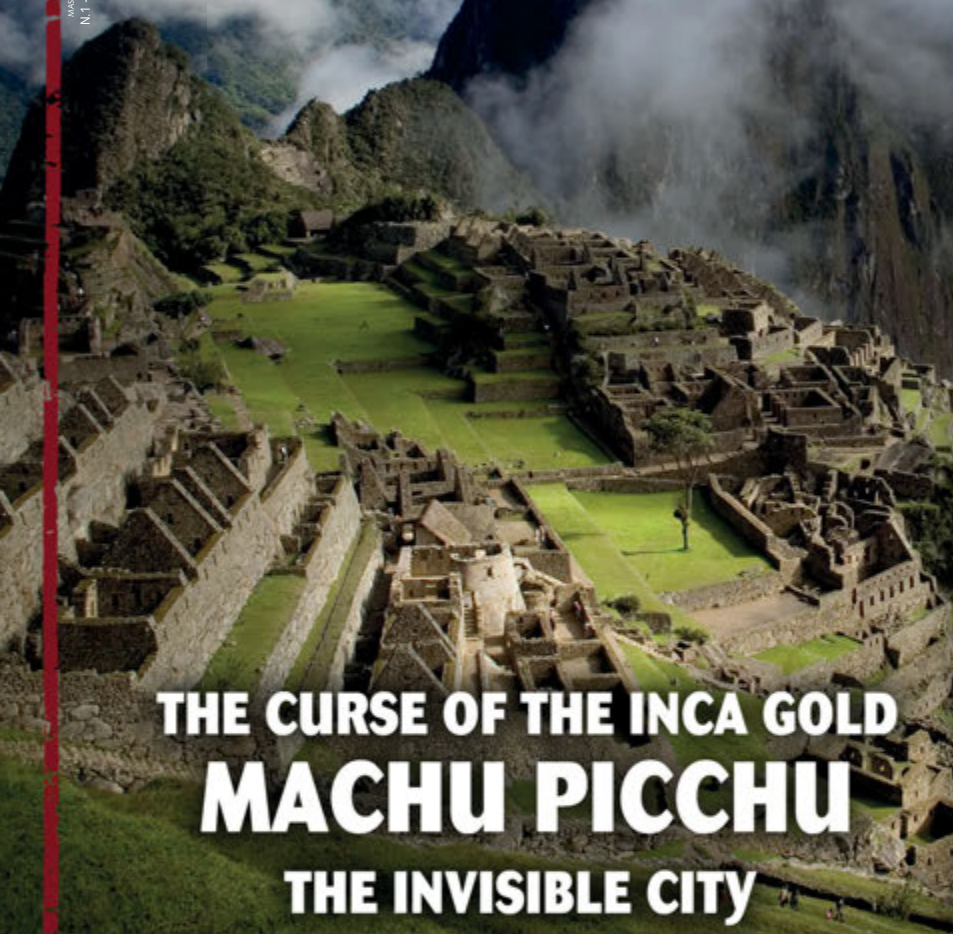


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N.1 - 2021 EURO 2,99

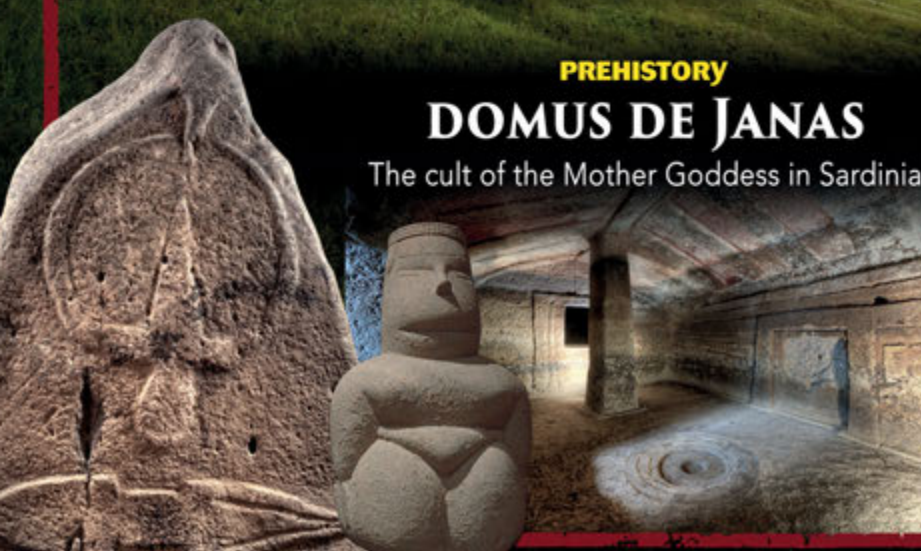


THE CURSE OF THE INCA GOLD MACHU PICCHU THE INVISIBLE CITY

PREHISTORY

DOMUS DE JANAS

The cult of the Mother Goddess in Sardinia



ANABASIS
THE LAST MARCH
OF THE
TEN THOUSAND
