

PART 1

***INDIANA JONES***

***and the  
Raiders of the Lost Ark***





## ***The Hovitos Temple and the Golden Idol***

*The year is 1936, and Professor Indiana Jones is braving the dangers of the Peruvian jungle to retrieve the precious golden Hovitos idol from an ancient temple.*

*With some Indian workmen and guides Satipo and Barranca, Indy makes his way through the dense underbrush of the jungle. As one of the Indians parts some branches, exposing a gruesome-looking statue, birds scatter and the Indian screams in terror. Indy then finds a dart stuck in a tree, and Satipo identifies the poison on the dart as “fresh, three days.” Soon, the group discovers a cave entrance to a temple, and Satipo warns Indy that nobody has ever left the cave alive. As proof, when Indy and Satipo enter the cave, they find the long-dead body of Indy’s nemesis Forrestal.*

*Several terrifying booby traps later, Indy finds the Hovitos idol on an altar. Replacing the idol with a bag of sand to thwart any potential booby traps rigged on the altar, Indy takes off with the idol. The entire temple starts to collapse, and Indy and Satipo race from the destruction in a torrent of poison darts and arrows.*

This whole opening segment is exciting and is a terrific way to get the audience revved up for an action-packed film. Now, let’s take a look at the golden idol itself. Was there a South American tribe called the Hovitos? Did they possess golden idols and keep them in temples?

The idol that Indiana Jones snatches is sacred, according to the Hovitos tribe; so sacred, in fact, that they will kill him to get it back. In reality, the Hovitos tribe is probably based on the Chachapoyas people who lived in the Amazonian Andes, or Amazonas, region of northern Peru. The Amazonas is bordered by Ecuador to the north, and its capital is Chachapoyas, the name of the tribe. The Andes mountains are higher than any range outside of Asia, and it is

somewhere in this mountainous region that the Chachapoyas dwelled, so high up that they were in the clouds. In fact, they were known as Warriors of the Clouds. The Chachapoyas spent their time hunting and foraging in the mountains' hot, moist evergreen forests.

Right before the Spanish came to Peru in the 1500s, the Incas had conquered the Chachapoyas. It is possible that the golden Hovitos idol is derived from the golden objects of the Incas, who were ruling the Chachapoyas. The capital of the Incan Empire was Cuzco. In the center of Cuzco was a great temple of the sun, Koricancha, which means "storage of gold" in the Quechua Incan language. Idols from all of the provinces that the Incans had conquered were stored in the Koricancha temple. Supposedly, there was so much gold in the temple that even its walls and floors were sheathed in gold. The courtyard of the sun temple was filled with golden statues, and the temple itself stored many sacred idols.

It is also possible that the Hovitos temple is based on the ancient Chachapoyas temple of Keulap, which is approximately two thousand feet long and is perched on the top of a ten-thousand-foot-tall mountain. The outer two walls of Keulap were made from stone blocks, each wall weighing ten thousand tons. To reach Keulap, people had to climb up a single-file hundred-foot-long passage with walls sloping inward. The Chachapoyas hoped that they would be protected from the Incans in this way, because they could attack the invaders from above while the Incans made their way up the narrow passage. To get to the Hovitos temple, Indiana Jones must climb up a similar narrow passage.

The Chachapoyas dominated northern Peru from 700 until 1480, when the Incan Quechuas conquered them. The Quechuas exist today in Peru, and they still speak their ancient Incan language. They wear woolen ponchos and caps made of bright colors and patterns, just as the Quechuas wear in *Raiders of the Lost Ark*.

As for the Chachapoyas, their ruins are well known among archaeologists. They built fortresses all along the mountains, and military strength was important to them. Because they fought so fiercely against the Incas for many years, the Chachapoya warriors gained a reputation for being brutal and aggressive.

Spanish soldiers arrived in Chachapoyas in 1547 and put the remaining natives into settlements, where poverty and disease took hold. Under Spanish rule over the next two hundred years, the population of Chachapoyas decreased by 90 percent.

By the time Indiana Jones reached Peru in 1936, the Chachapoyas were long gone, and archaeologists knew of the locations of very few Chachapoyan ruins. Their fortresses, idols, and mummies had sunk deep into the dangerous jungle beneath the dense clouds.

### ***Deadly Tarantulas***

*When Indiana Jones and Satipo enter the Hovitos temple, three deadly tarantulas crawl up Indy's jacket. He easily swats them off using his trusty whip and then motions for Satipo to turn around. Satipo's back is covered with the spiders.*

Most people are terrified of tarantulas. There's something about spiders in general that gives people the creeps. The bigger the spider, the scarier it is. Many of these fears are actually unfounded, because most spiders don't hurt humans. Of course, if you've ever been bitten by a spider, you might think differently. Spider bites are irritating and they itch.

The tarantula, a huge, hairy arachnid, is in the Theraphosidae family. It has feet, or tarsi, with two claws and tufts called scopulae. Approximately eight hundred species of tarantulas are known, and all hunt prey on the ground. Tarantulas eat mainly insects, although some large tarantulas also eat mice, birds, and lizards. Tarantulas look horrifying, but most types are not dangerous to humans, much less deadly.

Tarantulas are named, oddly enough, after Taranto, a town in Italy. The name *tarantula* originally described a species of European wolf spider. However, when European explorers in the New World encountered huge, hairy spiders unlike any they had seen before, they called them tarantulas and the name stuck.

Most tarantulas have a body size of approximately one to four inches long, and with their leg lengths taken into account the spiders range from three to thirteen inches long. The body length

measurement is taken from the tip of a back leg to the tip of the front leg on the same side of the spider. The largest tarantulas weigh about three ounces and tend to hail from Brazil or Venezuela. For example, the Goliath birdeater tarantula, found in both countries, can have a full thirteen-inch body length and weigh three ounces. The pinkfoot Goliath may also have a thirteen-inch body length, and the Brazilian salmon birdeaters are equally as large.

When a tarantula eats, it secretes a digestive enzyme through its salivary glands and injects the fluid into its prey using fangs. The enzyme digests the prey from the inside out, turning all of the tissue into liquid. Then the tarantula sips the liquid out of what is left of the prey, which is typically an undigested shell.

Although the killer enzyme liquidates insects, mice, birds, and lizards, it does not kill humans. Instead, it produces pain and swelling. Some tarantulas may have chemicals on their abdomen hairs that cause human skin rashes and inflammation of the nasal passages and the eyes.

There are some dangerous spiders in the world that resemble tarantulas. These spiders are related to tarantulas, being in the same suborder, but they are not in the same family, Theraphosidae. It's possible that the deadly reputation of these other spiders, coupled with the image of a huge, hairy tarantula, provided the inspiration for killer-spider movies such as *Raiders* and *Arachnophobia*. The Brazilian wandering spider looks somewhat like a tarantula, being hairy and about five inches long, and its bite is highly poisonous to humans. The venomous Sydney funnel-web tarantulas, which aren't really tarantulas despite their name, are also extremely poisonous. Their bite is lethal and resulted in human deaths before an antidote was discovered in the 1980s.

Are there tarantulas in South America? Yes. In fact, some South American people actually roast tarantulas and eat them.

The *Avicularia* genus of the family Theraphosidae includes several species of South American tarantulas. When this type of tarantula is threatened, it first tries to jump or run away, but if it senses that it is under mortal attack, it sprays excrement at its predator. The excrement will hit the tarantula's opponent with great accuracy at a distance of two or three feet. So, rather than getting a death

bite, Indiana Jones might have gotten sprayed with excrement. In the movies, however, fact is sacrificed to fiction because it is far more exciting to portray a death bite.

## ***Gigantic Rolling Boulders***

*After stealing the golden Hovitos idol, Indiana Jones races from the temple. He is almost killed by a gigantic rolling boulder and, barely escaping, runs into his archrival, Rene Bellog.*

At first thought, it seems improbable that boulders can be perfectly spherical. Gigantic, yes; spherical, no. But on second thought, the idea makes sense.

Examples of spherical boulders are found worldwide. Huge spherical boulders lie on the Koekohe Beach of the New Zealand Otago coast. Local legends claim that these Moeraki Boulders are the remains of kumara sweet potatoes and calabashes, which are gourds, and baskets that were used to catch eels. It is said that these remains washed ashore when a large sailing canoe called the Arai-te-uru was destroyed at sea.

Many of the boulders are 1.5 to 3 feet in diameter, and these are the smaller ones. A full two-thirds of the boulders are much bigger, ranging from 4.6 feet to 6.7 feet in diameter. Nearly all of the boulders are perfect spheres.

In Hokianga Harbour, North Island, New Zealand, you will find the Koutu Boulders. Some are as large as nine feet in diameter, and nearly all are entirely spherical. And the Katiki Boulders, approximately twelve miles south of the Moeraki Boulders, are also completely round.

In the United States, huge spherical boulders are located in North Dakota, where they can be as massive as ten feet in diameter. In Wyoming, Kansas, and Utah, enormous spherical boulders range up to eighteen feet in diameter.

How are such immense round boulders created? In the case of the Moeraki Boulders, they are the cemented remains of Paleocene mudstone, formed by calcite precipitation. The boulders formed in the mud on the bottom of the Paleocene sea and took approximately

5 million years to grow. The calcite precipitation was caused by bacteria that reduced the sulfate of the saline within the mudstone. Large cracks appeared in the boulders, and, for the most part, these were filled in with brown and yellow calcites. The spherical shape was due to the mass diffusion of calcium, rather than a liquid flow over the boulder.

Giant boulders are found all over Peru, where Indiana Jones and the Hovitos have their adventures. In the jungles surrounding Cuzco and Machu Picchu, where the Chachapoyas and the Incas lived, huge spherical boulders lie in the rivers and in pools of swirling water. So it is very possible that a gigantic, spherical boulder could come crashing down after Indiana Jones tries to escape from the temple.

### ***South American Indian Weapons: Poison Darts and Bows and Arrows***

*After forfeiting the idol to Belloq, Indiana escapes once again. But then Belloq orders the Hovitos to stop Indy, so they chase him and try to kill him using poison darts and bows and arrows.*

South American tribes have long used both types of weapons in hunting. It is very conceivable that the Hovitos would use these against Indiana.

The Hovitos would make their darts the same way that actual South American tribes made theirs: from sharpened cane sticks, with either kapok tree fiber or cotton on the ends. The darts are pointed and cut like corkscrews on their tips, which are coated in poison. They are catapulted at prey via blowguns that are often made from cane. The shaft of the blowgun is long and fashioned from one piece of cane, and thinner pieces of cane are sometimes added to the large inner piece. Wood is used for the mouthpiece. Other Indians blow the darts out of reed shafts that are up to twelve feet long. Using this method, they can hit an animal with great accuracy from a distance of a hundred yards or so.

The poison that tips the darts is most likely gleaned from the glands of the poison dart frog, also known as the poison arrow frog, the poison frog, or the dart frog. This frog comes in several



varieties, all belonging to the family Dendrobatidae. Nearly all poison dart frogs live in South and Central America, although a particular type, the *Dendrobates auratus*, has been seen on the Hawaiian Islands. The most poisonous of all the frogs is the golden poison dart frog, which lives primarily in Colombia.

The skin of the frogs contains poisonous alkaloids such as Batrachotoxin, which cause victims' muscles to contract so that the victims cannot move and their hearts fail. The poison is so potent that if a frog is in contact with a leaf or a piece of cloth, and an animal sits on the leaf or the cloth, the animal will die. Licking or swallowing a frog means certain death. The bright colors of the frogs help to keep predators away. A wild golden poison dart frog contains enough alkaloid poison in its skin to kill a hundred people. The poison is stronger than curare, which is a widely used jungle plant mixture that Indians east of the Andes use on their arrows and blowgun darts.

South American Indians catch the poison dart frogs in the jungle and keep them in hollow canes. When poison is needed, the frog is removed from the cane and a sharp stick is thrust down the frog's throat and straight through one of its legs. The tortured frog perspires from the pain and fear, particularly on its back, which becomes coated with an extremely toxic white poisonous froth. The Indians dip the points of darts into the froth. Darts prepared in this way maintain their ability to kill for an entire year.

Beneath the white froth is a poisonous yellow oil that the Indians preserve for later use. The oil remains toxic for six months.

Certain South American Indians have another way to get the poison out of the frog. They stroke the frog (the poison must enter the bloodstream to be deadly, so it is not absorbed through the skin) or warm it over a fire on a skewer to make it excrete large amounts of poison. After obtaining the poison, they boil it to make it extremely potent. Yet other tribes simply roll the tips of their darts across the backs of golden poison dart frogs.

