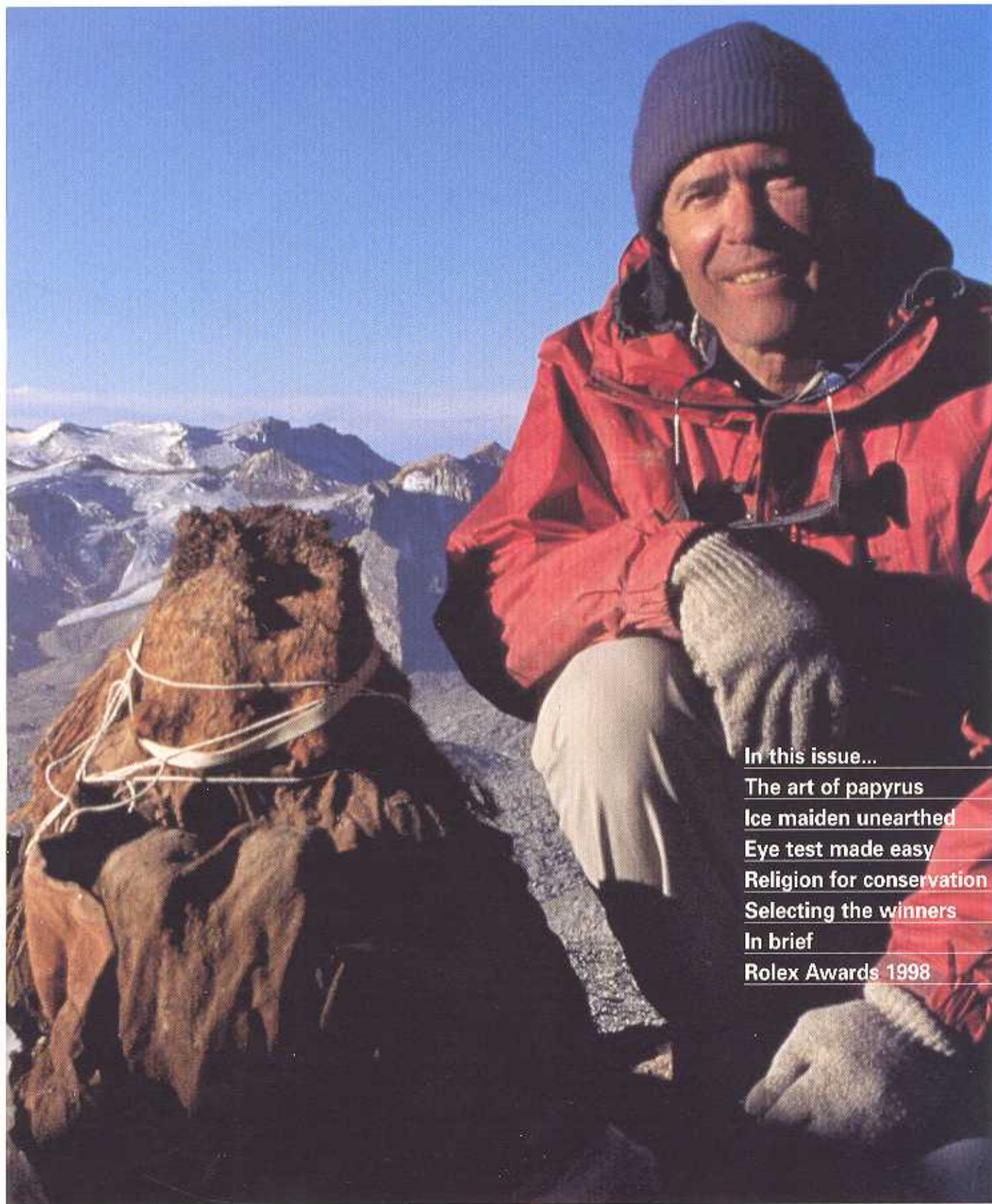




# The Rolex Awards for Enterprise **JOURNAL**



**In this issue...**

**The art of papyrus**

**Ice maiden unearthed**

**Eye test made easy**

**Religion for conservation**

**Selecting the winners**

**In brief**

**Rolex Awards 1998**



# Discovery of a lifetime

## Ice child unravels the sec



**Explorer, anthropologist, archaeologist, mountain climber, photographer, cinematographer, writer – Johan Reinhard is a man who thrives on diversity and who has dedicated his life to understanding the world of mountains and the people who inhabit them. Reinhard, a pioneer in the fields of high-altitude archaeology and sacred geography, recently found the 500-year-old body of a young Inca girl. The discovery was the culmination of a quarter of a century of ground-breaking work and research.**

A slender teenager with high cheekbones, long, black hair, a graceful neck and well-muscled arms swathed in the finest alpaca wool caused an international sensation last year and focused attention on renowned explorer Johan Reinhard. Acknowledged as one of the most important discoveries of the decade, this young girl was an Inca maiden sacrificed to the gods some 500 years ago.

Christened "Juanita, the Ice Maiden" and buried with ritual objects on an icy peak in the Peruvian Andes, the mummy was discovered by Reinhard, a 1987 Rolex Laureate and a member of the 1998 Rolex Awards for Enterprise Selection Committee. Juanita, an archaeological find of a lifetime, is providing experts with insight into the great Inca empire at the height of its power, forming an unprecedented link with a civilisation that flourished five centuries ago.

Today, entombed in freeze-dried splendour at the Catholic University in Arequipa, Peru, Juanita offers up a treasure-trove of historical and biological data. For Reinhard, an intrepid explorer who has been scaling the summits of the Andes and Himalayas for more than 25 years, Juanita embodies his life's work in helping to create and develop two new subfields of anthropology: high-altitude

archaeology and sacred geography.

