

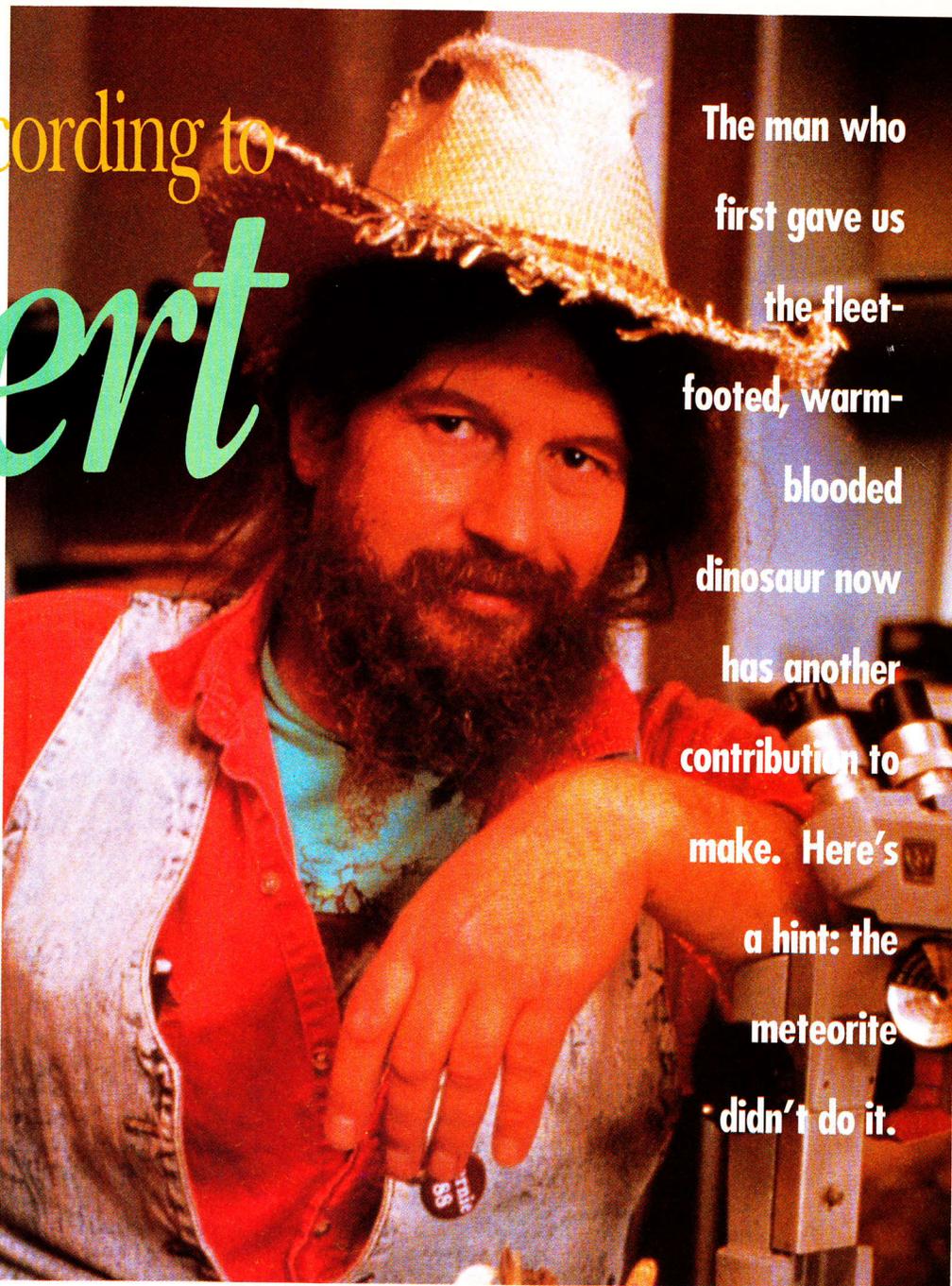
The Gospel According to Robert

by Claudia Pearce and Michael Good

UNTIL ROBERT T. BAKKER came on the scene, dinosaur study was almost as fossilized as its subject. On the basis of a few thousand dusty old bones and some rather convenient assumptions, paleontologists constructed the 19th century version of the dinosaur: a dim-witted, slow-moving beast that should have surprised no one by becoming extinct. Even the word dinosaur, which means terrible lizard, carried its own assumptions. It was almost as if these crusty old academics had created dinosaurs in their own image.