GREEK WARRIORS



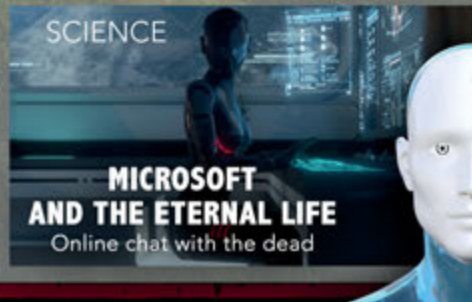
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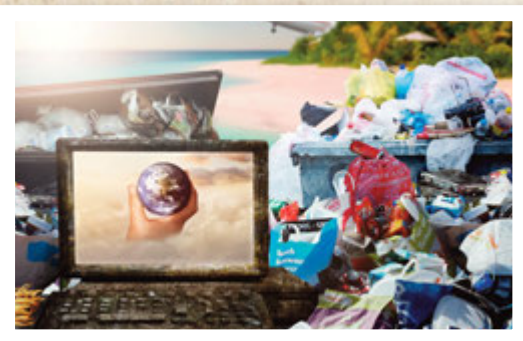
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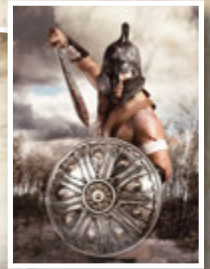
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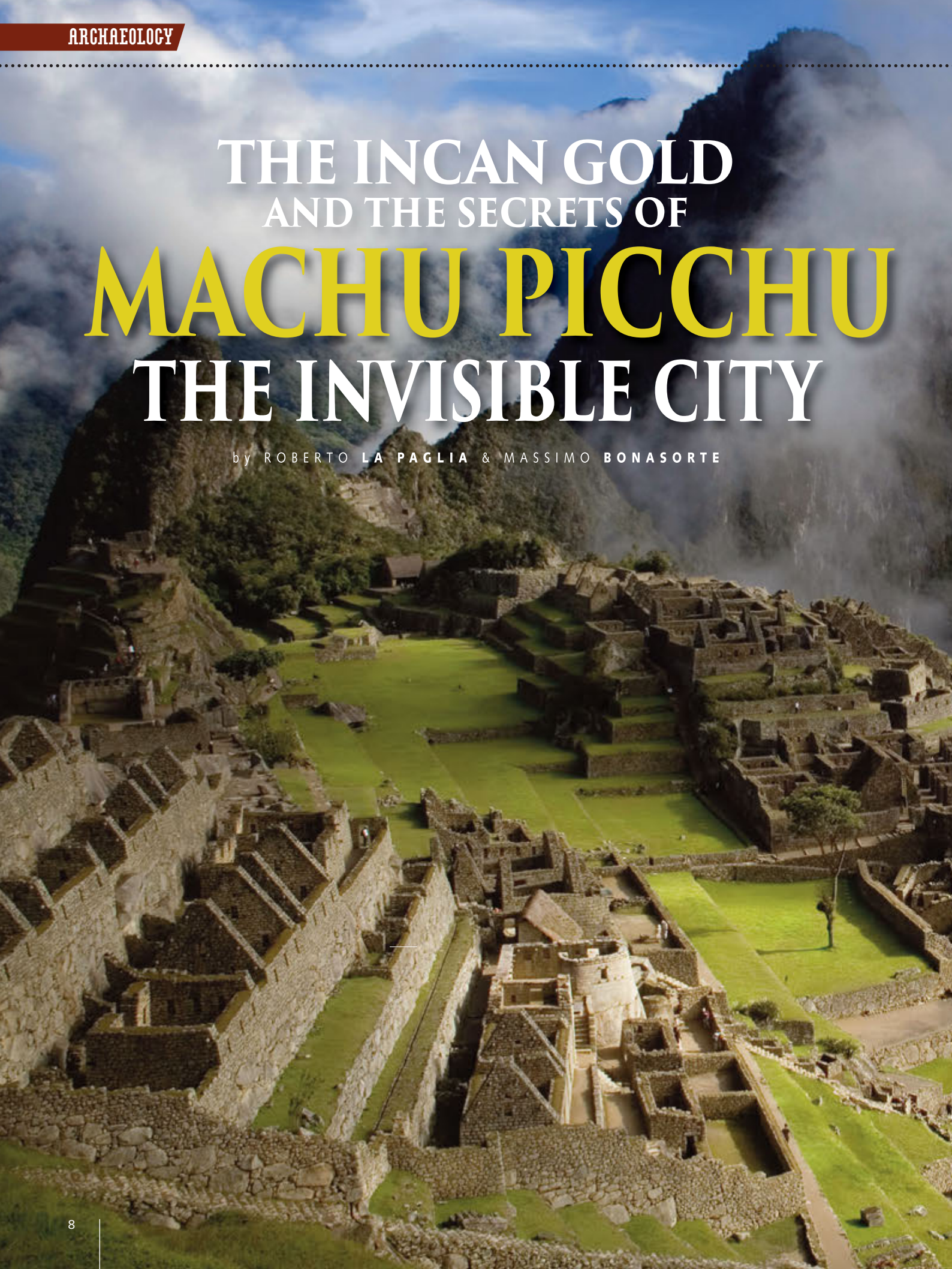
Iceland