### The discovery

Reinhard describes finding and then freeing Juanita from her centuries' old resting place on the 6,300-metre summit of Mount Ampato in the Peruvian Andes. "It was September 8, 1995," he recalls, "and we were near the top of Ampato. Recent eruptions of a nearby volcano, had spewed ash more than a mile into the sky, blanketing the mountain. The dark grey ash had melted the ice and snow, causing a nearby ridge to collapse."

**"I was stunned by the sight of an Inca mummy perched on the icy outcrop."**

Not far away, a tiny fan of red feathers caught the eye of Miguel Zárate, Reinhard's Peruvian climbing assistant. The feathers adorned ceremonial statuettes made of gold, silver and rare spondylus shell which, along with an Inca ceremonial platform in close proximity, proved harbingers of the more important find.

"I was stunned by the sight of an Inca mummy perched on the icy outcrop," Reinhard says. "I felt a jolt of excitement as my emotions raced from thrill to concern and back again to elation. It was only when I tried to



raise the cloth bundle and could barely lift it off the ground that my adrenaline started pumping. Despite the distorted facial features, we knew that the body was largely frozen and, therefore, preserved by the intensely cold and dry air. Carrying what turned out to be nearly a 90-pound body down to safety proved to be one of the most difficult things I have ever done."

According to Reinhard, the same volcanic eruptions that



# ets of sacred geography



Courtesy: U. J. Reinhard

led to Juanita's discovery may have been the cause of her untimely death in the 15th century. "One theory is that 500 years ago volcanic eruptions were spewing ash over crops and pastures and children like Juanita were killed by Inca priests to appease the mountain gods," Reinhard explains.

Within a month of finding Juanita, Reinhard and an 18-person expedition, supported by the National Geographic Society, were back on the Ampato peak where they

unearthed the remains of two more Inca children. Since discovering Juanita and the other Ampato bodies, Reinhard has unearthed three more human offerings in the Andes and some 30 statues, all of which have contributed a great deal to existing knowledge of Inca sacrificial processes.

