

The real 'Lost' Ark

Ark of covenant is potent religious symbol

By Boris Weintraub
special writer

This has been the Year of the Ark. First, "Raiders of the Lost Ark" thrilled film goers as Indiana Jones searched for the missing ark of the covenant.

Then a team of Duke University archeologists found the carved limestone top of a third-century A.D. synagogue ark in upper Galilee, the oldest such ark ever found. Soon, confusion abounded as journalistic accounts mixed up the two, as well as Noah's ark.

What, then, is the "lost" ark? Where did it come from, why was it important, and what happened to it?

There are 201 biblical references to the ark, under a variety of names: ark of the Lord, ark of testimony, ark of God, and many others. But much of the information is contradictory.

The Book of Exodus, which deals with events of the 13th century B.C. but was compiled as much as two centuries later and put in its final form another 500 years later, gives the first and clearest description of the ark.

It is a chest of acacia wood — a hard wood found in the desert — 2½ cubits long, 1½ cubits wide and deep — about 45 inches by 27 inches by 27 inches. It was covered with gold, and had four gold rings so that carrying poles could be inserted in each corner. Portability was important to desert semi-nomads.

ON TOP WAS "mercy seat," a golden slab flanked by two cherubs facing each other, their wings spread out.

"And in the ark," Exodus says the Lord told Moses on Mount Sinai, "you shall put the testimony that I shall give you."

The ark became the central focus of the Israelite tribes during their wanderings. It was carried about by the Levites under a tent tabernacle. It wasn't unique.

"The pre-Koranic people of the Syrian desert and of modern Saudi Arabia all had portable tent shrines," said Dr. Edward F. Campbell, professor of Old Testament at McCormick Theological Seminary in Chicago. "They all contained some sort of box or chest. So the ark itself is thought of as a container of some sort."

Though the original Hebrew word for this sort of ark is different from the Hebrew for Noah's ark, both have been translated into "ark" in English, meaning "chest" or "repository." But there is some disagreement among scholars about whether the ark of the covenant carried the stone tablets with the Ten Commandments.

"There is no reason to believe that at some certain stage the ark didn't contain essential covenant documents," said Dr. Frank M. Cross, a prominent Harvard University biblical scholar.

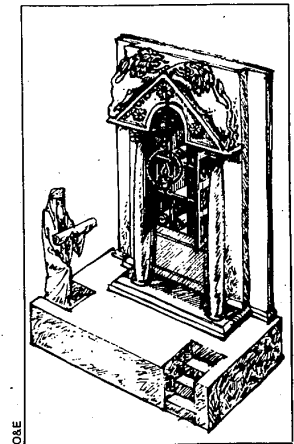
"But that it went back to Sinai and the tablets Moses brought down from the mountain, that is another matter. That is really lost in legend."

Dr. Eric Meyers, the Duke University religion professor who found the third-century ark, raises another question: What would the commandments have been written on?

"The popular image is of huge stones that Chariton Heston carries as he cones slipping down from Sinai," Meyers said. "But I can't imagine the two tablets I see in the Bible. We have no real writing from the 13th century B.C. It could have been incised on potsherds, or even on parchment."

"The point is that the object in and of itself was important. The popular imagination appreciated it for its invisible power, God's unlimited power."

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throne of Yahweh, the Israelites' God. The most prominent place at which it was kept was Shiloh, and it was from there that it was taken into battle against the Philistines in the 11th century B.C.

The Israelites thought they could not be defeated with the ark, but they were, and it was captured. The Philistines suffered a plague, however, and attributed it to Yahweh's wrath. The ark was returned after seven months.

DURING THE MONARCHY that soon emerged, King David led a large procession of Israelites — some biblical translations say as many as 30,000 — to the new capital, Jerusalem, with the ark.

"David is trying to bring it to his use as the central political figure, and he puts the worship of Yahweh under royal patronage," says Campbell. Meyers agrees, calling David's use of the ark "a move of absolute political brilliance."

"David ties himself with both the old religious establishment and the new expansionist monarchy," Meyers said.

The book of Samuel says that David wanted to build a temple to house the ark, but that he was dissuaded by the prophet Nathan, who tells him that the Lord wants no such home. David's son Solomon did build such a temple, and the ark was put into its most sacred niche, the Holy of Holies.

From then on, the ark virtually vanishes from view. And when the Babylonians destroyed the temple in 587 B.C. and carried off its treasures, there was no mention of the ark's fate. Nor was it replaced when the second temple is built five decades later.