The Indians carry the darts in quivers, typically made from bamboo, although the tops of the quivers are sometimes crafted from animal hide. Sometimes the quivers are even made from leaves.

The darts are so sharp and strong that they can penetrate tree trunks. Tipped in poison, the darts are potent enough to kill large animals.

The use of bows and arrows is also common. The bow is constructed from a flexible piece of wood and is strung with fiber. The Indians make their arrows from cane and feathers. To carve the arrowheads out of hard woods, the Indians use animal, fish, or bird bones or sharpened twigs. Different sizes of arrowheads are used for different prey—larger ones for larger mammals, smaller ones for birds and small mammals.

The arrows are carried in a quiver suspended by a strap hung around the neck, with the quiver hanging on the hunter's back between his shoulder blades. The strap is made of bamboo stalks so it does not cling to the neck.

## ***Archaeology and Real-Life Archaeologists***

*After his adventure with the Hovitos idol, Indiana Jones returns to the United States, where he is known not only as a famous archaeologist but also as an expert on the occult who has a gift for finding rare antiquities. Marcus Brody, a friend of Indy's father, funds many of Indy's archaeological expeditions and calls on him for one more.*

In real life, archaeologists study human culture by finding and analyzing the physical-material remains of past societies. Quite often, the only way we can begin to understand how humans lived in the past is to uncover these remains. Thousands of cultures have died out, leaving no written records. Even when we have written records, they are often misleading or incomplete. It is certainly true that our knowledge of the earliest human civilizations comes exclusively from archaeology, and this includes information about religions; the building of villages, towns, and cities; and the beginnings of agriculture.

Today's archaeologists do surveys before they initiate an expedition to a remote location, such as the deep jungles of Peru. They use surveys to find unknown sites, perhaps villages and homes. Indiana Jones, however, used much more direct methods: he journeyed to Peru using a tattered map and began his quest.

Modern excavation is also a bit different from Indiana's strategy for obtaining the Hovitos idol. While Indiana evaded ancient booby traps to uncover the idol, modern archaeologists determine the precise locations of the artifacts they want to uncover, and then they carefully dig to remove the objects without damaging them or any other relics in the area. Archaeologists keep accurate records of exactly how the artifacts are removed and how they are situated relative to other objects. In this way, an archaeologist can determine how humans used various artifacts together.

Precise record keeping is important because quite often the same site is used by one culture after another over the course of thousands of years. If an archaeologist were to remove artifacts without noting their precise locations, he or she would not have much idea about how the objects were used. Did an object come from an early society or a recent one? Was this object, found slightly lower in the ground, used in conjunction with an object unearthed closer to the surface? Typically, artifacts from earlier cultures are found beneath those from recent cultures. It is unlikely that the excavation of a golden idol would really be conducted by an archaeologist in the way that Indiana Jones does it.

Many experts claim (as Belloq does later in the film) that "archaeology is not an exact science." For example, when discussing the excavation of the Dead Sea Scrolls, Professor of Religion Robert Eisenman of California State University at Long Beach wrote:

[P]aleography [the study of ancient writing and inscriptions] is being used now to authenticate all kinds of different objects. It was used on the Dead Sea Scrolls to make all sorts of extravagant claims that were often at odds with the internal evidence or what the texts themselves said. These are not exact sciences. Yet the public has been given the impression that they are, when in fact they are extremely questionable.<sup>1</sup>

Michael Kunz, another archaeologist, said, "We are a discipline, not an exact science. We shouldn't pretend we are. Everything is subject to interpretation."<sup>2</sup>

According to an article from Brown University, “Scientific Archaeology vs. The Discovery Channel,” by Martha Joukowsky, early archaeologists were not particularly scientific, which resulted in their making serious mistakes. The first excavations were performed not by professionals, but rather by wealthy people with a lot of time on their hands. This upper-crust hobby became more of a science as it turned into a profession, but was not an exact science by any means. The reason is that entire layers of cultural artifacts were destroyed during excavations because the archaeologist was interested in only one particular layer. And even when early archaeologists were careful to preserve and record other layers of cultural materials, the records were often sketchy and the information was forever lost.<sup>3</sup>

In reviewing an archaeology book called *Landscapes of Change*, Paolo Squatriti of the University of Michigan discussed the opinions about archaeology and science of the various archaeologists who contributed to the book. He wrote:

Christie notes that “landscape archaeology is not an exact science or discipline” . . . and its inexactitudes receive attention throughout. Guy Sanders probably goes furthest in this regard. . . . In his discussion of south Greek (mostly Corinthian) rural evidence, Sanders points out how the assumptions and cultural constructs of earlier scholars shaped a “catastrophist” account of settlement and economic activity that now seems untenable, especially in light of many artifacts’ re-dating. Similar erroneous readings of the pottery supply are deconstructed in Leone and Mattingly’s chapter about Maghribi contexts.<sup>4</sup>

These are only a couple of examples of how archaeology has failed to be an exact science throughout the years.

Yet in modern times, archaeology has matured into a more exacting occupation. Now professionals require precise measurements to record data. Indiana Jones, however, is more like an archaeologist of the past, who uncovered artifacts of interest without taking accurate measurements or noting additional data for future use.

A Stanford University newsletter reported that “[A]rchaeologists, in this view, do not offer an exact translation of the past for their contemporaries; rather, they are mediators.”<sup>5</sup> Along these lines, entire books have been written about archaeology and how it borders on folklore. College courses focus on the subject, and various museums around the world are devoted to archaeology and folklore. After all, ancient artifacts are usually saturated in folklore and religious overtones because the local people are attempting to understand the remains of their own past.

Folk stories connected to artifacts have recurring themes that often relate to religious entities or beings that inhabit the artifacts. For example, many cultures have believed that ghosts, ancient rulers, devils, and religious entities are intimately connected to their ancient artifacts.

Were there really archaeologists like Indiana Jones, the pure adventurer? It’s extremely likely that adventurers have gone deep into the Peruvian jungles seeking their fortunes.

Notable individuals who resembled Indiana Jones include Senator Hiram Bingham III, who excavated Machu Picchu in 1911 and wrote a book about his discoveries called the *Lost City of the Incas*.<sup>6</sup> Machu Picchu was a major settlement of the Andean Indians and was thought to be a stronghold retreat for the Incan rulers. In the Quechua language, the name of the settlement literally means “old mountain.” While others contributed to the exploration of the Lost City, history identifies Hiram Bingham as its discoverer.

Alfred M. Bingham wrote a biography of his father in which he said that Hiram Bingham had been brought up in a family of missionaries.<sup>7</sup> Rather than continue the tradition of religion and poverty, he instead decided to seek a career in the ivory towers of academia. He married a granddaughter of the founder of the Tiffany company and hence came into a vast amount of wealth. He used his wife’s riches to help fund five expeditions, one of which was the exploration that led to the discovery of Machu Picchu.

Bingham was born in Hawaii, where his family served as Protestant missionaries. He went to school in Hawaii from 1882 to 1892, then graduated from Phillips Academy in Andover, Massachusetts, in 1894. His college degrees were from Yale University,

the University of California at Berkeley, and Harvard University. After completing his education, Bingham taught history and politics at Yale, spent some time at Princeton, and ended up in 1907 as a lecturer on South American history at Yale, in Connecticut. He later became a professor there. Note that Indiana Jones was also an authority on South American history and served as a lecturer-professor at Marshall College in Connecticut.

In 1911, Bingham traveled to the Andes with the Yale Peruvian Expedition. A local policeman, Agustín Lizárraga, helped Bingham to find Machu Picchu, which had been discovered previously but then long forgotten. According to *National Geographic*,

[i]n 1911 Yale University Professor Hiram Bingham, searching for the lost Inca capital of Vilcabamba, paid a Peruvian guide to lead him to a nearby ruin. The guide took him 2,000 feet (610 meters) up a precipitous slope—and straight into the “lost” city of Machu Picchu. . . . Arguably the greatest archaeological site in the Americas, Machu Picchu remains a mystery. Some scholars believe it to be the birthplace of the Inca Empire. Others see a ceremonial center or military citadel.<sup>8</sup>

Nobody seems to know how the civilization that built Machu Picchu ended. The Spanish have no records of its existence.

Although Indiana Jones had a scrap of a map to guide him, Bingham had some seventeenth-century writings. And where Indy had two local guides, Bingham had one local policeman as his guide. He climbed a steep path, just as Indiana Jones did, and the similarities continue, as Bingham discovered an ancient temple over a cave.

In addition to his wife’s support, Bingham received funds from Yale University, where he worked, and the National Geographic Society, both of which supported expeditions to Peru in 1912 and 1915. Hiram Bingham received the first National Geographic Society archaeological grant.

Indiana Jones was a famous adventurer, but he was also well known for his ability to locate and secure rare artifacts that were

worth a fortune. In this way, Indy was also very similar to Hiram Bingham. During Bingham's adventures in Machu Picchu, he excavated thousands of valuable artifacts, which were later housed in Yale's Peabody Museum. In fact, in 2005, the Peruvian government threatened to sue Yale University unless the artifacts were acknowledged as belonging to the Peruvian people and returned. The issue remains unresolved.

Another archaeologist on whom the character Indiana Jones may have been based was British colonel Percy Harrison Fawcett. This adventurer disappeared with his son in the Amazon jungle in 1925 while searching for a lost city he called "Z."

Fawcett was born in 1867. His father was a fellow of the Royal Geographic Society, which gave Fawcett an early interest in exploration and adventure. Percy Fawcett served in the Royal Artillery and the British secret service in North Africa, where he learned how to be a surveyor, a key skill for early adventurers seeking lost cities. Of interest to science-fiction and mystery fans, Fawcett's friends included Sir Arthur Conan Doyle, the author of the Sherlock Holmes tales, and H. Rider Haggard, who wrote many adventure novels that were extremely popular in their time.

In 1906, on behalf of the Royal Geographic Society, Fawcett headed to South America to map the jungle along the border of Brazil and Bolivia. Between 1906 and 1924, he made seven exploratory trips in South America.

Then in May 1925, Fawcett sent a telegraph to his wife that he was going into unexplored territory and might not be seen again. With one companion, Raleigh Rimmell, Fawcett and his son set off to find what Fawcett believed to be a lost Amazon city. It is thought that they were somewhere near a southeastern tributary of the Amazon River when they disappeared into territory occupied by several South American Indian tribes. Some people assumed that the Indians had captured and killed Percy Fawcett. Others suggested that wild animals killed him. Yet others went so far as to claim he became the chief of a tribe of cannibals deep in the jungle. Thirteen expeditions were launched to find the adventurer and his party, but the results were always the same: Percy Fawcett was lost forever.

It's conceivable that the Hovitos tribe that attempted to kill Indiana Jones was loosely based on the tragedy surrounding Percy Fawcett and his quest to find Z, the Amazonian lost city.

Vendyl "Texas" Jones, born in 1930, is yet another archaeologist and adventurer whom Indiana Jones resembles. In fact, Vendyl's first name could be shortened to Vendy, which is very similar to Indy, and, of course, his last name is Jones. Plus, his nickname, "Texas," is the name of an American state—as is "Indiana."

Jones is a religious man—unlike Indiana—and received degrees in divinity and theology from the Bible Baptist Seminary. His studies continued at the Bowen Biblical Museum under the tutelage of Dr. and Mrs. William Bowen, as well as with a biblical archaeologist, W. F. Albright.

While serving as a Baptist pastor, Jones realized that the anti-Jewish comments in the gospels were probably *not* included in more ancient manuscripts. He called a rabbi and began what became a lifelong pursuit of biblical truth. In particular, Jones was interested in finding the original sources of biblical material and other ancient religious materials. Jones continued an earnest study of Judaism and later established the Judaic-Christian Research Foundation. The parallel between Vendyl Jones's quest and the search for the Ark of the Covenant (discussed later in this book) by Indiana Jones is a reasonable one.

In 1964, explorers from the Jordan Department of Antiquities found the Copper Scroll, one of the Dead Sea Scrolls, in Cave #3 at Khirbet Qumran, Israel, on the northwest shore of the Dead Sea. The Dead Sea Scrolls are a collection of approximately 850 ancient articles. Authorities place the authorship of the Dead Sea Scrolls between the middle of the second century BC and approximately AD 100. Some of the Dead Sea Scrolls were recorded on papyrus, while many were written on brown animal hide. The Copper Scroll, as its name implies, was inscribed on thin sheets of copper mixed with approximately 1 percent tin.

Of interest to Indiana Jones aficionados is that the Copper Scroll identified the hiding places of sixty-four sacred articles. Some people say that both the Tabernacle and the Ark of the Covenant were on the list, as well as the Holy Incense and the Holy



Anointing Oil. What we do know is that the Copper Scroll lists the hiding places of more than a hundred tons of gold and silver items.

