



# RAY HARRYHAUSEN'S

**Producer Charles H. Schneer, writer Beverly Cross and effects grandmaster Ray Harryhausen preview their new stop motion fantasy.**

**by Dan Scapperotti**

I got a peek at *CLASH OF THE TITANS* in July and felt as excited as a kid at Christmas. More excited because Christmas comes every December, but a Ray Harryhausen fantasy film is as infrequent as leap year. The occasion was a meeting of merchandisers gathered by producer Charles H. Schneer to view 15 minutes of the work in progress, inspiration for his troops who will go forth to sell Greek mythology as if it were last season's space craze.

I was already a convert, having been hooked on Harryhausen at the age of 12 when I first saw *THE 7TH VOYAGE OF SINBAD* (1958) and couldn't believe my eyes. I still can't believe my eyes. Even though I now know in great detail how

Harryhausen works his cinematic sleight-of-hand, when I viewed brief clips of his effects for *CLASH OF THE TITANS* I still watched them with the wide-eyed wonder of a child. That's Harryhausen's gift, like Walt Disney's, to make the magic of fantasy accessible even to adult sensibilities. It works because Harryhausen's Dynarama technique, his brand name for stop motion animation, puts fantasy in a real context and makes it easy for us to suspend our disbelief.

When MGM releases *CLASH OF THE TITANS* next June, in over 1,000 theaters nationwide, we can all be kids again for an afternoon. But that's a long time to wait, and to make it easier we're going to give Harryhausen's impatient fans a peek at what the







# CLASH OF THE TITANS

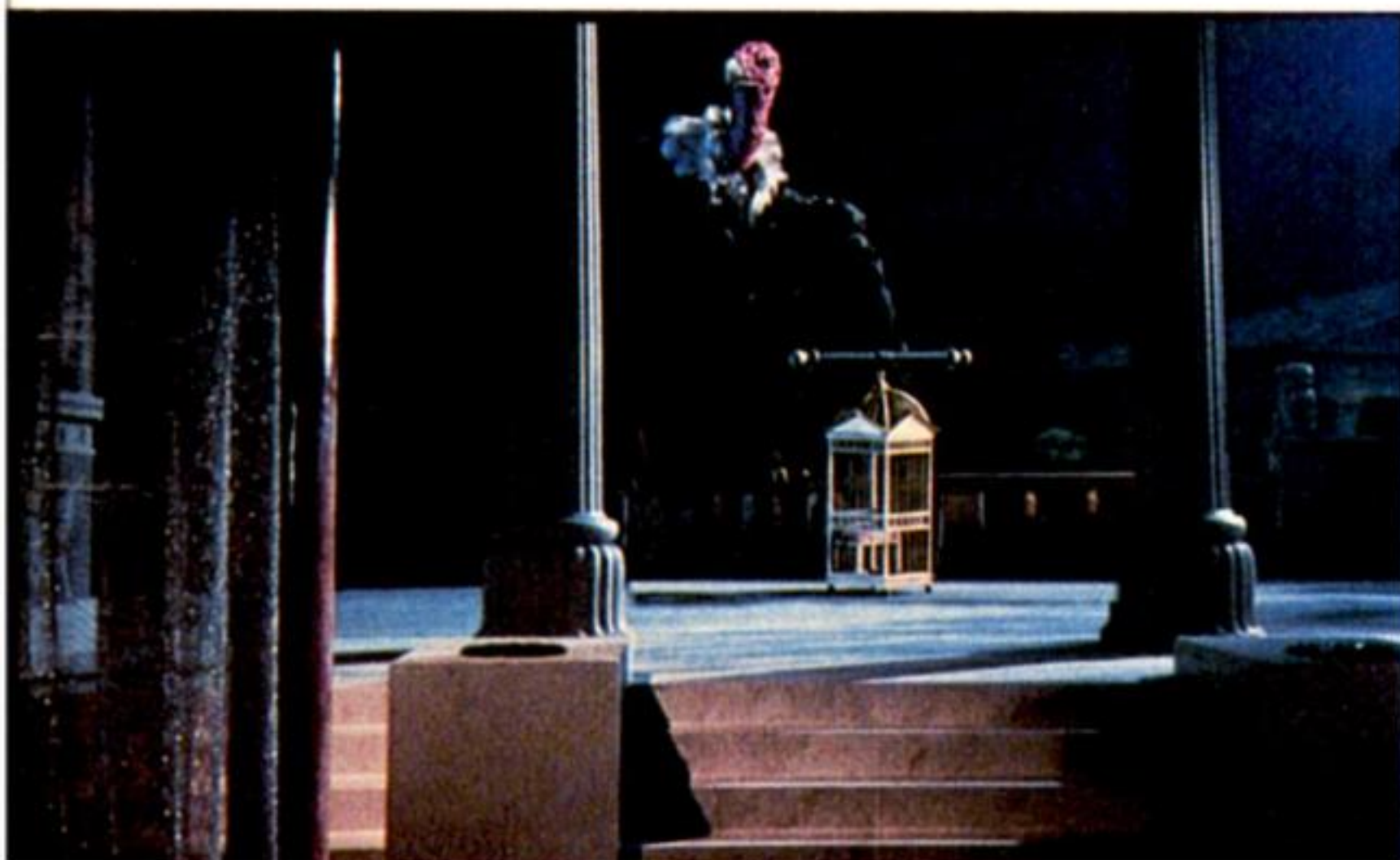
master of stop motion animation has in store. We pumped this information out of producer Charles H. Schneer, screenwriter Beverly Cross, and even the super-secret Harryhausen himself, who admonished us for prying, like a stern father who caught his kid peeking at presents hidden away. "It'll spoil it for you," he scolded. Ah yes, but how we love to be spoiled!

"We began to think about CLASH OF THE TITANS and to develop it in 1975," producer Charles H. Schneer told us at the screening. "We've been working on this film for *five years!*" Schneer has produced 12 of Harryhausen's films, a collaboration that dates back to 1955, and is rare among film producers in that he's willing to make the

extra investment of time and energy that it takes to marshall a stop motion project to the screen. The development work began as Schneer and Harryhausen were filming *SINBAD AND THE EYE OF THE TIGER* for Columbia Pictures, though it wasn't announced, first as *PERSEUS AND THE GORGON'S HEAD*, until shortly after that film's release in 1977. But the genesis of the project goes back even much further than that.

"I had the idea for CLASH OF THE TITANS in 1969," said screenwriter Beverly Cross, "while I was living in Greece, on an island called Skiathos. It's very close to Seriphos, the island where legend has it that Perseus, the son of Zeus, was washed ashore

Clockwise from Above Left: Ray Harryhausen discusses the clay prototype of the animation model of Medusa with sculptor Janet Stevens. Above: The Kraken rises from the sea to claim Andromeda as a human sacrifice. This lighting test employs a painted, plaster prototype of the Kraken animation model to determine how it will photograph. Below: Harryhausen's preproduction design of the sequence, painted by Cathy Hill from his sketch. Middle Right: The giant Vulture which carries Andromeda in a gilded cage to its evil master, Calibos. The cage and balustrade on which the model is perched are miniatures matched to the live action background plate. Middle Left: The Forest Scorpions attack one of Perseus' men. During live action photography the actor is choreographed to defend himself from the imaginary adversaries. Harryhausen animates the scorpions, models about a foot in length, during postproduction, matching their movements to the rear screen image of the live actor. Bottom Left: Medusa, the Gorgon, next to one of her petrified victims, glares at Perseus and his men.





## After toiling in the backwater of low and moderately budgeted pictures for more than 25 years, Schneer and Harryhausen have finally hit the all-star, big-budget "big time."

in a trunk."

