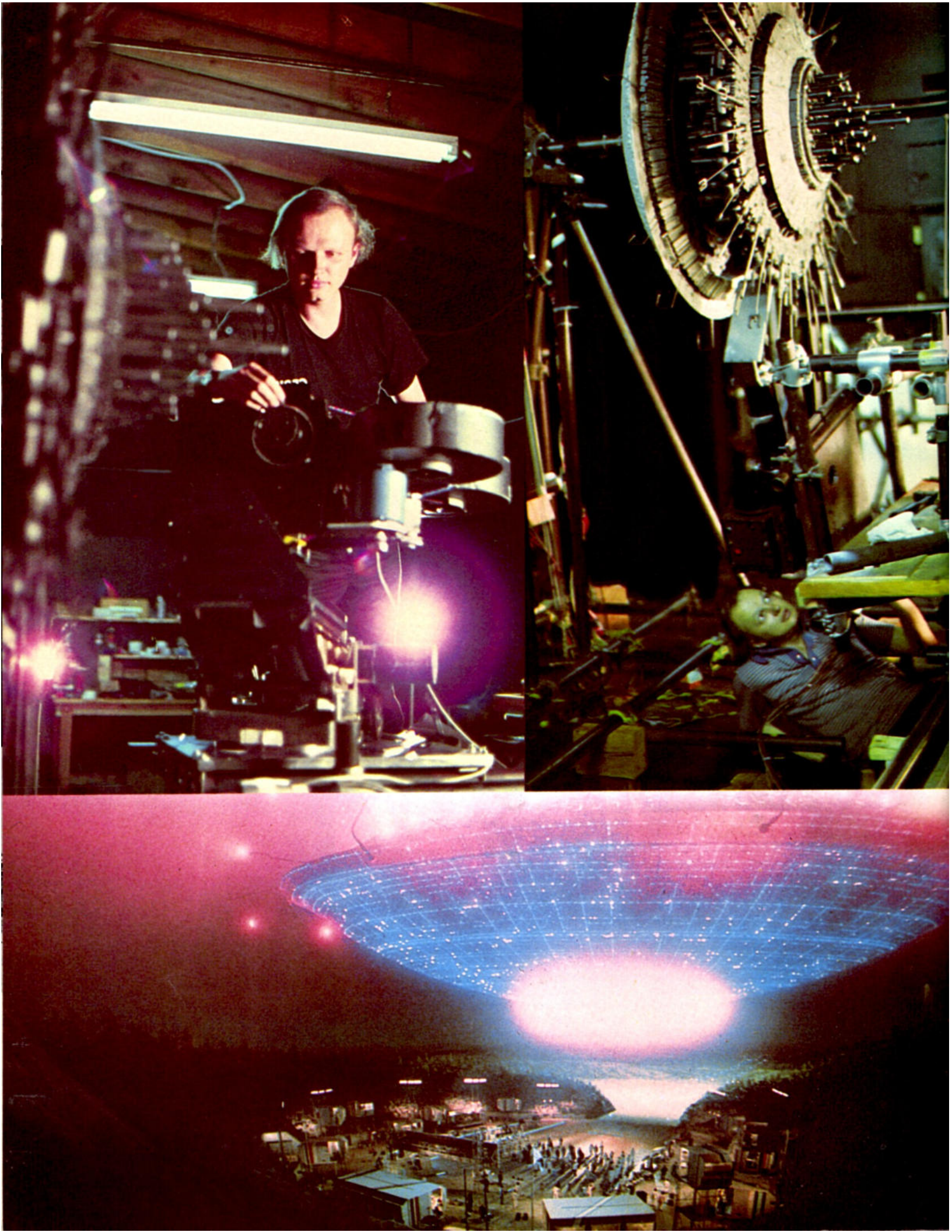
The artwork for the scanner patterns was made up of a series of long, wiggly lines and was designed in our animation department. Doug had specified rates of speed and movement that he wanted, and in one place in the film—when the mothership is trying to get in sync, musically, with the base camp synthesizer—there's a moment when the whole scanner kind of whizzes back and forth. So our line patterns were very neat up to this point, and then suddenly, for about a quarter of an inch, they all zigzag like crazy, and then they straighten out again. And it made the whole scanner do a 180-degree flip, back and forth. Those were all just white scanner effects.

Then later on, in the animation department, we went back and burned in colored lights over that; so there's a color effect going on in there as well. During the musical duel sequence, all of those colored light effects that were synched to music were done on the animation stand. It was backlit artwork, and we devised a little cardboard slot gizmo that we could open and close by dialing it to different numbers. All the movements had to be synchronized to music, so I went over it all with Larry Robinson in the editing room, and we synced our effects to the temporary sound track they had used on the set when they photographed the live action.

One of our main problems was making the animation fit into the scene realistically

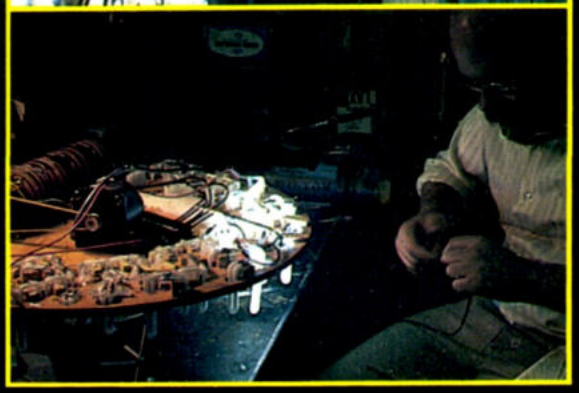
Top: Mothership photographer Dennis Muren inserts a neon ring into the base of the mothership. The ring was used as a substitute for the elaborate scanner device in the long shots of the ship. Note model railraod track couplings used for detailing the mothership underbelly. Bottom: The Mini-scan camera sitting on its side to photograph the light patterns on the mothership underbelly mockup. The mockup has been cut-away to permit the camera to get very near for the close-in shots of the mothership at the base camp.