After two thousand years in a cave, the scroll was badly oxidized and clearly would have crumbled if anyone had attempted to unroll it. Four years after its discovery, the Copper Scroll was sent to Manchester College of Technology in England, where it was opened in such a way as to preserve its contents. Indiana Jones would have found the Copper Scroll to be of great interest. And so, as it happens, did Vendyl “Texas” Jones.

In 1967, Jones moved to Israel to continue his intensive study of Judaism at Hebrew University, and there he became fascinated by Israeli archaeology. After the Six-Day War, he joined an excavation team en route to Qumran, where the Copper Scroll had been found. He later went on many archaeological expeditions to Qumran, with more than three hundred volunteers helping him. He received no funding from governments or foundations, and, indeed, the Israeli government did not even provide him with digging permits.

The parallel between Indiana Jones and Vendyl “Texas” Jones is tenuous, at best—except for their names. Although both Joneses sought Judaic relics, one (Texas) was a religious devotee, and the other (Indy) was simply an adventurer with a knack for unearthing extremely rare artifacts.

In 1988, Texas Jones’s foundation reported that one of its excavation teams had found some Holy Anointing Oil from the original Holy Temple. Then in 1992, the foundation claimed it had found Holy Incense, and the Weizmann Institute of Science is reported to have analyzed the findings as containing eleven ingredients of Holy Incense. The biblical ingredients were spelled out by God to Moses in the book of Exodus and included stacte drops, onycha, galbanum, and frankincense.

Many other adventurers had lives that make the career of Indiana Jones plausible. For example, Roy Chapman Andrews led expeditions into the Gobi Desert and Mongolia in the early twentieth century and found fossil dinosaur eggs for the first time. His adventures included near-death experiences and harrowing escapes from armed Chinese bandits, sharks, and pythons.

Another example is Robert Braidwood of the University of Chicago, who led an expedition to the Amuq Plain in Hatay, Turkey, and performed one of the first scientific archaeological surveys. And archaeologist Sylvanus Griswold Morley performed extensive excavations of the Mayan site of Chichen Itza, a huge pre-Columbian site in the northern center of the Yucatan Peninsula.

There are, no doubt, countless other examples of adventurers seeking golden idols and religious artifacts in the style of Indiana Jones.

## **Bullwhips**

*While escaping with the golden Hovitos idol, Indiana and Satipo are separated by a deep hole in the ground, with Satipo on one side holding Indy's whip. Indy tells Satipo to throw him the whip so he can swing across the chasm. Satipo responds, "Throw me the idol, I give you the whip." So Indiana throws the idol to Satipo and waits for Satipo to toss him the whip. Satipo drops the whip to the ground, replies, "Adiós, señor," and absconds with the idol.*

In *Raiders of the Lost Ark*, Indiana Jones is rarely without his bullwhip. The bullwhip, made from leather (hence, the term *bullwhip*), is one of mankind's earliest weapons. In the Indiana Jones movies, Harrison Ford used bullwhips that were up to ten feet long, the length depending on the particular stunt. They were owned by stunt coordinator Glenn Randall and were made by David Morgan, a famous maker of whips.

In reality, Harrison Ford did not use a bullwhip to swing across the chasm in *Raiders of the Lost Ark*. Rather, it was a steel cable wrapped in braided leather. A bullwhip will snap from the weight of a man's body being swung across a chasm.

Movie adventurers often use bullwhips because they make the heroes looking dashing and courageous. A familiar example is Zorro, created in 1919 by Johnston McCulley. In the pulp magazine *All-Story Weekly*, Zorro made his first appearance in "The Curse of Capistrano." He is famous for his attire and his weapons: black clothing, a black Spanish cape, a black flat-brimmed hat, a

black cowl mask covering the top of his head, a rapier with which he cuts his distinctive Z mark, and, of course, his bullwhip. It was this dashing, courageous feel that the makers of *Raiders of the Lost Ark* wanted, so they supplied Indiana Jones with his bullwhip. Later, in the other Indiana Jones films, David Morgan was hired to custom make dark-brown bullwhips for Indiana Jones.

Other than their excellent use as movie adventurers' weapons and tools of trade, bullwhips have more practical uses. Traditionally, animal handlers use them to control livestock. The design of the bullwhip enables it to make a little snapping sound at the end of the throw, when part of the whip slightly exceeds the speed of sound.

Of interest to Indy fans is that the origin of the bullwhip may have been in South America. Roman mosaics from AD 2 show tiny one-piece whips, however, so the South American origin remains debatable. The Spanish vaqueros, the original cowboys, introduced their bullwhips into Mexico, and from there, people brought the whips further north into the United States.

## **Fedoras**

*Just as Indy is about to be overtaken by a pursuing band of Indians, he jumps into a river and swims to a waiting seaplane. His hat never falls off.*

While we're thinking about Indiana's bullwhip and its origins, let's ponder some of his other accoutrements—specifically, in this section, his trademark fedora. According to film lore, Steven Spielberg and George Lucas both wanted Indiana Jones to have a distinctive style about him, something that moviegoers would never forget. In particular, they were interested in giving Indy a really cool hat.

The hat became part of Indiana Jones's iconic look, and Spielberg and Lucas got what they wanted. The hat chosen for Indiana Jones was a wide-brimmed, tall-crowned fedora. This type of hat has become associated with a rugged, cowboylike persona and was worn by real adventurers, as well as by adventure-movie heroes, long before Jones went to Peru.

In the Tarzan films of the 1930s, the white explorers wore safari hats, which looked similar to medium-brimmed fedoras. In fact,

depending on the scene, Indiana Jones's hat sometimes looks more like a safari hat than a fedora.

Although it often resembles a safari hat, Indiana's fedora leans on the side of dressy fedoras rather than outdoorsman-type gear. Yet this fancy version of a fedora also has roots in early adventure films, such as *Secret of the Incas* from Paramount Pictures in 1954. This low-budget adventure release starred a young Charlton Heston as Harry Steele, whose goal was to find ancient Incan treasure in Machu Picchu. Very similar to Indiana Jones, Harry Steele uses a stone map excavated from Machu Picchu to try to hunt down the location of the solid-gold "Sunburst" treasure. Not only does Harry Steele wear an Indy-like brown fedora, he also wears a leather jacket, something else that Indy is famous for.

After *Raiders of the Lost Ark*, a different hat was worn by Indiana Jones. The *Raiders* hat had a tall crown, and the fedora in *Temple of Doom* had a shorter crown.

## ***Leather Jackets***

Like Indiana Jones's famous fedora, his leather jacket has long been associated with him, but it traces back to early adventurers. Indiana's jacket was a facsimile of the leather jacket styles of the 1930s. These were early versions of the A-2 jackets worn by American pilots in World War II.

As we noted previously about the fedora, Harry Steele wore a leather jacket similar to Indy's jacket in the film *Secret of the Incas* from Paramount Pictures in 1954. Another example of the fedora-and-leather-jacket look is seen in the movie *China*, also from Paramount and released in 1946.

Real adventurers have worn leather jackets since the cowboy era, but their use became widespread when aviators started to wear them after World War I.

Deborah Nadoolman designed Indiana Jones's leather jacket, which was made by Berman's and Nathan's in London. Peter Botwright, the owner of Wested Leather in London, manufactured the *Last Crusade* Indy jackets, which were constructed in a slightly different manner from the previous ones. For example, in *Indiana*

*Jones and the Last Crusade*, the jacket's storm flap has a snap button to keep it closed.

## ***The Nazis and the Occult***

*After Indiana's adventure with the Hovitos idol, he returns to his professorship at Marshall College in Connecticut. Two U.S. Army Intelligence officers show up at the college and hire him to find the long-lost Ark of the Covenant, which Army Intelligence has learned the Nazis are hunting. The Nazis are seeking occult power and want to find Abner Ravenwood, who served as Indiana Jones's mentor before Indy got his PhD. Ravenwood is the world's expert on Tanis, an ancient Egyptian city, where the Nazis are digging for the Ark. The army believes that the Nazis want Ravenwood because he owns the headpiece to the Staff of Ra, which is key to calculating the exact location of the Ark.*

We will talk a bit about all of these topics—the Ark of the Covenant, Tanis, and the Staff of Ra—later in this book, but for now let's focus on the Nazis and their obsession with the occult.

Many high-ranking Nazis, such as Rudolf Hess, Heinrich Himmler, and Richard Walther Darré, were interested in the occult, and Hitler believed that he himself was a godlike creature. Hitler claimed that during World War I, he heard a voice warning him to leave a crowded dugout just before a shell fell on the spot, destroying the bunker and killing all of its inhabitants. He believed that his experience with the voice and the shell was an indication that he had a special role to fulfill in the world. In fact, he became obsessed with the notion that a heavenly force was protecting him.

Also during World War I, a highly decorated British soldier named Private Henry Tandey had a clear shot at Hitler but passed on the opportunity to kill him. Tandey had a moment of pity and empathy for the young man on the other side of the war, and because of Tandey's kindness, the world suffered greatly. Oddly enough, during World War II, Tandey was the most highly decorated soldier in the British Army. He received a Victoria Cross for his bravery during the Marcoing battle, which is where he lowered his rifle and let the future Führer go. Hitler witnessed Tandey

lower his rifle and decided that the gods of war had come down to Earth and saved him. In memory of this holy moment, much later in 1937, Hitler requested a painting of Tandy, then hung it on a wall at Berchtesgaden.

There are people who believed that Hitler was possessed by demons, but there is no proof of this claim. Hermann Rauschning, a top Nazi aide and a fairly unreliable source of information, wrote a book in which he claimed that Hitler was possessed. Pope Pius XII performed exorcisms on Hitler—from a distance—three times. And Pope Benedict XVI thought it was possible that Hitler was possessed by demons. Hitler did not believe that demons possessed him; he thought that the gods protected him and had a spiritual role for him to play in the world.

But the Nazis' belief in mysticism and divine intervention on their behalf goes much deeper than Hitler's obsession with himself as having godlike power. Most of the German public believed his myth, too. In fact, to Nazis, Hitler was another Jesus, idealized as a savior from God.

Heinrich Himmler, another Nazi top aide, was fascinated by forms of Germanic neopaganism, as well as by the obvious Aryan racism. Neopaganism was a modern form of paganism and included animal sacrifices. The deities of Germanic neopaganism included Anglo-Saxon and Norse gods. Adherents of the religion also worshipped ancestors, viewing the gods as their progenitors. In addition, Germanic neopaganism included rituals dedicated to creatures such as dwarves and elves. Less popular forms of Germanic neopaganism included Seid and Spae, which involve sorcery and witchcraft, shamanism, and the telling of prophecies.

Himmler, thinking that he was the reincarnation of Heinrich the Fowler, established a philosophy called Esoteric Hitlerism. Heinrich the Fowler happened to be the founder and the first king of the medieval German state. Until Heinrich the Fowler's time, Germany was known as East Francia. Heinrich the Fowler was the Duke of Saxony from 912, and then king of the Germans from 919 until he died in 936. Thus Himmler, thinking himself a reincarnation of the first king of Germany, organized SS rituals and had his Wewelsburg castle private quarters decorated in honor of the king.

It must be obvious by now that certain high-ranking Nazis were indeed interested in branches of the occult. But things are even stranger than you think. In 1935, Himmler founded something called the Ahnenerbe Society, which not only focused on providing evidence that the Nazis were superior to all other people but also focused on the occult. Mystical organizations, populated by SS members, proliferated during the Nazi era. In fact, the SS had an occult unit. The Nazis would stop at nothing to prove how superior they were. Among their many practices, some of which we will describe briefly, they organized an expedition to Tibet to find the origins of the Aryan race.

One expedition organized by Himmler went to Finland to research pagan sorcerers and witches. Pagan chants were recorded, and illustrations were drawn of pagan rituals.

Central to the beginning of *Raiders of the Lost Ark* was the notion that the Nazis might send an expedition to the Andes: in reality, they did just that. In addition, they went hunting for the Holy Grail, said to be present during Christ's Last Supper. So the Nazis, in reality, were not only interested in the occult, they were actively searching for rare religious artifacts. The suggestion in *Raiders* that the Nazis might be looking for the Ark of the Covenant is not at all far-fetched. They actually did. They just never found it.