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THE INCAN GOLD AND THE SECRETS OF **MACHU PICCHU** THE INVISIBLE CITY

by ROBERTO LA PAGLIA & MASSIMO BONASORTE



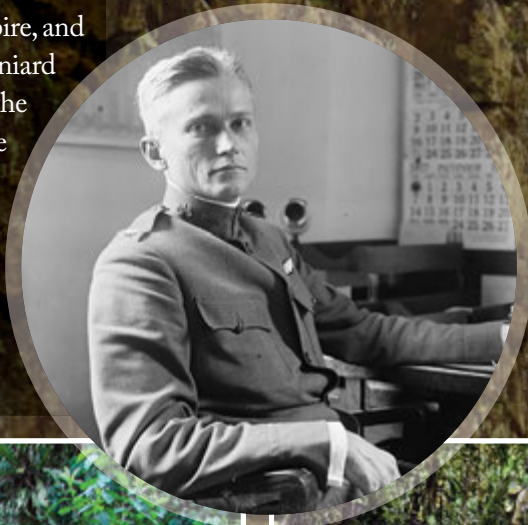




Painting by Luis Montero, The Funerals of Inca Atahualpa.

In 1536, the Incan ruler Manco Inca Yupanqui, after being defeated by forces of the Spanish colonizers, flees Cusco, the capital of the empire, and founds a new city: Vilcabamba. The Spaniard Gonzalo Pizarro had already annihilated the Incan empire, already crippled by civil war, but the dynasty of Manco Inca Yupanqui managed to survive for another 36 years until Vilcabamba fell into oblivion.

About 370 years later, Hiram Bingham of Yale University decided to embark on a trip to Peru. In 1906 Bingham embarked on an adventurous



Pictured above and to the right, Hiram Bingham at the ruins of Espiritu Pampa in 1911.



journey from Buenos Aires to Cusco wishing to find Vilcabamba, the last refuge of the Incan rebels. When he arrived in Abancay, the locals mentioned some ruins and took him to what we know today as the archaeological complex of Choquequirao. Bingham was unconvinced: the mythical Vilcabamba had to be even more impressive, so he planned his enterprise to find Vilcabamba. Alberto Giesecke, rector of the University of Cusco and a friend, told him about the existence of mysterious Inca ruins in the area. The rest is history: on July 24th 1911, along with the local guide Melchor Arteaga, Bingham reached the top of Machu Picchu, believing he had found Vilcabamba. In "The lost city of the Inca" he reported his excite-

WHO STOLE THE INCAN GOLD?

Berns was an art smuggler that managed to convince or rather bribe the Peruvian authorities and get Andres Avelino Caceres, the president at the time, to allow him to sack the entire sacred area of Machu Picchu undisturbed. Berns complete lack of remorse and arrogance is further shown by his *Companhia Anonima Explotadora de las Huacas del Inca* (Exploiting Incan sites Anonymous Company), created specifically for his endeavours at spoiling the site.