### Journey through time

Since Reinhard's tortuous descent from Ampato with his precious bundle, the world's first frozen female Inca

mummy and one of the best preserved of any found in the Americas from pre-Columbian times, Juanita has been the focus of intense study. Scientists and specialists in fields including physical anthropology, pathology, microbiology, biochemistry and textile conservation have been anxious to take their turn in examining the mummy and unravelling the mysteries of her 500-year-old body.

"Under the scrutiny of radiologists and pathologists in

the US, the mummy has, in a sense, been discovered all over again," Reinhard remarks. "I'll never forget the moment when the radiologist pointed out a fracture over the Ice Maiden's right temple. It meant that she had died from a blow to the head and not from suffocation, as I previously thought."

Biopsies of tissue from different parts of her body have provided details on her health and diet and mitochondrial DNA isolated by scientists confirmed the possibility of tracing Juanita's lines of descent – and perhaps even locating her living relatives! Reinhard likens the Ice Maiden to a time capsule whose discovery has opened up numerous new scientific vistas. But for him, the cultural aspects of the find, particularly Juanita's relevance as a human sacrifice, are as important as the scientific aspects.

### Sacred geography

Reinhard's ideas on mountain worship took shape in the early 1970s when he was collecting information on shamanism and witchcraft in southwest Nepal to complete his doctorate in cultural anthropology from the University of Vienna. He found that both Buddhists and Hindus alike believed that the Himalayas were a sacred dwelling place of the gods.

"In fact," Reinhard says, ►



Johan Reinhard climbs Mt. Ampato. In the background, Nevado Sabancaya spews hot ash high into the sky, while Reinhard makes his way through the ashy ice.



"to these people, the mountains were not merely the homes of the gods, they literally *were* the gods and could kill with avalanche, rockfall, lightning, blizzard and wind – or bless with rain filled clouds pouring life into rivers and lakes." In controlling the weather, the mountain deities controlled the water supply, the fertility of crops and livestock and, in effect, the local economy. Similarly, for the mountain dwellers of the Andes on the other side of the globe, the mountains form an *axis mundi*, linking the three levels of the world: earth, sky and underworld.

"Mountain worship was evident not simply when I was

digging ancient sites in the Andes, but also when I looked at daily life," the explorer continues. The Incas used religion as a means of controlling people and unifying a vast empire which, by the time of the Spanish conquest in 1532, stretched 2,500 miles from Colombia to central Chile.

Their reverence of mountains led them to build houses with windows that looked out at the sacred peaks and to dot the land with mountain-shaped stones. Some even bound their children's heads into conical shapes that resembled the mountains from which they believed they were descended. This worship of the mountains

sheds important light on the reasons why the Incas were able to relinquish their precious children in ritual offering to the gods. It also helps explain what have been, until recently, some of the most enigmatic archaeological phenomena in South America.

### Explaining enigmas

Reinhard's own passion for mountains, training as an anthropologist, experience as an archaeologist and grasp of the central importance of religion all combined to make him a pioneer in what is now referred to as high-altitude archaeology and sacred geography. His work in these areas has presented him with unprecedented opportunities for discovery as well as the means to apply new interpretations to ancient mysteries. Two cases in point are the Nazca Lines and Machu Picchu.

The Nazca Lines consist of geometric and animal figures known as geoglyphs etched or built over a 200-square-kilometre landscape in Southern Peru more than a millennium ago. Before Reinhard linked the Lines to mountain worship and water and fertility beliefs, little research had been conducted on these giant desert drawings and what had been done was inconclusive.

In 1985, Reinhard first published his interpretation that

the curious phenomenon was not the work of visitors from outer space or that of learned astronomers – two previous theories – but rather part of a larger Andean practice of appeasing the gods and ensuring crop fertility. Today, this interpretation is widely accepted.