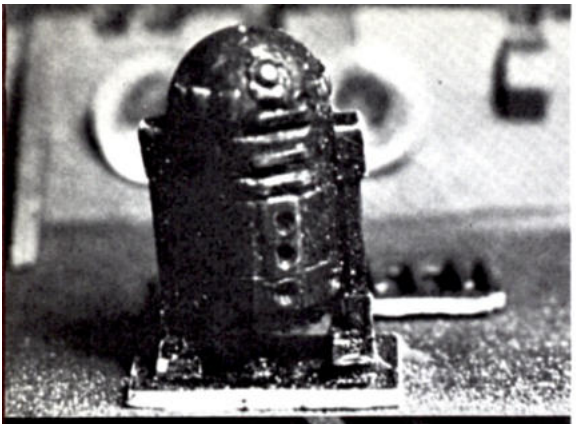


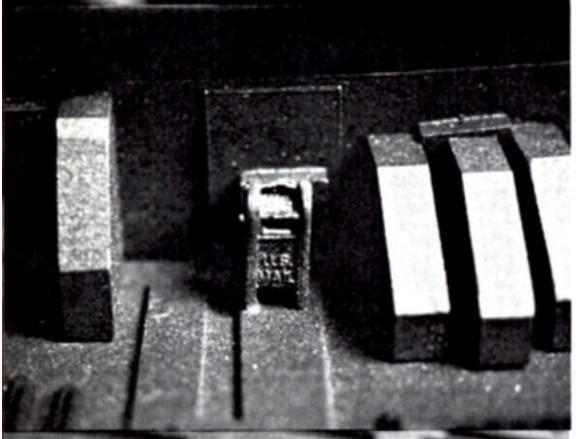


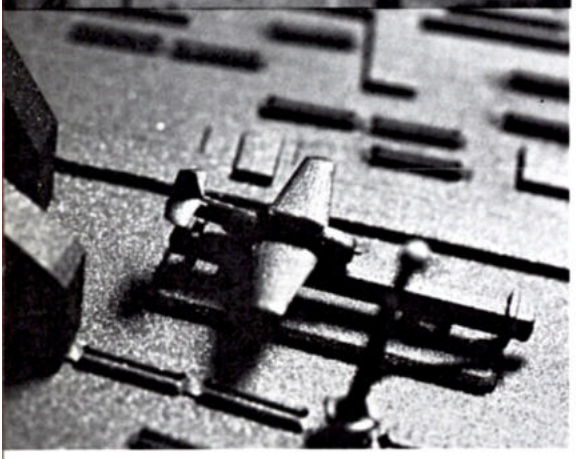
The Mother·ship

The magical, sparkling, wondrous mothership, positioned for turning upside down in the Future General smoke room. Inset Top: Special consultants David Jones, Peter Anderson and Larry Albright, the neon wizard, accomplished most of the complex wiring for the interior mothership lighting. Jones, a STAR WARS model maker, is the perpetrator who hid R2D2 on the ship. Inset Bottom: Anderson at work, wiring the neon components. The city-of-light effect was achieved by neon tubes placed inside metal cylinders which were carefully drilled with thousands of tiny holes (see photo bottom of page 91). Top Left: Mothership photographer Dennis Muren lines up a snorkel lens shot for an extreme closeup of the ship exterior. Top Right: Muren, underneath the tracks of the mini-scan camera, checks the line-up of a snorkel camera shot. The mothership model was placed on its side for maximum support, and the camera had to be mounted sideways also, to obtain the proper upright perspective. Bottom Left: The mothership lifts-off from the Devil's Tower base camp, the most difficult shot to film of all the mothership photography because the entire ship is in view at one time, including the moire light patterns on the underbelly. And the final result is a nearly flawless composite of the miniature ship, the live-action base camp, and the surrounding countryside, horizon and sky, a Matte Yurcich matte painting.









To break the tedium of two months of incessant work on the Mothership miniature, Greg Jein's crew of model builders improvised a series of in-jokes and incorporated them into the detailing of the ship's exterior: R2-D2 and Darth Vader's TIE-fighter from STAR WARS, which was being produced concurrently by Spielberg's friend, George Lucas; a mailbox, a World War II fighter plane signifying Spielberg's forthcoming war comedy, 1941—THE RISING SUN, and others. Of the numerous gags, only R2-D2 (slightly smaller than a quarter in size) can be detected, upsidedown, in the finished film.

so it didn't look matted over. We ended up putting in all sorts of fog filters and things over the lens to try and fuzz up our animation line so it would look about the same as the live action—not that the live action is fuzzy, but it *is* compared to animation, which would normally be a hard, crisp line. And since the film stock we were using was so slow, it took about a sixteen-second exposure per frame to make a flare on the internegative—which, compared to some of our exposures, wasn't too astronomical. But we shot a massive number of tests with different amounts of diffusion and fog and different colors—just strip after strip of film. Then Doug would go through and pick out what he liked, and Steve would pick out what *he* liked; and then we'd shoot them.

In order to make sure they registered with the live-action footage, we used dip tests. The optical department would shoot a little extra piece of film for us when they did their work; and we could put that in the animation camera, double-expose our little slot over it, and develop it in our dip tank. Then we'd have a black-and-white negative that we could look at to see if our lines registered correctly with the mothership. If they did, we could go. If not—and it would probably be something like a half a thousandth of an inch off—then we'd have to fudge it. But we got it down pretty good after awhile.

We also did a number of other supportive things to enhance the mothership footage. In the first shot, where you see the mothership descending into the base camp, there are little yellow windows which were burned into the miniature monolith, which had no illumination windows at all. We did those on the Oxberry with high-intensity lights because we wanted to have flare. Also, during the musical duel, there were a couple of scenes where Doug wanted the effect of thousands of little bright explosions, which he called "solar explosions," all over the surface of the mothership. For those, we used a high-intensity slide projector light, pointed directly into the camera lens through little holes drilled in thin metal. The holes were .045 inches in diameter, so a lot of the light got cut out; but it was still so bright you couldn't look at it through the camera lens. And again, that internegative stock was so slow that we'd have to go to ninety-second exposures to get the flares we wanted, even on those shots. Doug wanted the explosions to pop and then fade, so we'd pop them on in sixteen frames and fade them off in thirty-two. The exposure would start off at f/22, and then just open up two stops at a time until we were wide open; then we'd have to start doubling the exposure time, way up to about 96 seconds per frame. That's how much light it took.

GREGORY JEIN

The original mothership concept was for an all-black ship. I'd seen blueprints for one they were thinking of building full-size, but that never got past the drawing stage. We did build the second one—actually Michael McMillen did—and that was approximately four feet long. It looked like what you'd get if you took a snow cone holder and cut it right down the center—like half a teepee—and then put a hemisphere on the bottom of it. We actually built that and painted it black, but Steven changed his mind about it and developed another, more colorful design.

DOUGLAS TRUMBULL

From the start, the mothership was conceived as a big black shape that would come over and just block out the sky and clouds and everything. That's how the scene came to be photographed with huge shadows passing over all the people. But the ship was never really designed well, and nobody could get very excited about it, so it was sort of left to the last. Finally, Steven came up with the idea of trying to make the thing look like a huge oil refinery—that kind of look, you know—like you see down here in El Segundo at night with lights and tubes and plumbing all over them. And I said, "How about if we also make it look sort of like the Manhattan skyline, with tiny lights and windows to sell the idea that it's a city of light—a city floating in space." Steven liked that, so we came up with a rough design which included this curved underbelly I had sort of settled on, with the city of light built on top of it like a big cake. Then we brought in Ralph McQuarrie, who did a whole bunch of drawings of it in different configurations, and from that we built the miniature.