As noted, the driving force behind the occult in Nazi Germany was the Ahnenerbe Society. The society operated in concentration camps, using prisoners as subjects in a wide array of inhumane torture experiments. Prisoners were placed in tanks of freezing water with electrodes on them. They were given a substance called Polygal, which supposedly would coagulate blood to heal gunshot wounds, then they were shot so that the Nazis could determine whether the Polygal worked. These are just a couple of the "minor" experiments that were performed; we will leave the more gruesome and horrific details for writers of other, more serious volumes of historical work.

Oddly enough, although Himmler and other high-ranking Nazis researched and believed in neopaganism and occult worship of various kinds, they instituted harsh punishments for people who were occultists. Many of these people ended up in concentration camps.

Another odd twist to the sick Nazi story is that Himmler actually had a personal occultist, Karl Maria Wiligut.

The SS employed many occultists to help them fight the war. Ludwig Straniak, Dr. Wilhelm Gutberlet, and Wilhelm Wulff all gave advice to the Nazis Walter Schellenberg and Himmler. The astrologer Wilhelm Wulff was told to find Mussolini, who was hidden fifty miles south of Rome, and Wulff used astrology and pendulum dowsing to get the answer. Using his psychic gifts, Wulff actually located Mussolini on the island of Ponti, where he was being held by Allied troops. The architect Ludwig Straniak was told to find a battleship, which was then at sea on a secret Nazi mission. Straniak dangled his pendulum over a map and located the battleship near the coast of Norway.

## ***The Ark of the Covenant***

*Marcus Brody explains to Indiana that the Nazis want the Ark of the Covenant to make their forces invincible; legend has it that the Ark's supernatural powers can destroy entire armies.*

The goal of Indiana Jones in *Raiders of the Lost Ark* is to find the long-lost Ark of the Covenant. If the Ark of the Covenant can destroy armies and make the Nazis invincible, it makes sense that the *Raiders* villains are willing to do anything to obtain the ancient religious object. In this section, we explore the powers of the Ark of the Covenant and see whether there's any basis to the Nazis' belief that the Ark can grant supernatural powers. But first, what exactly is the Ark of the Covenant? Did it really carry the pieces of the Ten Commandments that were broken by Moses? Let's find out what the Ark is, where it came from, and where it might be today.

Many religions venerate physical images of gods, whether they be in the form of statues (possibly golden idols), paintings, photographs, or other manifestations of spirituality. Judaism differs in this respect, absolutely rejecting any worship of physical manifestations of God.

The roots of Judaism go back to Abraham, who lived between 1813 BC and 1638 BC. (Yes, he lived to a ripe old age.) Born under



the name Abram in the city of Ur in Babylonia, Abraham was the son of an idol merchant named Terach. As Abraham grew up, he questioned Terach about idol worship. Abraham came to the conclusion that there was a single Creator of the entire universe. When Terach left his idol shop in Abraham's hands one day, the boy smashed all but one of his father's wares with a hammer. He placed the hammer in the hand of the one remaining idol. Then he lied and told his father that the idols had all gotten into a huge fight, and the biggest one smashed all of the smaller ones with the hammer. Terach replied that the idols had no life or powers, and it was impossible that the large idol had smashed all the smaller ones. Abraham asked his father the obvious question: why believe the idols can do anything for mankind if they have no powers or life of their own?

Regardless, one day, the Creator whom Abraham worshipped called out to him with an offer. Abraham was to leave his family and home, and if he did this for God, then Abraham would become the leader of a great nation. Abraham accepted God's offer, and hence was born the *b'rit*, or covenant, between God and the Jewish people. In Genesis 12 of the Bible, God tells Abraham, "Get thee out of thy country, and from thy kindred, and from thy father's house, unto the land that I will show thee. And I will make of thee a great nation, and I will bless thee, and make thy name great; and be thou a blessing." Abraham was allowed to bring some family members with him, as Genesis tells us: "So Abraham went, as God had spoken unto him; and Lot went with him. And Abraham took Sarai his wife, and Lot his brother's son, and all their substance that they had gathered, and the souls that they had gotten in Haran; and they went forth to go into the land of Canaan."

The *b'rit* is a fundamental aspect of Judaism, an acknowledgment that the people have obligations to God, and that God has certain obligations to the people. Eventually, God gave the descendants of Abraham the Torah, but first Abraham had to prove himself by performing ten tests of faith. The Jews became known as the People of the Covenant, the Chosen People, because they had made a covenant with God and thus had been chosen by God to be his representatives on Earth.

The Torah is also known as the Written Law. The first part consists of the Hebrew Bible, known commonly by non-Jews as the Old Testament, which includes the section called *Nevi'im*, or Prophets; and the second part is called *Ketuvim*, or Writings. Other names for the Torah are the Five Books of Moses, the Pentateuch, or, if it is not written in scroll form, the Chumash. And for Orthodox Jews, the term *Torah* might even include aspects of later writings, known as the Oral Law, such as the Mishnah, the Midrash, and the Talmud.

The Torah condemns the worship of idols. In Exodus 32, God is furious with the Israelites because they construct a golden calf, which they hope will be an intermediary between the people and God. But in the time of very early Judaism, one man-made construction was considered holy. That was the Ark of the Covenant. It was created while the Israelites were wandering with Moses through the desert, and they used it for worship until the First Temple was constructed. To the early Jewish people, the Ark of the Covenant was the one physical manifestation of God on Earth. It served as a constant reminder of their bargain, their covenant, with God.

According to Exodus 25 and 37, while the Israelites were camping at Sinai, God commanded Moses to build the Ark. The dimensions are spelled out in detail in the Hebrew Bible. With one cubit equaling approximately eighteen inches, God told Moses to make a box that was  $2\frac{1}{2}$  cubits long,  $1\frac{1}{2}$  cubits high, and  $1\frac{1}{2}$  cubits wide. The people made the Ark from acacia wood and lined it, on both the inside and the outside, with pure gold. In addition, gold rings were attached to the bottom of the box, and through these rings, the people slid two poles made from acacia and covered in gold. Using the poles, the family of the tribe of Levi carried the Ark on their shoulders. A gold covering,  $2\frac{1}{2}$  by  $1\frac{1}{2}$  cubits, was wrapped around the box, and two gold cherubs were attached to this covering. The cherubs faced each other and had wings wrapped around their bodies, with the wings of the two cherubs touching.

So this is what the Ark of the Covenant looked like and what it was made of: wood and a lot of pure gold. But what was in it?

That question has been the source of many debates throughout history. Many biblical scholars believe that the Ark contained the first tablets of the Ten Commandments that Moses brought down from Mount Sinai. These first tablets were broken by Moses, and he had to return to the top of Mount Sinai and ask God for a second set of tablets. Many scholars believe that the Ark also contained this second set of the Ten Commandments.

The Ten Commandments, of course, are central to many religions in today's world. They are essential to mankind's never-ending attempts to live in peace and harmony and to create societies that tame the more violent and unethical aspects of human nature. The Ten Commandments are the keys to humane, ethical, and moral conduct, and they were housed in the Ark of the Covenant.

The first two Commandments have special meaning for people of the Jewish faith: first, I am the Lord thy God, Who brought thee out of the land of Egypt and out of the house of bondage; and second, Thou shalt have no other gods before Me. Literally, there is one and only one God. The other Commandments are: third, Thou shalt not take the name of the Lord thy God in vain (in other words, do not use God's name when you are cursing or just in idle conversation); fourth, Remember the Sabbath day to keep it holy (this is Saturday in the Jewish religion, and, traditionally, Christians hold Sunday as their day of rest); fifth, Honor thy father and mother; sixth, Thou shalt not murder; seventh, Thou shalt not commit adultery; eighth, Thou shalt not steal; ninth, Thou shalt not bear false witness against thy neighbor; and tenth, Thou shalt not covet anything that belongs to thy neighbor.

Another holy object that was built around the time of the Ark was the Tabernacle. It was a portable temple that the Israelites carried with them in the desert. The Ark of the Covenant was stored in the Tabernacle, which also held other items used in religious worship. In Exodus 31:18, it is explained that God commanded the Israelites to build the Tabernacle because after the golden calf incident he realized that they needed some sort of physical representation of him, some physical mode of worship. But in Exodus 25:1, God commands them to build the Tabernacle *before* they commit the sin of the golden calf, so, possibly, God wanted them to use the Tabernacle to

constantly remind themselves in some physical way of God's presence. Clearly, what God wanted is unknown, and these are the conjectures of biblical scholars.

While traveling in the desert, the Israelites carried the Ark two thousand cubits ahead of the people, as detailed in the Hebrew Bible. Surrounding this fairly straightforward comment are many mystical stories, passed down through generations. For example, in one such story, the bottom of the Ark of the Covenant shot two jets of fire into the path preceding the people, and the fire burned up scorpions and snakes. Another story claims that the Ark carried the people across the desert, rather than vice versa.

Given powers of these dimensions—shooting fire and carrying people across the desert—it is possible that the Ark could also destroy armies. In actuality, scholars have long debated whether the Ark helped the Israelites in fighting their enemies, or whether it had only a symbolic presence. If the Ark is at all magical, then who is to say where its powers begin and end? But first, of course, you have to believe the mystical stories.

If the Nazis in *Raiders of the Lost Ark* were anything like the Nazis of real life, then they might indeed, given their bent toward the occult, believe that the Ark of the Covenant could wipe out entire armies. One wonders, though, why the Ark would do this for Nazis. After all, the Ark is one with the Jews, not with those who seek to slay them.

One thing is clear: the Ark of the Covenant represented the physical manifestation of God. In Numbers 7:89, it is said that God spoke to Moses from between the two cherubs of the Ark, and he was accompanied by glowing clouds (per Exodus). While the Israelites wandered with Moses through the desert, clouds accompanied the Ark's movement, and these clouds connoted the presence of God. It is also written that clouds accompanied the Ark itself as the Israelites made their way through the desert, and at night, the clouds became a pillar of fire.

When the Ark was placed in the Tabernacle, and later when it was in the temple, people had access to it only once each year, on Yom Kippur, the Jewish Day of Atonement. Then, only the high priest could approach on that one day. According to Leviticus, the

high priest addressed the Ark of the Covenant, asking forgiveness of sins for himself and all of the Jewish people. He did so in a thick cloud of incense.

The idea in *Raiders of the Lost Ark* that the Ark could be dangerous and could help its owners to destroy entire armies was probably based on all of these mystical stories surrounding it. In Leviticus in the Old Testament, it is mentioned that the Ark was dangerous: when Aaron's sons, Nadav and Avihu, wanted to offer a sacrifice in the Tabernacle, they brought a foreign flame into the Ark's presence; in response, the Ark consumed them with fire and burned them to death. The Bible indicates that this fire was created and sent by God.

Furthermore, when the Philistines captured the Ark, many people who came near the Ark or who simply looked at the Ark were instantly killed by its power. In Numbers 4:20, it was written that should a priest of the Tabernacle or the Temple look at the Ark when he wasn't supposed to look at it, the Ark would immediately kill him.

The Ark had many other powers that often saved the Jewish people, both in times of war and when they were escaping from their enemies. When the Israelites had to cross the Jordan River into Canaan, the Ark parted the waters and led the people through the resulting passageway. When the Israelites wanted to enter Jericho, they did so by marching around the walls, carrying the Ark and blowing horns.

After the episode at Jericho, the people set up the Tabernacle and the Ark in Shiloh, where they stayed until the Philistines went to war with them. The Israelites took the Ark from Shiloh, escaping a fierce battle that the Philistines won, but the Philistines ended up capturing the Ark. Upon hearing that the Philistines had taken the Ark of the Covenant, the high priest Eli immediately died.

In the south of Canaan in their capital of Ashdod, the Philistines put the Ark in the temple of their god Dagon. The mystical and supernatural powers of the Ark took hold once again, and the day after stealing the Ark, the Philistines found the idol of Dagon on its stomach, fallen from its pedestal. The following day, Dagon had no head. A short time later, Ashdod was hit by a terrible plague.

The Philistines tried to move the Ark from city to city, in hopes of protecting themselves from its powers. But wherever they took the Ark, the plague followed them, killing the occupants of their cities.

Finally, after seven months of hell, the Philistines returned the Ark to the Israelites. According to stories handed down through the generations, when the Israelites were once again in possession of their Ark, the ox that was pulling it home started to sing.

The Ark traveled quite a bit after this tragedy with the Philistines. It went from Beit Shemesh to Kiryat Yearim, and after twenty years, it went to Jerusalem. After David's son Solomon built the First Temple, the Ark was moved into the temple.

The temple was a beautiful construction. In one room was the Ark with its two tablets of the Ten Commandments. In 586 BC, approximately four hundred years after the temple had been built by Solomon, the Babylonians, led by Nebuchadnezzar, destroyed it, and the tablets of the Ten Commandments disappeared.