Machu Picchu, by far the most well known archaeological site in the Americas, is located high in the Andes, northwest of the city of Cuzco, capital of the ancient Inca empire. Because there are no historical accounts that explain the development or purpose of the site, its origins and uses have never been fully understood by those who have

### "The Ice Maiden... helps crystallise my theories of the past 25 years."

studied it since it was found by Hiram Bingham in 1911.

Reinhard's work on Machu Picchu has been exceptional. In 1988, he discovered a missing section of road leading to the site. He also noticed that the site was surrounded by snow-capped mountains, worshipped for centuries by the local population. "It was obvious to me that Machu Picchu's mountain setting and strategic political positioning between Cuzco, the Inca centre, and the forested lowlands unmistakably identified it as a sacred geographic centre," Reinhard says.



Situated high in the Andes mountains, Machu Picchu is one of the most famous archaeological sites in the Americas, and Reinhard has helped explain its location and purpose.

Far right, one of the many ceremonial figurines Reinhard has unearthed.



Courtesy of J. Reinhard



Courtesy of J. Reinhard

The Nazca Lines and Machu Picchu are but two examples of the dedicated life of exploration that Reinhard has led. His achievements could fill volumes and include a number of scientific and archaeological firsts. For example, he carried out the first underwater archaeological research in Lake Titicaca, the largest and most sacred lake in the Andes. In West Nepal, he discovered the Raute, one of the last hunting and gathering tribes on earth.

But it is Reinhard's studies on the Nazca Lines and Machu Picchu that best sum up what is most important to him. What is critical in his mind is not the many single spectacular discoveries he has made in his lifetime, but rather the patterns he has observed which allow him to reconstruct what happened centuries ago and present new theories on past major cultural periods and their relevance today.

"I'm most interested in presenting theories that substantiate an hypothesis and help explain known facts," Reinhard says. "The Ice Maiden, for example, has captured the imagination of people of all ages, which helps focus world attention on the project. But what is significant is how she offers dramatic evidence of the importance of the sacred geography. She helps crystallise my theories of the past 25 years."

### Initiative and independence

Reinhard's unique ability to synthesise information to create new interpretations of the ancient past is no doubt an outgrowth of his rare initiative and independence – in other words, of his exceptional spirit of enterprise. For almost 30 years, Reinhard has worked essentially on his own. His broad perspective, multidisciplinary nature and holistic vision often prevented him from obtaining the institutional backing that goes to more narrowly focused projects.

This independence has inevitably evoked some to call his work unorthodox, but it is precisely his unconventional

approach that also leads peers to comment that "his work is a milestone in the history of Andean archaeology" and that "his hands-on research is changing the terms of archaeological discussion in the Andes."

Today Reinhard is at the centre of an explosion of interest in the subject to which he has committed his life. Explorer-in-residence at the National Geographic Society, he is working on a variety of projects on exploration, many of which will come to fruition at the end of 1997 and beginning of 1998. Among them are two documentary films, an educational campaign involving nearly a quarter of a million teachers in

the United States and Canada, a children's book and a satellite connection that will allow him to go on-line from a mountain summit in Peru this October.

Reinhard credits the Rolex Awards for helping to propel him onto the world stage and give his work credibility and recognition. "The Award set the stage for everything that followed," he says. "It gave me the ability to work on my own in Peru for three full years, to pursue the exploration at Lake Titicaca and to be recognised in archaeological circles."

He is particularly impressed that the Rolex Awards are given to people, like himself, who often are working on their own, without the help of major organisations or institutions. Reinhard is, for that reason, all the more honoured to sit on the 1998 Selection Committee, and he is the first Rolex Laureate invited to serve.

"More than any of my recognised accomplishments, I think having worked outside of a system for so many years will prove invaluable as a judge," he says. "I believe I have the experience and sensitivity needed to be able to recognise the spirit of enterprise that is the essence of the Rolex Awards." 🏆