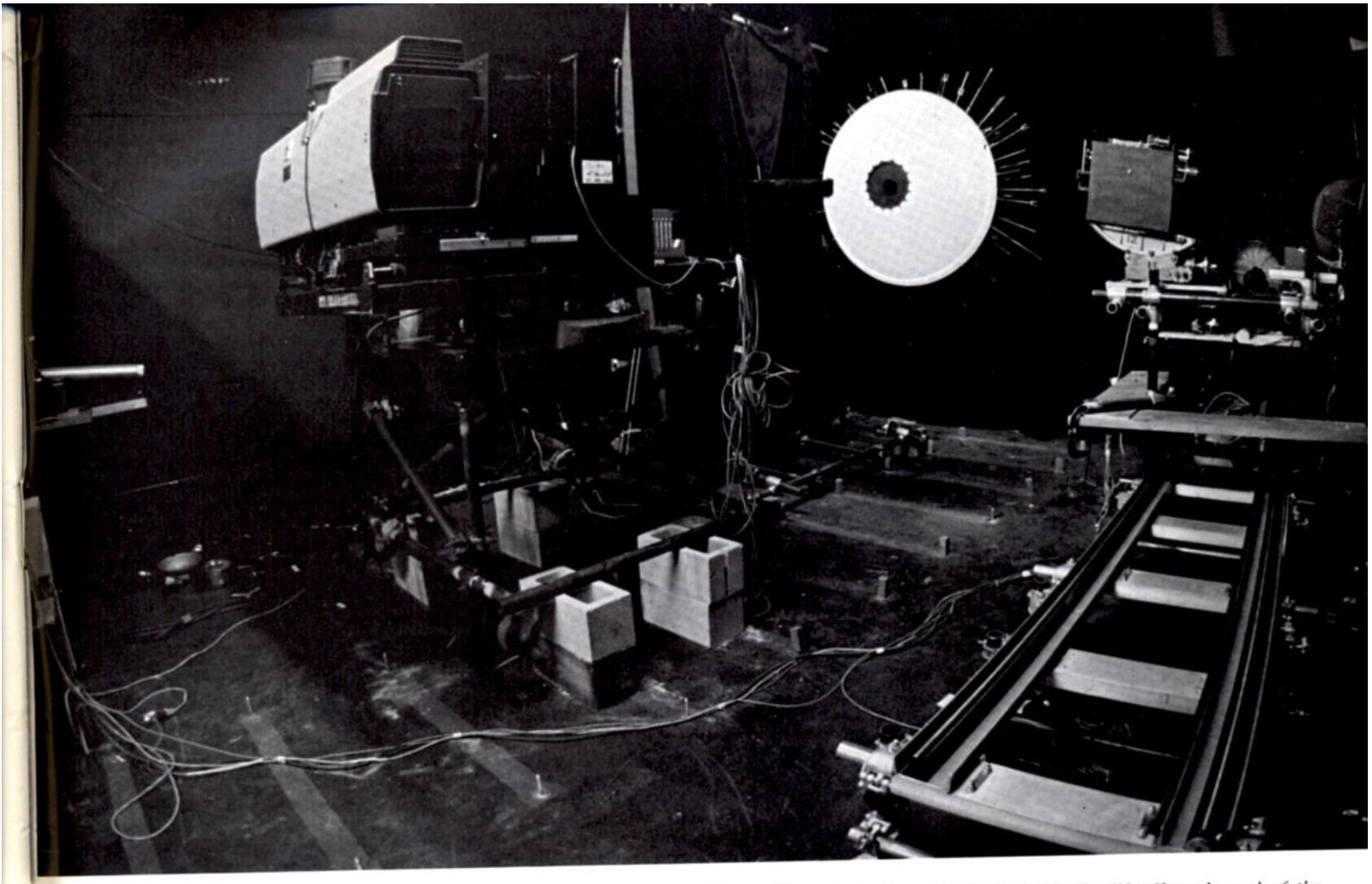
GREGORY JEIN

There were no hard drawings on the ship. We just worked primarily from the Ralph McQuarrie painting. The underbelly had already been built by Jim Dow and Ken Swenson. It was made out of blown plexiglass and reinforced with wood and steel piping so it could be mounted on a gimbal rig. So we used that as a starting point and proportioned the mothership up from there. The main platform on top of the ship I sculpted in quadrants out of clay and fiberglass. There were not very many symmetrical parts to the ship—there was no repeating pattern and every section was different from the other. In fact, it got so complicated that we began coding everything like the different boroughs in New York—this was the Manhattan area; this was Staten Island. It made life a lot easier. The large cylindrical structures were made out of aluminum tubes in various diameters with plastic caps on them. Lots of the arms were made out of commercially available telescoping brass rods with various shapes attached.

ROBERT SHEPHERD

We didn't want it to look *exactly* like a city, even though it was conceptualized to be a flying city of some size; but we *did* want it to have millions and millions of tiny light sources that could be taken for windows. It already *had* hundreds of light sources, but millions was another matter. We experimented and fiddled around for a long time and finally decided to do it by having special neon bulbs built to fit inside the aluminum tubes on the surface of the mothership, which would then feed into the base to the control area. Each one was like a little sign unto itself, with its own transformer and everything.

But in order to let the light out, we set up two drill presses and just started drilling tiny little holes into those aluminum tubes



—not randomly, but in horizontal and vertical patterns so the tubes would look like giant architectural structures. Just thousands and thousands of these little holes. Then we'd polish the inside of the tube, put in different colored filters, and paint the outside black. Hour after hour, week after week, we'd have people in there drilling those holes. *Everybody* had a hand in it, and it was great—sort of like knitting. After using your brain a lot for a long time, it was kind of fun to go and do something that took all your energy, but was really simple. Even Steven got into drilling those holes. He was interested in what these things would look like and how the little lights were laid out on each one, and he'd be in there drilling with the rest of us—he loved it. He also made certain that some of *his* were judiciously placed on the ship so they'd be sure to get photographed.

