OFFICIAL SOUVENIR EDITION

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ERRIFYING T-REX!





RAVENOUS RAPTORS!



HEROIC HUMANS!



EXCITING BEHIND-THE-SCENES SECRETS

150 PHOTOS TELL COMPLETE MOVIE STORY



SAVAGE SPITTER!

ALL ABOUT THE DINOSAURS: PHOTOS, ART & FACTS



JURASSIC PARK

CONTENTS



2 WELCOME TO JURASSIC PARK

You have arrived at the ultimate theme park.

4 CRICHTON'S CREATION

The author of the novel Jurassic Park is interviewed, plus... The Dinosaur Society and dino books & museums

6 MEET THE CHARACTERS

The cast of Jurassic Park

THE COMPLETE MOVIE STORY

- → 8 Some "Thing" In The Jungle
- → 10 Dig The Past
- > 14 The Arrival
- → 18 The Compound
- 22 Tour Begins
- → 24 Dinosaur Doctors Are In
- → 28 Tyrannosaurus Wrecks
- → 40 Nedry Gets His
- ♦ 44 When The Bough Breaks...
- ♦ 46 High-Wire Tension
- 48 Feeding Time
- → 50 Nowhere To Go But Up
- ⇒ 52 Rex Vs. Raptors

12 HE REALLY DIGS T-REX

Dr. Jack Horner, the movie's dinosaur advisor

DINO CLOSE-UPS: FACTS ABOUT THE REAL THINGS

- → 16 Brachiosaurus
- 20 Velociraptor
- → 26 Triceratops
- → 38 Tyrannosaurus rex
- → 42 Dilophosaurus (aka The Spitter)

32 THE ART OF "CRASH"

His art inspired the making of the movie's "dinostars."

54 FAMOUS DINOSAURS OF FILMLAND

A retrospective of movies starring dinosaurs

58 BRINGING DINOSAURS TO LIFE

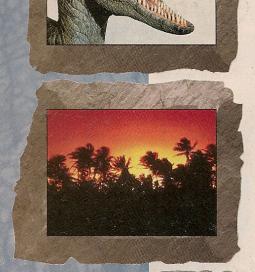
How they made Jurassic Park's dinosaurs

62 JURASSIC PARK: THE COMIC BOOKS

Topps Comics presents a four-part series.

64 JURASSIC PARK: THE TRADING CARDS

The 88-card set from Topps includes a special subset.



WELCOME TOJURASSIC PARK

Dinosaurs ruled the Earth for 165 million years, from about 230 million to 65 million years ago. Scientists have identified more than 350 species, from the six-story tall *Ultrasaurus* to the knee-high *Compsognathus*. They were extinct millions of years before humans inherited the planet, and yet they are still very much alive in our imaginations. In just the past 20 years, paleontologists—the scientists who study dinosaurs—have made bold new discoveries about how the creatures evolved, how they behaved and how they suddenly disappeared.

- The thought of actually confronting live dinosaurs—which is Greek for "terrible lizards"—has fascinated and frightened us ever since scientists began studying them, less than 150 years ago. Today we are surrounded by various efforts to recreate these remarkable creatures. You can visit museums around the world to view gigantic dinosaur skeletons. There are scores of books and articles written about them. Artists have pictured them in paintings and illustrations. Toy makers present them as cuddly stuffed playthings and realistic replicas. They've even starred in TV series, from the classic *Flintstones* and the current *Dinosaurs*.
- Nowhere, though, have dinosaurs come more to life than in the movies, in which film makers have visually conjured up the ultimate fantasy of being face-to-face with the terrible lizards. Now, Steven Spielberg has made the most fantastic dinosaur movie yet, *Jurassic Park*, based on the best-selling novel by Michael Crichton. It is an amazing story that brings moviegoers to a mysterious Costa Rican island, where dozens of genetically recreated dinosaurs—alive again and roaming free—are on display in a prehistoric theme park. You'll witness the beasts up close and personal, in all their wonder and fury, as they've never been seen before. You'll join the first group of visitors to Jurassic Park as they learn first-hand the horrible dangers of such novel experimentation.

This OFFICIAL JURASSIC PARK SOUVENIR MAGAZINE is your Color photos and narrative take you through the film's key scenes; you'll the movie was made; meet the real stars of the show, the dinosaurs, in where to see dinosaurs on display and what books to read to expand your

As you read through the magazine, keep one very important fact in not farfetched. It is based on actual, ongoing genetic and paleontologic Spielberg: "This is not science fiction; it's science eventuality."

passport to all the movie's magic. go behind the scenes to learn how accurate close-ups; find out enjoyment of them.

mind: The story of *Jurassic Park* is research. In the words of Steven

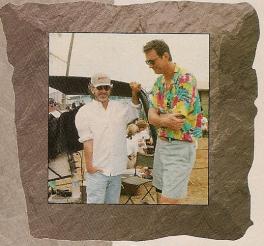


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Children's fascination with dinosaurs begins early in life. Many a playpen is populated with stuffed toy Brontosaurs, Triceratops and Tyrannosaurs. Barney, TV's purple-and-green singing dinosaur, though perhaps not paleontologically correct, has gained millions of preschool fans. First-graders have little trouble stringing together such multisyllabic

tongue-twisters as Diplodocus, Brachiosaurus and Protoceratops.

That enchantment is partly responsible for the book Jurassic Park, says its author, Michael Crichton (above right with Spielberg). When he and his wife, Anne-Marie, were preparing for the birth of their first child, Crichton found himself buying piles of stuffed dinos, and he wasn't exactly sure why.

"What I did know," he says, "was that children were perpetually fascinated with dinosaurs. Back in 1982, I'd had an idea for a novel about dinosaurs, but I postponed writing it because they were so popular at the moment. I waited for the enthusiasm to wane. It never did."

Such youthful enthusiasm was hardly confined to the '80s. Growing up on Long Island during the 1940s, Crichton himself was a frequent visitor to New York City's American Museum of Natural History and its fantastic dinosaur skeletons, though he does not credit those memorable experiences as the inspiration for Jurassic Park. "The book is not so much personal," says the man who also wrote Rising Sun and other best-selling novels. "It was much more that I was really paying attention to new ideas about what dinosaurs were like, and particularly to research that said paleo DNA could be obtained, and that we could recreate animals from the past."

Crichton's interest in science was nothing new, either. He studied anthropology and archeology at Harvard, and graduated from Harvard Medical School in 1969. All the while, though, he was paying his way by writing paperback thrillers under such pseudonyms as John Lange and Jeffery Hudson. "At some point," he says, "that avocation became more attractive to me than medicine, and I switched over."

Crichton actually wrote a screenplay about a genetically engineered dinosaur in 1983 (it was never produced), and had been tracking genetics and paleontology for nearly a decade. "I began to think it really could happen," he says of the possibility of bringing an extinct species back to life, "but who would pay for it, because it would be tremendously expensive? The only answer was entertainment. From a scientific standpoint, it isn't worth the money. But if you could make an amusement park or tourist attraction, that would be incredibly valuable. From there the other ideas—containment on

D

ARIZONA: Mus. of No. Arizona, Flagstaff CALIFORNIA: U. of California Museum of Paleontology, Berkeley; Los Angeles Country Museum of Natural History COLORADO: Natural History Museum, Boulder; Museum of Nat. History, Denver **CONNECTICUT:** Peabody Museum of Natural History, New Haven; Dinosaur State Park, Rocky Hill ILLINOIS: Field Museum of Natural History, Chicago MASSACHUSETTS: Pratt Mus., Amherst; Mus. of Comparative Zoology, Cambridge MICHIGAN: Exhibit Museum, Ann Arbor; The Museum, Mich. State U., E. Lansing MINNESOTA: Science Museum, St. Paul MONTANA: Mus. of Rockies, Bozeman NEBRASKA: U. of Nebraska State Museum, Lincoln **NEW JERSEY: Museum of Natural**

History, Princeton U.

NEW YORK: Museum of Science, Buffalo; American Mus. of Natural History, NYC

OHIO: Natural History Mus., Cleveland

OKLAHOMA: Stovall Museum, Norman PENNSYLVANIA: Academy of Natural

Sciences, Philadelphia

TEXAS: Memorial Museum, Austin;

Museum of Natural Science, Houston UTAH: Dinosaur National Mon., Jensen;

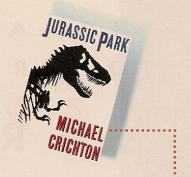
Mus. of Nat. History, Salt Lake City

WASHINGTON, DC: National Museum of

Natural History, Smithsonian Institution

WYOMING: Geological Museum, Laramie

EATION



DINO BOOKS

an off-shore island, keeping it a secret, having a limited number of people there in a tense survival situation—came together."

Crichton began writing the book in 1988, and it was released in 1990. During the process, he was aware that readers would inevitably picture his story as a movie, so he was not surprised when director Steven Spielberg, Amblin Entertainment and Universal Pictures proposed bringing *Jurassic Park* to the big screen.

There will be the predictable comparisons between the book and the movie, but Crichton, for one, is happy with Spielberg's interpretation. "I have less sensitivity [to changes from the book] than anybody," he says, "because I've already changed it so much. The only criterion I apply is: Does it work? And this works."

FOR MORE INFORMATION: THE DINOSAUR SOCIETY

When Steven Spielberg needed accurate information about the prehistoric creatures he was bringing to cinematic life, he turned to such experts as Dr. Jack Horner, curator of the Museum of the Rockies in Montana. He became the film's paleontologist consultant/advisor. In fact, the movie's character Alan Grant is partly based on Horner, who heads the largest dinosaur research team in the country, collected his first dinosaur fossil when he was eight. He has made many significant discoveries since, including the theory that some dinosaurs nested and cared for their young. He also unearthed the most complete *Tyrannosaurus rex* skeleton to date in 1990.

Spielberg also consulted with members of The Dinosaur Society, which was formed two years ago by science journalist Don Lessem in New Bedford, Massachusetts. The Dinosaur Society is a non-profit organization dedicated to dinosaur research and education. Its executive committee and advisory board comprise some of the top paleontologists, artists, writers and business people in the field.

Along with lending expertise to movie makers, The Dinosaur Society's functions include: sponsoring dinosaur "digs;" advising museums, schools and businesses on the development of dinosaur exhibits, classroom programs and commercial products; and publishing projects, such as the quarterly newsletter, *The Dinosaur Report*. This summer, the Society will present an exclusive *Jurassic Park* traveling exhibit, featuring some of the dinosaurs from the movie. The exhibit will open in June and run for three months at the American Museum of Natural History in New York City and then tour other North American cities during the next several years.

You can join The Dinosaur Society and be a part of the exciting world of paleontology. There's even a Dinosaur Club for kids; for \$19.95, you get the monthly *Dino Times* newspaper, a color poster and other goodies. For more information, write to The Dinosaur Society, P.O. Box 2098, New Bedford, MA 02741. ▶

FOR YOUNG READERS

Digging Up Dinosaurs, by Aliki (Harper & Row)

Digging Up Tyrannosaurus Rex, by John Horner and Don Lessem (Crown)

Living With Dinosaurs, by Patricia Lauber (Bradbury Press)

Maia: A Dinosaur Grows Up, by John Horner and James Gorman

(Running Press)

On The Tracks Of Dinosaurs, by James

Farlow (Franklin Watts)

Plant-Eating Dinosaurs, by David

Weishampel (Franklin Watts)

The Big Beat Book, by Jerry Booth (Little Brown)

The Complete T-Rex, by John Horner and

Don Lessem (Simon & Schuster)

The New Illustrated Dinosaur Dictionary,

by Helen Roney Sattler (Lothrop, Lee,

Shephard Books)

Tyrannosaurus, by William Lindsay

(Dorling/Kindersley)

FOR OLDER READERS

Dinosaurs: An A-Z Guide, by Michael

Benton (Derrydale Books)

Kings Of Creation, by Don Lessem

(Simon & Schuster)

The Dinosaur Data Book, by David Lambert

and The Diagram Group (Avon Books)

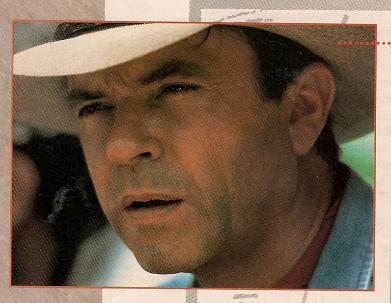
The Dinosaur Encyclopedia, by Michael

Benton (Wanderer Books)

The Illustrated Encyclopedia Of

Dinosaurs, by David Norman

(Crescent Books)



Dr. Alan Grant (SAM NEILL): Renowned paleontologist who grudgingly agrees to visit Jurassic Park and then discovers that it is home to several species of living dinosaurs



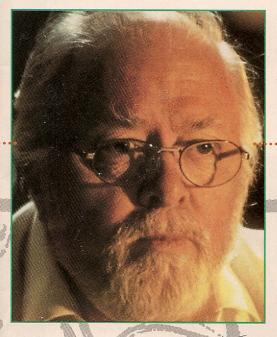
Dr. Ellie Sattler (LAURA DERN): Paleobiologist and colleague of Alan Grant who is among the first people to tour Jurassic Park



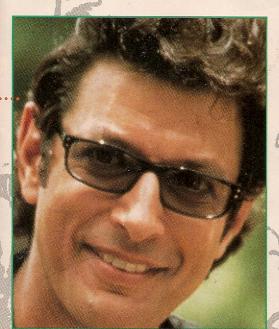
Alexis (ARIANA RICHARDS): "Lex" is a precocious 12 year old who is visiting loving 9 year old and brother of Lex, her grandfather at Jurassic Park



Tim (JOSEPH MAZZELLO): Dinosourhe has the adventure of a lifetime



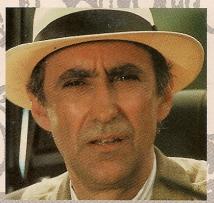
John Hammond (SIR RICHARD
ATTENBOROUGH): Billionaire developer
who has used his resources to create
Jurassic Park



Ian Malcolm (JEFF GOLDBLUM):
Mathematician who uses his "Chaos
Theory" to predict disastraus results
for Jurassic Park



Robert Muldoon (BOB PECK): Jurassic Park's serious-minded "game" warden



Donald Gennaro (MARTIN FERRERO):
Skeptical attorney who represents
Jurassic Park's investors



Dennis Nedry (WAYNE KNIGHT):

Computer genius whose greed and
ambition bring chaos to Jurassic Park

THIS CAGED ANIMAL IS ANGRY AND DANGEROUS SOME THING" I

Jurassic Park opens as a big yellowish eye stares menacingly out of a large wooden crate. It is the eye of some mysterious creature, one that is obviously dangerous, judging from the heavily armed crew that anxiously surrounds the crate.

The "thing" in the box looks out into the night and sees the steamy jungle setting of Isla Nublar, a desolate island 120 miles west of the Central American nation of Costa Rica. The creature sees men, silhouetted in the blinding searchlights, with rifles and stun guns. It growls and snarls and snaps, though we still don't know what the devil it is.

A deafening roar from somewhere behind the thick foliage turns out to be from an approaching bulldozer that will be used to move the huge crate to the front of a well-secured holding pen. A worker climbs on top of the crate to open it and release the angry beast into the fortress.