A second temple was constructed in the same location seventy years later, but there was no Ark to put in it. And then in AD 70, the Romans destroyed the second temple.

Most historians and biblical scholars do not believe that the Babylonians stole the Ark of the Covenant when they destroyed the first temple. The Babylonians kept detailed lists of everything they stole from the temple, and those lists did not include the Ark. There is always the possibility, however, that thieves took the Ark and melted it down for its gold.

Some sources claim that King Josiah of the Jewish kingdom of Judah hid the Ark before the Babylonians could find it and steal it. There are those who say that Josiah hid the Ark in a cave by the Dead Sea. Others say that he put it in a hole beneath the temple. If the Ark is beneath the temple, it may never be excavated, because both Israeli and Muslim officials would probably forbid any such excavation. Some people claim that the Copper Scroll, which we mentioned earlier in this book, describes where to find both the Tabernacle and the Ark of the Covenant.

According to the official Indiana Jones Web site, the film postulates that the Egyptian pharaoh Shishak (Sheshonq I) stole

the Ark shortly after Solomon's reign ended. Shishak put the Ark in a vault called the Well of Souls, back in his capital city of Tanis in the Nile Delta. God destroyed Tanis with a yearlong sandstorm to punish Shishak for stealing the holy Ark.<sup>9</sup> How likely is it that the Ark of the Covenant is hidden in Egypt, as the Nazis think in *Raiders of the Lost Ark*? There is speculation that a group of Jews took the Ark to Tanis, exactly where the digs take place in *Raiders of the Lost Ark*, when they migrated to Egypt in the seventh century BC.<sup>10</sup> But these, like most theories, remain unproven.

Today, Jews keep what they call a Holy Ark in each of their synagogues, and inside the Holy Ark are the Torah scrolls. The Ark and the covers of the scrolls often have copies of the tablets of the Ten Commandments on them. The real Ark of the Covenant, however, has been lost for more than two thousand years.

### ***The Staff of Ra***

*After accepting the job of finding the Ark of the Covenant, Indiana travels to Nepal in hopes of finding the headpiece to the Staff of Ra. This headpiece has a carving of the sun at the top.*

*In Nepal, Indy arrives at a bar called the Raven, which happens to be run by his ex-girlfriend Marion, the daughter of Abner Ravenwood. Abner Ravenwood is dead, but Marion has the headpiece. Of course, the Nazis are also in pursuit of Marion's treasure, now worn around her neck as a medallion. Indy has a brutal gunfight with the Nazi major Toht, ending with the Raven burning to the ground. Together, Indy and Marion race off to Cairo, Egypt, with the headpiece.*

First, there was indeed an Egyptian god named Ra, sometimes called Re, and he was the patron of the sun, of light, of power, and of the pharaohs. Ra was associated mainly with the midday sun, which is the hottest sun of the day, and he looked like an Egyptian pharaoh with the sun disk on his head. For centuries, Ra was the main sun god throughout Egypt. Worship of him was based somewhat in Heliopolis, the City of the Sun. The sun was thought to be Ra's body or his eye. In addition, Ra was king of the gods and the

creator of all, and mankind was created from his sweat and tears. Later, he was known as Amun-Re, meaning literally “the sun.”

Along with Osiris, Ra did not live on Earth. Instead, the Egyptian god Horus ruled over the Earth. Ra was powerful but aging, so he remained in the skies to rule over people since he couldn’t deal with them very well anymore. To represent his aging, Ra was sometimes shown in pictures as an infant at sunrise, a grown man at noon, and an elderly man at sunset. In later Egyptian times, Ra and Horus combined into Re-Horakhty and commanded both the sky and the Earth.

Ra may have been a pseudo-monotheistic god—that is, the one truly central god of Egypt. Some scholars think that the other Egyptian gods were manifestations or forms of Ra.

Some of Ra’s symbols were the bird, a symbol of fire and rebirth; a sun disk; an ankh, representing the life that the sun provides; an obelisk, representing the sun’s rays; the pyramids; the bull; and a cobra wrapped around the sun.

The ankh, an Egyptian hieroglyphic symbol for life, looks like a cross with a loop on top, and Egyptian gods were often shown holding one or two ankhs. Although it might be thought of as a staff, it looks like a cross more than it does a rod.

The obelisk, on the other hand, resembles a very tall pencil. The ancient Egyptians placed an obelisk on either side of temple entrances. Symbolizing Ra, an obelisk was thought to be a sun ray in which Ra himself existed.

Ra’s establishment as the sun god grew in the Second Dynasty, and by the Fourth, the Egyptians believed that their pharaohs were sons of Ra, or manifestations of the god on Earth. By the Fifth Dynasty, the pharaohs were building solar temples, pyramids, and obelisks in his honor, and he was established as a state deity. Then, by the Eleventh Dynasty, Ra was elevated even further into a more monotheistic version, whereby he had created the world for mankind, and it was men who did bad deeds and caused evil things to happen. He had become a Christian-like god at this point, and some followers thought that Ra would punish them in death if they did evil deeds in life. Yet later, during Egypt’s “new kingdom,” the Egyptians inscribed their tomb walls with stories of Ra’s journey



through the underworld, and the mythology around Ra grew to include such things as Ra bringing messages from the living to the dead as he rode his sun boat to the underworld.

So there was definitely a very powerful and well-known Egyptian god called Ra. Given that all pharaohs seemed to carry staffs, it is a reasonable notion that Ra might carry a staff. It so happens that the hieroglyph for the word *god* is “ntr.” The hieroglyph looks like a staff bound with cloth that has a handle on top. In fact, the Egyptian title of *pharaoh* is written much the same way: like a staff with a handle on the top.

Staffs were prevalent in ancient Egypt, used by shepherds to tend to their flocks. Staffs were also common religious symbols, connected to Moses, who brought down from Mt. Sinai the Ten Commandments that were put into the Ark of the Covenant.

In the story of the ten plagues, God inflicts Egypt with ten horrors, forcing the pharaoh to free the Israelite slaves. Before inflicting the first plague, God tells Moses to approach the pharaoh and ask for the Israelites’ freedom. Moses goes with his brother, Aaron, to see the pharaoh, who refuses to let the Israelites go. So God tells Moses to return to the pharaoh with a warning sign, and when Moses and Aaron return to the pharaoh, the staff turns into a long, writhing serpent.

In those times, because the staff was used to herd flocks, it was considered a symbol of authority. Moses used his staff not only to tend a flock of sheep, he used it to direct the Israelites through the desert. When God told Moses to use his staff to part the Red Sea, he did so and it worked. And Moses’ staff was also able to squeeze water from a stone.

When the Israelites rebelled against Moses’ announcement that the tribe of Levi would be the priests, God told each of the twelve tribes of Israel to provide a staff. The staff belonging to the tribe that would become the priests would sprout buds overnight, said God. For the tribe of Levi, Aaron provided his staff, and overnight, it bloomed and even bore ripe almonds. In honor of this event, Aaron’s staff was kept in the Tabernacle.

The Staff of Ra is not known to exist, as far we can tell, although it’s certainly possible that the staff of a pharaoh exists, that Aaron’s

staff is buried somewhere, and that a staff presumably belonging to Ra might be buried among some Egyptian artifacts. But archaeologists have found no traces of such things; hence we conclude that the Staff of Ra was an excellent device created by the makers of *Raiders of the Lost Ark*, based on biblical and ancient Egyptian references.

### ***Tanis, the Lost City of Ancient Egypt***

*In Egypt, Indiana Jones and Marion meet up with Indy's friend Sallah, who is digging at the Tanis archaeological site. Sallah tells Indy that the Nazis have hired Rene Belloc, a French grave robber and Indy's rival, to find the Ark of the Covenant. In a busy marketplace, the Nazis kidnap Marion and fake her death. That night, Indy and Sallah take the headpiece to a man who is able to decipher its symbols.*

*Indy and Sallah realize that the Nazis have miscalculated the resting place of the Ark and are digging in the wrong location. One side of the headpiece provides a partial measurement for the staff's length, but the other side of the headpiece gives a critical correction to that measurement. Without both pieces of information, the digging location is wrong. The Nazis managed to retrieve only the partial measurement from an image of one side of the headpiece that was burned into Major Toht's hand when he tried to retrieve the headpiece from the fire at the Raven Bar.*

We've touched on Tanis a bit in previous chapters, and we've talked about lost cities in the South American jungles. Was Tanis also a lost city, albeit one in Egypt? Did the Germans discover Tanis in the 1930s?

First, it should be pointed out that Tanis is a real city in Egypt. Its modern name is San el-Hagar, and, in fact, Tanis is the Greek name of the ancient city called Djanet. It is on the Tanitic branch of the northeastern Nile. During the late Twentieth Dynasty, the ancient Egyptians began construction of Tanis. The Eighteenth through Twentieth Dynasties were called the New Kingdom, and the driving force of the final period of the New Kingdom was Ramses III, the second pharaoh of the Twentieth Dynasty. Ramses III ruled ancient Egypt from 1186 to 1155 BC.

During the Twenty-First Dynasty, the pharaoh Hedjkheperre Setepenre Smendes founded Tanis as the northern capital of Egypt and made his home there. Smendes owned land in lower Egypt, where he seized control from Ramses XI and took hold of the throne. While Smendes controlled lower Egypt, the middle and upper sections of the country were ruled by the high priests of Amun. Smendes' full name meant "Bright Is the Manifestation of Re, Chosen of Re-Amun." It is possible that the Staff of Ra in *Raiders of the Lost Ark* is based on the fact that the founding ruler of Tanis was Smendes, the Manifestation of Ra.

In the Twenty-Second Dynasty, Tanis remained a significant political and commercial city, and it continued to serve as Egypt's main capital.

In 31 BC, Augustus Caesar of the Roman Empire conquered Egypt and stationed military garrisons to keep the peace. During the Roman Period, Tanis did indeed sink into silt, for the most part, and it became a minor village, with people burning the temple limestone to extract the lime.

In AD 6, Tanis was abandoned by its inhabitants when the water of Lake Mazala rose to such levels that it threatened to drown the entire city. The people of Tanis escaped and built a new city nearby, which they called Tennis.

In *Raiders of the Lost Ark*, Tanis is a lost city that the Germans discover during their search for the Ark of the Covenant. According to the movie, the Ark is buried in a secret temple chamber somewhere in Tanis. Was the real Tanis buried by a sandstorm, lost for centuries until the Nazis found it in the 1930s? That is an interesting fiction created by the makers of the film. In fact, the main excavations of Tanis occurred long before the Nazis existed.

Tanis does contain many ruins, and among them are quite a few temples, including a significant temple dedicated to Amun, the primary god of Tanis. With Amun were two other Tanis gods, Mut, who was Amun's consort, and their child, Khonsu. The earliest recorded building in Tanis is from the period 1039–991 BC, in the Twenty-First Dynasty; it is an enormous mud-brick wall at the Temple of Amun. This outer, enclosing temple wall is approximately 16 yards thick, and it is approximately 470

by 400 yards wide. Within this outer wall is yet another mud-brick wall.

The stones of the temples were carried by the Egyptians from the town of Qantir. In the late Twenty-First Dynasty and the Twenty-Second Dynasty, the Egyptians added more buildings to the main Temple of Amun, including a small temple dedicated to Mut and Khonsu on the southwest side of the main site.

Napoleon Bonaparte surveyed Tanis in the late 1700s, and the first true exploration of Egypt occurred when Bonaparte invaded the country. He sent scholars along with his army; the scholars conducted surveys of sites all over Egypt. These early Egyptologists recorded what they found, but they did not plunder artifacts as did the treasure hunters who followed them.

In the early 1800s, explorers were more interested in collecting and selling Egyptian antiquities than in simply recording their existence. Most of the excavations during this time, however, involved statues. Jean-Jacques Rifaud found two large pink granite sphinxes and brought them to Paris. These statues are now in the Louvre. Statues from Tanis also ended up in Berlin and Saint Petersburg, and in the early 1800s, Henry Salt and Bernardino Drovetti unearthed eleven more statues, shipping them to the Louvre, Berlin, and Alexandria.

The first major excavation of Tanis was performed by French Egyptologist August Mariette from 1860 through 1880. Mariette is often credited as the founder of modern archaeological excavations in Egypt. In addition to his major contributions to Egyptology, Mariette also conceived the plot for what became the opera *Aida* by Verdi.

At any rate, between 1860 and 1864, Mariette discovered the Four Hundred Year Stela, an enormous granite monumental plaque that had been built in the eastern Delta by Ramses II in honor of Seti I, his father. Mariette also dug up many royal statues dating back to the Middle Kingdom: the Eleventh and Twelfth Dynasties between 1986 and 1759 BC.