It is this "disappearance" that has led to notions of the ark being "lost," and to expeditions to find it. There are some rabbinic traditions that it actually was hidden, perhaps by Jeremiah in a mountain cave, perhaps under the floor of the second temple. Most scholars, however, think it was taken for booty, its gold melted down, its wood burned or left to disintegrate.

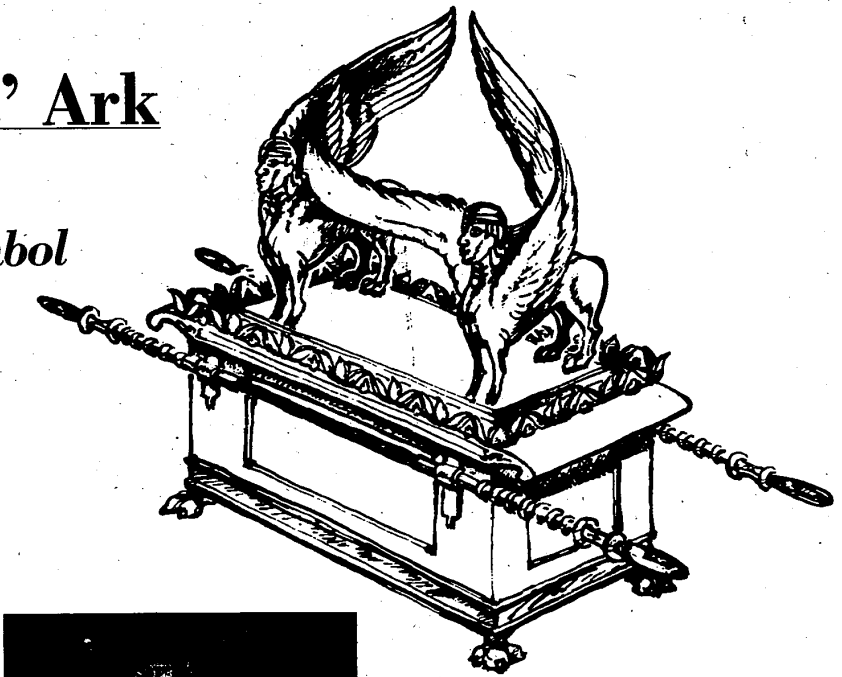
BUT ONE HISTORIAN has suggested that the ark had vanished earlier, during a period with a king of Israel replaced it with an idol of a different god. And another has written that there were actually three different arks.

How could such an important object drop out of biblical records? Meyers' wife, Dr. Carol Meyers, also a Duke religion professor, said this may be due to monarchy. It had become so diluted that the ark's loss may not have seemed vital.

The important thing is that the ark later became a symbol in all synagogues, such as the one the Meyerses found in Galilee. Today the ark is the place where the scrolls of the Torah are kept and is the most holy place in the synagogue.

Boris Weintraub is a writer for the National Geographic News Service.

According to the Old Testament, Solomon built a temple to house the ark of the covenant. The Babylonians destroyed the temple in 587 B.C., and no further mention is made of the ark's fate. Much later, synagogues held a symbolic version of the ark, such as the third-century example (left), which includes a portion found by the Duke University researchers.



The original ark of the covenant, in which the Ten Commandments supposedly had been carried, may have looked like the drawing above.



The search for the "lost" ark of the covenant is the theme of the popular motion picture "Raiders of the Lost Ark," starring Harrison Ford (above).



Last summer Duke University researchers in Galilee found this piece of a real "lost" ark — a synagogue ark created in honor of the original ark of the covenant.

For scientific team

Tiny jaw is a big discovery

By Boris Weintraub
special writer

It was not a classic moment of scientific discovery. There were no shouts of "Eureka." Instead, Dr. Kathleen Smith, an assistant professor of anatomy at Duke University, turned to the leader of the scientific expedition, Dr. Farish A. Jenkins Jr., handed him a piece of rock, and said:

"Here, Jenkins, here's your lousy jaw." And at that moment, mankind's understanding of the earliest stages of mammalian evolution increased by a third, said Jenkins, a professor of biology at Harvard and curator of vertebrate paleontology at the university's Museum of Comparative Zoology.

For what Smith had found in the Arizona desert, it became clear almost immediately, was the tiny fossilized jaw of a new form of mammal, some 180 million years old. "Give or take 5 million years," as Jenkins is fond of putting it.