I spoke with Cross while he was staying in Stratford, Ontario, where his wife, actress Maggie Smith, was appearing in a Shakespeare festival. Cross is an Oxford scholar of history ("the more remote, the better") who sort of fell into screenwriting when chance landed him a job at Columbia Pictures as an assistant to director David Lean and scenarist Robert Bolt on *LAWRENCE OF ARABIA*. At the time, Schneer and Harryhausen were at Columbia preparing *JASON AND THE ARGONAUTS* (1963), and Schneer hired Cross to do the screenplay, his first. "I've been more or less with him ever since," Cross said. Cross wrote more historical spectacles for Columbia, *THE LONG SHIPS* (1964), *GENGHIS KHAN* (1965), and a musical for Paramount, *HALF A SIXPENCE* (1968) one of producer Schneer's few non-Harryhausen films.

After Cross scripted the Perseus legend in 1969, he naturally pitched it to Schneer and Harryhausen. "But they wanted to do another Sinbad film," explained Cross, "because Sinbad's boxoffice is almost foolproof." *THE GOLDEN VOYAGE OF SINBAD* (1974) was the result, written by Brian Clemens ("I was associated with that one," said Cross "although I didn't get a screen credit.") When Schneer approached Cross to write yet another sequel, *SINBAD AND THE EYE OF THE TIGER* (1977), Cross agreed but won Schneer's commitment to develop *CLASH OF THE TITANS* as part of the deal. "I had an ally in Ray all the time," Cross confided. "Ray has always been interested in Greek mythology, and I think some of his best effects ever were in his handling of *JASON AND THE ARGONAUTS*."

Schneer got Britain's National Film Development Fund to put up the seed money, and Cross and Harryhausen began

their preproduction work. "We each work in separate corners," said Cross, "then when I've done the script and he's done the sketches, we get together and work out a kind of compromise between the two." In addition to the sketches which defined the look of the film, Harryhausen sculpted a bronze of Perseus strangling Medusa, the dreaded Gorgon, to add a bit of drama to the budget presentation.

Cross was acutely aware of casting limitations on previous Harryhausen films, and argued for something better from the very beginning. "I'd spent ten years on this project. It seemed silly to just throw it away," he said. I took the script to Lawrence Olivier [*Zeus, King of the Gods*]; I gave it to my wife [Maggie Smith, as *Thetis, God of the Sea*] and took it to Claire Bloom [*Hera, Queen of the Gods*]. Once I got those three to say yes, the rest just trouped in. You couldn't keep them out." The rest included Burgess Meredith as Ammon, the itinerant actor, playwright and wise old sage who advises Perseus; Ursula Andress as Aphrodite, the Goddess of Love; Sian Phillips as Cassiopeia, the mother of Andromeda whose beauty is beyond compare; and Harry Hamlin and Judi Bowker as Perseus and Andromeda.

Schneer pitched this impressive package to Columbia Pictures, budgeted in the neighborhood of \$15 million. The studio had financed all of Schneer's Harryhausen pictures with the exception of *VALLEY OF GWANGI* (1969), but turned thumbs down on this one because of its high cost. *SINBAD AND THE EYE OF THE TIGER*, their previous and most successful film for Columbia, had returned only \$8 million in rentals, according to a studio source. Schneer turned around and offered the package to MGM who took very little time in accepting it. Infused with profits from their Grand Hotel operation, MGM was gearing up film production in a big way and making plans to return to distribution as well. *CLASH OF THE TITANS* was just the kind of impressive, big-budget picture they were seeking to add to their roster of films. After 25 years of toiling in the backwater of low and moderately budgeted pictures, Schneer and Harryhausen had finally hit the all-star, big-budget "big time."

"I don't like to think about it," said Harryhausen, when reminded of the budget, MGM's grandiose merchandising and marketing strategies, and all the responsibilities that go along with doing a big, important film. "You want to give me a complex?" he



**Filming the dreaded Kraken** Special makeup artist Colin Arthur, outfitted in scuba gear, helps position a Kraken suit for live action filming in Malta. Arthur, who has worked for Harryhausen on both of the previous Sinbad pictures, sculpted and built the 20-foot suit from a bust modeled by Harryhausen before production started. Left: Sculptor Janet Stevens and the three-foot clay prototype of the Kraken animation model, made from the same design.

laughed. "One does the job the best they can." His job includes being put on the spot and told, "Amaze us." Working with talent of the caliber of Laurence Olivier for the first time, Harryhausen is keenly aware that more eyes than ever before will be focused on his special visual effects, and all the big-budget hoopla can only lead audiences to expect them to be *very* special indeed. After all, the nearest Ray ever got to working with a star before was when Schneer hired the son of John Wayne and the daughter of Tyrone Power for their last film. Now there is talk of a show of Harryhausen's art and sculpture at New York's prestigious Museum of Modern Art to coincide with the release of *CLASH OF THE TITANS* and speculation that he will finally cop a long overdue Oscar







for his effects from Hollywood's Academy of Motion Picture Arts and Sciences.

"I can't run around beating my breast and gnashing my teeth," said Harryhausen about accepting the challenge of high expectations, "because then I couldn't do my work." Under all the pressure, he is still in good spirits, as he spoke from his London home, relaxing on a Sunday afternoon. British publicists for the picture refused to arrange the interview after months of persistent requests because Harryhausen was "too busy." Engaged in the time-consuming, meticulous detail of creating the film's special effects frame by frame, the impression we got was that Harryhausen was working round the clock, sleeping on a cot in his studio! When the interview was finally put

through in August, at the last minute, and by phone, nothing could have been further from the truth.