In 1968, Robert Bakker took the first step in his crusade to change all that. Though still a Yale undergraduate, Bakker published an impassioned paper called "The Superiority of Dinosaurs." Dinosaurs, Bakker claimed, weren't the sluggish, plodding reptilians William Buckland described when the Anglican Dean from Oxford first gave the

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The man who
first gave us
the fleet-
footed, warm-
blooded
dinosaur now
has another
contribution to
make. Here's
a hint: the
meteorite
didn't do it.

Robert T. Bakker: former street preacher and renegade paleontologist.

"A meteorite could have hit the earth at that time," says Bakker, "but that doesn't explain the mass extinction."

Megalosaurus its name in 1824. In fact, they weren't reptiles at all. Dinosaurs were the ancestors of today's birds. The lumbering Tyrannosaurus rex of Godzilla movies and college textbooks was actually, in Bakker's words, a "10,000-pound roadrunner from hell."

Bakker's new theory was not an immediate hit. More than one critic wished this upstart and his 10,000 pound roadrunner would go back to where they came from.

Nevertheless, the irrepressible Bakker (whose name rhymes with talker) persisted. He got his doctorate at Harvard, where he was elected to the elite Society of Fellows. And he continued to publish in prestigious journals.

In the end, however, it wasn't Bakker's impressive credentials that convinced his fellow paleontologists. It was his ability to look at the fossils and see obvious clues others had missed. Bakker noticed dinosaur bones were more porous than reptile bones, indicating a high rate of blood flow through the skeleton. Similarly, bone studies suggested dinosaurs grew more like mammals than reptiles, and that their leg bones were more like birds' than lizards'. Bakker kept marshalling fact after fact until, nearly two decades after his first discoveries, most of his heretical claims were accepted as gospel. Today, the dinosaur according to Bakker—for the most part

Bakker spreads the dinosaur gospel to future earth scientists.



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fierce and fast, warm-blooded, social, a team hunter with good parenting skills—is basic paleontology.

At present Bakker is riding a crest of acceptance and fame beyond anything paleontology old-timers ever dreamed of. Dinosaur mania shows no signs of abating, and the man on the cutting edge, the authority the film and television producers (and the school kids) want to talk to is Robert Bakker. Bakker's book, *The Dinosaur Heresies*, with illustrations by Bakker, was published to much acclaim in 1986. This summer, Steven Spielberg's latest science fiction fantasy, *Jurassic Park*, premieres in movie theaters, popularizing Bakker's hot-blooded, lightning-quick dinosaur. Last but not least, *The Dinosaurs!*, a new four-part public television series in which Bakker and his theories figure prominently, debuts Sunday, November 22 at 8 p.m.

Bakker the man is nearly as unconventional as his theories. He wears his hair to his waist, sports a beard, dresses like a prospector and looks a bit like an Old Testament prophet. His mind is as quick as a lunging raptor, and a conversation with Bakker ranges far and wide, covering popular culture, life on a dig, religion and, of course,

dinosaurs. Sometimes these several topics merge in a single reference, such as when he observes that one of his favorite digging tools is the ice pick—the same model Sharon Stone used so effectively in *Basic Instinct*.

Bakker's unconventionality extends to his digging techniques. While on a dig recently, he and his colleagues tried a chant ("bones and teeth and vertebrae, appear before my eyes today"), and were surprised to uncover adults and babies of a new kind of dinosaur in a spot where they had found nothing three months before.

"These serendipitous kinds of events happen all the time," Bakker says. "Anyone who collects fossils has all these weird cases."