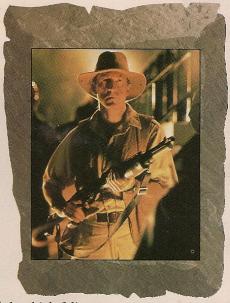
Suddenly, everything goes terribly wrong. The crate door comes flying up, knocking the stunned worker to the ground. In the confusion of warning lights and blasting alarms, a razor-sharp claw slashes out from the crate and grabs the worker. It drags him screaming toward the crate as the man in charge orders the others to open fire. But in an instant, amid the gunshots and flashing currents, the worker is gone.

The movie's terrifying opening is one of several scenes shot on Kauai, Hawaii's oldest and most lush island. Construction crews spent weeks building the elaborate exteriors that would bring cinematic life to Michael Crichton's incredible novel. While Kauai is a perfect jungle setting for Isla Nublar, natural events that occurred there during the filming of *Jurassic Park* would prove to be nearly as disastrous, yet all too real.

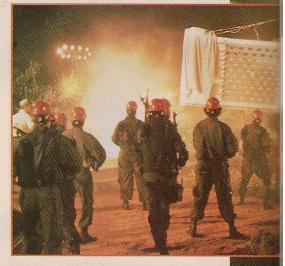
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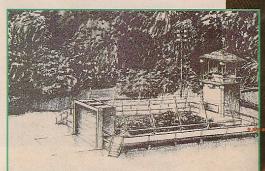
This preproduction storyboard drawing shows an early concept of how the Universal Pictures globe logo would transform into the beast's staring eye.

The construction crew on Kauai began with this illustration, which pictures the heavily fortified holding pen where the caged creature was to be transferred... before a nasty turn of events.



The well-armed boss of the crew, we will later learn, is Robert Muldoon,
Jurassic Park's "game" warden. ▼ Muldoon's troops anxiously watch—their lethal weapons at the ready—as the wooden crate containing the growling, snapping "thing" is lowered to the jungle floor.





THE JUNGLE The work crew on Isla Nublar is armed to the teeth for a reason. When the transfer of the creature goes awry and one of the workers is savagely attacked, Muldoon orders the small army to open fire.

DINOSAUR LIFE IS COMING UPALL OVER THE PLACE DIG THE PAST



A In the mountains of the Dominican
Republic, miners rejoice in finding a
chunk of amber containing a mosquito
filled with dinosaur blood.

✓ Meanwhile, in nearby Costa Rica, Dennis
Nedry (right) is sealing a deal that will
seal his own greedy, ambitious fate.



The scene shifts to a rocky mountainside in the Dominican Republic, where a curious mining operation is underway. We meet Donald Gennaro, an edgy businessman, who's talking nervously about the "accident" involving that caged creature and how it has aroused serious questions about "the park." Seems that the park's investors who Gennaro represents are nervous.

There's something more urgent at hand, though. The diggers have discovered, they

excitedly report, another mosquito. What they've unearthed is actually a chunk of amber—a yellowish, translucent fossil rock. Encased inside the amber, to everyone's elation, is a fully intact, long-dead mosquito.

The significance of the dig's find, it is later revealed, is what's inside the

prehistoric insect: the ancient blood sucked from a dinosaur. And blood, of course, contains DNA, the genetic substance of life. And the lifeblood of Jurassic Park.

It is from the blood of this and other mosquitoes that the dinosaurs that populate Jurassic Park are brought back to life. That may sound farfetched, but it is based on actual research. Genetic engineers have successfully recreated certain life forms in the laboratory using DNA. No one has yet isolated dinosaur DNA, but if they do...

In the meantime, thousands of miles away on a desolate plain in Montana, another dig is taking place. There we are introduced to the team of Dr. Alan Grant, a renowned paleontologist, and Dr. Ellie Sattler, a paleobotanist. They are examining the recently excavated skeletons of four *Velociraptors*, or "*Raptors*," as Grant calls

them. He and Ellie are working on the dig with a group of volunteers.

Grant and Ellie are suddenly interrupted by the arrival, via helicopter,

Grant and Ellie are suddenly interrupted by the arrival, via helicopter, of a visitor, John Hammond. He hurriedly explains to them something about an island off Costa Rica where he's set up a "biological preserve." Hammond invites them to fly there with him immediately and to give his "attraction" their professional blessings. A mult-billionaire, Hammond promises in return to fund their dinosaur research for the next three years—an offer they cannot afford to refuse

The action then shifts to San Jose, Costa Rica, where a crass fellow named Dennis Nedry is making a secretive, diabolical deal with a nervous co-conspirator to deliver a stolen cache of frozen dinosaur embryos in exhange for a whole lot of hard, cold cash.

The plot thickens...

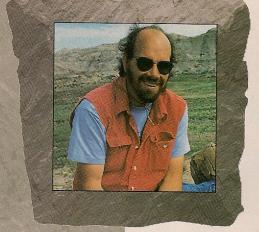


Meet Dr. Alan Grant, worldfamous dinosaur scientist, and Dr. Ellie Sattler, whose expertise is prehistoric plant life. Together, they're digging for Raptor bones—and each other. Their doubledigging is interrupted by the arrival of John Hammond (top, right), who offers to

fund their work for three years if they'll come with him to visit and approve his secret "biological preserve."



NO BONES ABOUT IT, HE'S DAFFY ABOUT DINOSAURS HE A L L Y D L G



Part of what makes Jurassic Park such an intriguing movie is knowing that so much of it is based on actual research being conducted by today's paleontologists. It all began about 170 years ago when scientists first identified dinosaur bones as the fossils of long-dead animals. And while genetic engineering is the exciting new field of study, the down-and-dirty work of digging up bones is still thriving.

Dr. Jack Horner digs up dinosaur bones for a living. He started when he was a boy growing up in Montana, and today he's the head of that state's Museum of the Rockies in Bozeman. Dr. Horner has unearthed thousands of fossils during dozens of digs, but none of his excavations was more dramatic than his unearthing in 1990 of the first nearly complete *Tyrannosaurus rex*.

Dr. Horner's big break came when a rancher named Kathy Wankel showed up at the museum with some bones she'd found while out walking in the fossil-rich badlands of eastern Montana in 1988. Dr. Horner realized they were the arm bones of a *T-rex*, and that the rest of the beast's remains might well be attached underground. He soon embarked on a grueling excavation of the 65-million-year-old *T-rex*.

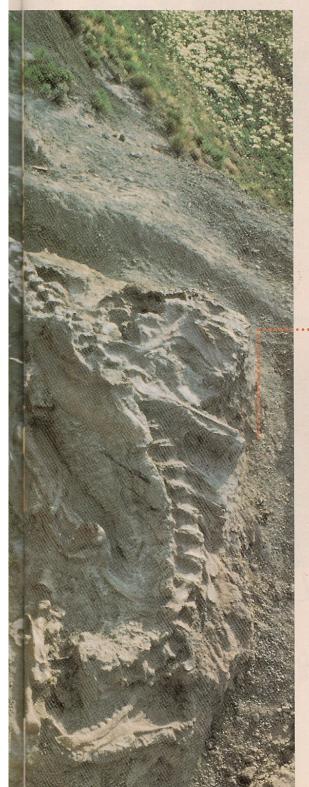
They started by jackhammering through 150 tons of rock encasing the bones. Once they reached the delicate fossils and carefully scraped away a layer of sandstone, they covered the exposed bones with glue to make them harder, shinier and easier to remove from their earthen grave.

First they found a row of back bones, then a leg bone and next a huge hip. That led to the *T-rex*'s giant, 4 1/2-foot long skull, with its menacing teeth still intact! Day by day, as they found more bones, it became clear to the scientists how the creature had died and was buried ages ago. But first they had to painstakingly remove the delicate skeleton and haul it to the museum for further study.

Dack Horner (wearing a hat) and some of his fellow "diggers" examine the bones of a Tyrannosaurus rex—the first complete T-rex skeleton ever found. ▶ The upper leg bone is on the left, alongside the backbone, with the neck at the top, the tail at the bottom.



T-REX



Dr. Horner and his crew wrapped the bones with burlap bandages and plaster of paris to form giant bundles that could be hoisted onto flatbed trucks for the 350-mile trek back to Bozeman. Once safely at the Muse-

Photos © Bruce Selyem/Courtesy of Museum of the Rockies

um of the Rockies, the skeleton then had to be cleaned and repaired with tiny tools—a three-year process! Then began the breakthrough examination of the 40-foot-long *T-rex*, bone by bone.

The skeleton is now much more than an awesome display. It will be the basis for years of study into the life and death of the ancient species. What's more, by making molds of the bones, Dr. Horner's team will enable other museums to construct their own full-sized replicas. For the first time, the whole world can get its most accurate look at *Tyrannosaurus rex*, the most terrifying creature to ever roam the Earth.



▲ Before the Tyrannosaurus bones could be moved, they had to be wrapped in plaster of paris casts. Giant bundles were then hoisted onto a flatbed truck for the trip to the museum. Horner tells the complete story in Digging Up T-Rex, written with Don Lessem.

THE THEME OF THIS PARK IS DINOSAURS

THEARIVAL

Now the fun begins. Most of the first visitors to Jurassic Park are finally assembled on the island, including Ian Malcolm, the off-beat mathematician whose "Chaos Theory" becomes a prediction of foreboding events to come. This is also the initial encounter with one of Hammond's most fantastic creations—a living, breathing *Brachiosaurus*.

This scene is the first to bring together the many elements of Michael Crichton's origi-

nal story that so fascinated director Steven Spielberg. "What's interesting to me about this particular project is there is as much science as there is adventure and thrills," says Spielberg, the man who has thrilled moviegoers over recent years with such blockbusters as Jaws, Close Encounters of the Third Kind, E.T. The Extraterestrial and the Indiana Jones trilogy. "Jurassic Park is a cross between a zoo and a theme park. It's about the idea that humans have been able to bring dinosaurs back to Earth millions and millions of years later, and what happens when we come together."

Spielberg is also keenly aware of the real-life issues raised by the movie. "There's a big moral question in this story," he says. "DNA cloning may be viable, but is it acceptable? Is it right for humans to do this, or did dinosaurs have their shot millions of years ago?"

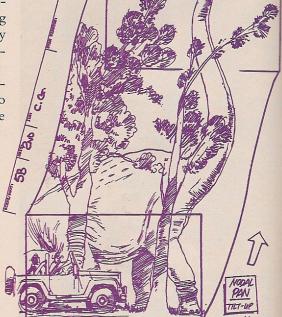
That's definitely a point for serious debate, but there's no question that the sight of Spielberg's masterfully created "dinostars" will bring out everyone's childhood enchantment with the prehistoric creatures. "The first big words I ever learned were different dinosaur species," the director fondly recalls, "and when my son Max was two years old, he could not only identify, but could pronounce *Iguanodon*.

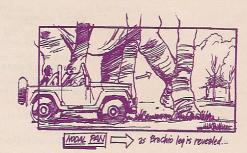
"I think one of the things that interests kids is that dinosaurs are so mysterious. A Harvard psychologist was asked why kids love dinosaurs so much. 'That's easy,' he said. 'They're big, they're fierce... and they're dead.' But now they're back," Spielberg adds with a chuckle.

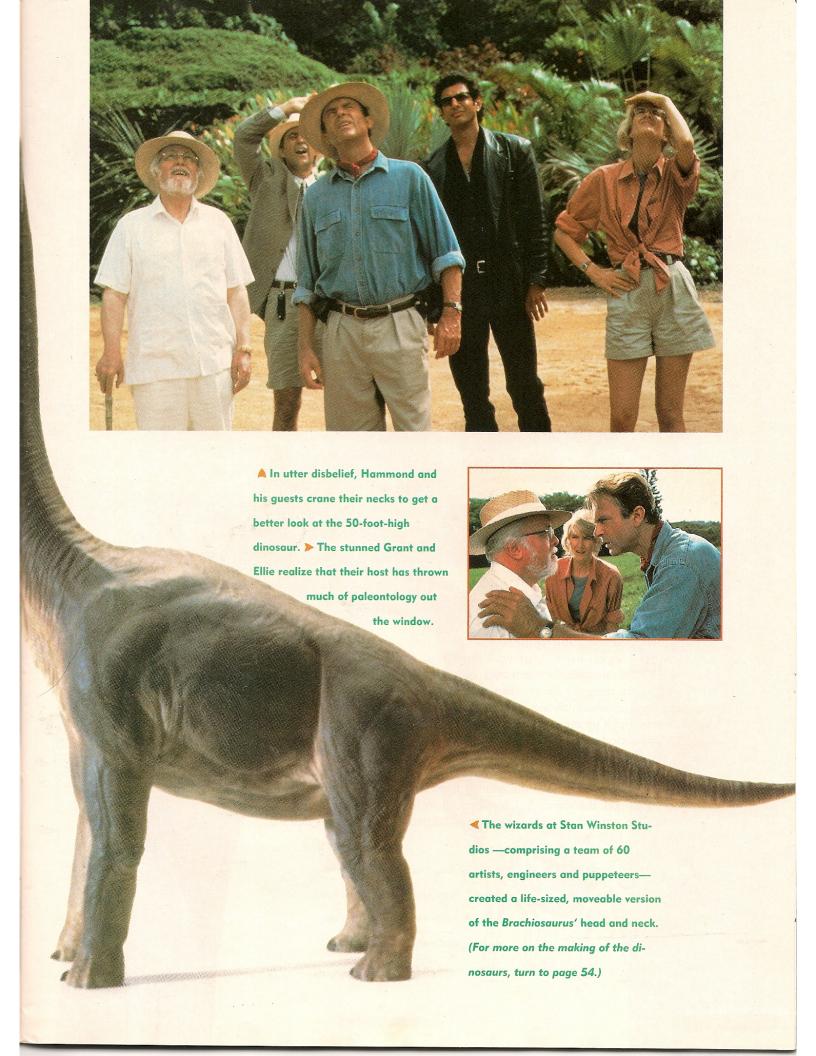


◆ As Hammond's helicopter zooms in for a tricky landing, Isla Nublar appears as a tropical paradise. ▼ That image is soon dashed when the

unsuspecting party has a close encounter of the extinct kind: a long-necked *Brachiosaurus*! These story-boards show how what they think are large tree trunks turn out to actually be four gigantic legs.







DINO CLOSE-UP:

A PREHISTORIC GIRAFFE

BRACHIOSAURU



Hammond's visitors are totally awestruck at the sight of the towering *Brachiosaurus*, but they had little to fear from this docile dinosaur—except maybe if she accidentally stomped on someone with one of her four massive feet.