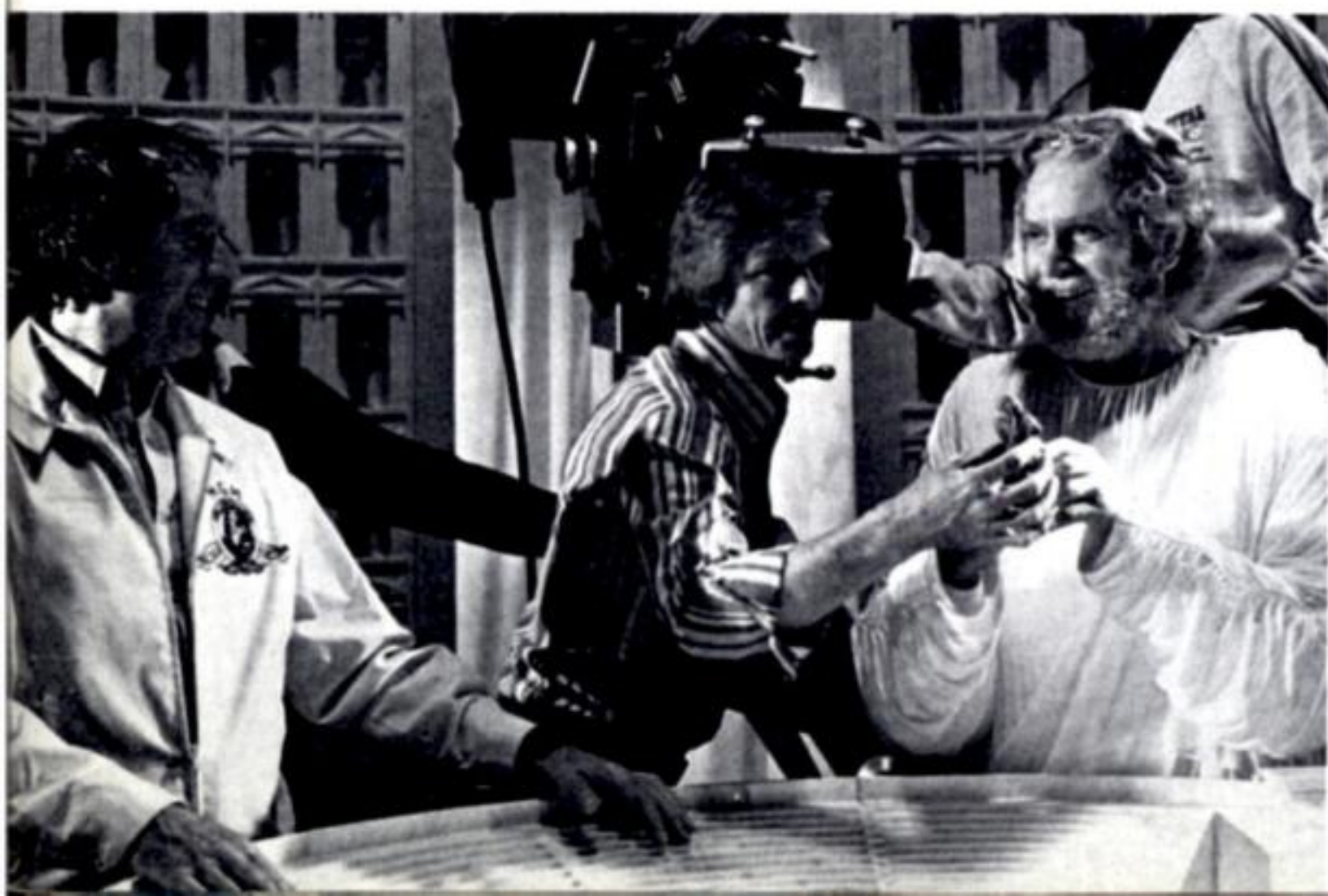
"You can't work too much," said Harryhausen, somewhat amused by this exaggerated picture of his daily routine, "You get sour if you do. You can't be creative if you're some sort of robot that keeps punching frames." But it is obvious in his voice that he is tired as filming nears an end. He has been working on *CLASH OF THE TITANS* since 1977, and has been animating now for almost a year.

Harryhausen has set up shop on the old special effects stage at Pinewood Studios, just northwest of London, where he and Schneer hold a long-term lease on the facilities. He arrives at the studio each day as early

as 7 a.m. to view rushes of the previous day's shooting. "You have to make sure everything's okay before you go on to the next set-up," he explained. His rushes aren't quite the usual thing. The previous day's animation may not amount to more than a few seconds, something you could view just as well by holding up to the light as threading through a projector. But Harryhausen has already cut together each special effects sequence with his editor using the live action footage and background plates. Then, as each animation cut is completed, the final composite is edited into the sequence in place of the background plate that was there. Slowly, day by day, as each animation cut is completed, the sequence comes alive. One day Perseus will be wrestling with thin air; the next he will be grappling with a monstrous cloven-hoofed opponent.

Once Harryhausen gives the footage his seal of approval, the previous day's set-up is struck and work begins on the next one. "The set-ups take longer than the actual animation in many cases," he revealed. "Some shots take as long as three days to set up, some just a day, and some as few as three hours, depending on their complexity." The script for *CLASH OF THE TITANS*, in which Harryhausen has broken down and storyboarded each Dynarama sequence in detail, calls for 244 different animation cuts, requiring 202 separate set-ups to film them. This provides just a rough idea of the magnitude of the work involved.

At its simplest, a set-up consists of 1) the



**Left: Director Desmond Davis (left) and camera operator Mike Roberts show Zeus (Laurence Olivier) how to place the statuette of the Kraken inside the model Greek amphitheatre on Mount Olympus, the symbolic act which unleashes the monster's power on Earth. Far Left: Art director Frank White's preproduction sketch of the Main Square of Joppa and the actual location at Rinella in Malta. The temples will be "top miniatures" matted in by Ray Harryhausen.**









Scene 453. MED. CLOSE SHOT PERSEUS AND GROUP (DYN). As PERSEUS and his men back up the staircase, the WOLF DOG appears in f.g.



Scene 454. UP ANGLE (DYN) PERSEUS AND MEN back up the stairs closely followed by the DIOSKILOS. All disappear behind the column.



Scene. 456. CLOSE SHOT—DIOSKILOS (DYN). As he moves towards the camera.

rear screen onto which a special projector throws the live action background plate footage one frame at a time; 2) the stop motion model, positioned in front of and aligned properly with the rear-screen image; and 3) the camera and lights. Lighting is especially important because Harryhausen must illuminate his models to carefully match the background plate. "Sometimes you have to make color balance tests to be sure the plate is correct and will photograph properly," he said. "You start animating when everything is balanced."

Harryhausen's studio is large and subdivided into sections where various units are working on several set-ups simultaneously. High-speed photography is going on in one section, blue backing for traveling mattes in another. Harryhausen supervises and coordinates it all while doing 90 percent of the hands-on animation himself. "I can't do it all myself," he said with the obvious regret of someone who would like to. That attitude befits the Harryhausen legend which has mushroomed over the years—spawned by his own super-secrecy—that he works craftsmanlike, all by himself, the Greta Garbo of special effects. "That's basically true," he laughed. "That's what's happened on many of the pictures. For *THE GOLDEN VOYAGE OF SINBAD* I had a very small studio. I don't think it was more than 12 feet wide. I did the whole picture in there practically by myself." But no more. Economics have dictated otherwise. "You have to get things out," he explained. "It's just not practical anymore."

So who's helping Harryhausen? Don't ask. Schneer won't say. "He now has a staff of about six," Schneer told us, "who are doing general effects. Ray couldn't cope with it all on this picture because there's so much. But he supervises everything. It's all done under his approval and control."

Harryhausen is even less informative on the subject. "The names will all be given out when the picture is released," he said. "I can't go into it now because they change constantly."

Will they be credited? "Of course."

Is he training any animators? "I might be."

To take over? "No, we don't think in such direct terms."

As apprentices then? "Yes," he finally admitted. "There's only one." But Harryhausen won't say who.

The work involved in doing the animation can be physically grueling. "You have

to walk for miles," said Harryhausen, referring to the treadmill of going back and forth continually between camera and model for each single frame exposure. The intense concentration required totally saps your energy by the end of the day. "For example," Harryhausen explained, "you can't forget what you're doing for a minute. I'm animating the Medusa at present, and she has 12 snakes in her hair, and when you're interrupted, or when somebody asks you a question, or you have to leave the room for a moment, you will come back and you wonder which snake is going in which direction!"

So why does Harryhausen like to do it? He laughed at the thought. "That is a question I've asked myself many times—I don't know! I guess I was born to do it. It's a compulsion." And it has been, since young Ray was first entranced by *KING KONG* in 1933 at the age of eight. Since then, he's hooked many another on his profession with his own films. "I drop into Ray's studio whenever I'm in England," said screenwriter Beverly Cross. "He is always there, fiddling away with something. His private home is the same. It's covered in these very weird creatures and models and masks and spiders and such. He lives a life entirely different from the average human, I think."

While Cross may not understand Harryhausen's grand obsession with fantasy, he has nevertheless crafted a wondrous script for *CLASH OF THE TITANS*, artfully poetic in its treatment of fantasy and with the strongest story values of any Harryhausen film since *FIRST MEN IN THE MOON* (1964). Cross is aware of the scripting shortcomings of previous Harryhausen films, some of which he wrote himself. "I took over the script for *JASON AND THE ARGONAUTS*, which had already been started by somebody else [Jan Read]. Ray was very positive about which special effects he wanted to do. It was just a question of how we would string them all together in the neatest, most lucid way. But with *CLASH OF THE TITANS* it is the story first, and the effects fit the story."