He also uses unconventional relaxation techniques. Instead of "consuming large quantities of the local brew," as is the custom after a hard day's digging, Bakker and his fellow paleontologists like to relax by singing "loudly and badly" and "throwing small pieces of dirt at each other."

You'd expect such a freewheeling guy to come from one of those liberal households where the children didn't have to do their homework or wear shoes. Quite the opposite. Bakker's parents are fundamentalist Christians.

"In the '60s I had a crew-cut and wore three piece suits," he says. "There were a lot of serious young men back at Yale then. I belonged to a conservative Christian campus group and did street preaching."

Understandably, Bakker's spiritual orientation went through its own evolution—after all, the fundamentalists date the earth at about 10,000 years; most paleontologists believe it to be several hundred million years older. Bakker's still on good terms with the Old Testament, however. "Even though I don't believe them literally anymore, the first five books of the Old Testament still have a lot of meaning for me," he says.

"My mother is still a creationist," Bakker adds, "but she has accepted that I can be an evolutionist and still have a spiritual side." As to what that spiritual side is, Bakker's uncharacteristically tight-lipped. When asked if his hair has anything to do with it, he says, "When people stopped wearing long hair, I decided to start. It also has something to do with the Old Testament Nazirite, but that's a long story." For those

not up on their Biblical lore, a Nazirite separated himself for special service to God by taking a vow not to cut his hair or drink liquor.

Bakker parts ways from fundamentalist thinking on a number of other points. At 48, he's on his fourth marriage (although this one, he claims, is the last). "We're terminally attached," he says of his wife Constance, who teaches biology at the University of Colorado, where Bakker is adjunct museum curator. If anything, Constance is remarkably tolerant: She let him wear his cowboy hat and vest at their wedding—his dress hat and vest, not the digs set.

Considering his past as a sidewalk evangelist, it's tempting to portray Bakker as a man in a cowboy hat on a mission from God to spread the dinosaur gospel. Bakker poo-poops the notion.

"No, I'm not an Indiana Jones meets the Blues Brothers. I just think dinosaurs are a lot of fun." Which is not to say he doesn't enjoy spreading the word about them. "When I get soap-boxish now, it's about using dinosaurs to teach science. Dinosaur literacy is the answer to science education in our schools."

Bakker elaborates with examples of how dinosaurs can teach kids everything from anatomy to creative writing. Even girls are falling under the dinosaur's spell.