As we begin to meet the resi-

dents of Jurassic Park, it's impor-

tant to know more about them. The family tree of dinosaurs is divided into two general groups, based on the structure of their hip bones: Saurischia (which means "reptile hipped") and Ornithischia ("bird hipped"). Saurischians are further identified as either meat-eating theropods, such as Tyrannosaurus rex, or plant-eating sauropods, to which

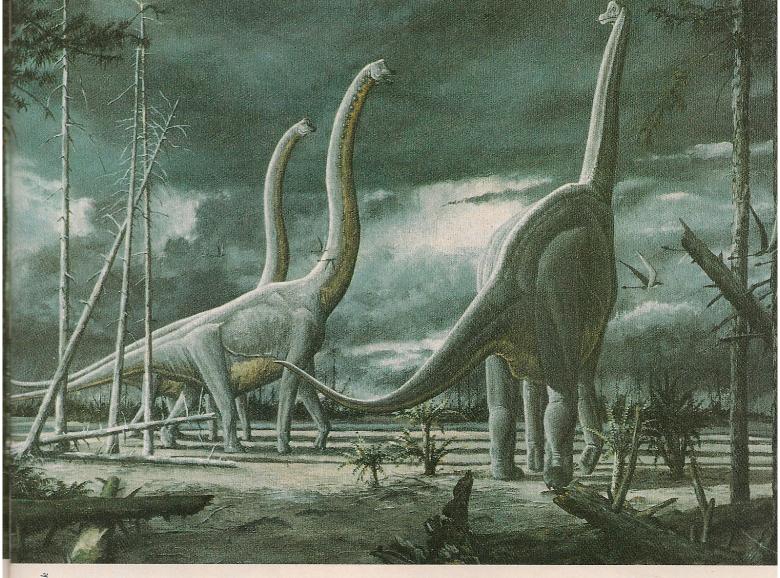
Brachiosaurus belongs.

Brachiosaurs are remarkable in several ways, beyond their being among the largest land creatures ever on Earth. Start with those legs, which our Jurassic Park guests mistake for tree trunks. Not only are they huge, but the front legs are uniquely longer than the rear ones. Together with its crane-like neck (Brachiosaurus means "arm reptile"), those legs allowed the animal to reach high up into the treetops to munch on leaves or pine needles, much as a modern-day giraffe does. Overall, though, Brachiosaurus is more comparable with today's elephant.

At the top of *Brachiosaurus*' head are two large nostrils, which at one time led dinosaur scientists to believe the animals lived in water and used the nostrils like a snorkel. Recent studies, however, show that underwater pressure would have crushed its lungs, so it is now known that *Brachiosaurs* in fact lived on dry land.

The giraffe-like neck of the "arm lizard," often more than 40 feet long, was extremely muscular, letting the animal raise and hold its head up while feeding in the treetops.

◀ The large, spoon-shaped teeth
of Brachiosaurus were perfect for
grabbing, ripping off and chewing
rough leaves and needles. The two
large nostrils on top of its head might
mean that the animal had a keen
sense of smell.



NAME: Brachiosaurus

HEIGHT: 50 feet

LENGTH: 82 feet

WEIGHT: 50 tons

TIME: Late Jurassic

PLACE: Colorado; Tanzania

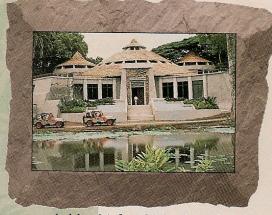
BEHAVIOR: This gigantic plant-eater.

one of the largest and tallest dinosaurs, roamed dry land feeding high in the trees. Because of its size, it had virtually no natural enemies.

During a dig at Tendaguru, Tanzania, from 1908 to 1912, German paleontologists Werner Janensch and Edwin Hennig discovered a nearly complete Brachiosaurus skeleton. It stands today in Berlin's Humboldt Museum.

AND GUESS WHAT'S INSIDE THOSE EGGS...?

THE & SMBOUND



While they're anxious to see more dinosaurs, John Hammond's guests are guided to Jurassic Park's main compound, which is still partially under construction. It consists of three main structures connected by walkways and

surrounded by 24-foot-high, electrified fences to keep the park's "pets" out. All around the compound, the jungle of Isla Nublar grows naturally.

The largest building is the Visitor's Center, distinguished by a huge glass Rotunda in the center. Workmen are busy assembling the giant dinosaur skeletons that will adorn the Rotunda when the park finally opens.

After watching an informational film starring Mr. DNA, a cartoon character who tells about the creation of Jurassic Park and the genetic science behind it, the visitors are whisked away—their theater seats turn into an amusement park ride—to see other parts of the center. Grant can't contain himself as they pass by a high-tech laboratory, and he leads the others on an unscheduled tour of what, they discover, is the dinosaur egg hatchery.

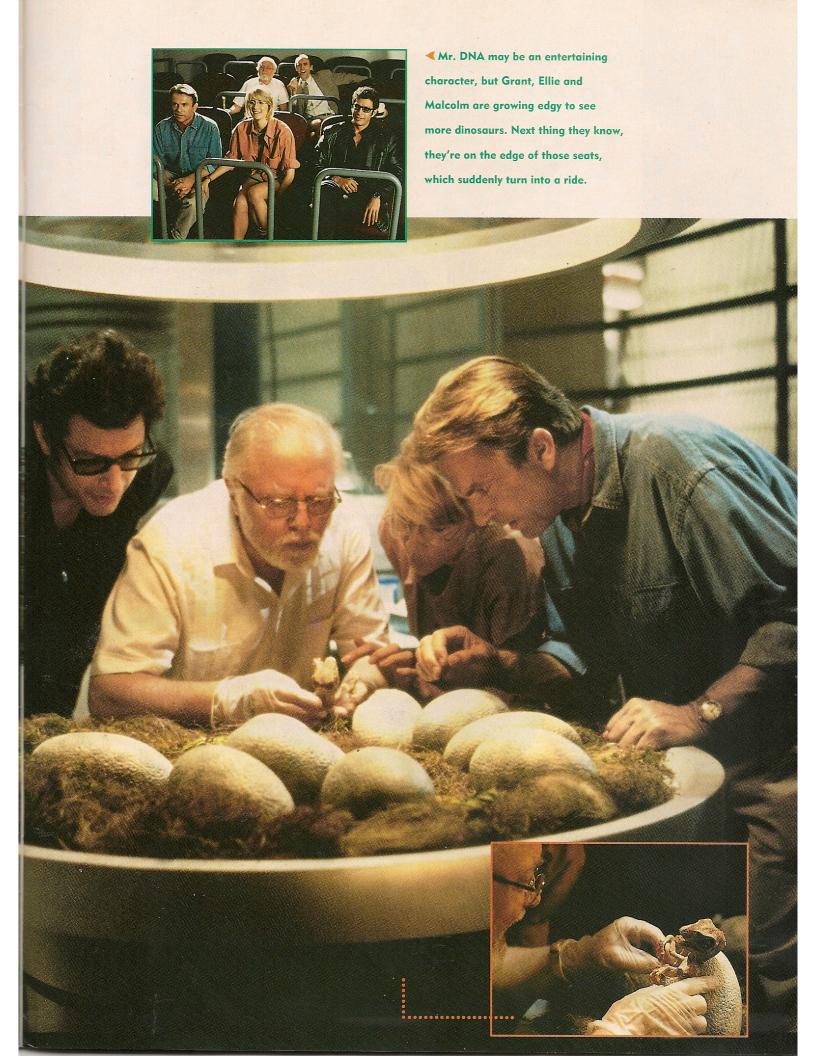
Most of the exterior shots for the movie were filmed on Kauai, the oldest and most overgrown of the Hawaiian islands. Construction crews spent weeks building the elaborate facades of the compound and its Visitor's Center. For the interior scenes, Spielberg and company flew back to Los Angeles and Universal Studios to shoot on several massive sound stages.

The largest interior set, built on Stage 12, housed the Visitor's Center, including the enormous Rotunda and its fantastic dinosaur skeletons. Constructed by Toronto-based Research Casting International, the museum-quality skeletons are actually full-sized replicas of a *T-rex*, about 50 feet long, and an *Alamosaurus*, measuring nearly 45 feet long.









DINO CLOSE-UP: STRONG, FAST &

WELSCIRAPTOR

Grant left Montana reluctantly while he was in the middle of excavating the fossilized remains of a *Velociraptor*. A day later, at Jurassic Park, he is astonished by the live hatching of a baby *Raptor* from an egg.

The name *Velociraptor* means "quick plunderer," and that about sizes up this ferocious, two-legged meat-eater. With its low skull, flat snout and 30 or so pointed teeth,

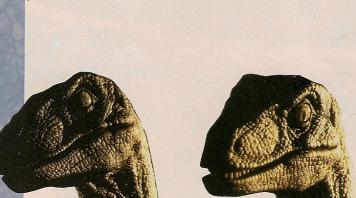
Velociraptor was an efficient predator. Combine those traits in a muscular, six-foot body with cheetah-like speed—plus a razor-sharp "switchblade" claw on each foot—and you have one of the dinosaur kingdom's most frightening killers. To make matters worse for potential victims, Raptors were smart enough to hunt in packs. Small wonder that Grant shudders at the sight of a cage full of adults devouring a steer.

Velociraptor belongs to the family of theropods called dromaeosaurids, which also included the deadly deinonychus, whose name means "terrible claw." Both had long arms and three grasping fingers with sharp, curved claws. Their long, bony tails gave them tremendous balance. As they ran and leaped on their prey, they could easily stand on one leg while lifting the other and slashing their opponent with that knife-like claw.

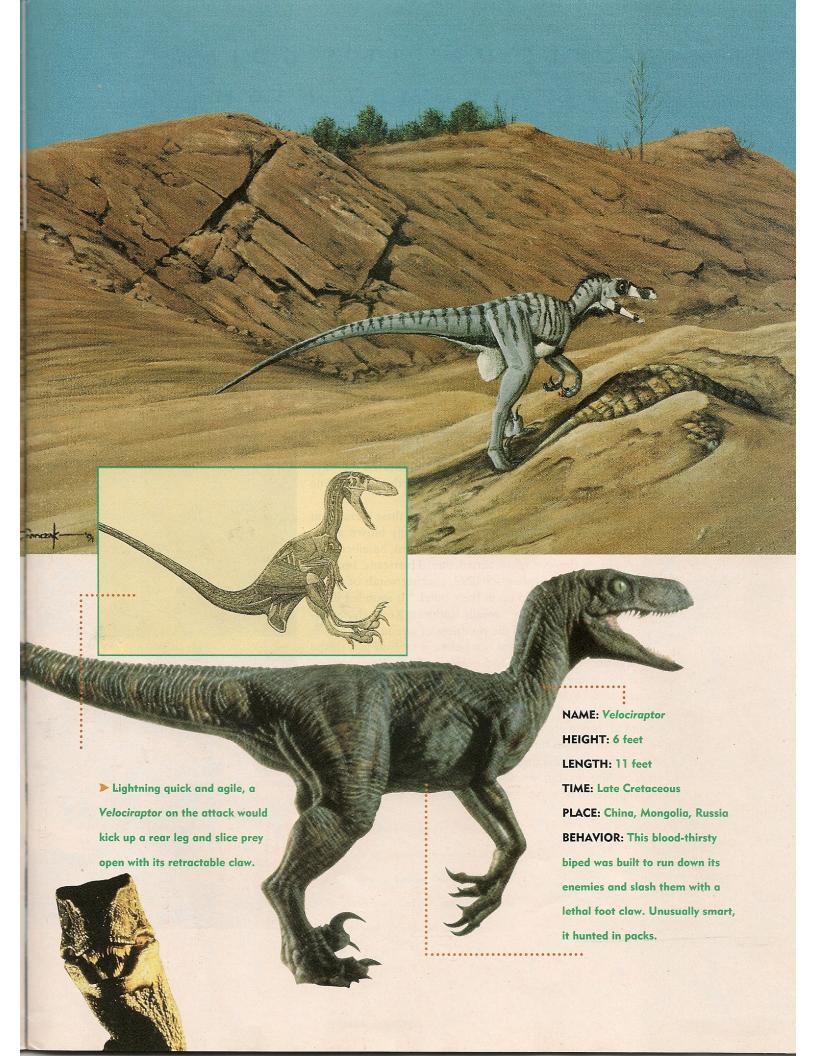
In writing about *Velociraptors* in *Jurassic Park*, author Michael Crichton portrays the beasts larger than scientists then believed them to be, probably no more than four feet high, not six. He got off the hook, though, so to speak. Since the book was written, paleontologists have uncovered the bones of a far larger *Raptor*.

know, has a thing for big creatures with deadly jaws, and those of Velociraptor certainly belong in that category. Lined with two rows of sharply serrated teeth, this prehistoric killer

might well be considered as the great white shark of the dinosaur age.







TO BE A BUMPY NIGHT! TO UR BEGINS

Sufficiently filled with awe and wonder, Grant, Ellie, Malcolm and Gennaro—who have now been joined by Hammond's grandchildren, Tim and Lex—are eager to venture into the wilds of Jurassic Park and encounter more dinosaurs. Boy, do they encounter dinosaurs!

Hammond's attractions aren't named Mickey and Donald, but his theme park does have Disneyesque touches, such as the remote-controlled safari vehicles, Explorers that transport visitors through the dinosaur tour along an electrified track in the road. There's even a mechanical, multimedia tour guide on board. As the traveling party passes through the mammoth main gates, little does anyone realize the prehistoric terror awaiting them.

The Hawaiian island of Kauai was an idyllic setting for these scenes, but after three weeks of filming, the peacefulness was literally blown away. While the script here calls for an approaching tropical storm, Spielberg and his crew were caught in the eye of an actual one: Hurricane Iniki. It slammed into the island in mid-September 1992, packing winds of nearly 120 mph, as the film crew was holed up in their hotel. "It sounded like a freight train roaring past the building," recalls Kathleen Kennedy, Spielberg's longtime partner at Amblin and the producer of *Jurassic Park*.

By that evening, Iniki had passed, but not before it tore off part of the hotel's roof. "It was the eeriest thing I had ever seen," says Kennedy, remembering what the scene outside looked like after the storm. "That morning, we were on a beautiful, tree-lined street. Now, virtually every single tree had been flattened."

The power and phones were knocked out, and the airport was heavily damaged. Kennedy was able to hitch a flight to Honolulu aboard a Salvation Army plane. From there she organized not only the safe return of the movie crew to Los Angeles, but she also arranged for more than 20,000 pounds of relief supplies to be flown into Kauai.

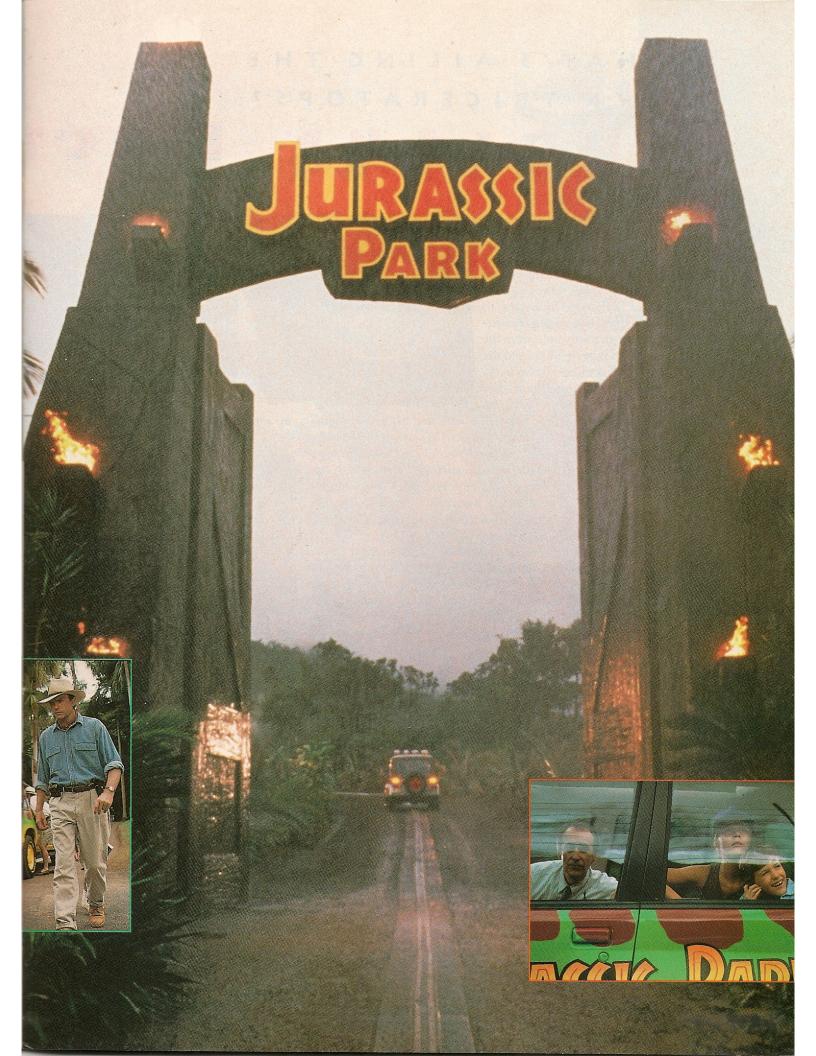
Frant is not too pleased with the seating arrangement for the tour. He finds himself paired up with the kids in one car, while Ellie rides in the other with the flirtatious Malcolm.

