

## DRIED, TANNED, SEALED, DRAINED, FROZEN, EMBALMED, AND SMOKED.... AND WE'RE DEAD SERIOUS BY CHRISTOPHER SLOAN









DRIED, TANNED SEALED, DRAINED, FROZEN, EMBALMED, STUFFED, WRAPPED, AND SMOKED...



AND WE'RE DEAD SERIOUS

**BY CHRIS SLOAN** 



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# ANCIENT TREASURES

f you were a powerful person who lived in the grasslands of Russia about 2,500 years ago, it is very likely that after you died, your guts would be removed from your body, your eyes would be plucked from their sockets, and your brains would be scooped out. Then you would be stuffed. This special treatment may sound like a form of punishment, but it was actually a sign of love and respect. Your body probably would be put on public display before being buried in an elaborate tomb along with your favorite possessions.

If you were a criminal or a victim of human sacrifice in Ireland at about the same time, you might have met a very different death. You might have been slashed with a sword or knife, had your head chopped off and your body cut in half,

and been tossed into a marshy bog.

We know about these ancient deaths by studying two mummies, nicknamed the "Siberian Ice Maiden" and the "Oldcroghan Man." These are only two of thousands of mummies being studied in museums and science laboratories. Thousands more lie undisturbed in tombs, crypts, and graves all over the world.

That may sound like a lot of mummies, but compared to the billions of people who have lived and died on Earth, mummies are actually quite rare.

Why do mummies matter? Because they still have skin, flesh, internal organs, fingernails, or hair. From these tissues we >

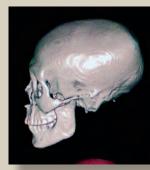


MUMMY SCIENCE Researchers investigate the 530-year-old frozen mummy of an Inca girl (right), discovered in the Andes Mountains of Peru in 1995. A high-tech x-ray called a CT scan (inset) provides a 3-D look inside the mummy.









KV55





#### **TUT'S FAMILY PHOTOS**

Researchers have long suspected that the royal mummy known as KV55, shown in a CT scanning machine (above), is King Tut's father. CT scans (left) showed that the two men had similar, unusually shaped heads. KV55 was found in the early 1900s. About a hundred years later, DNA tests finally provided scientific evidence that they are likely father and son. can learn about the age, health, and diet of people who lived in the past. And often objects placed nearby—such as clothing, plant material, and food—are preserved as well, providing even more clues to life in ancient times. Unfortunately, once they are dug up, the delicate tissues of mummies crumble. Unless the bodies receive special care, valuable information about our past can be lost forever.

A body starts to decay a few days after death. Skin starts to turn green and the corpse begins to bloat and smell. These are signs that bacteria have moved in and begun their job of decomposing the body, taking it apart and returning its nutrients to the environment, where other living things can use it.

Mummies are different. In these bodies, the natural process of decay has been halted. Some corpses are preserved by people, usually as part of a cultural ritual. Others are preserved naturally in places where bacteria that assist decay can't live—including extremely dry climates such as deserts, cold environments such as snowy mountaintops, or in wet places with little oxygen, such as bogs.

Mummification is different from a form of temporary preservation called embalming, which slows decay for a while until a burial can be arranged. Most embalmed bodies eventually decompose, unless their embalming is repeatedly refreshed or the body is naturally preserved by the environment in which it was buried.

Whether mummies were kings and queens entombed with exotic riches, or just regular people, each body has a story to tell. By listening to these stories, told through the work of scientists, we can get close to people who lived before us. This is why mummies may be the world's most valuable ancient treasures.

#### THE MUMMY COAST

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The Chinchorro people lived in the desert along the coast of northern Chile (right), where the area's few rivers meet the sea. Little did the Chinchorro know that the rivers' precious freshwater could be deadly. They mummified its child victims, like this one (above).



## THE WORLD'S FIRST MUMMIES

even thousand years ago in the Atacama Desert of northern Chile, one of the driest places on Earth, something was killing the children of the Chinchorro people. The discovery of more than a hundred child mummies tipped off researchers that this ancient community may have suffered a terrible tragedy. When the investigators heard that the drinking water in a nearby modern town was contaminated with a deadly poison called arsenic, they had a clue to what killed those children long ago.