Later excavations were done in 1883–1886 by Flinders Petrie and from 1921 through 1951 by French Egyptologist Pierre Montet. Petrie found a Roman-era papyrus, and he made detailed drawings of the temple precinct. He also excavated trenches and recorded inscriptions on the walls that he uncovered.

The treasures unearthed by Pierre Montet were magnificent. Ten years into his digging in Tanis, in 1939, Montet found the tomb of King Osorkon II (874–850 BC). The site had several rooms, all of which had been plundered. Despite the earlier robberies, the tomb still contained many amazing artifacts, among them the quartzite sarcophagus of Takelot II (850–825 BC), who was Osorkon's son, as well as various bejeweled objects.

Montet completed his excavation of the main tomb, and then, to his surprise and delight, he located another tomb. This one had remained undisturbed by robbers. It was the tomb of Shoshenq II, with a solid-silver coffin containing a solid-gold face mask and beautiful gold jewelry. Perhaps most amazing, Shoshenq II was a king whom Egyptologists did not yet know about until Montet's find. The tomb of Shoshenq II also contained the sarcophagus of Amenemope (993–984 BC). Altogether, Montet discovered six royal tombs, all of them subterranean and made from mud bricks and stone blocks that were in large part inscribed.

The importance of Montet's finds remains impressive today. The artifacts unearthed by Montet are the most significant source of knowledge about royal funerary objects during what is known as the Third Intermediate Period of Egypt's history. This is a very long period of time in Egypt, ranging from the death of Ramses XI in 1070 BC to the founding of the Twenty-Sixth Dynasty in 664 BC by Psamtik I.

The Tanis treasures are stored in a museum in Cairo and include items such as

- The solid-gold funerary mask of Psusennes I
- The solid-gold funerary mask of Shoshenq II
- A gold pectoral with inlays of multicolored stones and glass, from the neck of Shoshenq II's mummy
- The solid-gold sandals worn by Shoshenq II's mummy
- Gold, scarab, and lapis lazuli jewelry, with embedded green and red faience (ceramics)
- Seven pairs of hinged bracelets featuring the wadjet eye (the symbol of the Eye of Horus) and made from gold, lapis lazuli,

and carnelian, with embedded green and red faience, all from the mummy of Shoshenq II

- The solid-gold funerary mask of General Wendebauendjed
- A solid-gold bracelet inlaid with a scarab
- A solid-gold pectoral with a solar motif and embedded lapis lazuli

Lapis lazuli, a gemstone highly prized by the Egyptian pharaohs, was fashioned into amulets and ornaments such as scarabs. The ancient Egyptians worshipped the *Scarabaeus sacer*, a dung beetle, as the embodiment of the god Khepri. Scarabs were amulets, or good luck charms, made in the shape of these beetles. Lapis lazuli is a deep-blue, opaque jewel, and the finest lapis lazuli is a very intense blue with light flecks of golden pyrite, commonly known as fool's gold. In the Egyptian Book of the Dead, lapis lazuli in the shape of an eye set in gold is said to be an amulet with enormous power. In fact, it was considered to be so important that Egyptians made offerings to the symbolic eye on the last day of every month. In addition, Egyptian women wore lapis lazuli dust as eye shadow. The pharaohs got their lapis lazuli from mines at Shortugai on the Oxus River in northern Afghanistan. These mines are still operating today.

Today's Tanis is a desolate place, covered in silt and surrounded by an open plain. During the last two millennia, the inhabitants of the area have consisted mainly of wild boar and transient Bedouins. The site of Tanis today contains debris and fallen statues and columns, as well as reused obelisks of Ramses II and temple blocks from ancient times. The enormous enclosing walls are mostly gone. People can enter the site from various routes. The typical way that people enter the site, however, is through the entrance to the ruins of Sheshonq III. Two deep wells that once showed the height of the Nile water are in the middle of the Temple of Amun.

In the northern corner of the Tanis site, south of the wall of Ramses II in the Temple of Amun, is the ancient Sacred Lake. This lake is rectangular and lined with stone, and it originally had stairways leading down into the water. Tuthmosis III dug the Sacred

Lake in accordance with what is thought to be a common practice of including sacred lakes in most temple sites. The Sacred Lake at the Temple of Amun was filled with groundwater and used for ritual cleansings. To the ancient Egyptians, the Sacred Lake represented the primeval waters that spawned life.

In the northern corner of the Sacred Lake was a huge granite statue of a scarab on a cylindrical pedestal. There was a stela on the flattened front face of the pedestal, and on this stela, a king was depicted in a kneeling position. The statue was destroyed during the course of many centuries, like most buildings in this area.

On the south side of the Sacred Lake is a stone tunnel. In ancient times, the Egyptians released the geese of the god Amun through the tunnel into the lake from special yards that were built nearby to contain the waterfowl. The priests had their homes around the Sacred Lake; ruins of these homes still remain on the eastern bank.

### ***The Well of Souls, Temples, and Map Rooms***

*After making his way to Tanis, Indiana eventually infiltrates the Nazi digging site and starts to look for the Ark in its headpiece-designated location. The Nazis, with their hundreds of Arab workers, are everywhere with equipment and excavation platforms. They are frantically searching for the Well of Souls, which, according to legend, is where they will find the Ark of the Covenant.*

*Indy and Sallah see a round hole in a mound of dirt, where the sun will be positioned exactly overhead at nine in the morning. Using a long rope, Indy drops through the hole into a room, the floor of which is elaborately decorated with a detailed map of ancient Tanis. Indy deciphers the hieroglyphics that are engraved in the stone floor, and he figures out where to put the Staff of Ra. When he positions the staff, suddenly sunlight pours through the hole onto the map, moving along the floor, then hitting the top of the headpiece at a particular angle. A beam of light shoots from the headpiece and focuses on a building on the floor map of ancient Tanis.*

*This is the location of the Well of Souls, the resting place of the Ark of the Covenant. It is nowhere near the location where the Nazis are digging.*

We've already discussed the ruins of Tanis and the Amun Temple in some detail. Was there really a Well of Souls, and was it underground, requiring that Indiana Jones break through a door on its roof? Or is the film's Well of Souls a reference to the two deep wells that once measured the height of the Nile water in the middle of the Amun Temple?

While there is no reference to the two real wells in the movie, the reference to the Well of Souls is somewhat valid, though misplaced. In other words, there is a Well of Souls, but it is not located in Tanis, Egypt.

The real Well of Souls is a cave that is beneath the Sakhras in the Dome of the Rock. The Dome of the Rock is a famous landmark in Jerusalem that was built between AD 687 and 691. The Sakhras is the center stone in the Dome of the Rock, which is also known as the Pierced Stone because it has a tiny well-shaped hole that is on the roof of the cave. A staircase leads through a gap between the Sakhras and the surrounding bedrock down into the cave, which is about the size (width and length) of the overhead Sakhras. The ceiling curves downward on all sides, and where the steps are located—in the southern part of the cave—are man-made walls that support the roof of the staircase.

Muslims believe that Muhammad rose to God in heaven with the angel Gabriel via the Sakhras. Once in heaven, Muhammad talked to Moses and received the Islamic prayers that are now mandatory in that religion. Then he returned to Earth.

For Jewish people, the Sakhras was where Abraham was willing to sacrifice his son Isaac at God's command. Long ago, the Sakhras was inside the First Temple, and the Ark of the Covenant rested upon it. During the time of the Second Temple, the high priest sprinkled the blood of sacrifices on the Sakhras and placed offerings to God on it.

Christians believe that the Dome of the Rock was constructed in the same spot where Constantine's mother built the Church of St. Cyrus and St. John, which was later called the Church of Holy Wisdom.



According to the teachings of Islam, the Last Judgment will occur at the Sakhrāh, and the souls of the dead are now gathering in the cave, in the Well of Souls, waiting for the judgment day. A great wailing is said to echo from the Well of Souls, which is made by the voices of the dead calling out upon the Rivers of Paradise that flow over the Abyss of Chaos. Another, more objective, source of the wailing noises might be the type of resonance that is heard inside seashells.

As in *Raiders of the Lost Ark*, legends claim that the Well of Souls was the hiding location of the long-lost Ark of the Covenant. Whether this is true, as mentioned earlier, is unknown, and it's highly unlikely that government and religious authorities will let archaeologists dig for the Ark beneath the Temple Mount.

So, yes, the Well of Souls is real, but no, it isn't in Tanis, Egypt. It's a cave beneath the Dome of the Rock in Jerusalem. And there is no known map on the floor that shows precisely where to find the Ark of the Covenant.

Speaking of the map, how likely was it that a beam of light hit the headpiece of the Staff of Ra and illuminated a building on the map? This one is not as unlikely as you might think. Many tombs around the world were constructed so that the sun would send shafts of light to shine on specific locations.

For example, the Neolithic tomb Newgrange in Ireland is somewhat like the map room in *Raiders of the Lost Ark*. This tomb was built in approximately 3200 BC and covers more than an acre. According to mythology, the mound over the tomb was reputedly the site of a fairy mound, the home of Oenghus, the god of love. Richly decorated stones surround the structure, and a twenty-foot-long inner tunnel leads to a main chamber. Side chambers are situated off the tunnel. A slit over the roof of the tunnel's entrance lets a shaft of sunlight in, which beams down the tunnel and brightly illuminates it. This happens only during a very specific time of year, at approximately the time of the winter solstice, from December 19 to 23.

Another example might be the Temple of Serapis. It contained a narrow window on one side, set into the wall so that every morning at dawn, the sun shone precisely through the window. A ray from the sun traveled across the floor to the statue of Serapis (a Hellenistic-Egyptian god) and up to the statue's lips. It thus seemed that every

morning, the sun rose and kissed the statue. It is thought that the walls were covered in gold with silver and bronze embellishments, and that these precious metals somehow magnified and held the image of the sun kissing the statue for a long period of time. The Temple of Serapis included marble columns and platforms that rose up a hundred stairs, then down again. The statue itself was huge, with its right hand touching one wall and its left hand on the opposite wall. The temple stood intact for six centuries but was destroyed in AD 391 by Theophilus, the bishop of Alexandria.

In *Raiders of the Lost Ark*, the Staff of Ra catches the sun's rays and shoots them in another direction. This is slightly different from temples with slits and windows that attract sunlight once a year or once each day. There is actually a temple called the Shrine of Remembrance that features the very same mechanism. It is located in Melbourne, Australia.

The Shrine of Remembrance was built in honor of soldiers who fought in World War I. The architect, Philip B. Hudson, constructed the memorial so that for at least five thousand years, at exactly 11 a.m. on November 11, the anniversary of the end of war, a ray of light will streak through a hole, pass over the Stone of Remembrance, and illuminate the word *love* in the inscription, "Greater love hath no man." The Stone of Remembrance is made of marble and sits beneath the pavement where people cannot reach and touch it.

In 1971, the state of Victoria, where the shrine is located, adopted daylight saving time for the summer. In this part of the world, summer happens to include the month of November, so 11 a.m. on November 11 became noon, an hour later than the sun was supposed to hit the word *love*.

Using a lighting method similar to the one for the Staff of Ra, the problem with the Shrine of Remembrance was fixed by installing a mirror to deflect the sun into the hole at 11 a.m.

## ***Deadly Snakes***

*As night falls and lightning flashes, Indiana and a small crew start to dig at the location specified by the map. They unearth a door leading to a subterranean chamber. It is the Well of Souls, and it is filled with deadly snakes.*

*Indy and his men, knowing that snakes hate fire, throw torches into the underground chamber to clear the snakes. As Indy lowers himself into the Well of Souls, he falls and lands directly in front of a cobra. After slowly recovering, he sprays kerosene from canisters around the chamber and ignites the snakes with a torch.*

*At the far end of the Well of Souls is a stone altar holding a heavy stone chest that contains the Ark of the Covenant. Indy and Sallah heave the top of the stone chest up and slide poles through the rings on the sides of the chest. They hoist the Ark out. It is solid gold and has two gold angels facing each other on the top. As the sun rises, Indy's men use ropes to pull the Ark out of the Well of Souls.*

*But then Belloq and the Nazis steal the Ark, toss Marion into the cavern, and seal the cavern roof, entombing Indiana Jones and Marion in the Well of Souls. Their torches are beginning to expire, and snakes are everywhere.*

Indiana Jones is not alone in having a fear of snakes. Many people do indeed fear them as much as he does. Experts think that our fear of snakes is rooted in our earliest history, when mammals had to survive in a deadly environment filled with killer reptiles. According to a *National Geographic* article, psychologist Arne Öhman of Stockholm, Sweden, coauthored a 2001 study on the subject that was published in the *Journal of Experimental Psychology: General*.<sup>11</sup> Öhman concluded that to survive in such a harsh early environment, we developed the ability to perceive and focus on snakes and spiders, which we saw as life threatening, and to respond instantly with terror, which enabled us to protect ourselves and our loved ones. In the same *National Geographic* article, Joseph LeDoux, a professor of neural science and psychology at New York University, agreed with Öhman's conclusions, adding that "there are certain stimuli that are pre-wired in the brain because they have been perennially dangerous to our ancestors."