Grandpa Hammond is all smiles as he welcomes
Tim and Lex to his island paradise. The adventure will take their minds off their parents' divorce, A moment later, he sends them off in the electric tour vehicles

on a journey into the unknown.







WHAT'S AILING THE SICK TRICERATOPS? DIN 9 4 A UR DOCT

Once again, Grant cannot contain himself from going beyond the places that the Jurassic Park mechanically guided tour wants to take everyone. Spotting something mysterious in the brush, he defiantly bolts from the car and dashes off in pursuit—Ellie and the others, a copycat moment later, at his heels.

To their ever-growing amazement, they come across a six-ton *Triceratops*, lying on

her side. She's sick, the attending vet informs them, and has been tranquilized so he can treat her... that's if anyone knew what was wrong with her.

Here, the pure scientist comes out in Grant and Ellie as they team up to analyze why the *Triceratops* is ailing. Grant recognizes some unusual symptoms; Ellie tries to figure out if a nearby prehistoric plant is making the dinosaur sick. Finally, they put their heads together to conclude that, like a bird, the *Triceratops* swallows rocks periodically to help it digest food, and in the process eats the suspect plant's poison berries.

The dinosaur makers at Stan Winston Studios had an unusual task in creating the sick *Triceratops*. The other dinos were designed for some kind of motion, but this one was built in the lying-down position, just as it was depicted in Crichton's book and in preproduction sketches. Spielberg also lent his own special input. "Steven wanted to have an element of humanity in the dinosaurs," says Winston. "So when you see the sick *Triceratops*, you feel sorry for her."

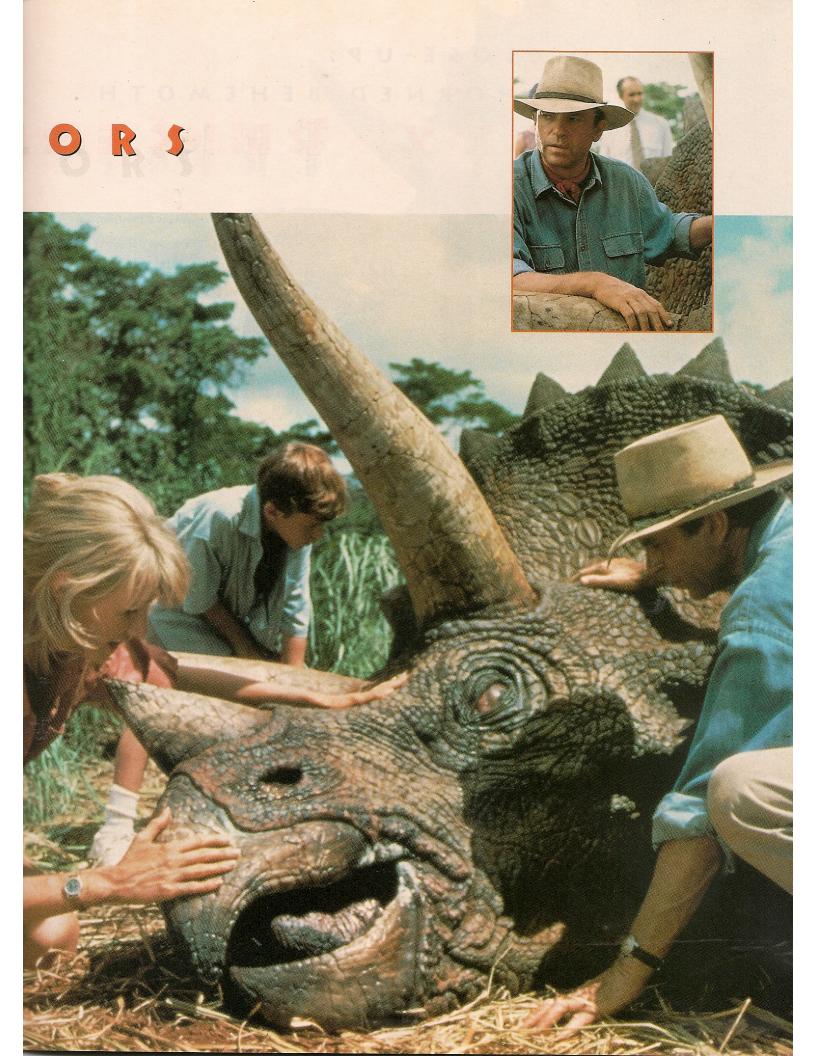
What would you do if you came across a sick, six-ton *Triceratops* in the jungle? Following both their dedication to scientific knowledge and their human compassion, Grant and Ellie fearlessly attend to the animal.



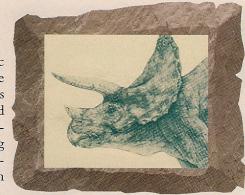
the ailing dinosaur, too.



appears enamored with



The Triceratops encountered by the Jurassic Park tour group is relatively docile, because she's sick and tranquilized. Millions of years ago, however, these huge, three-horned sauropods were fearful beasts. The rhinoceroses of their day, they were big and strong enough to fend off even an attacking Tyrannosaurus by perhaps counterattacking with their massive horned heads.

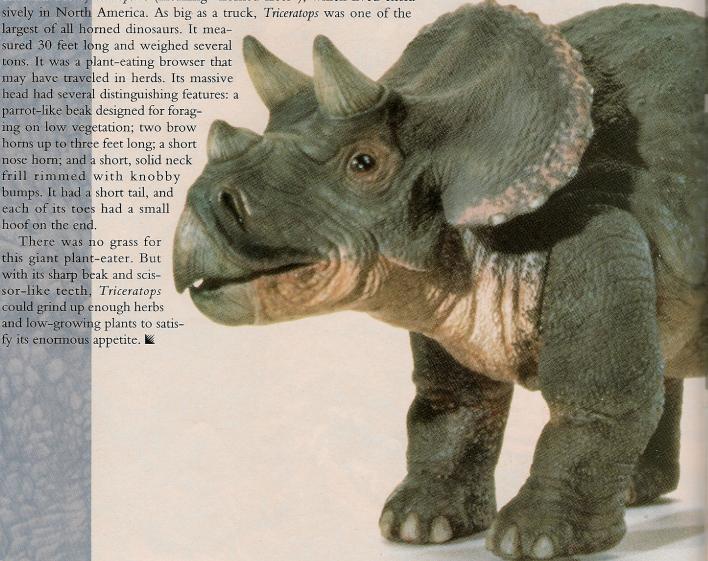


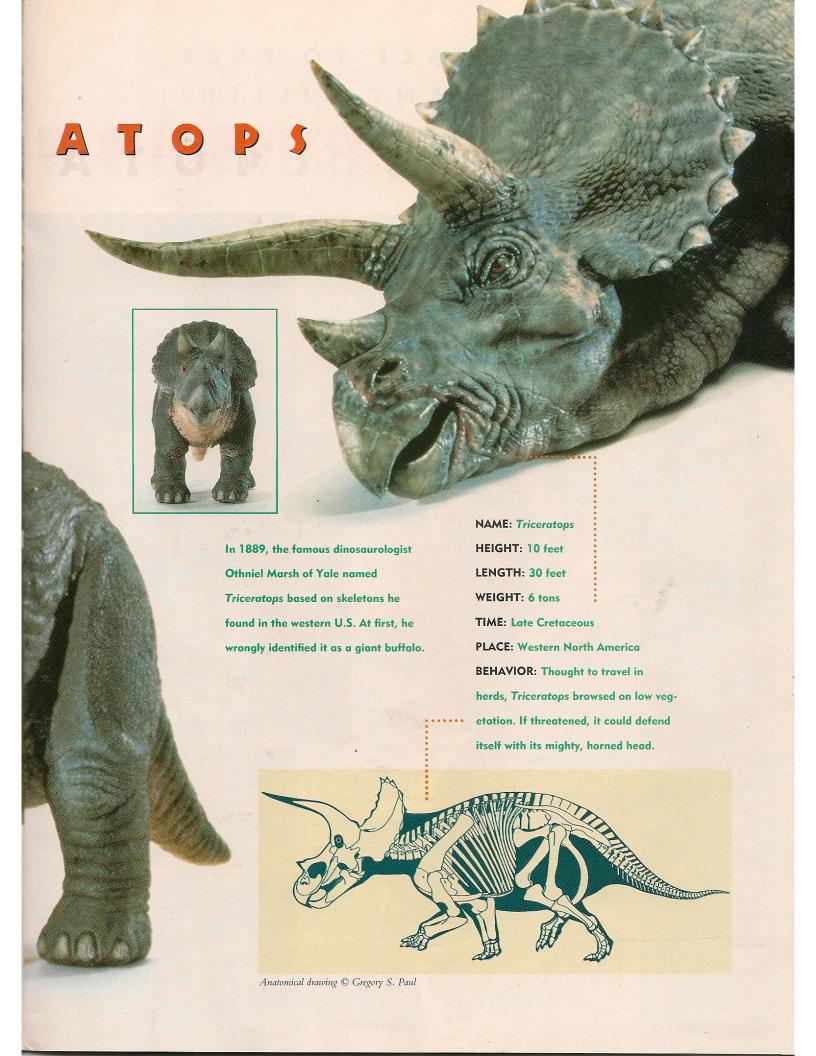
◀ Triceratops ("three-horned face") is one of the bestknown dinosaurs. It was a non-aggressive plant-eater, but might have defended itself by charging at enemies head-first with those powerful horns.

Triceratops was a four-legged ornithischian (bird-like hips) belonging to the dinosaur family ceratopsids (meaning "horned faces"), which lived exclu-

largest of all horned dinosaurs. It measured 30 feet long and weighed several tons. It was a plant-eating browser that may have traveled in herds. Its massive head had several distinguishing features: a parrot-like beak designed for foraging on low vegetation; two brow horns up to three feet long; a short nose horn; and a short, solid neck frill rimmed with knobby bumps. It had a short tail, and each of its toes had a small hoof on the end.

There was no grass for this giant plant-eater. But with its sharp beak and scissor-like teeth, Triceratops could grind up enough herbs and low-growing plants to satisfy its enormous appetite.





YOU ARE FACE TO FACE WITH A GIANT KILLER!!



Ian Malcolm, a couple of times by now, has tried to explain his socalled Chaos Theory and how it spells certain doom for the intricately designed Jurassic Park. "It simply deals with unpredictability in complex systems," he tells Ellie. Well, if anyone wants a perfect example of the eccentric mathe-

matician's concept, it unfolds dramatically in these horrific scenes.

The unforeseen elements that trigger disaster are natural and human: the tropical storm and Dennis Nedry's greedy plot to smuggle frozen dinosaur embryos off the island. At about the same time the fierce wind and rain kick up, prompting Hammond to try and bring his guests back to the Visitor's Center, Nedry sabotages the computer system, causing a temporary blackout in critical areas of the park. The Explorers stop dead in their electric tracks, the phones go dead and the protective fences lose their juice—which means there is nothing stopping the dinosaurs on the other side from getting loose.

Tim, sporting night-vision goggles, is the first to spot the gigantic *Tyrannosaurus rex* chomping through the harmless fence and stomping toward the powerless vehicles. The second is cowardly Gennaro, who dashes for cover, leaving the defenseless kids behind. From the other Explorer, Grant and Malcolm watch in horror as the *T-rex* attacks the kids' vehicle.

Meanwhile, back in the Control Room, Hammond and Arnold desperately fiddle with the computer system, unaware that its programmer, Nedry, is off on his nefarious mission. It only seems fitting that Nedry becomes a victim of the unpredictable events and the ensuing chaos.

Not even Malcolm could have predicted that nerdy Nedry would be the catalyst to unleash the Chaos Theory. When the hapless hacker flips the switch on his computer, he triggers a deadly chain reaction.

Tim hardly needs night goggles to see what terror lurks in the dark: a huge T-rex coming through the fence!

It stands 20 feet high, 40 feet long from nose to tail, with an enormous, box-like head that must be five feet long itself.



▼ The Explorers lose power right alongside
the Tyrannosaurus paddock, which normally
is secured by an electric fence. With the
power out, though, even the T-rex can
figure this one out: No electricity, no problem escaping to the other side.