Researchers checked samples of the Chinchorro mummies' hair—which they knew would contain traces of the chemicals the children ate or drank—and found

extremely high arsenic levels.

The mystery was solved. Arsenic occurs naturally in the soil where the Chinchorro people lived. At that time, THE CHINCHORRO PEOPLE MADE MUMMIES FOR MORE THAN 3,000 YEARS, LONGER THAN ANY OTHER CULTURE.

no one knew that the odorless poison was being washed into the community's rivers and drinking water, killing children whose small bodies could not tolerate the arsenic.

The Chinchorro mummies are the oldest artificial mummies in the world—some were created more than a thousand years before the first Egyptian mummies. No one knows for sure why the Chinchorro mummified their children, but some think the grief-stricken community may have sought comfort by preserving their dead. Once they started the practice, the Chinchorro continued to mummify dead people of all ages for centuries to come.

#### **BLACK MUMMIES**

The earliest Chinchorro mummies (left) were painted with pigments made from a black mineral called manganese. The Chinchorro used tools such as spears and hooks (far left) to collect food from the sea.

#### WHO: DESERT CHILD

CULTURE: CHINCHORRO

REDISCOVERED: 1917

WHERE: Chile

MUMMIFIED: 5050 B.C.

#### **THE PROCESS:** 1 Cut off the head and limbs. 2 Take the skin off. Remove the brain. Clean the flesh off the bones. Dry the bones. Put the limbs back together and bind them with sticks, reeds, and grass. 7 Rewrap the limbs with the original skin or bits of seal skin. 8 Hollow out the trunk of the body and dry it with hot ash.

9 Reassemble the whole body with sticks for support.

10 Stuff the body with dry grass or ashes.

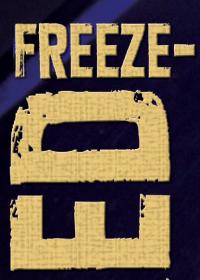
11 Cover the body and face with layers of ash paste and make a mask.

12 Attach a wig of human hair.

13

Paint everything black with manganese.















#### **HIGH-ALTITUDE DISCOVERY**

Ötzi's body (above) was found high in the Alps mountain range of Europe (right). It took several days for experts to free his body from the ice (far right) so they could preserve it and solve this mummy mystery.

## MURDERED MOUNTAIN MAN

veryone has heard stories of skiers or hikers who venture into the snowy heights of the Alps, the tallest mountains of Europe, and never come back. Avalanches, sudden snowstorms, or mountain climbing accidents bring their adventures to a deadly end. But an unlucky man who was hiking in the Alps 5,300 years ago met a different kind of death. He was murdered.

Now known as "Ötzi the Iceman," this ill-fated man was trekking along at an elevation of 10,000 feet when an arrow sliced through one of his arteries. He died from blood loss

within minutes. Whoever attacked Ötzi was not a robber. Someone, perhaps the killer, took the shaft of the arrow from Ötzi's back but left the victim's valuable goatskin shirt, knife, copper ax, and many

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ÖTZI, ALSO KNOWN AS "THE ICEMAN," GETS HIS NICKNAME FROM THE ÖTZTAL VALLEY, THE AREA WHERE HE WAS FOUND.

other possessions behind. Snow soon covered Ötzi and his belongings. His body wasn't seen again until 1991, when two hikers spotted a corpse partially uncovered as the ice around it melted away.

Ötzi is the oldest frozen human mummy ever found. Researchers have been able to use his body and the wellpreserved clothing and artifacts found near him to retrace

> the story of the Iceman's last few days and hours (read more on pp. 14-15). Yet why he was murdered and who killed him are secrets that may never be revealed.

#### **THE CLUES**

More than a dozen arrows like these (far left and center), as well as a copper ax (near left), a six-foot-long bow, clothing, and other equipment were found with Ötzi.

#### WHO: Ötzi The Iceman

CULTURE: ALPINE COPPER AGE

REDISCOVERED: 1991

WHERE: Italy

MUMMIFIED: ABOUT 3300 B.C.

#### THE PROCESS:

Leave the body at a high altitude, where animals can't get to it.

Dry the body in direct sunlight.

Freeze the body under ice.

Thaw and refreeze many times over 5,000 years.