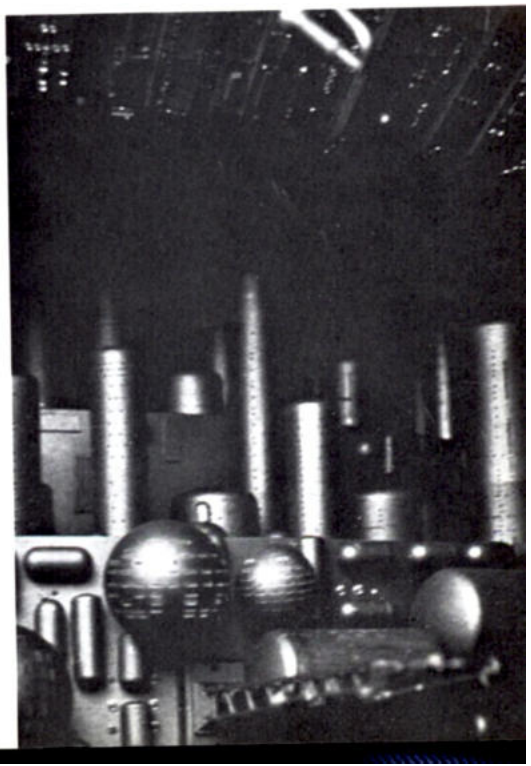
GREGORY JEIN

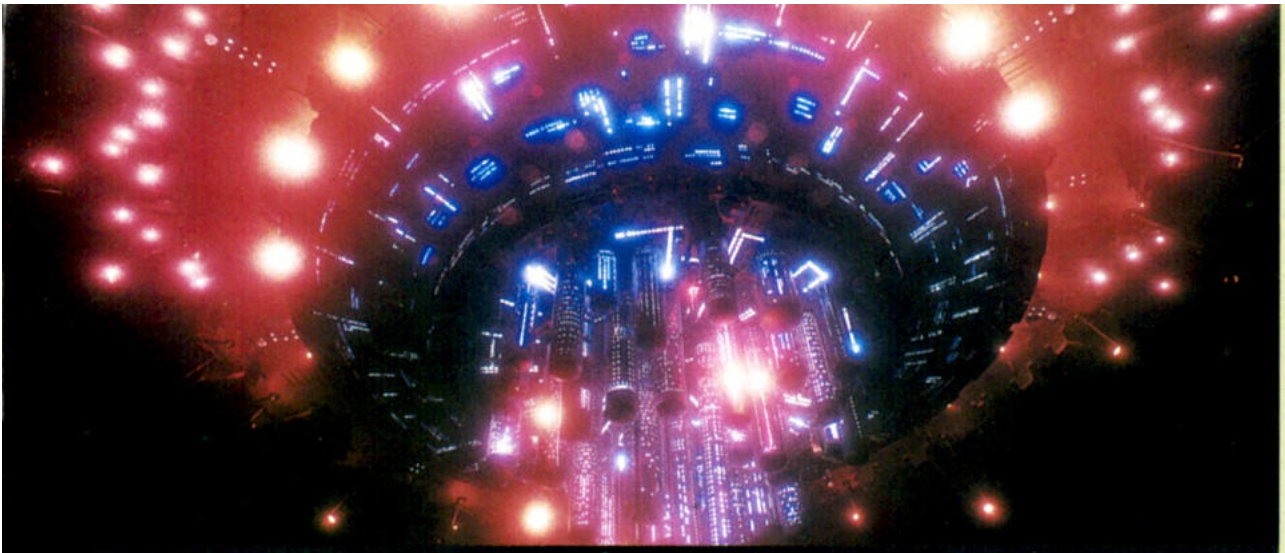
Larry Albright, the neon wizard, and Peter Anderson did just a helluva job hooking it all up. There were just thousands and thousands of wires and fiber optic bits and grain-of-wheat bulbs and grain-of-rice. It was a real plumber's nightmare, but they did a great job. There were very few blowouts throughout the whole shooting process.

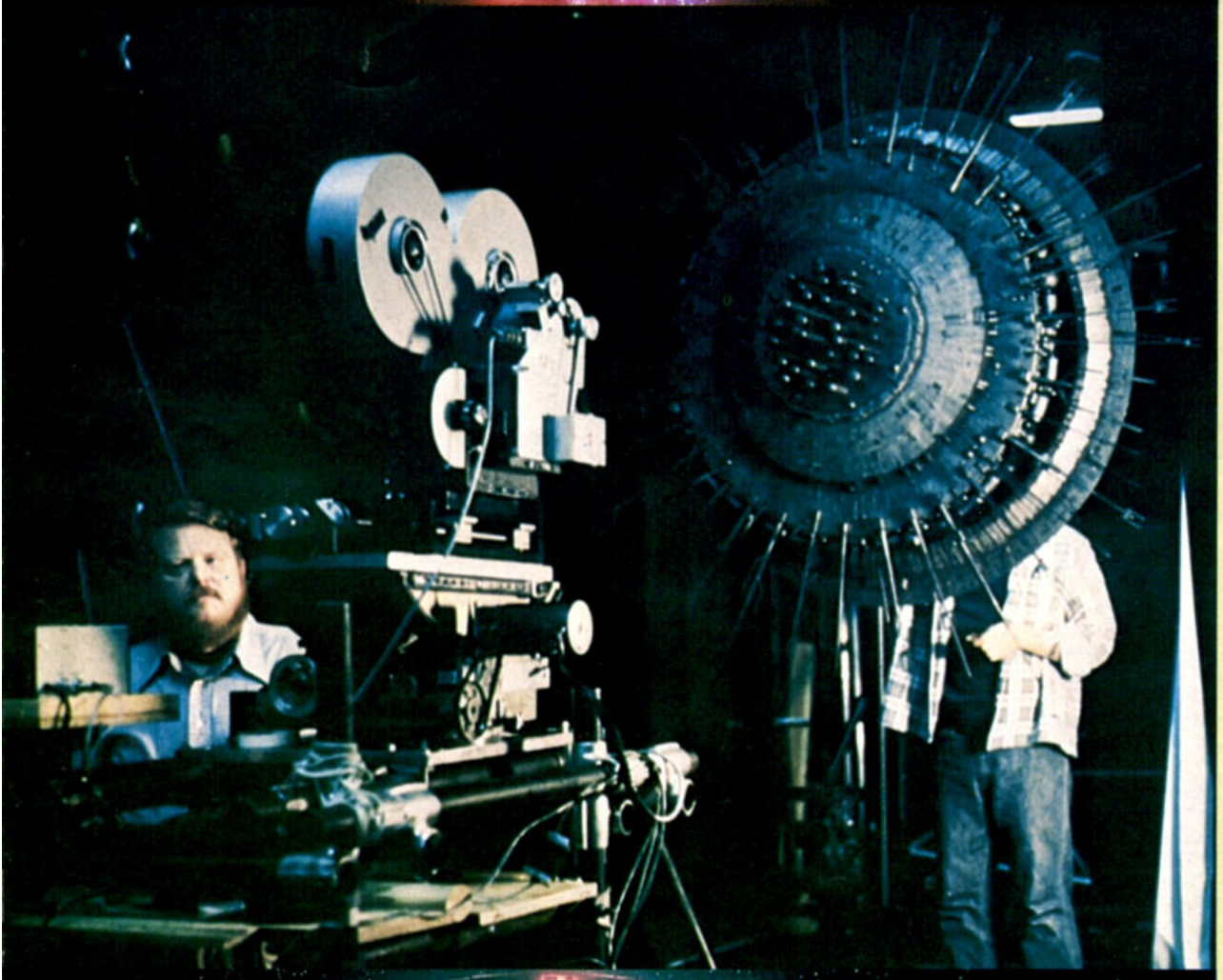
Then we just detailed it up. It's kind of traditional to use plastic model parts, but I've been trying to get away from that because there's an ever-increasing chance that people will recognize what those parts are, and it'll take away from the believability of it all. We did use a few, though. We bought six of the Cousteau *Calypso* kits and took parts of their diving bell as more or less antenna-like pieces to put on the surface of the ship structures, just to break up the cylinder shapes. The only other things we bought were tons of model railroad track couplers, just to give some detail to the bottom of the dome. But most of the detailing was all hand-fabricated from sheet plastic and metal rods and things like that.