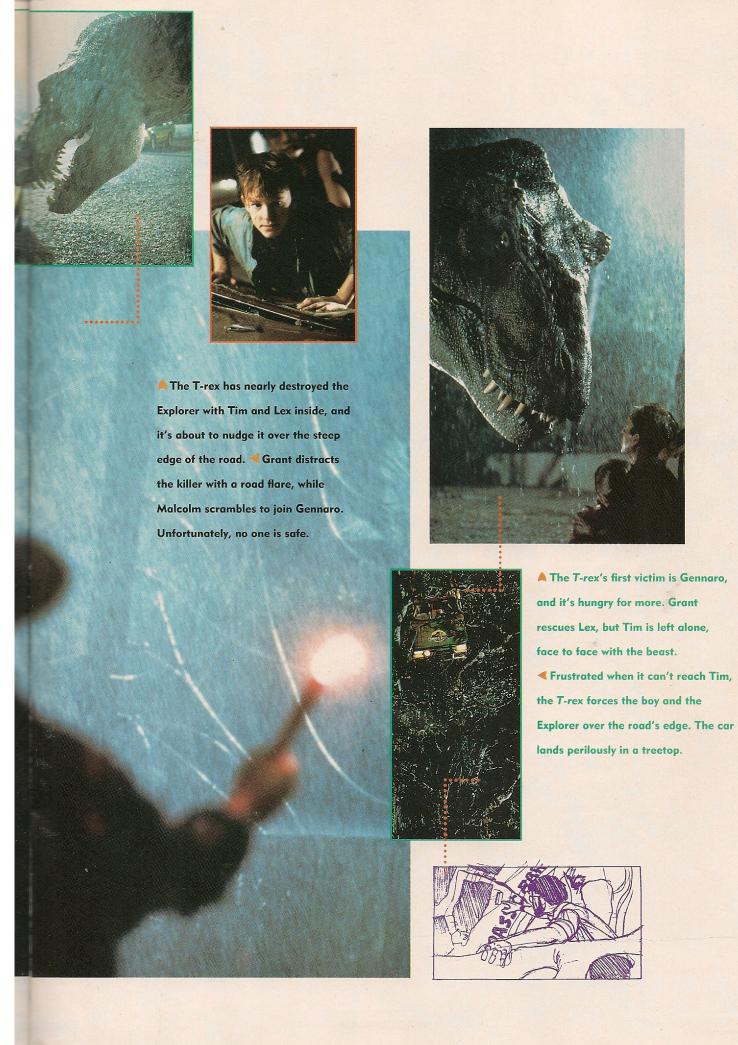


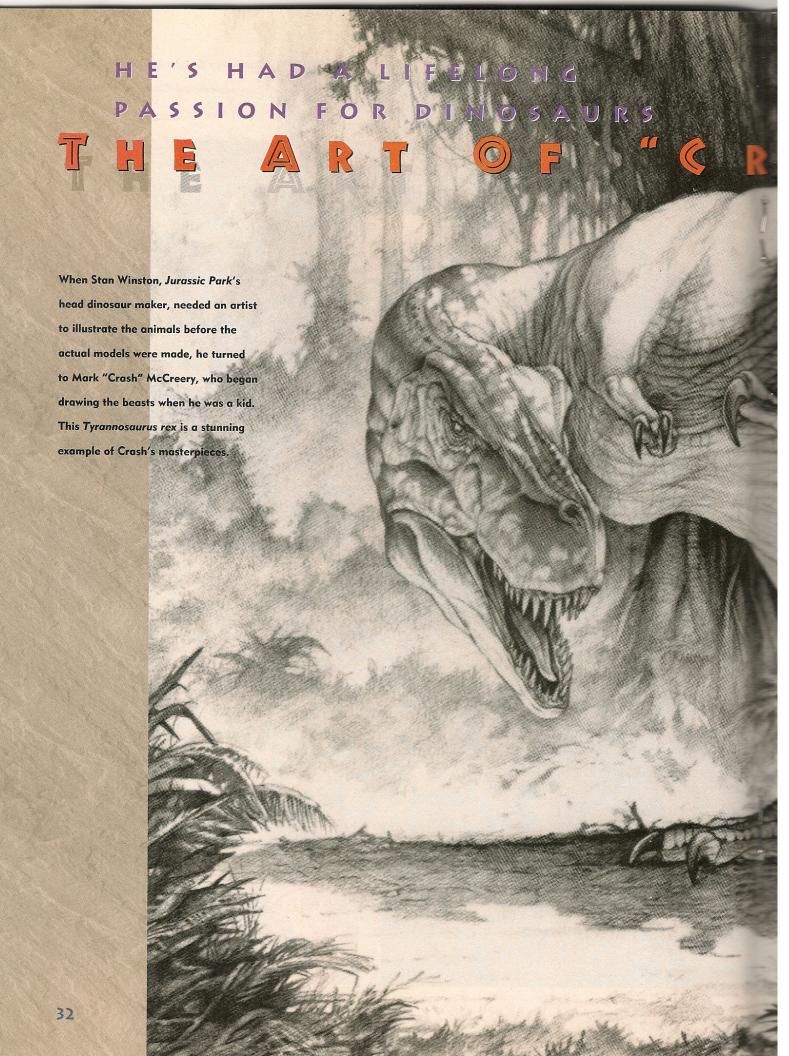
It's pitch black outside, it's pouring rain and there's a 40-foot monster that wants to eat you. That's all Tim and Lex can think about—other than trying to escape from this nightmare.





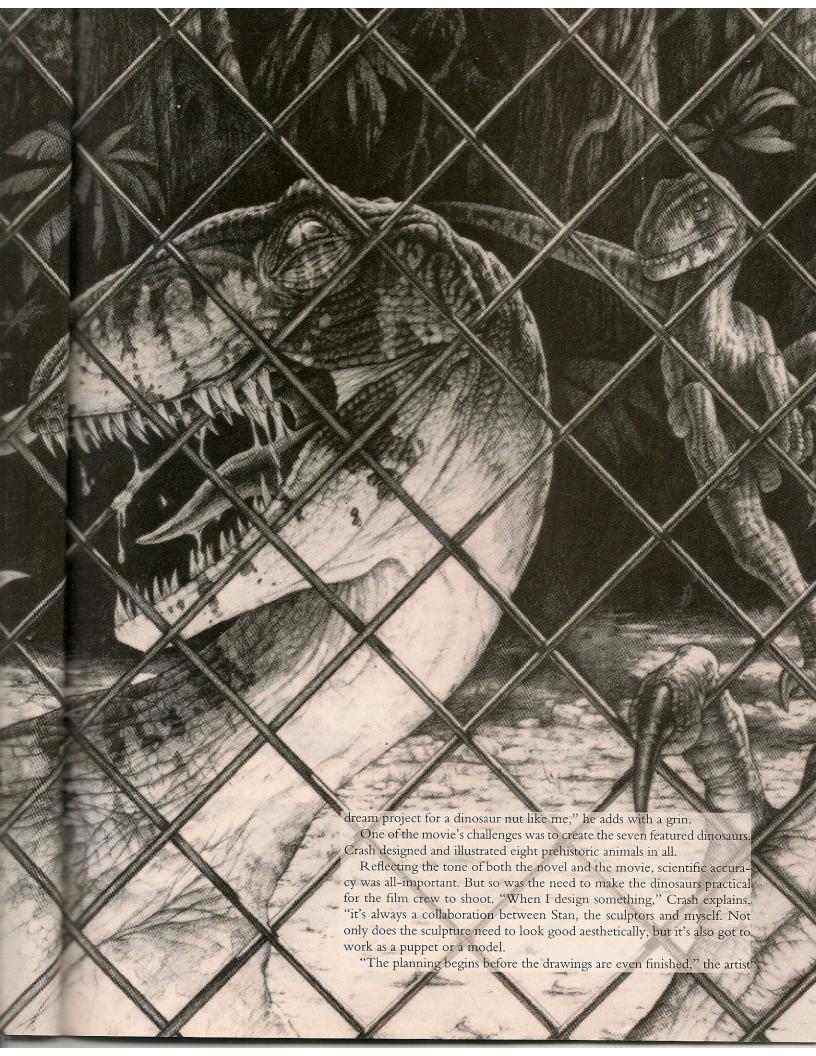


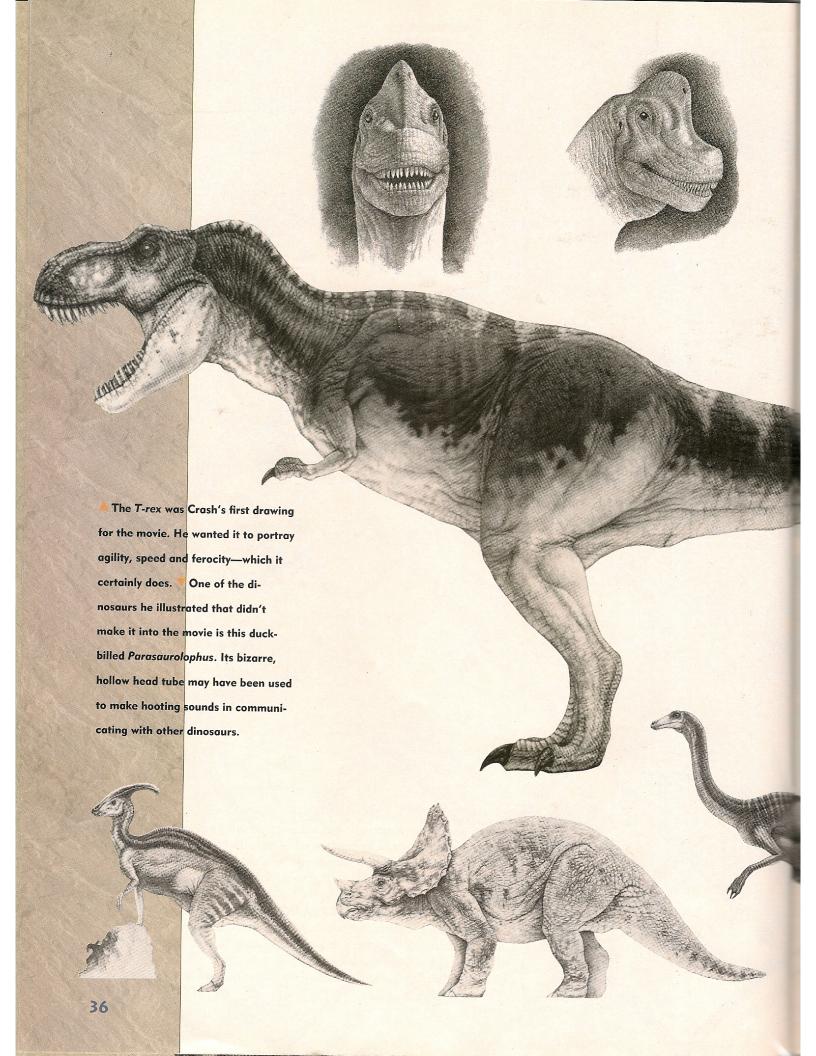


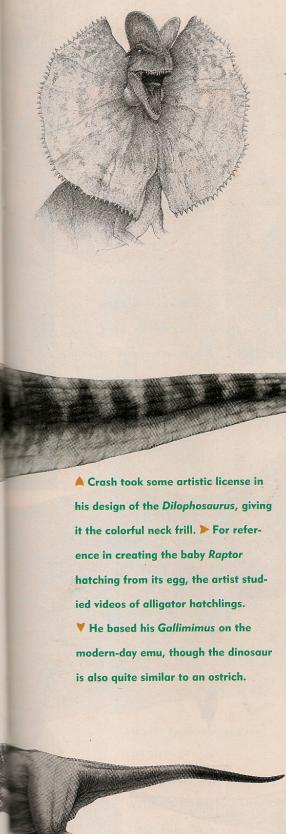












continues. "When the design is completed, we take it to the sculptors, who make a three-dimensional model based on it."

Tyrannosaurus rex was the very first conceptual drawing Crash did for Jurassic Park. "We wanted the animal to portray agility, speed and ferocity, which relates to the recent popular concepts for the T-rex," he says.

By far, though, the most lethal of the movie's dinosaurs are the superfast *Velociraptors*. "More so than the *T-rex*, the *Raptors* have an intensely threatening, premeditated disposition," Crash explains. "They are cunning, killing machines. The idea of these animals traveling and hunting in packs like wolves is most frightening. Even the babies are formidable. To create the hatchlings, I watched videos of baby alligators emerging from their eggs. I wanted to give them that new-born innocence, but with the *Raptor*'s built-in potential to be dangerous."

The only dinosaur design with which Crash took some artistic and scientific license is the scene-stealing *Dilophosaurus*, otherwise known as the *Spitter*. "We added the frill that opens when the animal is confronted or is preparing an attack, like the frilled lizards found in Australia," he says. Paleontologists generally portray the creature larger—more than twice the size of the four-foot movie version—and it did not spit. Still, it's an especially terrifying movie moment when the *Dilophosaurus*, after hooting and prancing about benignly, suddenly turns vicious and "slimes" the hapless

Dennis Nedry.

To create the *Triceratops*, Crash "primarily studied the skin texture and general attitude of the white rhinoceros for inspiration," he says. "*Triceratops* was originally rendered lying sickly on the ground as it appears in the film." The main source of reference for the fleet-footed *Gallimimus* (savage-

ly attacked by the *T-rex* during the stampede sequence) was that of a flightless bird known as the emu. Says Crash: "The skeletal structure of *Gallimimus* is actually quite similar to its modern-day relatives, which include the ostrich."

And which was the artist's favorite dinosaur of the

several he designed? "The Brachiosaurus, no contest!" Crash admits. "It's an incredibly huge animal, but supposedly very gentle. I remember spending time at the zoo studying live African elephants. That research helped me develop a tough and leathery look for the Brachiosaurus' hide."

Crash's one big
regret was that the
plated Stegosaurus,
another of the "friendly" dinosaurs, didn't
make it into Jurassic
Park. "It's such an outrageous, weird-looking
creature," he says before
flashing into the future.
"Well... maybe next time."



DINO CLOSE-UP:

IERCEST OF THEM ALL!

TYRANNOSAUR

On the Dinosaur All-Star Team, *Tyran-nosaurus rex* may have been the MVP: Most Vicious Predator. The "tyrant lizard king" was the most feared of all, the dude no one wanted to face. Today, in looking back at the heavy hitters of the era, *Tyrannosaurus* is still the fan favorite. You could say *T-rex* was the Babe Ruth of the Prehistoric League.

T-rex did plenty to earn that reputation. It was big, strong, fast and afraid of nothing—perhaps the largest of the flesheating theropods. Sporting an enormous skull, vice-like jaws, steak-knife teeth and muscular legs with tremendous claws, it was a "don't mess with me" killer capable of swallowing animals as big as humans in one gulp.

An attacking *T-rex* would have been brutal. With jaws agape, it might run at prey head on, slamming its sharp teeth into the victim's neck and ripping out huge chunks of flesh. "Those teeth were killing machines," says Philip Currie, a dinosaur expert at the Royal Tyrrell Museum of Palaeontology in Alberta, Canada. "They were designed for biting through bone and flesh. Everything about *T-rex*'s body design was for pursuit and kill."

In 1990, Jack Horner of the Museum of the Rockies excavated the first nearly complete *T-rex* skeleton in Montana (see page 12). An even better specimen was discovered that same summer in the Black hills of South Dakota. It was nicknamed "Sue" after the fossil hunter who discovered it, Sue Hendrickson. Unfortunately, a legal dispute over who owns Sue is raging, and the bones have been locked up by federal agents—thus keeping scientists from uncovering secrets about the deadliest of all dinosaurs.

Considering its massive head, thick neck and powerful legs, *Tyrannosaurus* was incredibly muscular. Its skull was powerful, but designed with plenty of holes to keep it light and flexible.