### INVESTIGATING THE ICEMAN

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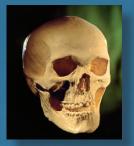
n in-depth examination of Ötzi's body helped unravel the mystery of his violent death. But the artifacts found near his body revealed even more valuable information about Ötzi's people, who lived during Europe's Copper Age, from about 3500 B.C. to 1700 B.C. Today Ötzi is stored in a multimillion-dollar refrigerator at the South Tyrol Museum of Archaeology in Italy.

#### FACE-TO-FACE WITH ÖTZI

National Geographic magazine was the first to reveal what Ötzi might have looked like when he was alive. To re-create the lceman's face, the magazine launched its own "crime scene investigation," using techniques similar to those police use to identify murder victims—the only difference is that this victim is about 5,300 years old. Following these forensic techniques, an artist put a face on this ancient man.

> A stone arrowhead discovered deep within Ötzi's back—shown in this CT scan—cut a major artery, causing him to bleed to death within minutes.

At least a day, if not two or three days, before Ötzi died, he suffered a knife wound to his right hand, the kind one might receive warding off a blow. Could a fight be related to his murder?



X-rays and computed tomography (CT) scans create 3-D images of Ötzi's head. The artist used this information to sculpt Ötzi's skull in the correct shape.



The artist then used clay to create deep muscles and fat, and placed glass eyes in Ötzi's eye sockets. Red tissue depth markers indicate the average amount of flesh over bone for a European, like Ötzi.



The markers told the artist how thick to make the skin. No one knows the precise shape of Ötzi's lips, ears, and nose, or the color of his eyes, so the artist had to guess what they might have looked like.



The artist created a flexible silicone cast and then painted it the probable skin color of a European living in Ötzi's time. He then added one hair at a time for a final look that is likely similar to Ötzi's actual appearance.

Studies of Ötzi's stomach and intestines show that he had eaten wild goat, red deer, grains, and other plants in the days before he died.

> Ötzi was only 40 to 50 years old when he died, but his tough mountain lifestyle made his body look older. A complete examination showed broken ribs, hardened arteries, arthritis, and frostbite in one toe.

Ötzi's legs were strong boned and once big muscled, probably from a lifetime of hiking. Microscopic plant parts found on his clothing and in his gut show that he had been trekking through the Alps in the days before his death, providing further evidence of this mountain lifestyle.

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#### **DESERT DWELLERS**

Many mummies, such as the Beauty of Krorän (above) and a male mummy, wearing a red woolen bracelet (far right), have been found in the desert of China's Tarim Basin (right). Rivers once ran through the area, providing a place for Silk Road travelers to settle and bury their dead.





## MUMMIES IN PLAID

he "Beauty of Krorän" is known for her striking auburn hair, narrow face, and pointy nose. But was this mummy a long way from home? Archaeologists discovered the Beauty of Krorän among about 40 other bodies while excavating China's Qäwrighul cemetery in 1979 and 1980. Wrapped in a wool cape and wearing a feathered cap, she was buried with personal items, such as a comb and a straw basket. Her peaceful expression is captivating, but that's not why she drew so much attention.

Like many of the mummies in this cemetery, her features are not typically Chinese. Some of the mummies had reddish or blonde hair and plaid clothing—a style that

was unknown in China at the time but identical to patterns seen thousands of miles away in Western Europe. Texts found in the area are also written in languages with Western roots.

THE BEAUTY OF KRORÄN'S MUMMIFIED BODY WAS SO DRY THAT IT WEIGHED ONLY 23.5 POUNDS.

Thousands of years before there were airplanes or cars, how did these people end up here? Experts suspect that the Krorän beauty's culture originated somewhere between Europe and China. Over hundreds of years, the people probably spread out along the Silk Road, a trade route connecting Europe with China. Some traveled west to Europe and others journeyed as far east as the Tarim Basin in China. These wanderers buried the dead near their settlements, where the dry climate preserved their bodies for centuries.

#### etery **MUMMIFIED:** ABOUT 1800 B.C. THE PROCESS:

WHO:

1980

WHERE: China

**CULTURE:** TARIM BASIN

BEAUTY OF KRORÄN

**REDISCOVERED:** 

#### Clothe the body in a woolen shroud and feathered cap. Place the body in a desert grave. Cover the face and upper torso with a basket. Add a one-foot-deep layer of branches. Add a four-inchdeep layer of reeds. 6 Add a four-inch-deep layer of branches. Cover with dirt and let it sit for 3,800 years.