The basis of the story is Perseus' great love for the beautiful Andromeda, and his quest to bring back the Gorgon's head in order to save her life. "In the original myths everything happens without character motivation," said Cross. "You'll see Perseus flying over Joppa and he suddenly sees this girl chained to a rock. All I've done is make him go get the Gorgon's head because he *knows* she is going to be chained to the rock." If this

## Medusa, the Gorgon

Harryhausen's original concept of Medusa (below) is among the earliest of his preproduction work on *CLASH OF THE TITANS*, dating back to 1977. Even before the script is completed, Harryhausen defines the look of each member of his stop motion cast of characters. The Medusa sequence features what Harryhausen likes to call "mysterioso" lighting, as seen in two shots at left. Medusa, her twelve snakes writhing, slithers into the frame (top) lit by the glowing fire of her temple's sacrificial altar. The flickering fire provides the moody lighting for the rest of the sequence, as Medusa unshoulders her bow and begins to shoot poison arrows at the hiding figures of Perseus and his men (bottom). The Dynarama set-ups shown are relatively simple, involving only the Medusa puppet positioned in front of the rear screen background plate. But Harryhausen's penchant for dramatic lighting makes time-consuming trial-and-error lighting and color balance tests necessary in order to duplicate on the stop motion model the subtle lighting seen in the rear screen plates. Shown inset is a 6" plaster bust of Medusa, sculpted by Harryhausen as a guide for the construction of the final figure, "though a great many changes were made" he says. Medusa's lair in the film is guarded by Dioskilos, the Two-Headed Wolf Dog, shown above in three of Harryhausen's storyboard roughs. The spiral staircase has since been abandoned for being too similar to the setting of the skeleton fight sequence in the first *Sinbad* film.







Screenwriter Beverly Cross

sounds like just another one of Harryhausen's monster-fighters, lacking depth and without benefit of the bleak nihilism that makes a character like Conan satisfying, producer Charles H. Schneer says not to worry.

"It has great depth," Schneer countered, defending the concept. "This story is a legend that long preceded all of us. We embellished it. We visualized it. We have given form to what has been in the mind's eye of people who have read the story of Perseus and Andromeda since the Greek myth was first put down on paper. From my point of view it's a story of faith, of destiny, of fate. I think those are pretty deep themes."

The embellishment Schneer speaks of includes quite a few creatures not found in Greek mythology which Cross has added, along with motivation for the principal characters, to flesh out the original myths into a coherent story. The Kraken, a giant sea monster which destroys the city of Argos as the film opens, is actually a Norwegian myth, a sea monster so vast it can be fully glimpsed only when it is newborn. Cross, the scholar, was attracted to the name in a poem by Tennyson, "The Kraken Wakes."

The merchandising reel contains a brief clip of The Kraken bursting out of the sea, not stop motion animation, but live action footage of a man in a suit. Schneer said that

won't be in the final film because Harryhausen wouldn't allow it. "He would never agree to having a man in a suit," he said as if reciting one of the Ten Commandments. Harryhausen bristled noticeably at the mention of the suit, which will probably be used only to show The Kraken breaking water, an effect almost impossible to achieve with stop motion techniques. "Let's not go into that," he said. "I think it spoils the illusion. A lot of people are not aware of it until you point it out. Then they sit there and say, 'Now, let's see, it said in a magazine that they had a Kraken suit, and just when he breaks the water, that's going to be the suit.' It gets to be where people just go to the picture to pick out the flaws, to see where one thing begins and another ends."

The Kraken destroys the city of Argos by letting in the sea, at the command of Zeus who seeks to protect his infant, human son, Perseus. The merchandising reel shows a clip from the sequence, of the people of Argos running in panic through the courtyard of a mammoth temple, surrounded by the supporting columns of the structure on all sides as the sea comes crashing through to inundate them. The realism of the matte work and miniatures make the effect stunning. "Some of the temples are about four or five feet high," said Harryhausen. "We have dump tanks at the studio to release several tons of water down chutes to knock them down. It's over in a second. They're knocked down almost instantly. You have to slow that down in proportion to what it would be if the buildings were full size. We do that by shooting at high speeds so that when you project the film normally at 24 fps it gives the illusion that it's bigger than it is."

Calibos, Lord of the Marsh, is another creature in the script not found in Greek mythology. Here, Cross admits to tapping a little Shakespeare, fashioning his horned, cloven-hoofed monstrosity after Caliban from *The Tempest*. Calibos is the key "heavy" in the film. "He's basically a Dynamation character," said Harryhausen. (Oddly enough, both Schneer and Harryhausen always use the old trademark in conversation, never the new Dynamation monicker they switched to in 1974). "He went through a number of different changes, and in the final shooting script we felt he'd have to have dialogue and a lot of subtle expressions. Of course, that presents a problem with animation." Harryhausen's solution is to have actor Neil McCarthy play Calibos in makeup for the dialogue scenes and closeups.

**"If I knew how Willis O'Brien did KING KONG before I went to see it," said Harryhausen, "I wouldn't have enjoyed it half as much. What an audience doesn't know won't hurt them."**

Stop motion will be used primarily in full shots to show the deformity of his right cloven hoof and the movement of his huge reptilian tail, as he lords it over his subjects and fights with Perseus, cracking a fearsome bullwhip.

Calibos is the prime example of how the Beverly Cross screenplay has better integrated Harryhausen's stop motion effects into the story line. It's the first time a Dynamation character has been given lines, and the extensive and continual substitutions between actor and model will tax the realism of Harryhausen's stop motion ability as never before. "It's something we've used on several different pictures, but not in as much detail as on this one," said Harryhausen, making no big deal of the creative challenge involved. "As far back as MIGHTY JOE YOUNG [on which Harryhausen worked in 1949 for the founder of stop motion special effects, Willis O'Brien] we had animated cowboys, and along the way we've had stop motion substitutes for various characters that get eaten up and carried away by Pterodactyls and things like that." True, but what Harryhausen doesn't mention is that such substitutions are brief and among the most difficult stop motion effects to bring off realistically. If he can make it work for Calibos it will represent a new milestone in his mastery of the animation art.

In a brief clip of the extended fight sequence between Calibos and Perseus seen in the merchandising reel, the cuts between actor Neil McCarthy and the stop motion model were entirely successful. Harryhausen won't say how closely he plans to show the face of the stop motion model, or whether he has developed any special technique to cope with audience detection of the substitutions. "I'm trying to get you not to print that," he laughed. "That's one way of







Special effects supervisor Brian Smithies (right) and mechanical effects expert David Knowles demonstrate the radio-controlled model of Bubo, the Owl of Brass

coping with it. What the audience doesn't know won't hurt them. I have my peculiar quirks and that's one of them. If I knew how Willis O'Brien did KING KONG before I went to see it, I wouldn't have enjoyed it half as much!"

A giant Vulture and the Forest Scorpions are additional Dynarama monsters found in the script which have no bearing on Greek mythology. In the film, the Vulture is the servant of Calibos and carries Andromeda inside a golden cage to and from his master, the Lord of the Marsh. "My original script

idea," said Beverly Cross, "was that it should be a huge bat or marsh hawk; something associated with the marsh. Ray wanted it to be the ugliest thing he could think of, something in total opposition to Pegasus, the beautiful flying horse which Perseus mounts to follow Andromeda. He came up with the idea of a Vulture. Ray's done a lot of flying creatures but that's one he's never done before."