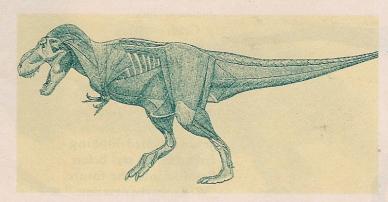


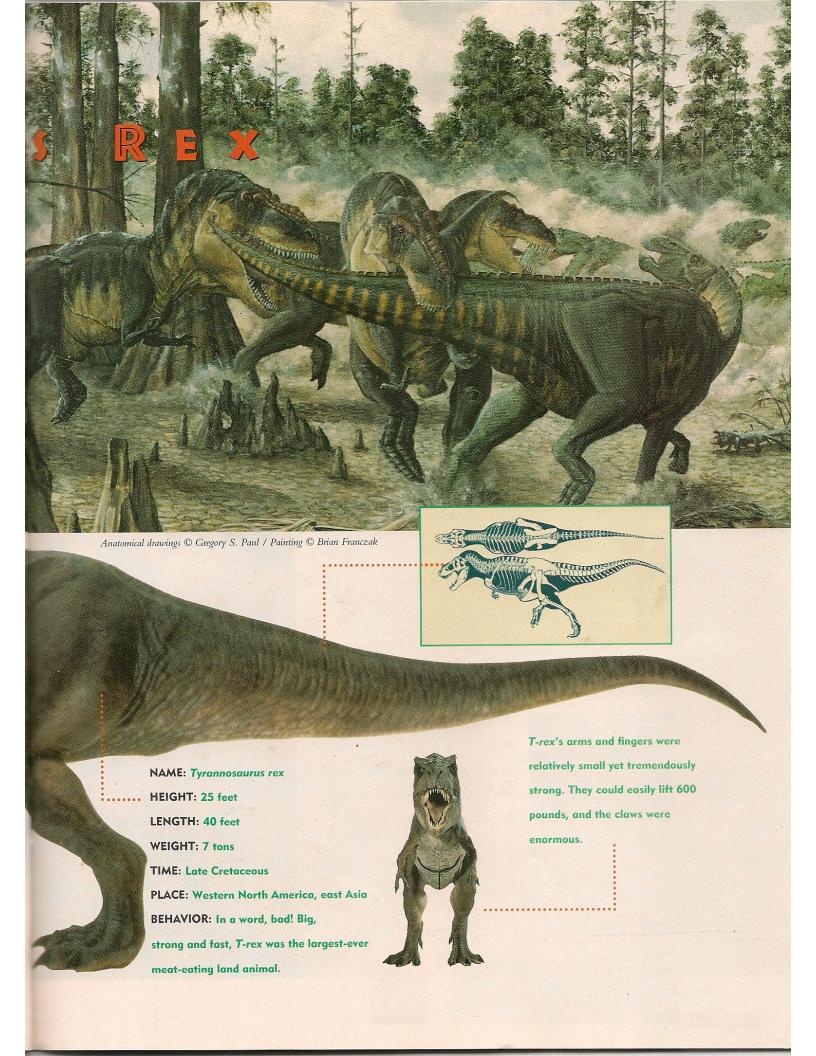
▼Tyrannosaurus was a killing machine with powerful jaws and huge, sharp teeth, each up to seven inches long—about the size of a carving knife.

▼T-rex was an active

hunter, sometimes attacking in groups. There's evidence it was also a scavenger not above dining on

already-dead animals.





FROM ONE SLIMEBALL TO ANOTHER

NEBRY GETS HIS



Crime doesn't pay, and neither does slime, as money-grubbing Dennis Nedry is about to find out. On route to rendezvous with the ship that will transport the stolen dinosaur embryos off the island, he makes a few fatal decisions. Nedry's name is

mud, first, when he takes the wrong fork in the rain-soaked dirt road and again after he tries to slip-slide the jeep down a sloppy embankment.

His biggest mistake, though, is ignoring the imminent danger presented by the hooting *Dilophosaurus* he meets. His mind obsessed with delivering a shaving cream can filled with the frozen booty, Nedry toys with the fourfoot dinosaur as it hops and hoots playfully, it seems, around him. But when the computer whiz whizzes a rock at the *Dilophosaurus*—known among its enemies as the *Spitter*—it retaliates, rearing its colorful head back and spitting at him. The spit that hits the hacker, however, is no ordinary sputum. The first salvo of slimy saliva burns Nedry's hand; the second, landing smack in his face, blinds him. Nedry screams. The *Spitter* hisses.

Nedry, writhing in pain, still attempts to escape, but when he finds the *Dilophosaurus* riding shotgun in the jeep, it's curtains for the rotund robber. And while the *Spitter* makes mincemeat of the slimeball in the rain, confusion still reigns back in the Control Room.



Peekaboo, guess who sees you,
Nedry? It's Mr. Dilophosaurus, and
he's not playing games. When the spit
hits the man, he's got more to worry
about than just missing the boat.





DINO CLOSE-UP:

AN ORIGINAL 'CARNOSAUR

DILOPHOSAURU

Jurassic Park will long be remembered for its "dinostars," the most realistic movie dinosaurs ever—and the main attraction of the show. Great attention was taken, first by Michael Crichton in his book and then by Steven Spielberg and his dino designers, to be paleontologically correct. But this is Hollywood, so a couple of dramataic liberties taken originally by Crichton were also used in making the movie's Dilophosaurus.

To begin with, not all the dinosaurs featured in *Jurassic Park* existed together during the same prehistoric periods. *Dilophosaurus*, for example, lived in the Jurassic period, which began more than 200 mil-

lion years ago; Tyrannosaurus rex reigned toward the end of the Cretaceous, the last of the dinosaur periods.

As for the other dinostars: Brachiosaurus lived in the late Jurassic; ostrich-like Gallimimus and Velociraptor in the late Cretaceous; and Triceratops at the very end of the Cretaceous—about 65 million years ago.

Dilophosaurus did have one key trait in common with T-rex: They were both two-legged meateaters. Dilophosaurus was the earliest of the large carnivorous dinosaurs—or "carnosaurs" as they've been called—that also included Allosaurus and Ceratosaurus. All three lived in what are now the Rocky Mountain and southwest regions of the United States.

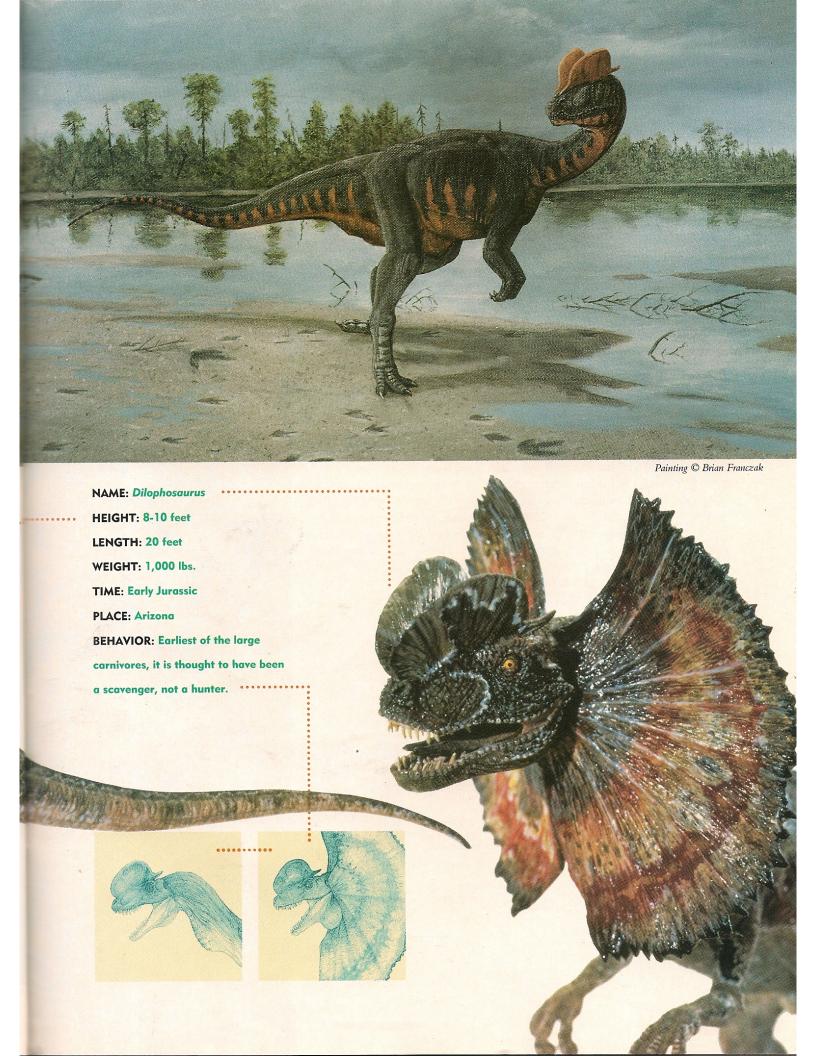
Dilophosaurus was quite a bit larger than the four-foot cinematic one that turns the tables on the scoundrel Nedry. It actually stood about eight to 10 feet tall and was much heavier and more muscular—weighing nearly half a ton—than the nimble killer hopping and hooting around on screen.

While Dilophosaurus' head, as seen in the film, was crowned with a bony pair of half-Frisbees (its name means "two-ridged lizard"), it did not have the multi-colored neck frill that Nedry's friend fanned when aggravated. Nor did it spit anything at its enemies, much less toxic slime. In fact, Dilophosaurus had relatively weak jaws, which suggests that it was a scavenger, not a hunter and killer. But try telling that to Nedry.



didn't have neck frills. ➤ It looked more like this artist's concept.





ROCK-A-BYE, BABIES,

N THE TREETOPS...

WHENTHEBOUG



It's safe to say, at this point, that John Hammond's noble dinosaur experiment has deteriorated into a frightening fight for survival. Years of planning, dreaming and genetic scheming have disintegrated in less than 24 hours. As Hammond desperately tries to get all of Jurassic

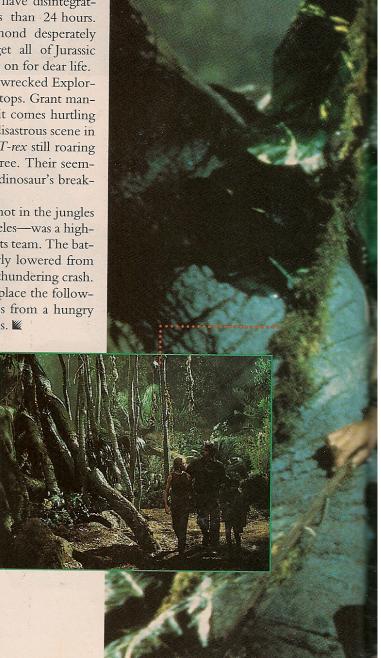
Park's electricity running again, Grant and the kids hang on for dear life.

Somehow, Tim has survived inside the *Tyrannosaurus*-wrecked Explorer, which the beast has left teetering perilously in the treetops. Grant manages to free the boy from the vehicle, moments before it comes hurtling down on top of them. Miraculously, all three escape the disastrous scene in one piece, and set out into the night. With the hungry *T-rex* still roaring and romping free, they seek refuge high up in another tree. Their seemingly safe haven, though, turns out to be a long-necked dinosaur's breakfast lounge early the next morning.

Rigging this nerve-racking scene—which was filmed not in the jungles of Kauai but on Stage 27 at Universal Pictures in Los Angeles—was a highwire feat pulled off by Michael Lantieri's mechanical-effects team. The battered car was suspended from steel cables and then slowly lowered from branch to branch until it finally falls to the ground with a thundering crash.

The same stage was later reset for the scene that takes place the following morning. That's when the trio's wake-up call comes from a hungry *Brachiosaurus*, who drops in to munch on some tasty leaves.

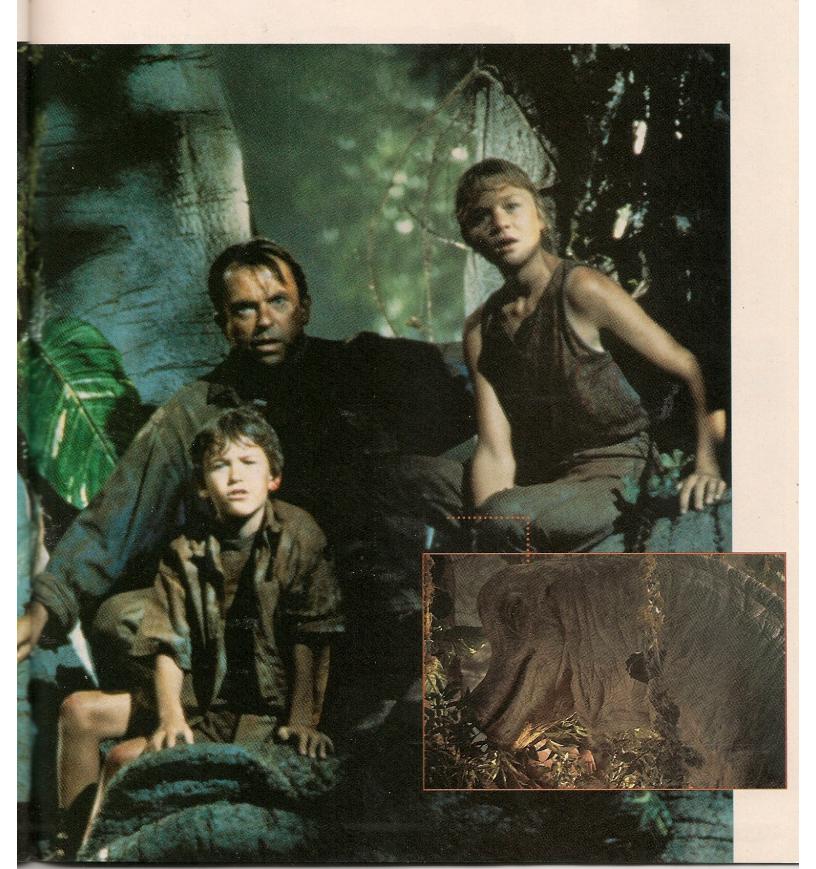
Having narrowly survived the brutal attack of the Tyrannosaurus, the shaken trio of Grant, Lex and Tim must now try to find their way through the dense jungle and back to the others at the Visitor's Center.



BREAKS



The thunderous roar of the still-hungry *T-rex* sends its frightened human prey scrambling up a tree for cover. Vafter a fitful night's sleep, they are awakened by a leaf-munching—though harmless—*Brachiosaurus*.



THEY'RE IN FOR AN

ELECTRIFYING EXPERIENCE

HIGH-WIRE TENS

As the life-or-death drama unfolds, further truths about Jurassic Park's prehistoric inhabitants are learned. Grant discovers dinosaur eggshells, which proves that the animals are breeding—even though it's an all-female population! He then figures out that the frog DNA originally added to the genetic formula that brought the dinosaurs back to life has mutated to produce males and allow for



▼ So much of what Alan

Grant has previously believed about dinosaurs is
rapidly changing as he and
the kids run for their lives.

But he knows enough to
figure out that the beasts
are reproducing.

reproduction. Yet Grant's train of thought is abruptly derailed when a stampeding herd of Gallimimuses, running in a bird-like "V" formation, bears down on them as the rampaging *Tyrannosaurus* lurks nearby.

Meanwhile, Hammond, Ellie, Malcolm, Arnold and Muldoon are in the Control Room, debating whether to override Nedry's sabotage by shutting down the entire system and then resetting the computer. During the argument, we learn that all the dinosaurs have to be given lysine, an essential amino acid, in order to stay alive. Cut them off, says Arnold, and they'll die in about a week. But can the humans survive until then?

Grant and the kids encounter another hurdle to climb: a 24-foot electrified fence, its 10,000 volts idled by Nedry's handiwork. But, just as the trio scrambles over, Ellie's found her way to the maintenance shed and is about to turn the juice back on. And all the while, the ravenous *Raptors* are on the prowl, much to Ray Arnold's dismay.









The Gallimimus stampede, shown here in preproduction storyboards, was computer animated by Dennis Muren and his special-effects wizards at Industrial Light & Magic.



SOMEONE'S IN THE

SITCHEN WITH RAPTORS

FEEDING TIME

Velociraptors are crafty hunters that work as a team, as Muldoon sadly learns. Through with him, they turn their attention to the Visitor's Center, where Grant, Lex and Tim—weak from his toasting on the fence—have safely arrived. When Grant leaves the kids and goes to find Ellie and the others, Tim and Lex look for something to eat. To their

horror, they spot something looking to eat them—two hungry Raptors.