#### **WALKING SHOES**

The desert of China's Tarim Basin also preserved the Beauty of Krorän's leather boots (right) and her woven wool cape (opposite, big picture).





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Contraction of the owner

### THE GOLDEN PHARAOH

rchaeologist Howard Carter could not believe his eyes when he peered into the tomb he had just discovered in Egypt's Valley of the Kings. It was filled with statues of strange animals and humans. Carter described how he could see "everywhere the glint of gold." Royal markings stamped on a sealed doorway told him he had found the tomb of Pharaoh Tutankhamun, also known as King Tut. The year was 1922, and no one had been in this room for more than 3,000 years.

In the next room Carter found a box-like golden shrine with three more shrines nested inside it. Within all of these

was a heavy granite coffin called a sarcophagus, with three more humanshaped coffins inside. The innermost coffin, made of gleaming solid gold, held King Tut's mummy. The young

#### KING TUT WAS ONLY NINE YEARS OLD WHEN HE BECAME PHARAOH.

king—who was only about 19 when he died—was wrapped in linen bandages with a golden helmet-like mask on his head.

Ancient Egyptians believed that you had to be prepared to have a happy afterlife. So when pharaohs died, they were elaborately mummified and buried with all of their possessions. But grave robbers found their way into almost all of the royal tombs, stealing treasure and moving the mummies. Tut is one of the few royal mummies from ancient Egypt found undisturbed in modern times.

Tut was only about nine years old when he became the pharaoh of Egypt. Much of his life is still a mystery, but the discovery of his tomb provided knowledge about ancient Egypt's culture and royal burials that will live on for an eternity.

#### **BECOMING A KING**

Ritual figurines found in Tut's tomb show the pharaoh crowned as King of Upper Egypt (far left) and Lower Egypt (left).

#### WHO: PHARAOH TUTANKHAMUN

CULTURE: Ancient Egyptian

REDISCOVERED: 1922

WHERE: Egypt

MUMMIFIED: 1323 B.C.

#### THE PROCESS:

1 Remove all internal organs likely to decay except for the heart. Replace them with linen, sand, or other stuffing to keep the body's shape.

2 Leave the heart which ancient Egyptians believed to be the center of thought, emotion, and memory—in the body, or take it out, dry it, and then place it back inside the mummy.

> Punch a hole in the back of the nose or head. Use a long hook like an egg beater to liquefy the brain and pour it out.

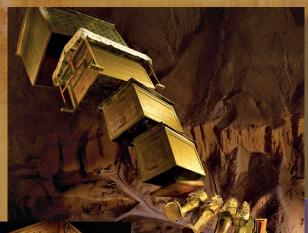
Wash the body and cover it and the internal organs in a salt called natron for about 70 days until everything is dry.

Apply a coating of resins, spices, and ointments to the body and then wrap it from head to toe in linen bandages.

Put the dried organs in canisters, called canopic jars, and place them in the tomb near the mummy.

## A MUMMY MEETS MODERN SCIENCE

Find the some of history's greatest mysteries. What did the famous mummy behind the golden mask actually look like? And why did this child-king die when he was only a teenager? Modern technology is beginning to answer some of these age-old questions. In a 2005 investigation led by archaeologist Zahi Hawass, researchers examined Tut's body using a computed tomography (CT) scanner to create a 3-D x-ray of the mummy. Then in 2009, Hawass tested the mummy's DNA. The results have helped the world see what Tut may have looked like when he was alive and shed light on the king's untimely death.





#### A BURIAL FIT FOR A KING

Tut's tomb was carved into the limestone floor of the Valley of the Kings. At the very center of the pharaoh's burial chamber (left) lay a stone sarcophagus with three nested coffins inside that were decorated with gold and inlaid wood (above). The mummy wore a mask of solid gold.





T scan of Tut's head



#### MUMMY AUTOPSY

Why did King Tut die so young? Some researchers suggested he had been murdered, killed by a vicious blow to the head. Hawass's team used cutting-edge technology to find out.