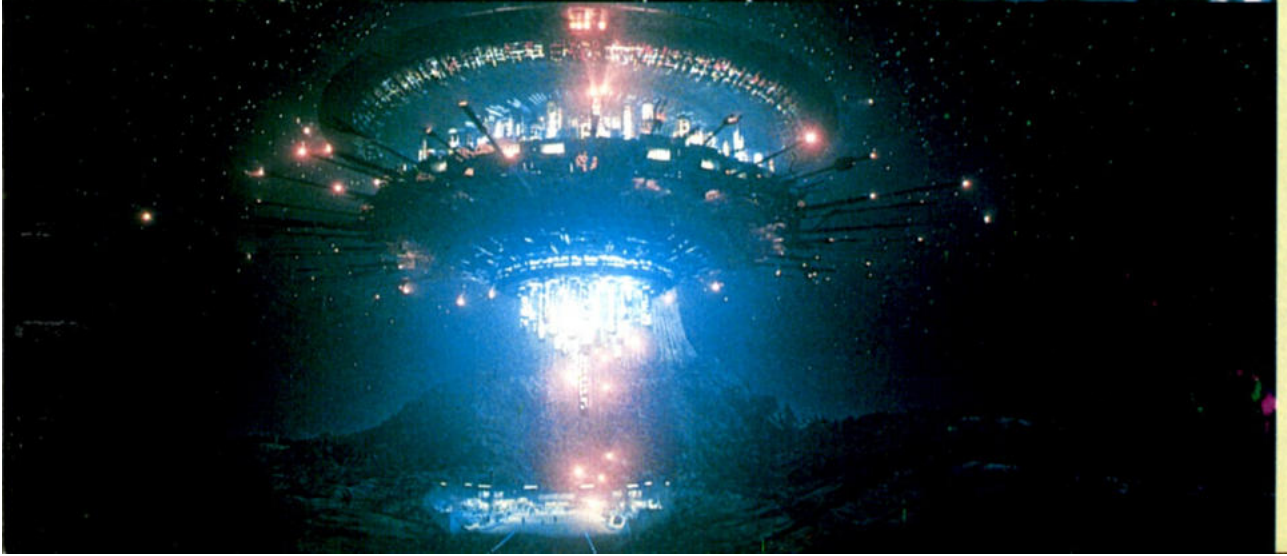
We were given a five-week schedule to complete the mothership, and we went over it by three and a half weeks—and that's with people working six or seven days a week, twelve hours a day. To break up the routine, we started putting on funny gags. Dave Jones, one of the model makers, made a little R2D2 from STAR WARS and stuck it in back of some tubes. When Doug saw it, he said, "That's a good gag; let's put it up front." So I made another one, with a little fiber optic in its head, and stuck it in front of a bank of lights. And you can see it in the film. It's right when the mothership first appears in closeup behind the mountain. Melinda Dillon turns around and says, "Oh, my God!," and there're four lights in a row and R2's standing upside-down in front of one of them with this little red light in his head. We had lots of other gags, but that's the only one that shows. We had a shark chasing a little frogman—two of them, actually. There's a Volkswagen bus stuck on it; some World War II fighter planes—and there's a TIE fighter built around a light on one of the arms. There's a miniature graveyard on one of the levels of the ship, with crosses and everything; and there's some people hanging off various rods. And in some of the win-

Above: Shooting the lift-off at the end of the film proved to be the most difficult and time-consuming shot in the Mothership sequence. The 8x10 transparancy front projection system (left) projected the moire patterns on the underbelly of the actual Mothership model, while the motorized mini-scan camera (right), on a length of horizontal track, recorded the ship's movement. Below: A closeup of the Mothership's plastic-capped metal cylinders without interior lighting, showing the detail of drilled-hole patterns. Everyone got into the drilling act at Future General, even director Steven Spielberg.