Previously, scientists had known of only two varieties, or taxon, of the earliest mammals. One taxon, called Morganucodontids, eventually led to the platypus and the other egg-laying mammals most commonly found in Australia and New Zealand.

The other, called Kuehneotheriids, developed into the marsupials and placentals, which, as Jenkins explains, means everything — "bats, whales, man, rodents, primates, horses, dogs — everything."

NOW, WITH the new find, there is a third group.

Jenkins had been searching for the earliest mammals for four years, examining the Kayenta Formation on a Navajo Indian reservation about 75 miles northeast of Flagstaff. But, until this summer, he had had no luck, though he had found the remains of dinosaurs, turtles, reptiles, and other indications that mammals were around somewhere.

"We expected to find mammals there," he said. "They ought to have been there. That's why we were looking for them. We'd all but given up, though, after five years of this kind of nonsense."

His luck began to change last fall when one of his associates, William R. Downs, a preparator at the Museum of Northern Arizona, trekked out to the area once more and hauled out some 300 pounds of rocks.

"Last November, he hiked into this area, which is inaccessible by vehicle, and simply took out, at random, 300 pounds," Jenkins said. "It took him and a colleague several trips over some steep cliffs, but they carried it back to the lab."

Downs examined the haul, first by screening the rocks in wash-boxes much as prospectors do when panning for gold, then using a more sophisticated technique of heavy liquid separation. He

made a discovery that Jenkins later called "of singular importance."

Among other things, Downs found four Morganucodontid teeth, indicating for the first time that mammals of that vintage had existed in the New World. The few previous mammal remains that old had come from England, Wales, China, and southern Africa.

Downs turned the teeth over to Jenkins for study, and Jenkins prepared to return this summer for a six-week expedition.

The expedition included four other scientists, as well as Jenkins' 15-year-old son. It was funded by the National Geographic Society.

"People always ask me if they can come along on my digs," said Jenkins. "Well, it's not exciting."

"Quarrying is an immensely boring operation. Half the time, you are bored stiff out there. The actual work is just the end of the world. It's 110 degrees, and you sit there day by day in a hole in the rock, chipping it away with small awls and hand tools and paintbrushes."

"Each little rock is taken out and broken and examined for bone content, and then it's dumped in a bag and taken to the Museum of Northern Arizona, where it is processed."

"She had broken a piece of rock on the second-to-the-last day and saw that, like little pieces of rock she had seen before, it contained pieces of bone and shiny things," he recalled. "She didn't bother to pick up and use her hand lens. She simply passed the rock over to me."

In the rock was the jaw, with two teeth. The jaw was only about a centimeter long, about the size of a fingernail.

"I looked at it, rolled out into the sunlight, and put it under my hands lens," Jenkins said. "What I saw immediately set me going. I saw molars that were double-rooted, mammals have dou-

ble-rooted molars, reptiles don't. I saw the teeth had multiple cusps; very rarely do reptiles have more than one cusp. I knew it was a mammal."

Though some aspects of the find make it similar to both Morganucodontids and Kuehneotheriids, other aspects are definitely different, Jenkins said, making it a taxon never seen before.

MAMMALS BEGAN to appear on earth about 180 million years ago, but very little is known about those that lived before 65 million years ago. At that time, dinosaurs began to become extinct, leaving the mammals as the dominant presence on earth.

The basic significance of the new find, Jenkins said, is that "the very simple story" that scientists had constructed about mammalian evolution turns out to be too simple.

"We thought it was a very neat story," he said. "At the dawn of the age of mammals, you had the two ancestors of the two major groups of mammals living today."

"But our new discovery shows this is not true. The picture turns out to be much more complex, and will be a detailed study before we can come up with a new scenario of what took place at the very start of mammalian evolution."

So far, the new mammal, which was probably about the size of a mouse, has no name. Jenkins said that will await a closer study, and the processing of the rest of the two tons of rock taken out this summer. He is confident that those rocks will yield further teeth and perhaps even some bones of the mysterious newcomer. Jenkins also is preparing to return to Arizona to seek further clues, a task he approaches with resignation.

"I hate to dig," he said. "I will avoid it at all costs if I can."

Boris Weintraub writes for the National Geographic News Service.



Only about the size of a human fingernail, this jaw found in the Arizona desert comes from a form of mammal never seen before, and is about 180 million years old, among the oldest ever found in the New World.