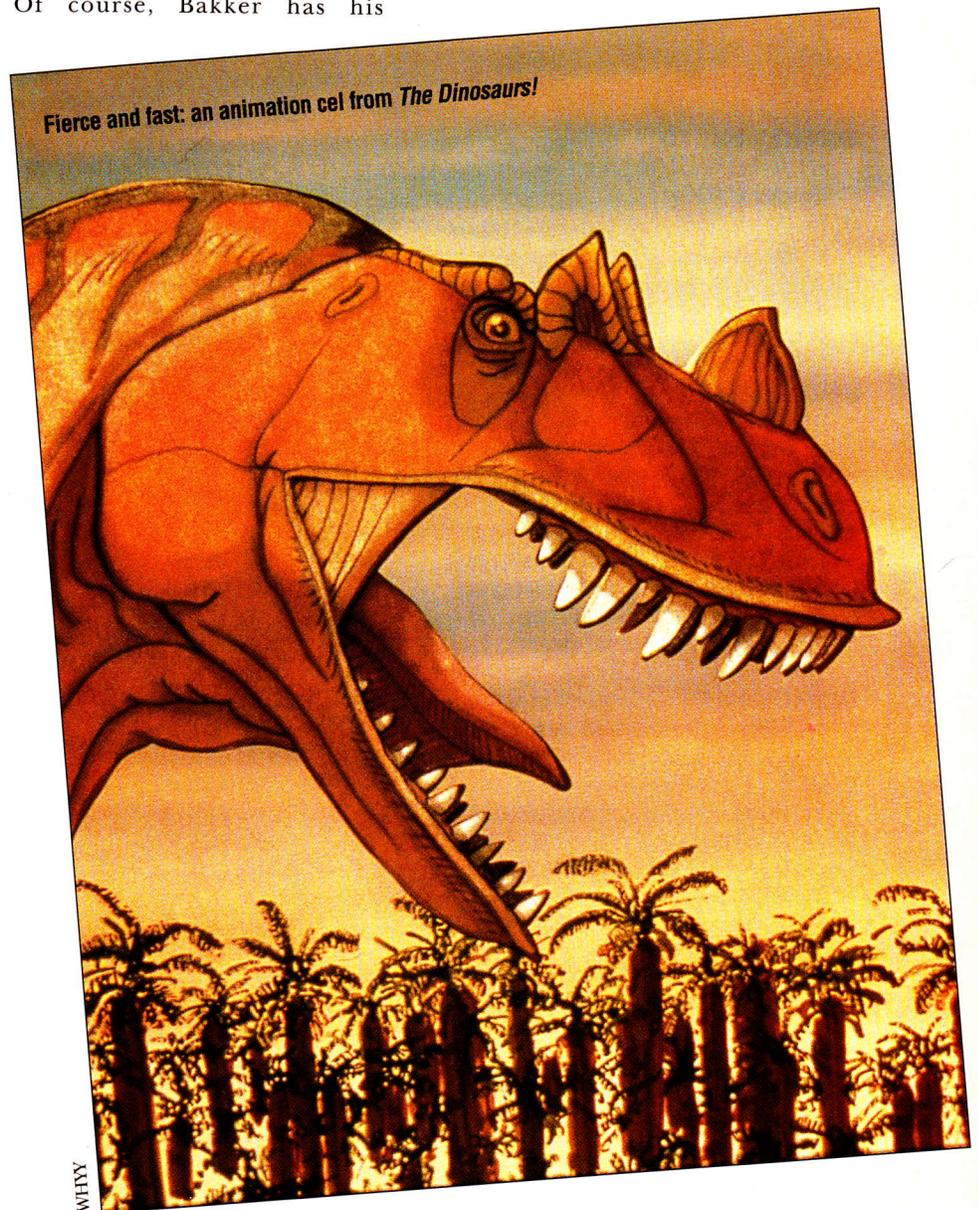
"I've been lecturing to kids for 15 to 20 years now. Paleontology used to be a boys-only profession. Now, when I ask who wants to study dinosaurs when they grow up, half of the raised hands belong to girls. If they can keep bias away through the higher grades, we'll have a whole new crop of earth scientists."

And maybe these future earth scientists will be a little more supportive of Bakker's other crusade: his renegade theory on why the dinosaurs went extinct. One of the most popular theories holds that a meteorite hit the earth somewhere near present-day Mexico and shook up things to such a degree that the dinosaurs were pushed into extinction. Bakker isn't buying it. As he points out, about the time the dinosaurs went extinct, the oceans receded and dinosaurs were able to cross from continent to continent. They

inadvertently exchanged pests and diseases, leading to their mutual extinction.

Bakker bases his theory not on the fossil record of dinosaurs, but of frogs. "A meteorite could have hit the earth at that time, but that doesn't explain the mass extinction," Bakker explains. "The clouds and acid rain would cause frogs to die first. Fossil records show they thrived at that time."

Of course, Bakker has his



detractors. "I've been preaching this for 20 years," he says. "It's real hard to get the meteorite people to listen. "Before he died, I was talking it over with Louie Alvarez, a senior meteorite theorist, and he said, 'Young man, I'm giving you stars and you're giving me frogs.'"

And so, having redefined the dinosaur and perhaps discovered the secret of its demise, what's next for Robert Bakker?

"I'm really into turtles now. I'm finding turtles evolve fast when dinosaurs go extinct. There's a message there, but I don't know what it is yet."

The Dinosaur! premieres November 22 at 8 p.m. on KPBS-TV.