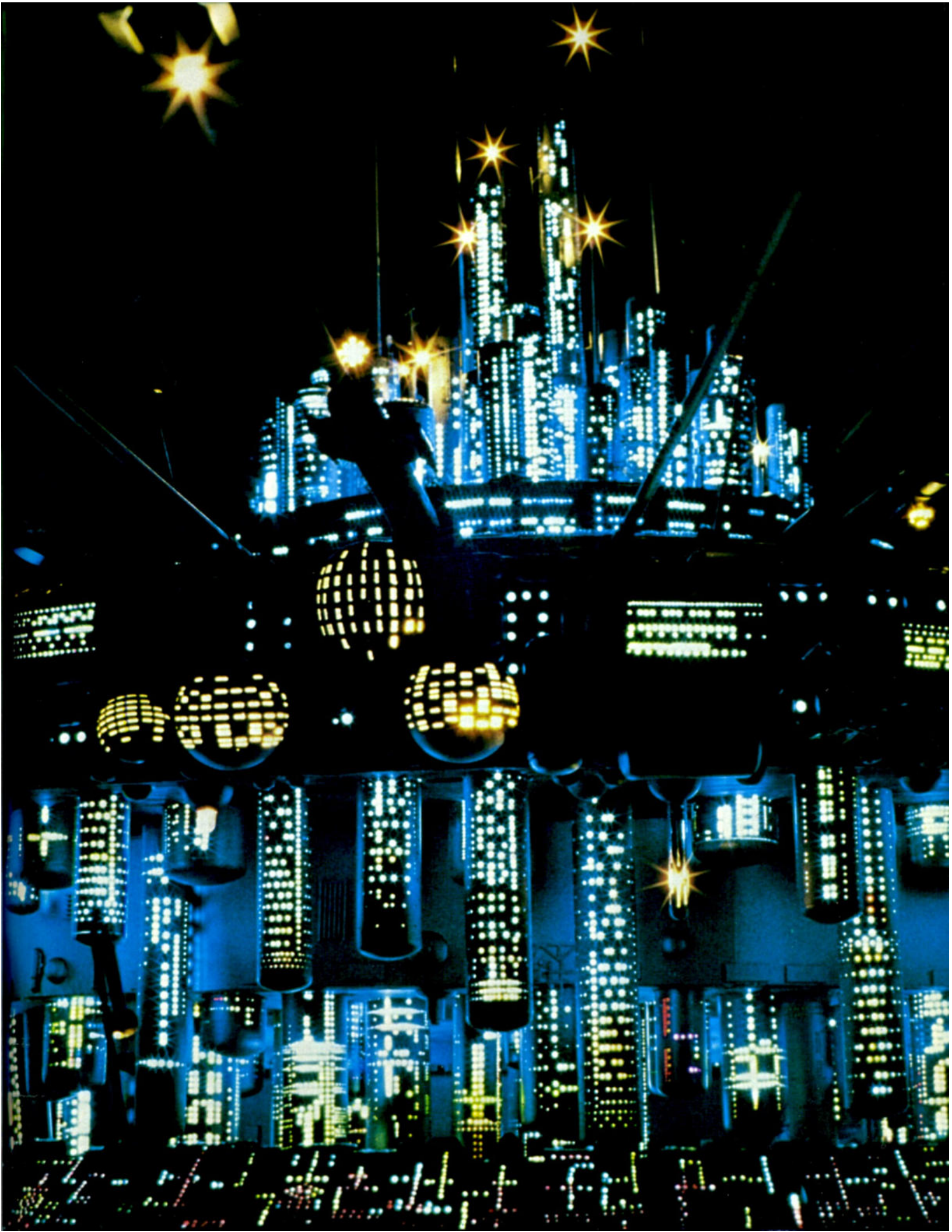


The Mother·ship

"We set up two drill presses and just started drilling tiny little holes into those aluminum tubes—not randomly, but in horizontal and vertical patterns so the tubes would look like giant architectural structures. Hour after hour, week after week, we'd have people in there drilling those holes. Everybody had a hand in it, and it was great—sort of like knitting."

—Robert Shepherd

Right: Full-shot of the top of the mothership. Chief model maker Greg Jein supervised the construction of the ship out of blown plexiglass, working only from Ralph McQuarrie's concept painting (see page 85). The main platform of the ship (lower half as shown) was first sculpted by Jein out of clay and fiberglass. Added to the platform were the drilled cylindrical tubes with plastic caps, metal rods, and arms made out of commercially available telescoping brass rods. Top Left: The mothership, as it begins to turn over and descend on the Devil's Tower base camp. Note the difference in lighting effect achieved by photographing the miniature in a light diffusing smoke enviornment. Middle Left: UFO photographer Dave Stewart (left of mini-scan camera) visits the mothership smoke room shooting stage. Greg Jein (behind model) adds final detailing to the mothership underbelly, using model railroad track couplings, in final preparation for shooting by mothership photographer Dennis Muren. Bottom Left: Long shot of the mothership hovering over Devil's Tower. Composite effects such as this were achieved on intermediate film, exposing fine grain positives of the various elements onto an internegative stock. Each element, as many as fifteen for some shots, had to be meticulously tested for color and density to assure compatibility when exposed on the final internegative. This system obviated the necessity of generating color separations to color balance each element, and resulted in some of the finest composite effects and matte work ever put on film.



Future General gave Spielberg only seventy percent of what he wanted—but about fifty percent more than he ever thought possible.

dows in the round globes, we had Mickey Mouse and some other strange, recognizable silhouettes.

DENNIS MUREN

After I finished the underbelly shooting, I came down with pneumonia—probably just from overwork and everything—and I took off for about five weeks until I recovered. By that time, they had finished building the full-size mothership model, which was about six feet tall and weighed a couple hundred pounds. Most of the shots we had were looking up at the ship, but since we didn't want to have to dangle the model from some sort of overhead track, Bob Shepherd designed an elaborate pipe frame rig to support the thing on its side. That way, we wouldn't be fighting gravity and all we had to do was put the camera on its side, too, to make the model look upright. The support rig held the model out at the end of a two-foot length of pipe which locked into a hole they drilled into the underbelly. The model wasn't designed to be mounted that way, but fortunately there was enough bracing in there to take the pipe. Everyone was concerned that the model might not be strong enough and would fall apart—but, fortunately, that didn't happen. The support rig, of course, was counterbalanced so the whole thing wouldn't fall over, and the pipe ran into a motorized rotator so we could turn the model as we moved our camera past it. For the shot where the mothership turns over before landing, Doug worked out a way for the model to flip over while still mounted on its side. He was amazing that way. We'd give him a problem, and he'd sit down and think about it and do little sketches, and in about twenty minutes he'd come up with exactly how to get the shot we needed.

We didn't have the sophisticated motion tracking system for the mothership—that was being used for the UFOs that Dave Stewart was shooting. Instead, we had a piece of equipment called the mini-scan that had been built for Doug about five or six years before. It was one of the first motor drive speed regulators built with a timer in it, but all it could do was run four motors in interlock with each other and with a camera. It couldn't vary speeds or anything like that, so everything could only move in straight lines and there were only four possibilities of motion. And it wasn't like the new motion control systems where the motors run constantly so you'll have blurring effects. This stuff was basically stop-action. All the movements were made while the shutter was closed and the film advancing. There was no joystick; the program was all done mathematically. We were working to very specific cuts—I mean, we'd have like a 242-frame shot—exactly. Then, either with Doug or on our own, we'd find a start point and a stop point and we'd work out the number of pulses that we'd have to give the motors, through the mini-scan system, to make the camera track that far and to make the model rotate whatever we thought was necessary. If the camera had to move 203 inches on the track, and if twenty pulses would move the camera a quarter of an inch, for instance, you could figure out from that just how many pulses it would take to run the full 203 inches. Then, all the mini-scan did was tell it to move whatever it took to fill a 242-frame shot. Scott worked all those out.