There is a term for the fear of snakes. It is sometimes called ophidiophobia, although it is more commonly known as herpetophobia, which means fear of reptiles. This is one of our most common phobias.

It is also possible that we are afraid of snakes for other reasons that do not stretch back to the dawn of time. After all, major

religions such as Christianity view the snake as the physical embodiment of evil on Earth. It was a snake that seduced Eve into eating the apple.

The most likely reason that people are afraid of snakes is simple. Snakes look terrifying and dangerous, and they do bite with fangs that inject poisonous venom. Some snake bites are fatal to humans. These facts are enough to instill fear in anyone who is unskilled in handling snakes.

Snakes have been slithering and biting their way around the planet for more than 150 million years. Australia is host to seventeen types of lethal snakes. Throughout the world, there are probably between 1 and 2 million dangerous snake bites reported each year, and some estimates place deaths from snake bites at approximately 50,000 a year.

In Africa, deadly snakes include the Egyptian cobras, as well as saw-scaled vipers and puff adders. Asia has the common cobra and the Russell's viper, and South America is home to the deadly anaconda.

Let's focus on the deadly Egyptian snakes, such as the cobras and asps that Indiana Jones encounters in *Raiders of the Lost Ark*. The Egyptian cobra has another name: the Egyptian asp. This is the most common cobra in Africa, and it causes more human deaths on that continent than any other type of snake. This snake was used by Cleopatra to end her life, and it was the pharaohs' symbol of sovereignty.

The Egyptian cobra has a large, depressed head with a wide snout, and its eyes are big with round pupils. Its neck can dilate or widen into a hood shape, which spans six to seven inches. Its body is thick, cylindrical, and long. The cobra's average length is from three to six feet, although some grow to nine feet.

The Egyptian cobra is divided into several species, such as the *Naja haje haje*, which is found south of the Sahara desert; the *Naja haje legionis*, in Morocco; and the *Naja haje Arabic*, in southwest Arabia. The *Naja haje haje* has the largest geographic range and lives in many habitats. It is found in many countries, including Algeria, Cameroon, Egypt, Ethiopia, Guinea, Ivory Coast, Kenya, Libya, Morocco, Niger, Nigeria, Saudi Arabia,

Sierra Leone, Somalia, Sudan, Tanzania, Uganda, and Yemen, among others.

These cobras live almost anywhere, so they could indeed be found in the underground cave that Indiana Jones is trapped in. Egyptian cobras live in the grasslands, on hills with some vegetation on them, in agricultural areas, in oases, in steppes, on dry savannahs, and in deserts with sparse vegetation. They also reside in houses and villages, and they swim in the Mediterranean Sea.

When the Egyptian cobra perceives that it might be in danger, it raises its hooded head. Its bite kills quickly, and its venom is more potent than the venom of any other cobra except for the cape cobra of southern Africa. But the Egyptian cobra is much larger than the cape cobra, and it injects far more venom in each bite.

Other horrific snakes with expanding hoods that are found in Africa are the black-necked cobra, which spits venom at its victim's eyes from as far away as seven feet, and the black mamba, whose bite is always fatal unless antivenoms are immediately administered. The black mamba is huge, reaching a length of fourteen feet, and it rears up before striking a large animal or a person. In addition, the gaboon viper of Africa is extremely dangerous because its fatal bite is usually confused with an insect sting, and people do not seek medical attention quickly enough. Many could be saved by the antivenom if only they realized they were bitten.

The venom injected by killer snakes is a mixture of toxins and proteins that immobilize and digest prey. This prey could consist of smaller snakes, as well as mice, birds, and frogs. Snake venom attacks the victim's heart, lungs, muscles, and/or red blood cells. Hemotoxic venom attacks the blood vessels and induces hemorrhaging. Neurotoxic venom paralyzes the victim's heart and lungs. And myotoxic venom attacks the muscles, inflicting enormous pain. Some snakes have multiple types of venoms and with one bite can induce multiple effects.

Cobras, such as the ones encountered by Indiana Jones, have extremely potent neurotoxic venom. Coral snakes also have potent neurotoxic venom, and in this case, the venom liquefies the flesh of the victim. A bite from a cottonmouth snake can cause a fatal amount of hemorrhaging fairly quickly.

In ancient Egypt, snakes were everywhere and could easily have been in underground caves. They lived in the desert, by the Nile River, and in houses and walls. Some were poisonous and in fact deadly to both livestock and humans. For their own safety, the ancient Egyptians had to keep snakes at a distance. They viewed the reptiles as protecting the king while also being demons from the underworld.

The horned viper, also known as the sand viper, was greatly feared in ancient Egypt. This type of snake, when it attacks, rasps its coils together, repeatedly making a long *fy* sound. (This *fy* sound is heard in the Egyptian word for “viper.”) And then the snake leaps at its prey.

Various medicinal and religious texts refer to the threat of snakes. The Pyramid Texts, containing ancient Egyptian spells, refer often to the deadly attributes of snakes. The ancient Egyptians feared the snake god Apophis, or Apep, as the enemy of Ma’at, the god of all order in the universe, without whom the universe would collapse. When Ramses II was pharaoh, Apophis was a symbol of great evil. Certain religious rituals consisted of torturing images of the serpent god made from papyrus and wax, to represent the triumph of Re and Ma’at over chaos.

Do snakes really hate fire? Will a torch really protect someone from snakes? In actuality, snakes avoid bright lights, so taking a torch into the darkness to protect yourself from snakes is a good idea. Indiana Jones’s use of the torch was wise and is one of the most common pieces of advice given to people who venture into dark areas that are infested with snakes.

## ***Pyramid Building***

*When Belloq and the Nazis entomb Indiana Jones and Marion in the Well of Souls, Indy climbs up a pillar and pushes against the top of the chamber. The pillar starts to rock and quickly topples, destroying the chamber wall.*

It’s actually not all that easy to destroy a pyramid structure. These architectural wonders have been standing tall throughout time.

The Great Pyramid on the plateau of Giza is one of the original Seven Wonders of the Ancient World, and it was constructed from 2589 to 2566 BC.

Most people believe that slaves built the Egyptian pyramids, although some people conjecture that skilled workers receiving salaries were employed to create the structures. What we know for sure is that the earliest pyramids were made entirely of stone. The outer casing was of a high-quality limestone quarried at Tura, which is near Cairo, and the main pyramid body was built from limestone that the Egyptians quarried locally. The porticulis (a gate), and the roofs and the walls of the burial chambers were often made from granite that was transported from Aswan.

The earliest pyramids had a less stable structure than the later versions had, although they were still extremely strong and not so easily destroyed by one man. In these earliest structures, the Egyptians placed layers of stone that sloped inward, but later they learned that the pyramids were stronger if the stones were stacked horizontally, one on top of another. Some pyramids even used both techniques, as the Egyptians made the transition from sloped to horizontal stones.

During the Middle Kingdom, the Egyptians were building pyramids from mud bricks encased in limestone. These pyramids did not survive the centuries as well as the earlier monuments, which were carefully constructed of massive stones in stable configurations.

The gaps between stones were filled with a special, very strong mortar made from gypsum, rubble, and wood. The ancient Egyptians first dehydrated the gypsum-rubble mortar by heating it over wood fires. In fact, much of Egypt's natural wood-tree resources were destroyed to build the pyramids.

The Egyptians were very exacting in the construction of the pyramids, which is why they are extremely strong and have stood the test of time, despite their incredible height. Workers used saws, drills, and copper chisels to cut limestone, and they used abrasives such as quartzite sand, along with drilling, sawing, and pounding with dolerite, to cut granite. They transported the stone blocks on sledges that they lubricated with water. Foundations were leveled, as were the tiers of the pyramid.

When a pyramid was finished, it might weigh something like six million tons or more. The Great Pyramid is taller than the Statue of Liberty and contains more than two million stone blocks, each weighing approximately 2.5 tons. At its base, the Great Pyramid is wider than ten football fields. Clearly, one man cannot destroy the walls of one of these ancient structures.

## ***Seaplanes and Luftwaffe Airplanes***

*When Indiana Jones is en route to Nepal, he boards a Pan American clipper seaplane and flies over the Pacific Ocean from San Francisco to the Himalayas. There, he intends to find Professor Ravenwood, who has the Staff of Ra headpiece. The seaplane has several rows of seats.*

*Much later, after Indiana surfaces from the Well of Souls, he sees that the Nazis are preparing to take the Ark away on a Luftwaffe airplane. Indy blows up the plane, and the Nazis put the Ark on a truck.*

Did such a Pan American clipper seaplane exist in the 1930s? It sure did, but it was expensive. One ticket across the Pacific Ocean aboard a Pan American clipper cost the equivalent of \$10,000 in today's currency.

The founder of Pan Am was Juan Trippe. He wanted to create a style of flying that would rival travelers' experiences aboard luxury ocean liners, so he built his 1930s clippers with what he hoped were equal amenities: fine food, fine drink, and lavish service. There were three types of Pan American clipper seaplanes: the Sikorsky S-42, the Martin M-130, and the Boeing 314.

The name *clipper* was chosen because Juan Trippe's family had amassed its fortune centuries earlier by sailing clipper ships. The 1930s clipper planes were referred to as flying boats, and they could take off from and land on water. There were few runways in those days, and they were very expensive to build, so using water as a runway made a lot of sense. Like the Trippe family's clipper ships from long ago, the Pan Am clipper seaplanes also crossed the oceans.

The first sea clipper introduced by Pan Am was the Sikorsky S-42 in 1934, which flew from Miami to Buenos Aires and held



thirty-two passengers. Its fuel tanks barely made the twelve-hundred-mile journey.

In late 1935, Pan Am introduced the Martin M-130, nicknamed the China Clipper. It flew across the Pacific Ocean, and in 1936, it took passengers on an eight-thousand-mile, weeklong trip to Hong Kong. Each M-130 could handle forty-six passengers.

Long after Indiana Jones needed a flight to Nepal, Pan Am introduced its third clipper seaplane, the Boeing 314, in 1939. It carried seventy-four passengers, who resided in luxury cabins that included dressing rooms and staterooms, full-course meals, and separate restrooms for men and women. The Boeing 314 took a Pacific route in 1939, but later that year, it also flew over the Atlantic Ocean.

The Luftwaffe was the German air force, formed in May 1935 after the Nazis passed the Law for the Reconstruction of the National Defense Forces. The law returned into existence the elements of war—an army, a navy, and an air force—that had been banned in Germany since the end of World War I.

After World War I ended and the Treaty of Versailles was signed in 1919, the Germans maintained a small defensive army known as the Reichswehr. It was controlled by the Allies, who hoped to keep Germany from instigating future military aggression. The Reichswehr had about a hundred thousand men in service, for both land defense and a small navy. But the Reichswehr did not include an air force.

Then in 1933, sadly for the world, the Third Reich came to power with the National Socialist German Workers Party, and in 1935, the Germans renounced the Treaty of Versailles. They transformed the Reichswehr into the Wehrmacht, which included an army, the Heer; a navy, the Kriegsmarine; and a new air force called the Luftwaffe.

The Luftwaffe consisted of many thousands of airplanes of all types and even included naval vessels. Between 1939 and 1945, more than 3.4 million Germans served in the Luftwaffe, and of the 7,361 men who received the highest German combat award during World War II, the Knight's Cross, 1,785 (or 24 percent) served in the Luftwaffe.