The kids quickly retreat to the kitchen and attempt to conceal themselves in the semidarkness among the pots and pans. But faster than you can say "fee-fi-fiddly-i-o," someone's in the kitchen with them. Seems that the clever *Raptors* can open doors, too, and they challenge the kids to a vicious, two-against-two game of hide-and-seek—winner takes all.

The kids split up. Amidst the clatter of clanking utensils, one of the *Velociraptors* sniffs out the hobbled Tim, who's huddled behind a counter. Both are about to pounce on him when Lex distracts them from across the room, prompting the *Raptors* to go one-on-one against their prey. Now, who's gonna outsmart whom?

Lex is trying to shut herself into a cabinet; Tim limps into the walk-in freezer. Just as one of the deadly dinosaurs leaps at the sight of Lex, the other goes after Tim. The first *Raptor*, though, smashes into what turns out to be just a reflection of Lex against a steel cabinet and knocks itself silly. The other skids right past Tim on the slippery freezer floor, and the boy scoots out and bolts the door behind him.

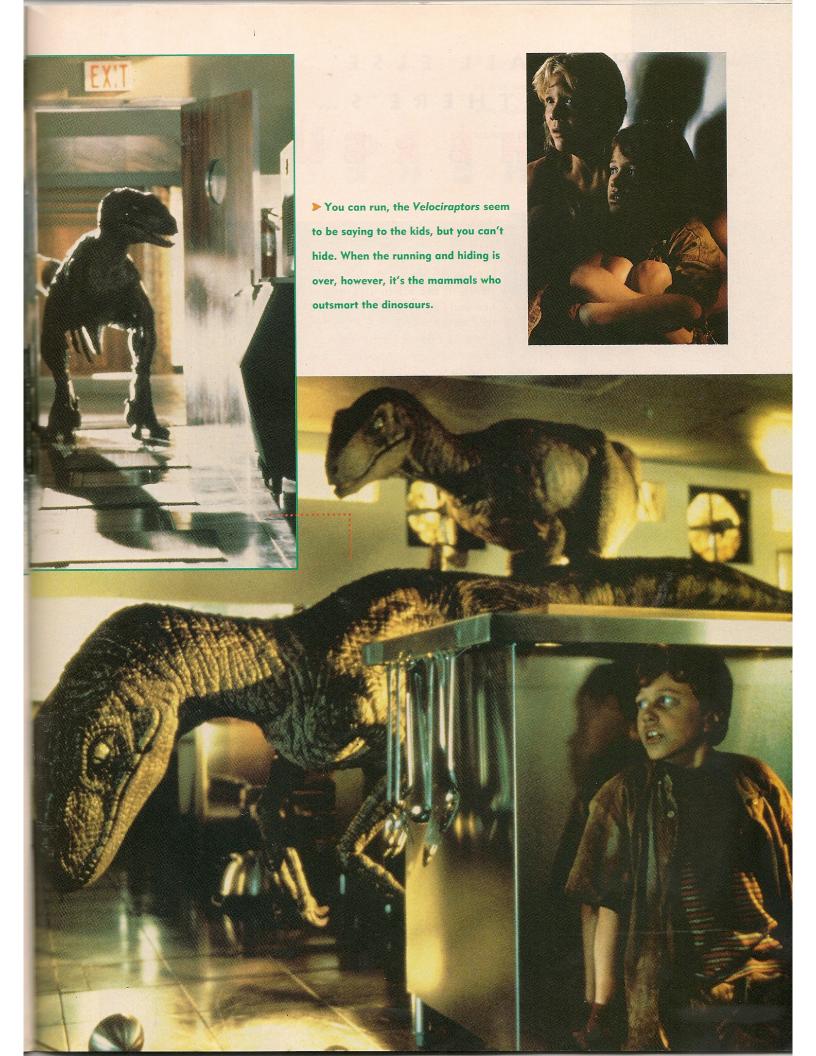
Now do you handle a hungry

Raptor? That's what Tim and Lex are
trying desperately to figure out as two
of the snarling beasts hunt for something, or someone, to eat.



snack. Unfortunately for Tim and Lex, "Kids *Tartare*" happens to be the rare treat on the menu.





WHEN ALL ELSE FAILS, THERE'S...

NOWHERE







Having survived the *Velociraptor* attack in the kitchen, Tim and Lex find Grant and Ellie, and then the foursome finds itself locked in a brutal battle with a ruthless *Raptor* in the Control Room. Every time they seem to thwart the beast, it instead comes back snapping and snarling for more.

The *Raptor* is just about to bust down the door to the Control Room, when self-proclaimed hacker Lex punches the right buttons on the computer and automatically secures the lock. The

devious dino then comes smashing through the window, just as its prey is climbing up into a crawl space above the ceiling panels. They appear doomed when the *Raptor* jumps and crashes its gaping jaws into the ceiling, but they narrowly escape into an air duct. And not even this resourceful reptile could figure out how to get in there... could it?

The movie set for the Control Room, the brain center of Jurassic Park, was built on Stage 28 at Universal Studios. Under the direction of Computer Effects Coordinator Michael Backes, the room was filled with nearly \$1 million worth of sophisticated computer equipment on loan from such industry leaders as Apple, Silicon Graphics and SuperMac. At various times during the movie, we can simply watch the colorful display screens to follow the chaos going on all over the park.

Neither locked doors nor thick windows can keep this lithe lizard out of the Control Room. Its quarry is clever, climbing into the ceiling, but they're not safe up there, either.





B u T U p

▼ Grant, Ellie, Tim and Lex manage to stay one step ahead of the watchful eyes and snapping jaws of the intrepid intruder. Is their luck about to run out?



CURTAINS FOR OUR HEROE

REXVS.RAPTORS



The air duct leads the frightened foursome to an opening high above the huge glass Rotunda. Their only way out is to climb down the bony neck of one of the dinosaur skeletons that's still under construction in the lobby.

No sooner do they begin their descent when the ingenious *Raptor*, which in-

deed has figured out how to squeeze itself through the duct, appears on the scaffolding next to them. Fearless and determined, it leaps onto the skeleton and is just about to pounce on its human prey when the supporting wires holding the bones in the ceiling give way. They all come tumbling down, like a house of cards, landing in a heap on the Rotunda floor.

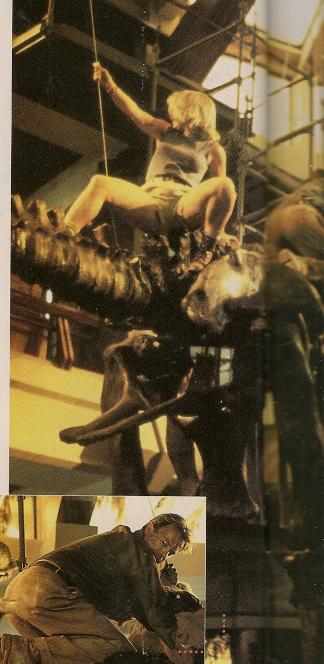
Grant, Ellie, Tim and Lex dust themselves off and are about to flee from the still-dazed *Raptor*, but they find another one of the animals blocking their way. It looks as if they're trapped between the two crouching carnivores, but then a most unlikely heroine comes to the rescue—the *Tyrannosaurus rex*, and she's not happy to see the *Velociraptors*.

In a flash, the *T-rex* reaches down and snares the nearest Raptor in its powerful jaws, snapping its neck and instantly killing it. While the other one turns and attacks the *Tyrannosaurus*, Grant and the others seize their opportunity. Hammond and Malcolm have arrived in a jeep, and they all speed off to an awaiting helicopter.

They're hovering above Isla Nublar and Hammond's failed experiment, Jurassic Park, a few minutes later. They leave behind not only the roaring T-rex and all the other prehistoric animals, but also the impossible dream of reliving the days when dinosaurs ruled the Earth.

delicate bones of the Alamosaurus skeleton in the Rotunda lobby.

But something wants to join them—the persistent Velociraptor.





Steven Spielberg accepted an incredible challenge in bringing Jurassic Park to the big screen. The director, certainly no stranger to filming fantastic creatures, took on the task of creating the most believable dinosaurs moviegoers have ever seen. Thankfully, he had the help of "The Design Team"-Stan Winston, Dennis Muren, Phil Tippett and Michael Lantieri.

"Jurassic Park is the biggest creature movie of all time," says Stan Winston, whose special effects studio in Hollywood was assigned to make the mechanically controlled dinos. "There have been other dinosaur movies, but I don't think that anybody has ever attempted to really do it right in full size. This is not Godzilla."

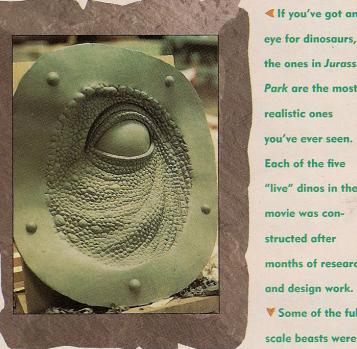
From the very beginning of the twoyear preproduction process, Spielberg set the tone for the monumental project. He insisted that the dinosaurs be as scientifically correct as possible—while still leaving room for the type of artistic leeway that has made his other creature features such fun. So, for example, even though the real Dilophosaurus did not spit, having one in the film that does simply enhances the scene. Regardless, Spielberg and Winston want audiences to believe they're seeing real dinosaurs.

Veteran makeup artist Stan Winston was the perfect choice to head the dinosaur crew. He has previously developed incredible creatures for The Terminator, Aliens and Terminator 2. For Jurassic Park, Winston eventually employed more than 60 artists, engineers and puppeteers.

Winston divided the project into three stages: research, design and construction. During the research phase, which occupied an entire year, he and his team consulted with leading paleontologists, visited the finest natural history museums and referred to dozens of scientific books. Winston's crew also studied wildlife films of elephants and rhinoceroses to learn how movements of those big animals could be applied to their "dinostars."

That elaborate process led to the design of the dinosaurs, which began with the fabulous renderings by dino artist Mark "Crash" McCreery (see page 32). His art became the reference used for building 1/5th-scale models and, from those, full-sized animals. Winston assigned a team of artists and engineers for each of the five "live" dinosaurs in the movie.

The creation of the frightening, 20-foot Tyrannosaurus was the genius of Team Rex. Working from the scale model, they constructed a full-size, moveable skeleton made of fiberglass and 3,000 pounds of clay. That was covered with a pliable latex skin and then carefully painted to look like the



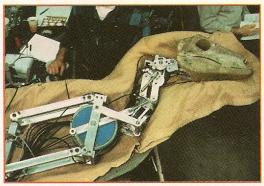
◀ If you've got an eve for dinosaurs, the ones in Jurassic Park are the most you've ever seen. Each of the five "live" dinos in the movie was conmonths of research and design work. ♥ Some of the full-

built in pieces, like the Tyrannosaurus rex hind leg.



SAURS TO LIFE





The remarkably life-like movements of the Velociraptors were controlled by computer operators. Underneath the animals' painted latex skin was an intricate skeleton of wires and circuits that allowed a full range of motion, right down to the snapping jaws.

real thing. Next, the *T-rex* was mounted on a space-age hydraulic device—similar to a flight simulator used to train military pilots—that would allow a computer operator to put the beast through a full range of realistic, life-like motions.

The beauty of the *T-rex* and the other dinosaurs goes deeper than their skin, though, explains Design Team member Phil Tippett, an effects guru whose credits include the *Stars Wars* movies and *Dragonslayer*. "We've de-

signed rib cages that constantly breathe, legs that have muscles that expand and contract as they move, and throats that are pulsing."

Spielberg and his Amblin Entertainment also called on the effects wizards at Industrial Light & Magic, led by six-time Academy Award winner Dennis Muren, to generate some dinosaur scenes using sophisticated computer animation techniques. For instance, the *Gallimimus* stampede and portions of the climactic *T-rex* vs. *Raptors* battle are computer animated.

Finally, there's a touch of movie magic built into all of the dinosaurs that came straight from the top. "Steven's attitude is that each of the creatures in *Jurassic Park* has to have its own character," says Winston of director Spielberg's input. "So when you first see the *Spitter*, you feel it's actually cute, that it could be somebody's pet. And then suddenly—s-s-s-s-s-s-it hisses, and there's that shock aspect."

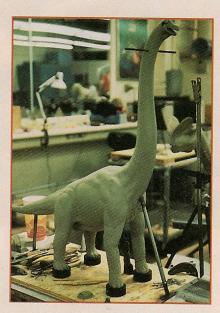
Some of the dinosaurs in the movie might look cute and act docile, like the sick *Triceratops* and the plant-eating *Brachiosaurus*, but the big, bad *Tyrannosaurus* and *Velociraptors* are the ones we'll all remember. "If we can make people believe the dinosaurs are real, then they'll be scary," says Winston. *Jurassic Park*'s dinosaurs are real scary.

Spielberg insisted that the dinosaurs not only look real, but that they move realistically, too.

Stan Winston (below left) had his crew build full-scale dinos by first constructing 1/5th-scale models. The remarkable range of movements by the

T-rex were achieved

by putting it on a computerized device similar to a flight simulator.

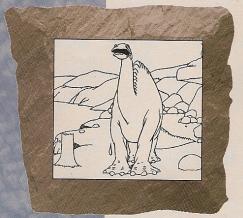




FAMOUS DINOSAURS

FFILMLAND

CALL HT EVOLUTIO



In Jurassic Park, moviegoers will witness the most ambitiously conceived, scientifically accurate dinosaurs ever developed for the big screen. These state-of-the-art wonders follow in the formidable footsteps of previous movie dinosaurs, a legacy dating back to the silent era.

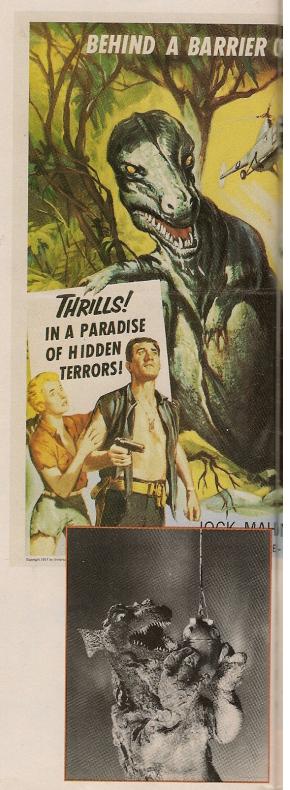
First out of the gate was Winsor McCay's Gertie The Dinosaur (1912), an animated short subject showcasing a lovable Brontosaurus. Although Gertie was expressive and certainly innovative, she was still a cartoon. It was puppeteer Willis O'Brien who first gave dinosaurs three-dimensional film life through his remarkable "stop-motion" process, a frame-by-frame technique he would later perfect for the landmark King Kong (1933).

But before Kong, there was O'Brien's feature adaptation of The Lost World (1925), derived from Arthur Conan Doyle's seminal adventure tale. Not only were unsophisticated audiences of the day enthralled by the film's "live" dinosaurs, but they were also exposed to what would eventually become two great sub-genres of dino cinema: the expedition to a lost plateau or island where prehistoric beasts still roam; and the capture and exhibition of one of those creatures in a great urban setting. Inevitably, the dinosaur—in this case a Brontosaurus—escapes for the cataclysmic finale, terrifying city dwellers and causing as much mayhem as O'Brien's special-effects budget would allow.