A CT scan of his head (above) revealed that what appeared to be a life-threatening injury was actually damage that had taken place after death. In 2009, Hawass's team also discovered that Tut's feet were misshapen, probably as a result of a disease that causes bone tissue to die. The pharaoh's DNA also revealed that he had suffered several bouts of malaria. In this weakened state, an injury such as a broken leg—which some researchers see evidence for in an x-ray of his left knee (above)—could have been the real fatal blow.

#### GOING HEAD-TO-HEAD

Did Tut look like the golden mask that was found on his mummy (see p. 18)? Three teams of artists and scientists—shown here as



Teams A, B, and C—tried to find out. Each team used a digitally generated skull to create a model of Tut. The pharaoh's nose, lips, ears, eye color, skin, and hair were not well-preserved, so no one knows what they really looked like. Still each finished model had similarities. The verdict? None of them looked anything like that world-famous mask.

#### **JOURNEY TO** THE AFTERLIFE

(From right to left): A wall painting in Tut's tomb shows a priest in leopard skin preparing the mummy, in white, for the afterlife; Tut being welcomed into the afterlife; Tut embracing the powerful Osiris, lord of the afterlife.





TEAM C

1×CA

BLIND TEST Teams A and C were told that the skull belonged to King Tut, but Team B had no idea they were reconstructing the famous pharaoh.



- The start of the sections

The Siberian Ice Maiden (above) was buried in fine clothing. She and her people wore tattoos (see another mummy's skin far right) and were buried under mounds, like these in the Eurasian grasslands (right).

ALL STANGLANDER

## MUMMIES OF THE NOMADS

he body of a young woman was found frozen in a block of ice in 1993. Her internal organs and brain had been removed, and tufts of fur took the place of her eyeballs. She had been buried about 2,500 years earlier in the Altai region of Siberia, beneath a circular mound of rocks known as a *kurgan*. Soon after she was buried, her log burial chamber flooded with water, which then froze, encasing the woman and many of her belongings in ice. This mummy earned the nickname "Siberian Ice Maiden."

Tomb robbers looking for gold had looted most *kurgans* long ago, but they had missed this one. As researchers dug

deep into the earth under the rocky mound, they also found the remains of six horses, which were vital to the nomadic culture to which this woman belonged.

#### THE SIBERIAN ICE MAIDEN IS ALSO KNOWN AS THE "UKOK PRINCESS."

Most of the flesh was lost from her face, but the skin on her shoulders and arms bore tattoos with mythical

> creatures similar to those seen in the jewelry and textiles of other nomadic Scytho-Siberian groups, who lived in the grasslands between the Black Sea and Siberia from 800 B.C. to 300 B.C.

Archaeologists are concerned that as the world's climate warms up, frozen tombs remaining in these grasslands might melt. This means that the mummies would decay, making it only a matter of time before the bodies disappear forever.

#### ANIMAL ART

Graceful animals, some mythical and some real, appear in this culture's artwork. On a saddle (above left) found in a tomb, a fictional eagle-griffin attacks an ibex—a type of wild goat. A golden elk plaque (left) was found thousands of miles to the west near the Black Sea.

#### WHO: Siberian Ice Maiden

CULTURE: SCYTHO-SIBERIAN

REDISCOVERED: 1993

**Where:** Russia

MUMMIFIED: ABOUT 500 B.C.

#### THE PROCESS:

1 Slice open the belly and take out the internal organs.

2 Remove the brain through the back of the skull.

3 Stuff the corpse with bark and a spongy soil called peat.

Remove the eyeballs and replace them with fur.

5 Place the body in a hollowed-out log in an underground chamber.

6 Flood the chamber with water.

7 Freeze the water for 2,500 years.

#### **REST IN PEAT**

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Many cultures dumped their unwanted dead, like the hanged Tollund Man (above), in marshy bogs (right). Today archaeologists excavate bodies from peat, the dried out remains of the bogs (far right).



## BODIES FROM THE BOGS

hen Danish farmers stumbled across a dead man in a bog with a rope around his neck, they called the police. But the police soon realized that this murder mystery could only be solved by archaeologists. The body was roughly 2,400 years old.