Harryhausen had animated a Griffin, the fabled beast of classical mythology having the head and wings of an eagle and the body

of a lion, in THE GOLDEN VOYAGE OF SINBAD. Of course, the Griffin never *flew* in that film, but nevertheless, Harryhausen felt even a flying Griffin would be repetitious, even if more thematically appropriate. But then why not some other imaginary flying creature, a chimera perhaps, rather than an ordinary, if oversized, bird? "We felt the Vulture was something a person could understand," explained Harryhausen. "We can't get too grotesque and too exotic in a film of this nature or you get out of touch with reality." But reality is precisely the problem with the Vulture. It is called upon to do nothing in the script that could not have been better accomplished by using a real, trained bird. Of all the Dynarama effects in CLASH OF THE TITANS, the Vulture is the one that will amaze audiences the least.

The Forest Scorpions are also a trifle mundane for Greek mythology, but better used in an exciting fight with Perseus and his men at the end of the picture. Harryhausen has completed the animation of this sequence, which is shown briefly in the merchandising reel. The scorpions are somewhat reminiscent of the attacking crabs in Jim Danforth's WHEN DINOSAURS RULED THE EARTH as they move laterally on the screen and rotate back and forth on their many

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Left: When ordered by Zeus to give her wise owl Bubo to Perseus, Athene (Susan Fleetwood) has Hephaestus (Pat Roach), armorer of the gods, fashion for Perseus a robot duplicate made of brass instead. Far Left: The preproduction concept of Pegasus' capture by Perseus at the Wells of the Moon, painted by Cathy Hill from Harryhausen's sketch. Middle Left: The scene as it appears in the film, Ammon in foreground and Perseus on the end of the rope, unseen due to Athene's magic helmet.



# FILMING CLASH OF THE TITANS



Camera operator Mike Roberts and assistant director Tony Wayne (in jacket) film a hand-held close-up of the fight between Perseus and Calibos

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legs—though not with the same quick energy as Danforth's crabs—accompanied by a clicking noise on the soundtrack. Cross integrated the giant scorpions into the storyline by having them spring forth from the blood of the Gorgon's head. We see them first as small real scorpions, then Harryhausen makes three of them appear to grow to giant size by filming a blue screen traveling matte of the stop motion models while incrementally moving his camera in closer during animation.

"It is traditional in the mythology that the blood of the Gorgon could turn itself into all sorts of wiggly creatures," explained Cross, "even after the poor lady had her head cut off! We'd already seen plenty of creepy, crawly things in the marsh sequences [none done stop motion], and we chose to use scorpions here for a contrast. We get an entirely different mood with them by using a sort of clicking metallic sound." Though Harryhausen is not repeating *himself* by animating the scorpions, they have been done in stop motion before, in *THE BLACK SCORPION* (1957), a film by his former mentor Willis O'Brien.

One of the most delightful original touches in the Beverly Cross screenplay is Bubo, the Owl of Brass, a sort of mythologi-

cal equivalent of R2D2. When Zeus commands Athene to give Perseus her wise owl, Bubo, to aid him in his quest, the goddess cannot bear to part with her beloved pet. Secretly she has Hephaestus, armorer of the gods, fashion a mechanical duplicate out of metal. The robot Bubo is as cute as a cartoon character and communicates (but only with Perseus) via a series of squeaks, ticks and clicks plus an occasional "hoo-hoo," sound effects yet to be devised. Cross dismisses any comparison to George Lucas' loveable droid from *STAR WARS*. "I had the idea for a

mechanical owl ten years ago," he said. "It was scripted long before I ever saw *R2D2*. Maybe people just think along the same lines these days."

The mechanical Bubo was built, not by Hephaestus, but by effects technician Colin Chilvers, following Harryhausen's design. Effects man David Knowles made and installed the radio-controlled device which brings Bubo to life on camera. Three of the mechanical models were built with different capabilities for filming with the live actors. Motors inside the models can make Bubo

**Right: Colin Arthur adds the finishing touch to his makeup of Neil McCarthy as Calibos. Middle Right:**

**The clay sculpture, in the process of final detailing, which served as the basis for the stop motion model of Medusa.**

**The figure is about 18" in height and length, and features Harryhausen's characteristic reptilian tail which he is fond of animating with great flourish. Far Right:**

**Producer Charles H. Schneer (left) on location with Frank Rosenfelt, MGM board chairman**





## Danforth to partner with Harryhausen on TITANS effects?

Harryhausen says "no" on rumored stop motion merger. Danforth has "no comment."

As this issue went to press in early September, we received a report from a very reliable source close to stop-motion animator Jim Danforth that he was soon to depart Hollywood for London to assist Ray Harryhausen on the animation of CLASH OF THE TITANS, and would stay there until work on the picture was finished.

Danforth was reached for comment in Hollywood on September 5, where he is finishing stop motion effects work for the Turman-Foster film CAVE MAN. "I have no intention of either confirming or denying anything to you," he said. "If you think back you'll know that I have not been happy with what you have put in the magazine about me." Danforth was referring to our article revealing the circumstances behind the collapse of TIMEGATE (8:4:9), his debut as a writer-director which lost an estimated \$650,000 for financier Melvin Simon.

Harryhausen, when interviewed on August 10, was asked about the rumors of Danforth's involvement. "There's nothing to discuss," said Harryhausen. "He's not working on the film."

turn his head, flap his wings and blink his eyes. "Everything else," Harryhausen joked, "is done by the glories of Dynamation."

The animation Bubo, also built by Chilvers out of metal, is basically the twin of the mechanical one, about 18 inches high. Animation is used whenever Bubo flies, and he takes an heroic part in several of the action scenes. His mechanical movement makes him much easier to animate than most Dynamation subjects, and gives Harryhausen the rare opportunity to use stop motion in a humorous way; the owl's antics introduce most of the comedy relief in the film. It's the first time Harryhausen has ever used the comic potential of Dynamation, and in this instance only because the script called for it. He's guarded about using stop motion for humor, though he claims to have enjoyed it. "We don't want to get into the realm of the

Puppetoon," he said. "Dynamation is a media that is different from puppet film animation. One has to be very careful not to go overboard into the area of Tom & Jerry and that type of thing. Cartoons can do exaggerated humor very much better than puppets." Harryhausen has no specific plans to develop the lighter side of his craft in the future, but will use it, "when it's called for."

In stark contrast to Bubo is Dioskilos, the Two-Headed Wolf Dog, which has all the potential in the script of becoming Harryhausen's most ferocious, scariest monster. The concept in the script was inspired by Cerberus, the three-headed dog of mythology which is said to guard the gates of Hell. In the film, Dioskilos (Greek for two-headed dog) guards the entrance to the Gorgon's lair. When asked why he didn't just do the original three-headed dog instead, Harryhausen joked, "Two-heads are less expensive to animate." (In a well-known, perhaps apocryphal anecdote, producer Charles Schneer was once asked why Harryhausen's octopus in IT CAME FROM BENEATH THE SEA had only six tentacles? "Because Harryhausen charges \$10,000 a tentacle!" was the reply.)

Harryhausen has yet to begin animating the Dioskilos sequence, which is among the most challenging in the film from the standpoint of the script's complex interaction between the stop motion model and the live actors. The gruesome action has the dog fatally mangle one of Perseus' men, chewing on his arm, then tossing the body high into the air with powerful force, breaking the warrior's back in the fall. In defending himself, Perseus wields the sword of Aphrodite, severing one of the beast's heads, but it continues to advance with unwavering ferocity, blood dripping from its severed neck. The sequence is far more graphic and intense than anything Harryhausen has ever done, with a potential for shock on the order of Ridley Scott's ALIEN. Unfortunately, Harryhausen has changed the sequence from the way he originally scripted and storyboarded it with Beverly Cross, and seems to be backing away from the idea of trying to scare anyone. "We don't want to get an X, basically," he said, referring to the British classification for films which prevents children from being subjected to violence. As scripted, the sequence *might* have garnered the film an R-rating in this country. "We just want to make a good, entertaining film, without doing it in bad taste. Sometimes



Ray Harryhausen

scripts just read more vividly than they appear on the screen."