Although stop-motion was the preferred method for bringing prehistoric behemoths to life, it was by no means the only approach tried by Hollywood. Guys in rubber suits were far more economical, if decidedly less convincing. In 1940, Hal Roach produced the fanciful *One Million B.C.*, which offered Victor Mature and Carole Landis as a kind of Stone Age Adam and Eve. Since most patrons of the time believed dinosaurs to be exotic (if extinct) members of the lizard family, Roach gambled that live iguanas and baby alligators, enlarged through trick photography, would "play" on screen as living, breathing and, in some cases, bleeding dinosaurs. For the most part, the gamble paid off: Though they really didn't look like the dinos pictured in scientific journals and museums, those somewhatcustomized reptiles proved to be energetic show-offs.

The 1950s produced a plethora of dinosaur-themed thrillers, Japan's Gojira (1954) being one of the most audacious and successful. The American distributor renamed the creature Godzilla and inserted scenes featuring Raymond Burr, but, thankfully, the integrity of Inoshiro Honda's original version wasn't lost in the translation.

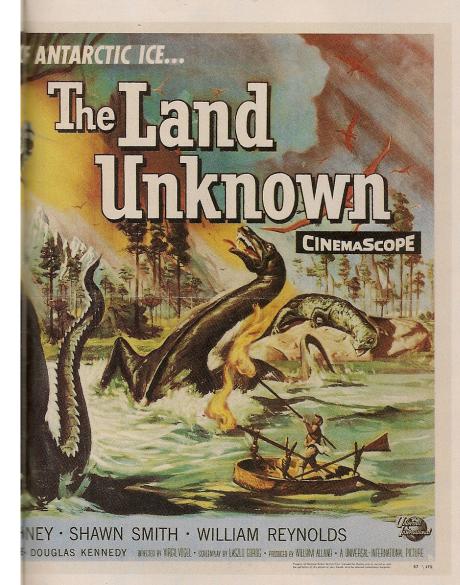
To be sure, Gojira/Godzilla was a guy in a rubber suit, augmented







Gorgo was a fictitious dinosaur, but it was convincing enough to moviegoers of the time. Audiences even had a touch of sympathy for the creature as she defended her offspring in London.



Dinosaur movies have come a long way since Gertie in 1912.

✓ Director Eugene Lourie used Technicolor and a man in a rubber suit to bring Gorgo to cinematic life in 1961.

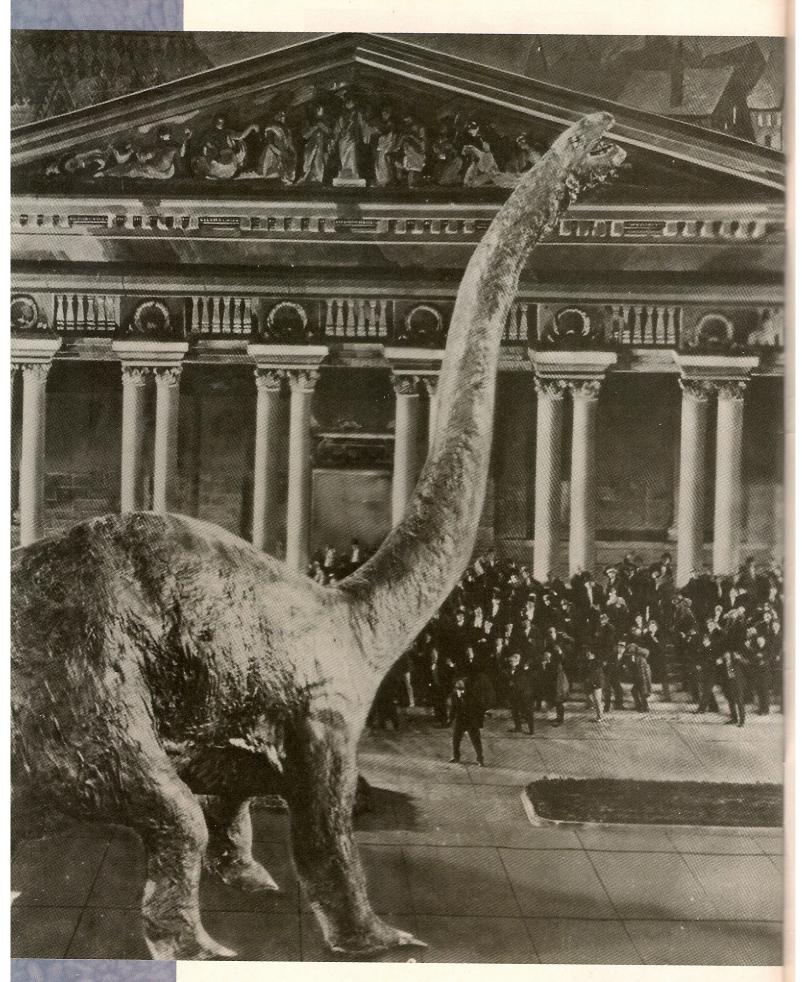
occasionally by a well-lit, highly detailed hand puppet. But the Japanese filmmakers were more concerned with achieving mythic nightmare intensity than duplicating a scientifically correct saurian. Photographed in moody black and white, the Big "G" resembled some avenging samurai warrior god, towering over Tokyo while spewing atomic radiation into the atmosphere—a perverse updating of the fire-breathing dragon myth. Not surprisingly, *Gojira* was a smash in Japan, and just about everywhere else it played.

By far, the most successful director of dinosaur movies during the period was Eugene Lourie. His first achievement was *The Beast From 20,000 Fathoms* (1953), inspired by Ray Bradbury's short story and boasting effects by Willis O'Brien's stop-motion protégé, Ray Harryhausen. *Beast's* illusions, while produced economically, were thoroughly convincing: The concocted "Rhedosaurus" really looks as if it's lumbering through the streets of downtown Manhattan or munching on the Coney Island roller coaster in the finale. The film is well-paced and intelligently crafted, never allowing the romantic subplot to interfere with monster action.

Lourie did away with leading ladies altogether in his next two attempts at dino cinema. The Giant Behemoth (1959), with stop-motion by O'Brien and Peter Peterson, was essentially a remake of The Beast set in England. Actors Gene Evans and Andre Morell projected something of a Holmes-Watson feel as they pieced together the mystery of a gargantuan prehistoric

animal somehow reborn into the 20th century. Dark, adult and very British, *Behemoth* benefited from an excellent music score by composer Edwin Ashley and some interesting optical effects furnished by Jack Rabin and Louis DeWitt (*Kronos*, *Forbidden Planet*) that enhanced the stop-motion sequences.

Lourie's final entry in his dinosaur-on-the-loose trilogy was his most ambitious and arguably most remarkable: *Gorgo* (1961), also made in England and starring Bill Travers and William Sylvester. Shot in brilliant Technicolor (the creature's eyes glowed bright crimson), Gorgo was a





completely fictitious saurian with enormous talons and curiously shaped ears resembling those of a dragon. This make-believe beast was also a guy inside a rubber suit, Lourie abandoning stop-motion photography for the method that had made *Gojira* so popular.

Again, in the tradition of Honda's scenario, an impossibly enormous god-like monster bears down on a metropolis and exacts primal retribution, smashing the city to smithereens. This time, however, the monster



is a mama, whose goal is to free her imprisoned offspring from the reckless human mercenaries who captured it. With that kind of premise, it's clear both Gorgos will triumph in the last reel, returning to the sea unscathed as London burns dramatically behind them. The movie boasted breathlessly edited panic scenes and mass destruction on a scale never before attempted on the screen. Moreover, the "power of

mother love" theme lent an unexpected humanity to Gorgo, making it the most personal monster movie since King Kong.

A handful of additional dinosaur epics roared through theaters during the 1960s, '70s and '80s, paving the way for Steven Spielberg's "last word" on the subject in 1993. Michael Crichton's high concept pays homage to the lost world sub-genre by limiting the action to a single, dinosaur-infested island. And the *Raptors*, super-fast and devious, make extraordinary, paleontologically correct screen villains.

In the final analysis, *Jurassic Park* inherits and skillfully expands a rich tradition in fantasy film making. As long as moviegoers continue to view dinosaurs as wondrous, awe-inspiring and, in some cases, terrifying creatures, it is a genre that will never become extinct.

◀ A Brontosaurus attacks in The Lost

World; A a T-rex in The Land Unknown

(top); Spielberg's first dinosaur movie

was Land Before Time.

DINO MOVIES

A Stone Age Romance (1929)

Adam Raises Cain (1919)

Adam's Rib (1923)

Animal World, The (1956)

At The Earth's Core (1976)

Baby: Secret Of The Lost Legend (1983)

Beast From 20,000 Fathoms, The (1953)

Beast Of Hollow Mountain, The (1956)

Birth Of A Flivver, The (1916)

Brute Force (1914)

Dinosaur And The Missing Link, The (1917)

Dinosaurus! (1960)

Dinosaurs...The Terrible Lizards (1970)

Emilo And His Magical Bull (1975)

Fantasia (1940)

Fig Leaves (1926)

Gertie The Dinosaur (1912)

Ghost Of Slumber Mountain, The (1919)

Giant Behemoth, The (1959)

Gojira (1954; Godzilla in U.S. release)

Gorgo (1961)

Journey To The Beginning Of Time (1954)

Journey To The Center Of The Earth (1959)

King Dinosaur (1955)

King Kong (1933)

Land Before Time, The (1988)

Land That Time Forgot, The (1974)

Land Unknown, The (1957)

Lost Continent (1951)

Lost World, The (1925)

Lost World, The (1960)

One Million B.C. (1940)

One Million Years B.C. (1967)

One Of Our Dinosaurs Is Missing (1976)

People That Time Forgot, The (1977)

Planet Of The Dinosaurs (1977)

Prehistoric Man, The (1908)

Reptilicus (1962)

R.F.D. 10,000 B.C. (1917)

Rodan (1957; Radon in Japanese release)

Son Of Kong (1933)

Sound Of Terror, The (1965)

Unknown Island (1948)

Valley Of Gwangi, The (1969)

When Dinosaurs Ruled The Earth (1971)

When Time Began (1976)

Note: The numerous sequels of Gojira and

Rodan are not included.

CREATE JURASSIC PARK

THE ESMIE BOO



A great story like the one created by Michael Crichton in Jurassic Park can be told in so many ways, each one separate but equally fantastic. From the best-selling novel has come the new blockbuster movie, which has generated companions such as this OFFICIAL SOU-VENIR MAGAZINE from Topps. Now, Crichton's tale of dinosaur terror is also being presented as a four-part comic book series from TOPPS COMICS.

The exciting project brings together three of the comics industry's most talented and well-known contributors. The four-part series is scripted by Walter Simonson, a lifelong dinosaur enthusiast whose writing and illustration credits include *Manhunter*, *Superman* and the comics adaptation of the movie *Alien*. The pencil work is done by comics legend Gil Kane, of *Green Lantern* and *Spider-Man* fame. Inking Kane's pencils is George Perez, who comics fans know from *The Avengers*, *Fantastic Four* and other titles.

All four of the *Jurassic Park* 32-page, full-color comic books will be packaged with exclusive Topps trading cards inside. Five of the cards feature dinosaur art by Simonson; others are reproductions of the four different covers; four are 3-D holograms of the movie's dinosaurs. All of the cards are available only through the *Jurassic Park* comics. Each edition of the comics also includes a behind-the-scenes article and photos.

The release of Issue #1 of the comics will coincide with the movie's debut in June, Issues #2 and #3 will be in July and the final issue will come out in August. Each issue will be sold in two versions: a special collector's edition, available only in comics and card hobby shops and including the trading cards, for \$2.95 each; and a newsstand edition, without trading cards but featuring four different covers, for \$2.50 each.





TOPPS COMICS presents the comic book adaptation of *Jurassic Park*. The fourpart series features stories by Walter Simonson, art by Gil Kane and inking by George Perez.

These pages from Issue #1 of the Jurassic Park comics illustrate the movie's opening scene, in which the dangerous business of creating dinosaurs is first revealed.

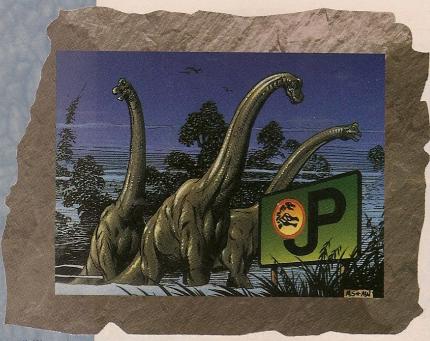




EXCLUSIVE DINO ART

DR JURASSIC PARK

THEFRABING



"I'll trade you two Brachiosaurs for a T-rex." "Throw in a Spitter, and you've got a deal."

Is this dialogue from a couple of paleontologists swapping bones? No, it's a possible scenario for wheeling and dealing some of the action-packed *Jurassic Park* trading cards from Topps. These are completely different cards from those offered inside copies of the *Jurassic Park* comic books.

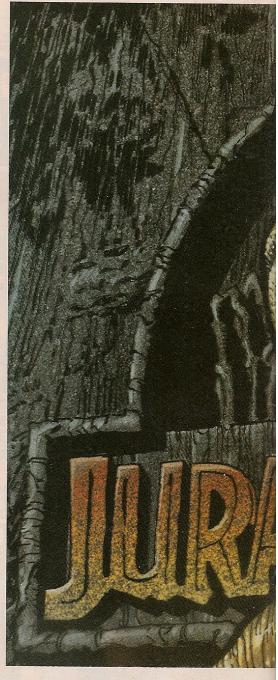
The full-color, 88-card set is a convenient way to have and hold the memorable moments and characters from the movie. The 2 1/2" x 3 1/2" cards, printed on heavy stock with color images front and back, depict various aspects of *Jurassic Park*: the dinosaurs, the park, the cast of characters, behind-the-scenes, preproduction art and more. In addition, there are 11 dinosaur stickers. The cards and stickers are sold in red packs.

There is also a separate edition of the same cards offered only through comics and card-collecting shops. Called the Jurassic Park Deluxe Gold Series, the cards have a heavier, glossier coating, and the *Jurassic Park* logo is stamped on each one in gold foil. Packs are wrapped in black foil.

In place of the stickers, the deluxe series boasts an exciting 10-card subset showcasing specially commissioned dinosaur art by 10 of the comics industry's finest artists, such as Arthur Adams, Howard Chaykin, Jeffrey Jones, Nelson, Mark Pacella and Kent Williams.

Both the regular and deluxe series include four dazzling hologram cards randomly inserted in packs. They are 3-D images of sculpted dinosaurs seen in two views. For instance, the *T-rex* opens and closes its enormous jaws, and the *Spitter* is shown both rearing back and spitting.

The Jurassic Park trading cards continue Topps' long tradition of producing entertainment cards for such movie classics as Star Wars, E. T., Close Encounters of the Third Kind, Gremlins and Batman Returns.



Deluxe Gold art cards. Brachiosaurs
(top left): pencils by Mark Schultz, inking by Al Williamson. A Raptor: pencils
by Joe Quesada, inking by Williamson.
T-rex (top right) by Arthur Adams.



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TIGERING.

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