"Tollund Man," named after Tollund Fen where he was found, is a bog body—one of the most unusual types of mummies in the world. These bodies are found in

rich soil called peat, which is the dried remains of marshy bogs that existed centuries earlier. The majority of these people had been strangled, hanged, tortured, or had their throats slit, and were then tossed into the

PEAT DIGGERS—PEOPLE WHO COLLECT THE BOGS' RICH SOIL—DISCOVER MANY OF THE BOG BODIES.

muck. The bogs preserved their bodies so well that you can often see pores in their skin and beard stubble on the male mummies' faces.

We do not know what led to these violent deaths, but historical records left by the Romans—who traded and fought with the tribes of northern Europe during the first four centuries A.D.—tell us that local people practiced human sacrifice and punished criminals in ways that could have led to these grisly killings.

What we do know is that many ancient European cultures considered bogs—where mist rises, trees rock, and you can fall through the ground into the thick black water below—to be the place where

world of the living met the world of the dead.

#### **IRON AGE TREASURES**

A 2,000-year-old silver cauldron (detail shown left) and 2,300-yearold shoes (above left) are among many artifacts found in northern Europe's peat bogs.

#### WHO: TOLLUND MAN

#### **CULTURE:**

NORTHERN EUROPEAN IRON AGE

REDISCOVERED: 1950

WHERE: Denmark

MUMMIFIED: ABOUT 400 B.C.

#### THE PROCESS:

1 Place the body in cold water to slow decay and keep insects away.

2 Make sure the water is low in oxygen so bacteria can't advance decay.

Pin the body down so it doesn't float away.

Let the water's natural tannins a substance from plants that is used to tan animal hides give the body a leathery texture.

# TALES FROM THE BOGS

f you have a weak stomach, you might want to stop here! Bog bodies, found from Ireland to Russia, often belonged to criminals, outcasts, and sacrificial victims who met gruesome deaths. Little did the killers or victims know that thousands of years later these deaths would help us understand their lives and cultures.

#### **CLONYCAVAN MAN**

Discovered in central Ireland in 2005, "Clonycavan Man" met his tragic fate about 2,000 years ago. His insides were torn out before he was chopped three times in the head with an ax. His styled hair hints that he may have been a noble, perhaps executed for breaking a code of honor.

#### **RED FRANZ**

Named for his flame-colored hair and beard, "Red Franz" probably had blond hair, though it's been tinted red by the bog. Found in 1900 in Germany, the body had a slit throat and was thought to be a modern murder victim. It took five months for authorities to realize that the crime had occured 1,600 years earlier.



#### **GRAUBALLE MAN**

One of the best preserved of the bog bodies, 2,300-year-old "Grauballe Man" still has his hair and beard stubble, and his fingerprints are clearly visible. He was found near Grauballe, Denmark, in 1952. Researchers once thought that the man's fractured skull, broken leg, and slit throat were evidence of torture. Later experts discovered that pressure in the bog caused two of these injuries after death. Fatally cut from ear-to-ear, the man may have been part of a sacrifice to a fertility goddess.

#### **BOG TREASURES**

Human bodies are not the only things that bogs preserve. Many objects found in the peat were ritual offerings, made by people asking their gods for help. Other objects (and even animals) may have fallen in by accident. Musical instruments, bunches of human hair, weapons, and gold have all been pulled out of the soil. Here is a look at just a few of the objects that have been recovered from bogs in northern Europe.

Necklace, Denmark, 600 B.C.

#### **YDE GIRL**

This 2,000-year-old body of a teenage girl was found in a peat bog near the village of Yde, Netherlands, in 1897. Her body was damaged when it was removed from the bog, but her shawl and hair were well preserved. The girl had a knife wound in her chest and a woolen cord around her neck—convincing evidence that she had been murdered.

Bronze horse and chariot, Denmark, 1400 B.C.

> Drinking horn, Denmark, A.D. 400

Bog dog, Germany, A.D. 1550







Carles .

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MYSTERIOUS PACKAGE The mummy of the Lady of Cao (above) was found inside this burial bundle (right) at the ancient ruins of El Brujo in Peru. She was buried with many weapons and a copper bowl on her face (far right).





### WARRIOR WOMAN

verything about a tomb discovered inside a pyramid in Peru indicated that a powerful man was buried inside. But a surprise lay deep within this 1,600-year-old grave.