However, as a result of this sort of primitive equipment and the fact that we could not vary the speed, there *are* some inconsistencies in the sequence—if anyone cares to notice. For example, you never see the mothership stop rotating when it turns over. It's rotating as it comes toward you; but then, all of a sudden, you see it turned over and it's stopped rotating. There was just no way to slow it to a stop. We did manage to do it, though—by hand—for the shot when the mothership starts to lift off and you see it slowly begin to rotate. We literally shot that one frame at a time by physically advancing the number of pulses on the mini-scan between each frame—from one right on up. We didn't tell anybody we were doing it, and when the shot came up in the dailies, Doug said: "Great! It's starting to rotate!" It was totally unexpected.

Since we had to shoot the full-size mothership stuff in a smoke environment, they built us a little compartment, which was pretty much sealed off, where we could sit with the mini-scan system and all the transformers to run the neon and regulate what was going on inside. We'd set up the shot, and maybe run it once to make sure the timings were right. Then we'd seal up all the windows and cracks with tape and start pumping smoke into the room by hand. It would take us about ten minutes to fill the room with smoke, and then we'd start the thing running. Once it started running, it ran itself; but we had to continuously monitor the smoke levels about every three minutes. Which was okay, but some of the shots lasted for like eight or nine hours. We had a little light, across the room and out of camera range, and we had a light meter inside the compartment that we would use like a spot meter to keep track of the smoke density. We tried to keep it to within a sixth to a third of a stop at all times, and we hand-regulated the amount of smoke in the room through a crazy lever contraption that ran to the smoke unit.

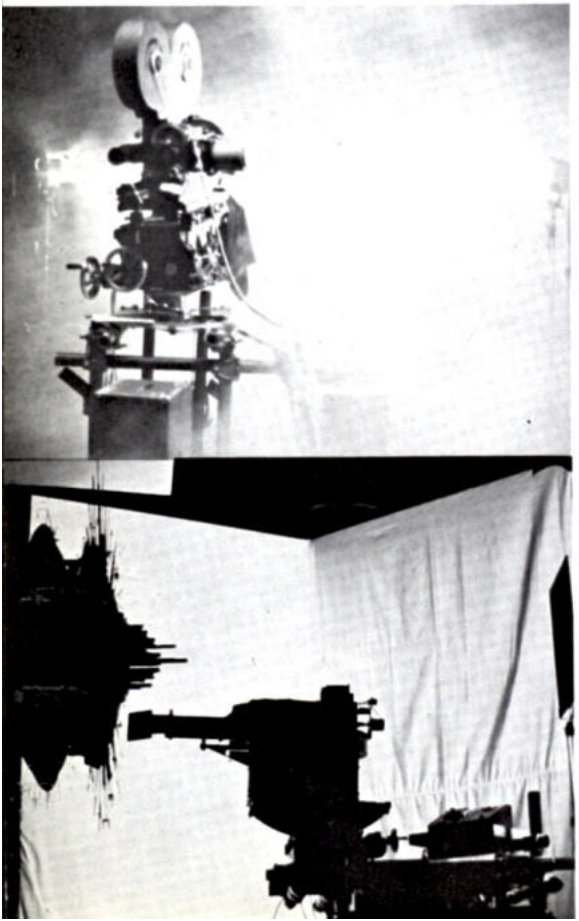
Everything in the room got covered with oil—the model, the camera, everything—but it didn't seem to hurt. The only thing we worried about was the fact that we were pumping about 160,000 volts into that model and we were shooting in a flammable smoke-filled environment. If one of those wires had broken and a spark had been created, it might have ignited the room and that would have been the end of us.

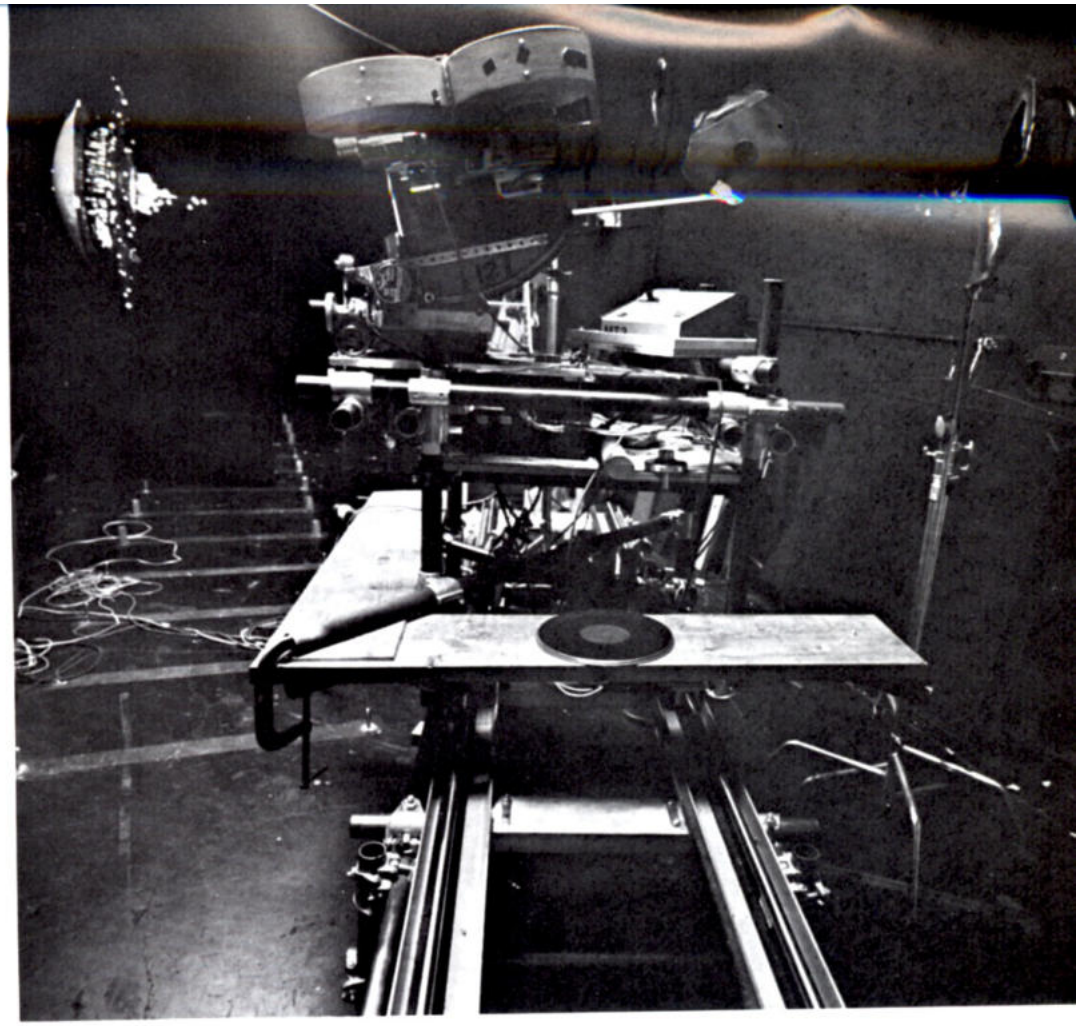
After we'd shot one or two frames, one of us—usually Scott—would put on a gas mask and go inside to check everything to make sure it was actually moving. The exposures were normally twenty to forty seconds per frame—eighty seconds sometimes—but they were so slow and the movements were so small that from the compartment you couldn't always tell if everything was working. So Scott would go into the smoke with a little penlight and make sure that everything was advancing a fiftieth of an inch, or whatever it was supposed to be. And then we might go in again, three or four hours later, to make sure everything was *still* moving; because if something broke down you wouldn't necessarily know, and the mini-scan tended to have its problems at times. For that reason, we tried to get by with two or three motors, so if one of them broke down we could use another while we were waiting for the guy to come and fix it, which could be two or three days.