As for the specific types of planes in the Luftwaffe, they were numerous: Arado Ar 68, 96, 196, 232, 234, and 240; Blohm und Voss BC 138 and 222; DFS 230; Dornier Do 17, 18, 24, 215, 217, and 335; Fieseler Fi 156; Focke-Wulf Fw 189, 190, and 200; Focke-Wulf Ta 152 and 154; Gotha Go 242 and 244; Heinkel He 45, 46, 59, 60, 111, 114, 115, 162, 177, and 219; Heinkel Hs 123, 126, and 129; Junkers Ju 52, 86, 7, 88, 90, 188, 252, 290, and 388; Messerschmitt Bf 108, 109, and 110; Messerschmitt Me 163, 210, 262, 321, 323, and 410; and Siebel Si 204.<sup>12</sup>

### ***Cliff Roads Near Cairo***

*When the Nazis put the crated Ark of the Covenant in the back of a truck, Indiana Jones hops onto a white Arabian stallion to chase the truck in order to recover the Ark. Belloq is riding in a staff car in front of the truck. From the top of a cliff near Cairo, Indiana sees the car and the truck far beneath him. He charges after them and gallops down the steep hillside, finally catching up to the Nazis. Indy leaps from the horse into the truck, eventually throws the driver onto the road, and grabs the steering wheel.*

Yes, there are cliffs outside Cairo, and this scene could actually take place. Obtaining a white Arabian stallion might be tricky, but nothing is too difficult for Indiana Jones.

Egypt is bounded in the south by Sudan, in the west by Libya, in the east by Israel, and in the north by the Mediterranean Sea. More than 90 percent of Egypt is desert, with less than 10 percent of the country settled or used for agriculture and livestock.

Cairo is the capital of Egypt, with a population of approximately 16.1 million people. It has the largest population of any metropolitan area in Africa, and it is the seventeenth most heavily populated metropolitan area in the world. Cairo is fairly close to the Mediterranean Sea and lies on the banks of the Nile River. The city is immediately south of where the Nile River splits into two branches into the Nile Delta region.

The Arabian Desert stretches to the Gulf of Suez and to the Red Sea, and much of it is on a plateau that approaches an

elevation of 2,000 feet in the east. This plateau is punctuated by tall, jagged peaks that reach 7,000 feet along the coast of the Red Sea. The mountains on the Sinai Peninsula include Jabal Katri-nah, which is 8,668 feet high. The Nile River flows north from Sudan through Egypt for 960 miles to the Mediterranean Sea. For its entire length, from the southern border of Egypt all the way to Cairo, the Nile River flows through a narrow, cliff-lined valley.

### ***Nazi U-Boats***

*Indiana Jones and Marion, in possession of the Ark of the Covenant, intend to sail from Cairo to England on the Bantu Wind steamer. The morning after they set sail, the steamer becomes eerily quiet. Indiana cocks his gun and goes onto the deck to try to discover what is wrong.*

*Germans in a U-boat that has been following the ship carrying the Ark have taken hold of the steamer, and a party of Nazis has come aboard. The Nazis kidnap Marion again, and again steal the Ark. They head into the sea in their submarine, with Indiana Jones clinging to the top of it.*

The German U-boat did indeed exist, even before the 1930s, although from the end of World War I to the beginning of World War II, U-boat activity was greatly diminished. It is possible, albeit strange, that Indiana Jones encountered a U-boat during the time of *Raiders of the Lost Ark*.

The German word for the submarine is *Unterseeboot* (undersea boat), or U-boat for short. The U-boats were German military submarines that operated in World War I and World War II. In both wars, U-boats attacked merchant convoys that were hauling supplies to Europe from the United States and Canada.

When World War I broke out, Germany had twenty-nine U-boats, and within weeks, the submarines had destroyed fifty British ships. Then in 1915, a U-boat sank a passenger ship, the RMS *Lusitania*, with one torpedo. Aboard the ship were 1,198 people, all killed. The Allies were stunned that the Germans would attack an

unarmed passenger ship. The manifest of the *Lusitania* indicated that the ship was carrying some nonexplosive military cargo, but Germany had signed an agreement before the war that prohibited the country from sinking any passenger ship, even one with a small amount of nonexplosive military cargo onboard.

Between October 1916 and January 1917, German U-boats sank a million and a half tons of shipped goods, and in late January, the Germans told the world that the U-boats would now be launched into outright warfare of an unrestricted nature. Then in March, German U-boats sank three American merchant vessels. At this point, the United States declared war on Germany. Eventually, the war ended in November 1918. At the Treaty of Versailles in 1919, Germany was forbidden to build any more U-boats, and its use of current boats was limited.

Under the guise of research, the Germans started to build more U-boats in hidden locations. When World War II broke out, the Germans were ready with a small fleet of new U-boats. In fact, during that war, Germany's fleet of submarines exceeded in size the fleet of any other country.

The World War II U-boat was basically a launching pad for torpedoes, which either exploded as soon as they hit something solid or exploded when they sensed large metal objects. Using the second kind of explosion, the Germans would launch the torpedo so that it barely missed hitting an Allied ship. The near miss would create a gas bubble that was strong enough to break the Allied ship into pieces.

As for Indy clinging to the top of the Nazi submarine, it must be pointed out that the Nazi U-boats were in fact submersibles, not true submarines, and they did most of their fighting on the surface as if they were torpedo boats. They submerged only to avoid enemy ships, to escape the weather, and to make a rare daylight attack by periscope. They usually traveled on the surface, too, where they were much faster and more maneuverable. Because the Nazis wanted to get the Ark to its destination as fast as possible, the U-boat would have traveled above water all the way to the hidden island, enabling Indy to safely hitch a ride.

## **Secret German Submarine Bases**

*The Nazis, with Indiana Jones stealthily clinging to the top of their U-boat, make their way to a remote island in the Aegean Sea, southeast of Greece.*

Did the Nazis have secret German submarine bases in the 1930s as they did in *Raiders of the Lost Ark*?

During World War II, warfare was intense in the waters around the Aegean islands, with the people on the islands nearly starving to death. Nazi submarine bases did exist in Greece, and these were bombed by the British, to the extreme joy of the starving population. In October 1943, the Germans seized Kos, the only Allied air base in the Aegean Sea. But in the 1930s, was there a secret island somewhere that had a German submarine base? It is unlikely.

## **Arcane Jewish Ceremonies and Sacred Breastplates**

*On the hidden Nazi submarine base in the Aegean Sea, Belloq begins a mysterious Jewish ceremony that will uncover the secrets of the Ark. Indiana threatens to destroy the Ark with a rocket launcher unless the Nazis release Marion. But Indy's threat doesn't work, and both he and Marion end up being tied to a stake. Belloq and the Nazis are able to open the Ark. It emits a strange beam of light, and frightening spirits appear. Indy orders Marion to close her eyes, but the Nazis stare at the Ark in awe, and they are destroyed by the Ark's incredible power. Thunder booms, and the Ark closes once again.*

Just how strange is this scene? Are there any Jewish biblical or mythical references to cryptic Ark ceremonies and sacred breastplates? You may be surprised to learn that there is an element of truth to all of this.

In the Hebrew Bible, God instructs the Jews to make their priestly garments, particularly those for the high priest, with special care. The high priest is to wear a breastplate, an ephod, a robe, a tunic, a headdress, and a sash. The tunic was a fringed garment

worn beneath the robe and the ephod. The headdress had a frontlet of pure gold, engraved with the words *Holy to the Lord*.

The ephod was part of a religious device that was used to foretell the future. The ephod was made from linen and was rather small. In a biblical context, the ephod comes across as a pocket. The Book of Exodus specifically indicates that the sacred breastplate was worn on the ephod, and that the ephod was embroidered with threads of gold, purple, red, and blue. The ephod included two shoulder straps with gold rings attaching them to gold chains, which in turn were connected to the sacred breastplate. On the shoulder straps were two jewels made from lazuli, which had the names of the twelve tribes engraved on them. Six tribal names were on one stone, and six on the other. According to biblical sources, one stone was engraved with Reuben, Simeon, Levi, Judah, Dan, and Naphtali. The other stone was engraved with Gad, Asher, Isaachar, Zebulon, Joseph, and Benjamin. In this way, each jewel had twenty-three Hebrew letters on it.

Used with the Urim and Thummin, which we'll talk about in a minute, the ephod served as an oracle. For example, in the Book of Samuel, when David wants to ask God for advice, he requests that a priest give him the ephod.

The breastplate contained the Urim and Thummim, which were components of the oracle. This breastplate was created in the same colors as the ephod and was made from linen. It was square and doubled. Into this elaborate piece of cloth, the Jewish people were commanded to put four rows of precious jewels, with the total number of jewels equaling twelve, to stand for the twelve tribes. The first row contained a carnelian, a chrysolite, and an emerald. The second row contained a turquoise, a sapphire, and an amethyst. The third row contained a jacinth, an agate, and a crystal. And the fourth row contained a beryl, a lapis lazuli, and a jasper. These jewels were mounted in gold on the breastplate.

The instructions continue, with elaborate descriptions of how gold braids, loops, and chains are created and used to hold the breastplate to the ephod. The robe is also described in elaborate detail; in short, it was blue with a hem of blue, purple, and crimson intertwined with gold bells and pomegranates.

Aaron was instructed to wear the breastplate whenever he entered the sanctuary. In this way, he would always remember all twelve tribes when he prayed to God. And inside the breastplate were the Urim and Thummim, close to Aaron's heart when he asked God for advice and indications of what might come. Should Aaron not wear the breastplate, ephod, robe, tunic, headdress, and sash while in the sanctuary, he risked death, for the Hebrew Bible specifically said that he must wear those garments and accoutrements "that he may not die."

In *Raiders of the Lost Ark*, Belloq, acting as the high priest, is clearly wearing attire that corresponds somewhat to the descriptions in the Hebrew Bible. He is definitely wearing the breastplate, and from that fact alone, we can assume that he is wearing the Urim and Thummim.

Biblical evidence pertaining to the Urim and Thummim is slim and unclear. The text introduces the devices as if the readers already know exactly what they are and how they are to be used. Because Moses had direct access to God, he did not require the Urim and Thummim, so in the Five Books of Moses (Torah), the devices are never used. Yet Joshua is ordered that if he ever needs to ask God for advice, he should ask the priest Eleazar to make the inquiries on his behalf, using the Urim. In Numbers, Joshua is told that this is the method he should use to decide whether to send the Israelites into war or not. The ephod was akin to a box that contained the oracle, and the oracle itself was the combination of the Urim and Thummim, although, in some cases, as with Joshua, only the Urim sufficed in order to use the oracular power. When David was fleeing from Saul, he asked the priest Abiathar to bring the ephod to him. Then David asked God through the ephod whether Saul would "come down" and whether "the men of Keilah [would] surrender." God answered yes to both questions. There is no record of God ever answering no to questions asked through the Urim and Thummim oracle. The lack of a "yes" indicated a "no."

When Saul placed a curse on anyone who ate during a battle and Jonathan, who was unaware of the curse, ate some honey, Saul asked the Urim and Thummim to tell him who ate the honey. The oracle pointed to Jonathan.

“Urim and Thummim” are sometimes translated as “lights and perfections.” According to ancient stories, when a medallion with God’s holy name was slipped into an opening under the oracular devices, the high priest’s breastplate glowed and then transmitted messages from God.

As for secret Ark ceremonies, these are unknown. It’s possible that the strange beams of light refer to the glow of the breastplate. And maybe long ago, in the time of the Bible, the high priest could use the power of the Urim and Thummim to evoke ghostly characters and thunder, but there is no evidence or mention of these things. It is true, as mentioned earlier in our section about the Ark of the Covenant, that only the high priest, who wore the Urim and Thummim and the breastplate, and so on, could open the Ark. The Ark itself is said to have shot two jets of fire into the path preceding the Israelites when they wandered through the desert. The fire destroyed thorns, scorpions, and snakes. So during the opening of the Ark in *Raiders*, it’s conceivable that the Ark shot out some fire, but as for the ghostly characters and the thunder, the roots of these *Raider* ideas are much harder to explain.

### ***The Ark: A Telephone Link to God***

*In a conversation with Indiana Jones, Belloq claims that the Ark is “a transmitter, a radio for speaking to God.”*

Is the Ark a telephone link to God? Possibly, because God was said to be in the clouds between the two cherubs on the Ark. God was intimately associated with the Ark, so in theory the Ark could be used as a device to talk to God in some way. The strong implication is that the Ark, when used in conjunction with the Urim and Thummim, which were oracular devices, enabled the high priest to somehow communicate with God.

### ***Top-Secret U.S. Archives***

*When Indiana Jones and Marion return to the United States, two Army Intelligence officers tell Indy that the Ark is being stored somewhere safe,*



*where experts are studying it. The last thing we see is a crate containing the Ark being wheeled in a huge warehouse that contains similar crates.*

Perhaps the most famous example of secret U.S. government warehouses is Area 51, an air force base in southern Nevada. Supposedly, this warehouse holds objects and fragments of alien life. It's not hard to believe that the U.S. government has some secret warehouses here and there. Would they store the Ark of the Covenant in a government warehouse forever? It is not likely. *Raiders* was filmed in 1981. After all these years, wouldn't the government be using the Urim and Thummim to keep us out of wars in places such as Iraq?