Pyramid burials were nothing new at this sacred site, called El Brujo, where the warfaring Moche culture gave their VIPs elaborate burials. Like many other Moche mummies, the body was wrapped in hundreds of yards of cloth strips, and a sacrificial victim lay nearby. Two large war clubs and 28 spear throwers were included

in the noble's bundle, along with golden nose rings, headdresses, necklaces of tiny human heads, and other symbols of power.

As researchers carefully unwound the cloth, the

THIS MUMMY LOOKS LIKE IT'S SCREAMING, BUT ITS OPEN MOUTH IS ACTUALLY CAUSED BY THE LOOSENING AND THEN STIFFENING OF MUSCLES THAT OCCURS A FEW HOURS AFTER DEATH.

investigation took a stunning turn. They found weaving tools, sewing needles, and raw cotton inside—items typically associated with Moche women. When they lifted a gilded copper bowl covering its face, they were shocked to find that the mummy was a woman in her late twenties. She had long braids, and her arms and legs were covered in animal tattoos. The researchers nicknamed her "Lady of Cao" after her burial pyramid, called *Huaca de Cao Viejo*.

For the first time, it was clear that Moche women held positions of power. So who was this mystery mummy? Was she a priestess? A warrior queen? Her true identity is still waiting to be uncovered.

#### **ROYAL TATTOOS**

Snake, seahorse, and spider tattoos slither and crawl up the Moche mummy's arms (far right). Her culture also made beautiful art, such as this figurine (below).

WHO: LADY OF CAO

CULTURE: Moche

REDISCOVERED: 2005

WHERE: PERU

MUMMIFIED: About A.D. 400

#### **THE PROCESS:**

Cover the body in cinnabar (a red-colored mercury ore).

Wrap the body in hundreds of yards of cloth.

Place meaningful objects within the bundle as you wrap.

Leave the body deep within an adobe tomb and let the body dry out for 1,600 years.

## MUMMIES, MUMMIES, EVERYWHERE

he Moche were just one of Peru's many mummy-making cultures. According to reports by the conquering Spanish in the 1500s, the ancient Inca mummified their emperors and took care of them in palaces as if they were still alive. On special days, they dressed the mummies in royal garments and paraded them through the streets. Not all mummies were royalty. Bundling mummies was common practice in Peru, and the country's dry environment created many mummies naturally.

#### СНАСНАРОУА

Northern Peru was the home of the Chachapoya, also called the "Cloud People," because they lived in a misty mountain environment. Between about A.D. 750 and A.D. 1400, the Chachapoya mummified their dead, removing internal organs, draining body fluids, and sometimes placing offerings of coca leaves with the bodies. They stored the bodies in dry caves and cliffs, where they were preserved for thousands of years.

#### **CHIRIBAYA**

The Chiribaya culture thrived in southern Peru between A.D. 900 and A.D. 1300. They placed their dead in crouched positions, wrapped them with brightly colored textiles and ropes, and buried them in deep pits. The dry climate preserved many items placed in the tombs, such as baskets, leather objects, food, and feathers.

#### **INCA ICE MAIDEN**

Perhaps Peru's most famous mummy, "Juanita," also called the "Inca Ice Maiden" (left) was sacrificed in a ritual when she was just 14 years old. Juanita was killed on a platform built 20,000 feet high in the Andes Mountains. Priests placed her body in a small pit along with burial goods, such as shells and a small Ilama statue (below). The cold, dry environment on the mountain <u>preserved her</u> body for some 500 years.

#### **INCA CEMETERY**

More than 2,200 bundled mummies were found at Puruchuco, an archaeological site in Lima, Peru. Buried in an Inca cemetery dating back to the late 1400s, the mummies were spread out across an area as large as five football fields. Some of the bodies were well-preserved in bundles (far right),

while skeletons (below) were all that remained of others.



YOU WON'T BE ABLE TO TEAR YOUR EYES AWAY FROM THE PARADE OF MUMMIES ON THESE PAGES— MANY WITH SKIN, BONE, HAIR, CLOTHING, JEWELRY, AND EVEN TATTOOS INTACT. DIG INTO THEIR WORLDS AND DISCOVER THEIR SECRETS.



Lined up as if they are waiting for a bus, these mummies have been leaning against a wall in the Capuchin monastery in Sicily, Italy, for some 200 years.



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