Fortunately, the interior lighting of the mothership was quite uniform, and we were able to shoot it with just a single exposure. There were only one or two shots we double-exposed, and that was for depth of field. It was just faster to be able to shoot with a wide f-stop and change focus by selectively turning on half the lights within the ship and shooting it focused on that area; and then going back, turning on the other lights, refocusing, and shooting again. Otherwise, we would have had to stop down an extra five stops to carry focus between the two planes, and it would have taken us two days to shoot instead of three hours. What you got, though, by doing that, was an interesting sort of transparent effect on the edges of some of the things.

The hardest shot we had to do was the long lift-off shot, because we had to show the entire mothership at the base camp, including the lights on the underbelly. We had the camera on its side, tracking away from it, to make the mothership look like it was going up in the air. And we actually projected the moire patterns onto the underbelly of the full-size mothership model—that was the only shot where we did that.

Top: Shooting in the "smoke" room, actually a fog of suspended-air oil droplets. Bottom: White sheets and silhouette lighting were used to shoot high-contrast mattes of the Mothership. The snorkel lens is mounted on the mini-scan camera for close-in work.





For the final scene in the picture, the Mothership had to appear small in the frame. Since the shooting room was not sufficiently large for the miniscan camera to get far enough away, and since they wished to avoid image degradation from optical reduction, the camera (mounted on its side, middle) shot the image of the Mothership (left) as reflected in a concave mirror (right).

So it took just *forever* to shoot because we had the blue lights and the little white lights—and the very bright yellow lights, which all of a sudden, just iris down and disappear. That was a real killer shot.

Another thing that was really tough was shooting the mattes. After each shot we'd have to put a big sheet up behind the model and shoot a silhouette. Well, usually, if you're shooting mattes, you have enough space to be able to put up your white background and keep the light off the foreground object. But in this case, our room was so small, and we were shooting with such wide-angle lenses, that the matte sheet was only about twelve inches behind the model. We had to light the sheet evenly and relatively shadow-free, but we couldn't put any light on the model because that would destroy the matte and you'd end up seeing right through the ship at that point. That was some of the hardest stuff, technically, I've had to do.

Originally, the film was supposed to end with the shots Jillian was taking with her little camera. But Steven liked the look of the mothership and decided to put *it* over the end titles. So here I thought the show was over, and the next thing I know, we have another four to six weeks of work to do. I was really exhausted and I needed a break, but it was a chance for me to get in and do some more stuff, sort of on my own. We did some different things. We did shots with the model in an upright position; and we did some close passes on it with a little snorkel lens. It was about twenty-five inches long—totally jerry-rigged—and sometimes we put a little mirror on the end of it so we could get even closer. The camera itself was enormous, but with the snorkel we could pass right through the spokes and things and just scrape over the surface of the model without having to worry about the magazine hitting.

SCOTT SQUIRES

For the last scene in the movie—the final shot in the end title sequence—we had to show the mothership very small in the frame. We didn't want to go through opticals because that would have deteriorated the image. But since the mothership was quite large and the room was relatively small, that proved to be a difficult shot—we couldn't get the camera far enough away. We thought about using a large mirror and moving the camera completely out of the room and down the hallway; but that, too, would have been difficult. So I finally came up with the idea of using a concave mirror. We put the model on one side of the room and the mirror on the other, and then just photographed the reflection of the mothership off the surface of the concave mirror to get it that small.

Dave Stewart and Dennis Muren finished in their respective smoke rooms almost simultaneously, but the animation and optical departments were still swamped with last-minute details as final elements came in for compositing and star backgrounds. The Oxberry animation stand and its homemade alter ego were both being worked on 24-hour shifts. And when the optical workload became too much for one man to handle, Ron Peterson was borrowed from Universal and Bill Hughes from M-G-M, to take up the slack.

RICHARD YURICICH

We worked on just about *every* shot in the film at one time. *Lots* of held takes. All the reduction interpositives from the live-action shooting were done very early on, knowing that we'd probably have to take ten percent of what we'd done and re-do it. But it was just nice to know that *all* the reduction interpositives for *all* the elements were done. Then we tried to get all the original photography of the miniatures and spaceships and so on, and get their interpositives made and portions of their mattes made. And we'd just build elements that way toward the final result.

Oftentimes, we'd shoot for three months without getting anything at all—but there might be thirty shots in progress. We had some shots that took four months to complete—three-fifths of the shot would have been made in May; another fifth a couple of months later; and the final pass a month after that. Then it would have to go down the street to the Oxberry for a final pass on the stars. So, if you were to plot a curve based on our finished takes, you'd see that toward the end we were very fruitful—*lots* of shots coming through. But we'd been working on them all along; and that, of course, was the way we planned it.

By the time the effects unit wrapped in August, more than a year and a half had passed since Future General entered into the project. Their achievements had been prodigious.

But no one at Future General seemed unduly surprised when the Academy Award for best visual effects went to STAR WARS. Disappointed—maybe even a little bitter—but not surprised. After all, one could do worse than lose to STAR WARS. Many had already resigned themselves to the fact that the razzle-dazzle nature of the STAR WARS effects, combined with the overwhelming popularity of the film itself, would significantly reduce CLOSE ENCOUNTERS' chances of winning, even though the voting was being done by their peers in the business.

The consensus was that much of their work was so subtly and flawlessly accomplished that even many of the experts in the field didn't know they were looking at special effects. One cameraman suggested they should have left a few matte lines in. Others spoke of circulating a print with subtitles clearly pointing out each effects shot in the picture. But despite the Academy's decision, there were no deflated egos around Future General—they knew their challenge had been greater and their work more exacting.

For them, there was reward enough in Steven Spielberg's public pronouncement that Future General had given him only seventy percent of what he wanted—but about fifty percent more than he ever thought possible. □