Naturally, MGM doesn't want to get stuck with an R-rating on a film like CLASH OF THE TITANS. On the other hand, they'd better guard against blanding it out, or they'll get stigmatized with a "kiddie film" reputation. Harryhausen has the tendency to be too genteel for his own good. THE GOLDEN VOYAGE OF SINBAD, for example, was a cruise that saw no casualties, even though Sinbad and his men were set upon by what should have been awesome dangers. You can still be plenty scary on a PG-rating—look at JAWS.

"The more grisly it is the better," said Beverly Cross, defending his script. "I've done a lot of plays and operas for children. They like it grisly, especially if it's associated with something that's not real. If you read your Brothers Grimm or your Hans Christian Anderson, they're twice as grisly and as horrible as anything in CLASH OF THE TITANS—little dancing girls get their feet chopped off by woodcutters' axes! Scary stories are just part of childhood. It doesn't matter if the monsters are awful and do horrible things as long as the good chap wins!"

But by no means is CLASH OF THE TITANS all monsters. "When the full moon shines on the Wells of the Moon," Ammon







Scene 237B. THE SWAMP (DYN). ANDROMEDA slowly moves from the cage as the VULTURE settles on a large curled root in f.g.



Scene 237D. LOW UP ANGLE (almost from ground level) (DYN). ANDROMEDA moves toward CAMERA from b.g. The lower limbs of a nightmare creature steps into the f.g. OUR VIEW moves up quickly ...



Scene 237D con't. ... to reveal the deformed head and shoulders of CALIBOS. ANDROMEDA comes to a halt—she stares straight ahead.

## Calibos, Lord of the Marsh

Calibos is deformed as a punishment from Zeus who decrees in the script that he shall "become abhorrent to human sight" for his wanton act of slaughtering for sport the herd of winged horses held sacred by the gods. Harryhausen's original concept sketch of the character, shown below, provides deformities that are a standard part of Harryhausen's Dynarama technique—a cloven hoof and a reptilian tail. These are characteristics that recur continually throughout Harryhausen's oeuvre of special effects nightmares because they are features that are almost impossible to achieve by either makeup or mechanical means. The painted, plaster prototype of the actual stop motion puppet is shown at right. Harryhausen introduces the character dramatically in the film by focusing on the deformity of his cloven hoof, as illustrated by the storyboard roughs shown above. Harryhausen storyboards each Dynarama sequence, breaking it down into each shot and angle desired to assure that during live action photography the rear screen background plates are filmed in ways that are easily combined with the required stop motion characters. Compare his early sketch to the finished shot, shown inset top. The Calibos puppet is animated standing on a miniature foreground set matched to the image of the rear screen background plate. In this test shot the top edge of the rear screen is visible. For closeups and dialogue scenes, Calibos is played in makeup by actor Neil McCarthy, shown inset middle.



whispers to Perseus in the film, "then they say Pegasus, the last of the winged horses, will come to drink." The Cross screenplay describes the Wells of the Moon as "a bewitching panorama of placid, shallow lakes and pools reflecting the stark brilliance of the moon. Ancient twisted trees are festooned with creeper and rooted in luxuriant moss. An atmosphere of timeless and benign calm.

"Listen!" whispers Perseus to Ammon as they both crouch in hiding among the strange and twisted roots. He points to the sky. There is a sound of mighty wings.

"Look! ... There!" he cries, but Ammon sees nothing.

"There ... from beyond the dark side of the moon ... Pegasus!" And before their eyes, the milk-white flying horse with its great wings spread wide swoops out of the night sky and begins to circle the shimmering Wells."

Pegasus is the other side of the coin to the grotesques of Greek mythology. While the Dioskillos may be revolting, Pegasus is all grace and beauty. Take away the ugliness and ferocity of the former, and the contrast is not as strong.

In classical mythology, Pegasus sprang from the blood of the Gorgon. To get him into the script earlier, Beverly Cross modified that notion and made him the last of a herd of flying horses sacred to Zeus, King of the Gods.

Harryhausen modeled Pegasus after a real horse, which is intercut in the film with the stop motion model for closeups, when the wings are not visible. Harryhausen uses reference footage and motion studies of real horses to aid in the animation. "But you can't just copy it," he is quick to add. "You have to eliminate certain movements or it would look terribly mechanical." But what does he use for reference to make the horse fly? "You have to use your imagination!" he laughed. "It's against the laws of gravity to make any four-legged animal fly, and so you have to take certain licenses."

The merchandising reel shows only a brief clip of Pegasus on the ground, grazing and being roped by Perseus. Harryhausen has the bulk of the most difficult flying scenes yet to animate, in which he will strive to duplicate in three dimensions the balletic grace of the cartooned flying steeds in Walt Disney's FANTASIA.

But of all the animation challenges offered by CLASH OF THE TITANS, Harryhausen

finds Medusa, The Gorgon, the most interesting and satisfying to work out. When asked whether there was any one stop motion model in the film he particularly enjoyed working with, he joked at first, answering, "Oh, the others would get insulted if I said that!" But when pressed on the matter, after complaining that he couldn't say because he has yet to work fully with all of the models, he singled out Medusa, "because it's a mood piece with a lot of *mysterioso* lighting, plus the challenge of keeping the 12 snakes on her head in motion while she is in motion as well." The task ranks with Harryhausen's animation *tour de force* in JASON AND THE ARGONAUTS in which he simultaneously animated a force of seven skeleton swordsmen.

The concept of Medusa in the film is uniquely Harryhausen's, using the traditional head of snakes from classical mythology, but placing them on the trunk of a writhing, snake-like body similar to such past Dynarama nightmares as the Hydra in JASON AND THE ARGONAUTS or Sokurah's snake woman illusion in THE 7TH VOYAGE OF SINBAD. The Gorgon of mythology walked on two legs. Not nearly as exciting.

"We researched all the artistic conceptions of Medusa over the years," said producer Charles H. Schneer, "from the statue by Chillini to the Salvador Dali show now in London, but the concept we have of Medusa in our picture is solely Ray Harryhausen's, and we think it's startling!"

Harryhausen's concept calls for Medusa, one of the seven Gorgon sisters of mythology, to be naked from the waist up, wearing only her snakes and carrying a bow and quiver of arrows. Baring animated breasts apparently caused concern in some quarters because there is one shot, assumed to be just a test, where Medusa is seen wearing a bra! (See photo, bottom left, page 44). "Please don't bring up the bra business!" Harryhausen laughed, with some embarrassment. "Dear no. Just forget it. Your readers will think we're making a sex picture! There's been a different concept of it completely."

Janet Stevens sculpted the Medusa model from Harryhausen's design. Stevens has been working with Harryhausen since THE GOLDEN VOYAGE OF SINBAD. She sculpted the 18-foot-tall Egyptian statuary miniatures for SINBAD AND THE EYE OF THE TIGER, and she sculpted Trog in that film, after Harryhausen had started the ba-









sics. "I sometimes start them and then I don't have the time to finish," Harryhausen explained. Stevens also sculpted the Kraken for *CLASH OF THE TITANS*. Harryhausen does some of his own sculpting from time to time. "I farm out quite a bit," he said, though he won't identify who did the work on *CLASH OF THE TITANS*, other than Stevens.

Harryhausen builds the stop motion models himself, casting the sculptures in foam rubber around articulated metal armatures which serve as their skeleton, allowing them to be repositioned to fit the desired action for each single frame exposure. Occasionally, armatures are reused for different characters from picture to picture because they are custom machined out of metal and very expensive. However, Harryhausen had new armatures built for each of the puppets in *CLASH OF THE TITANS*. He won't say by whom, though it was implied he doesn't do the work himself. "Let's not get into that," he laughed. "I don't know why you want to go into that depth. I prefer not to say at the moment."

The models are made at various stages during the production. The Kraken, for instance, was made before filming started so the live-action Kraken suit could be carefully matched to it. Calibos, on the other hand, was sculpted after the filming was completed so the model could be matched to the makeup for the live actor devised by artist Colin Arthur. Dioskilos, the Two-Headed Wolf Dog, is only just now being built and

will be among the last scenes animated.

In addition to the models of the Dynarama characters, several stop motion models of Perseus had to be constructed for scenes in which he interacts closely with the others, such as when he jumps astride Pegasus. In that instance, a 10-inch model of Perseus is required to be in proportion with the 12-inch model of the winged horse. Human puppets such as Perseus are among the hardest to build and animate. "You have to be more careful with the movements," Harryhausen pointed out. "They have to be as natural as possible." And since the stop motion characters are not built on any consistent scale, a different Perseus model must be constructed to interact with Dioskilos, and so on.

Harryhausen abhors revealing this kind of

technical information about his films. As questions delved deeper into the aspects of his stop motion process, his replies became more guarded and cautious, until he began to refuse to answer altogether. "I don't want to give all these things away before the picture's out!" he said, though when I interviewed him *after* the release of *SINBAD AND THE EYE OF THE TIGER* (6:2:4), he was no more willing. "You want to give everything away!" he added with some exasperation. "The public is so jaded today. They're inundated with entertainment. It's a pity one has to dissect a thing before it's even on the screen."

Nevertheless, I attempted to dissect further. In the merchandising reel, the stop motion Calibos lords it over the creatures of

**Right: Perseus reaches down to pick up the Gorgon's head, a full scale mechanical model with moving snakes. Harryhausen is also animating the 12 snakes and flashing eyes for some head closeups. Far Right: Perseus and Ammon attempt to rope Pegasus. Harryhausen uses a 10" stop motion model of Perseus to interact closely with the 12" stop motion model of Pegasus in the cut requiring the character to jump up on the back of the winged steed.**







**Perseus & the Gorgon's Head** Filming the climax of *CLASH OF THE TITANS* in Malta as Perseus (Harry Hamlin) holds up the Gorgon's head to stop the dreaded Kraken. A wind machine behind the camera whips up the water which a grip is splashing down a plank at Hamlin's feet. Filming is taking place inside a huge water tank normally used to film miniatures (note edge of tank), which looks out onto the natural horizon of the Mediterranean Sea.

the Marsh, cracking his fearsome bullwhip. Is the whip, I wondered, animated during stop motion, or is it added later, optically, via cel animation? "You wait and see," Harryhausen laughed. "Be surprised! You won't want to go see the picture. You'll know all about it."

I will want to see it, of course, many times. First to enjoy it, because the magic of stop motion makes each Harryhausen film a fantasy delight. Eventually, I'll end up looking at it frame by frame on a movieola, taking it apart to see how it works. That's the nature of curiosity. There are few filmmakers whose work is scrutinized so closely. Harryhausen, rather than being flattered by such attention, seems threatened by it.

Nevertheless, I continued to pry. The mer-

chandising reel contains an impressive shot of the Temple of Thetis racked by an earthquake which causes the great statue to crumble. Charles Schnee was so excited about the sequence, he told me about a part that is not shown, how the statue's head, played by Maggie Smith, falls onto the floor of the temple and begins to talk to the frightened crowd. Schnee hinted that Harryhausen is employing some innovative technique for the scene, but catches himself before explaining too much. "I think I'd give away a secret if I told you how that was done," Schnee said. "I've been taught by Ray, and he's instructed me what to say. You must understand, we have an Edgar Bergan/Charlie McCarthy relationship." So I knew, even before I asked Harryhausen about it, that I would get no answer. But I wondered, is he doing the scene differently from, say, the talking decapitated head of the robot in *ALIEN*? Harryhausen's reply? "Just go and enjoy it," he laughed.

It's become a real cliché to call an effects technician a "wizard," as if the cinematic illusions they create were some form of *legerdemain* instead of the straightforward application of technology in cinematography. Ask Doug Trumbull how he created the Star Gate in 2001 and he'll tell you all about slit-scan photography. Ask John Dykstra how he photographed spaceship dogfights in *STAR WARS* and he'll fill you in on the fine points of motion control photography. But ask Harryhausen about Dynarama and he pretends it's magic.

"I think there's a point where you lose interest in the picture," he said. "It's the same principle as a magician. Once you know how the tricks are done, then you're no longer interested in the magician. I think there's far too much delving into, and analysis of, special effects. Our brand of special effects, at least, have always been a means of putting fantasy on the screen and nothing more. It's a pity that too much is discussed about how it's done because it does destroy the illusion. And that's what business we're in, we're in the business of illusion, just like a magician. I think the basic secrets, behind-the-scenes, whatever you call them, are a means to an end and should not be exploited as much as they have been."

And yet Harryhausen's legions of fans want to know about his work. He wants to keep it secret. "Who do you think will win," he laughed, closing the subject.

Well. Since Harryhausen won't descend from his Olympian perch to discuss the fine

**It's become a real cliché to call an effects technician a "wizard," but ask Harryhausen about Dynarama and he'll tell you it's magic! "I'm in the business of illusion," he says.**

points of stop motion with mere mortals, we'll all have to go and see *CLASH OF THE TITANS* several times this June just to try to figure things out for ourselves. We may have the benefit of doing so in 70mm and Dolby stereo, for the first time in a Harryhausen film, as MGM is anxious to use any means at their disposal to make the film's release a big event.

"I'm not certain yet whether 70mm is a possibility," said Harryhausen. "We were discussing it." One problem with 70mm that may be causing some hesitation is that Dynarama is a rear screen photographic process which by its nature increases the graininess of the film image. Blowing the film up to 70mm will only aggravate the problem. "We would have to see if we could overcome that," admitted Harryhausen. One solution would have been to shoot all the Dynarama effects footage in 70mm, rather than in 35mm as was done. It is now routine for effects work to be filmed in a larger negative format to reduce the image degradation which naturally occurs with the duping process involved in most effects techniques. Douglas Trumbull shoots all his effects in 70mm; John Dykstra and George Lucas's ILM operation each use VistaVision.

"We've considered doing that, many times," said Harryhausen. "But there are problems involved that have always prevented us. You can only go up so high in the speed, only 48 fps in VistaVision, I think. It has certain limitations. I think the quality of our rear screen projection could be improved, of course, but we've been getting some quite good quality in normal 35mm photography." That being the case, we may indeed see a Harryhausen film in 70mm for the first time next year.

By then Harryhausen will probably be at work on his next project, which is already in







Clockwise from Above: Perseus (Harry Hamlin) faces one of the Forest Scorpions. In this Dynarama set-up, the model is animated on a miniature table-top set in the foreground fashioned to match the pebbly ground of the live-action background plate. Right: Perseus grapples with the stop-motion Calibos, an example of Harryhausen's flawless split-screen technique. The Calibos model is animated behind a "foreground split," a matte which obscures the lower half of the model and table top, which runs along the water line and rocks immediately in front of Perseus and Calibos. The foreground image of the background plate is then exposed onto the matte area on a second pass in an optical printer, perfectly aligned with the already exposed rear-screen background and model. Harryhausen was the first to apply split-screen techniques to stop motion in 1953, and has been thrilling and mystifying audiences ever since. Inset Right: Bubo, the Owl of Brass, one of three mechanical models—this one blinks. Bottom Right: The stop-motion Bubo, snatching the crystal eye out of the hands of the blind Stygian witches. Middle Right: Art director Frank White's preproduction design of the Temple of Thetis. Middle Left: Harryhausen's preproduction design for the flooding of Argos, painted by Cathy Hill from his sketch. Bottom Left: Medusa stalks Perseus, an early test which shows the Gorgon wearing a bra!

preparation. There had been a rumor that Harryhausen would make that next project his last film, and then retire at the age of 60, sometime after its release in 1985. "As Mark Twain said about his reported demise, that's highly exaggerated," he laughed, then in his characteristic good humor added, "Someone told me to ask you whether there was any truth that *you* may be retiring?"

His next project will *not* be SINBAD GOES TO MARS. "At the moment that's at a standstill," he said. The property was developed for Columbia Pictures while CLASH OF THE TITANS was in turnaround at the studio and being pitched to MGM. "I managed to talk them out of going to Mars," said Beverly Cross. "I think we've seen too many bits of old iron going through space recently." Schneer confirmed that the project has been shelved for the time being, and added that the story involved Sinbad in adventures with Ali Baba, a character out of

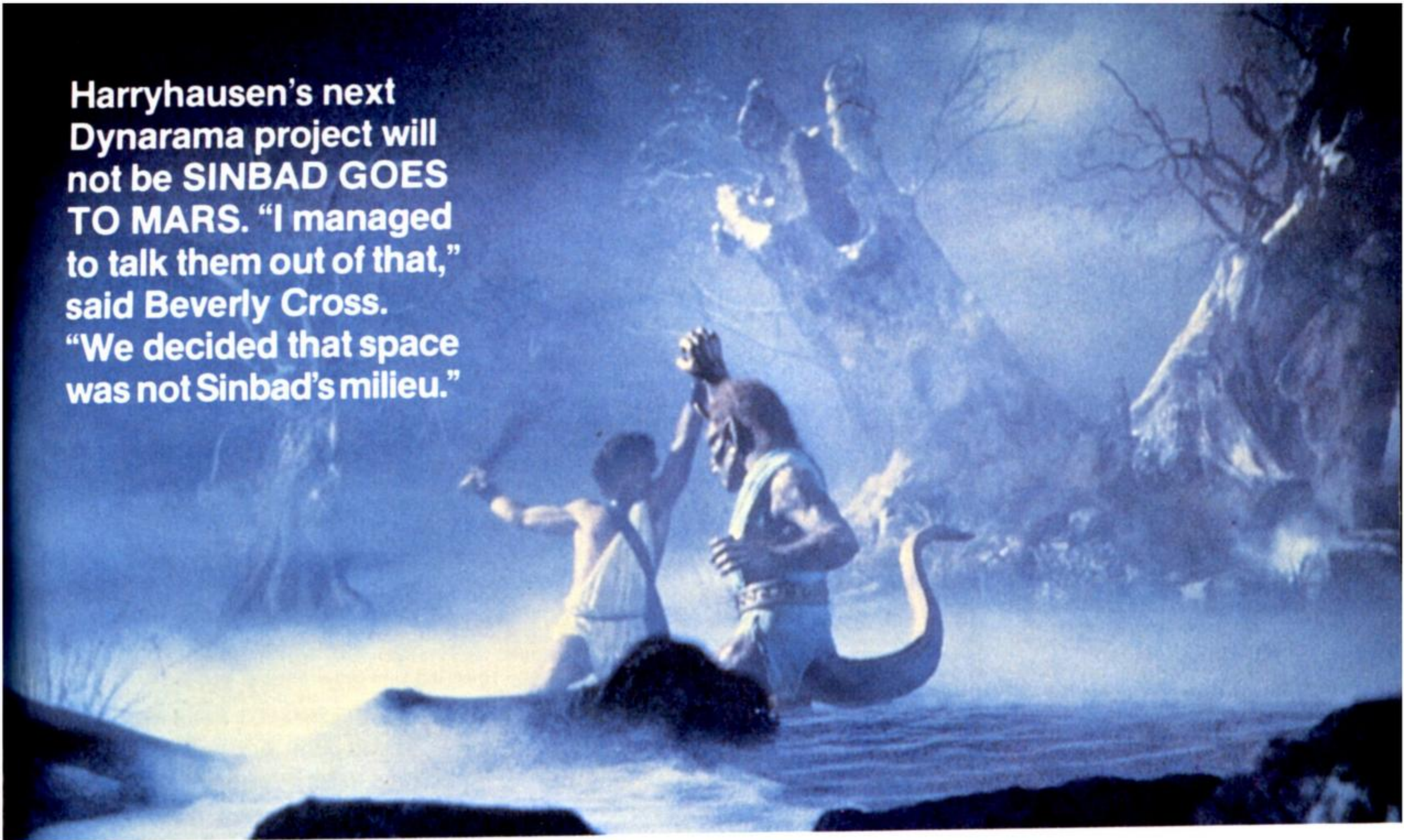
the Arabian Nights. But what is the story? "Well, that's it. Sinbad goes to Mars," laughed Cross, "that's about as far as it got. People liked the title, but there was no script, just some drawings of what a spaceship would look like at the time of the Arabian Nights. It was quite funny, really. In the end we decided that space was not Sinbad's milieu."

According to Schneer, his next film with Harryhausen will be SINBAD AND THE SEVEN WONDERS OF THE WORLD. "We've registered that, for want of a better title, and have it on the development boards now," he said. Beverly Cross has already written 40 pages of the script. "We hope to make it the definitive Sinbad," said Cross, "now that we've had the up casting and big budget of a CLASH OF THE TITANS. It'll be on a much bigger scale than the previous ones. I'd like to start on it in October if Ray has recovered sufficiently in time to put his





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head together."

So, as you read this in October, Harryhausen will be finishing up the animation for *CLASH OF THE TITANS* at Pinewood Studios during the day, and perhaps working with Beverly Cross on the script for his next film at home during the evenings. But sometimes he won't be able to finish a particularly difficult shot at the studio until 7 or 8 p.m., and then he has to take work home to prepare for the next day's shooting.

"Little bits of each sequence are finished," Harryhausen said. "We still have a lot to do on the winged horse, the two-headed dog and the Kraken. One has to abandon a sequence and go on to something else for so many reasons—because the background plates aren't quite right, for instance." Harryhausen hopes to have the animation completed sometime in November or December. He then becomes intimately involved in the film's final editing, dubbing and scoring,

working towards a completion deadline of December 31.

How does he cope with the enormous technical detail involved in all facets of production? "It becomes a way of life . . . unfortunately," he said, sounding somewhat dispirited. I reminded him that he knows he loves it. "To a point," he said. "It does infringe on your private life, and requires you to have the mentality of a monk sometimes. But one is only human. You got to do something other than your work or you get stale at it."

The conversation drifted onto the subject of vacations, of getting away from the work and the pressures of filmmaking. That's still a long way off for Harryhausen, who doesn't consider his job done until the film is in release next June. What will he do when he takes off, and how long will he get away from it all? "Let's not get into that," he said, secretive as ever. "Sometimes I think it should be forever." □