It was the American historian Paolo Greer to discover a series of documents in the American and Peruvian archives that "pin" both Berns and the Peruvian authorities of the time as the culprits. Based on Greer's studies, we know that in 1887 Berns made a deal with the government that would allow the German company to export any plundered material by depositing 10% of its value as a tangent. But that was just the beginning. Greer also discovered that the government allowed several entrepreneurs to exploit the mineral reserves of the "huacas", ancient tombs and sacred Incan locations, and, as luck would have it, Berns' name also appears among the entrepreneurs listed. In an 1874 document, it was established that the entire mining area surrounding Machu Picchu was to be mined by the German, who probably discovered the Incan city remains while roaming its lands and seeking its treasures. "We have proof that Berns and his associates – says the Peruvian historian Carlos Carcelen – found gold and several archaeological objects in Machu Picchu".


The mystery remains, as we may never know where those artefacts are today.



ment in discovering what he believed to be the legendary Vilcabamba. Wrongfully so, as he had rediscovered the ruins of Machu Picchu or “the ancient peak”, as it was called in the Quechua language, in the sacred valley of Urubamba. The archaeological site is part of the UNESCO World Heritage and is located in a mountainous area at 2,350 meters above sea level and 80 km north-east of the city of Cusco, with an extension of almost one kilometre. The location of the city was a well-guarded military secret due to the deep cliffs that function as a natural defence. Once abandoned, its location remained unknown for four centuries, protected by abundant vegetation and practically invisible from below.

The Temples mystery

Why build a city on a spur of rock 2,300 meters high on the slopes of the Andes? And above all, is it correct to use the term “city” when talking about Machu Picchu?



"Suddenly I found myself confronted with the walls of ruined houses built of the finest quality of Inca stone work. It was hard to see them for they were partly covered with trees and moss, the growth of centuries, but in the dense shadow, hiding in bamboo thickets and tangled vines, appeared here and there walls of white granite ashlar carefully cut and exquisitely fitted together. . . . Dimly I began to realize that this wall and its adjoining semicircular temple over the cave were as fine as the finest stonework in the world. It fairly took my breath away. What could this place be?"

(Hiram Bingham, Lost City of Incas)





Temple of the Sun, Machu Picchu.



Temple of the Condor.

Those enormous stone stairs and those gigantic terraces, most likely, never witnessed the normal daily life of the Inca people; they are, in fact, a huge complex of temples, observatories and sumptuous palaces destined for the ruling class. There is also a part with signs of agriculture and other activities, but the real purpose of the en-



tire settlement remains a mystery. Among the most important places of Machu Picchu is the *Plaza Alargada* built with terraces at different levels, the *Sun Observatory Temple*, the *Royal Residence*, which functions as the first entrance to the city, the *Sacred Square*, which in-



cludes two of the three major buildings, the *Three Windows Temple* and the *Main Temple*. At the western end of the site, there is also the enigmatic stone called *Intihuatana*, or “the post to tie the sun”.

The Intihuatana is a small pyramid with a flattened top, where there’s a sundial, an observation point for priests to trace the sky and in partic-

ular the movement of the Sun.

As he continued exploring the ruins and making more discoveries, Bingham noticed an unusual detail; they had found a lot of bronze, obsidian, stone and ceramic artefacts, but they had found none in silver or gold. These metals were commonly found in this sort of places, it was enough to visit the *Sun Temple* in Cusco to





INTIHUATANA, THE SUN HUNTER

We have often mentioned Intihuatana in the past, so we think the day has come to take a closer look at this ancient creation full of mystery. The original Inca name has long been lost to us, but we do know that the Spanish historians registered the monument as "saywa" o "sukhanka". The name we know today comes from the Quechua language, where *inti* stands for "sun", or Sun god, and *wata-* is the verb "tie", while the suffix *-na* defines the names for instruments or places. Therefore, *intiwatana* translates to "an instrument or place to "tie the Sun-god", hence we know that it had a religious purpose. The stone itself has sides, one per cardinal point, marked by 70 stone steps and

many dents of which we ignore the meaning. Perhaps they were used to place religious objects or mummies or to mark specific locations to perform sacrifices, but everything is shrouded in mystery. At the end of the day, it most likely is some sort of clock used to determine the perfect moment to celebrate and "tie" the sun to the two equinoxes. At midday, on March and September 21st, the sun directly oversees the pillar, creating no shadow. This is possible because the summit of Intihuatana was built at a 13-degree angle. During the two equinoxes, the Incas would perform ceremonies to keep the sun in the correct position, granting a plentiful harvest and overall prosperity.

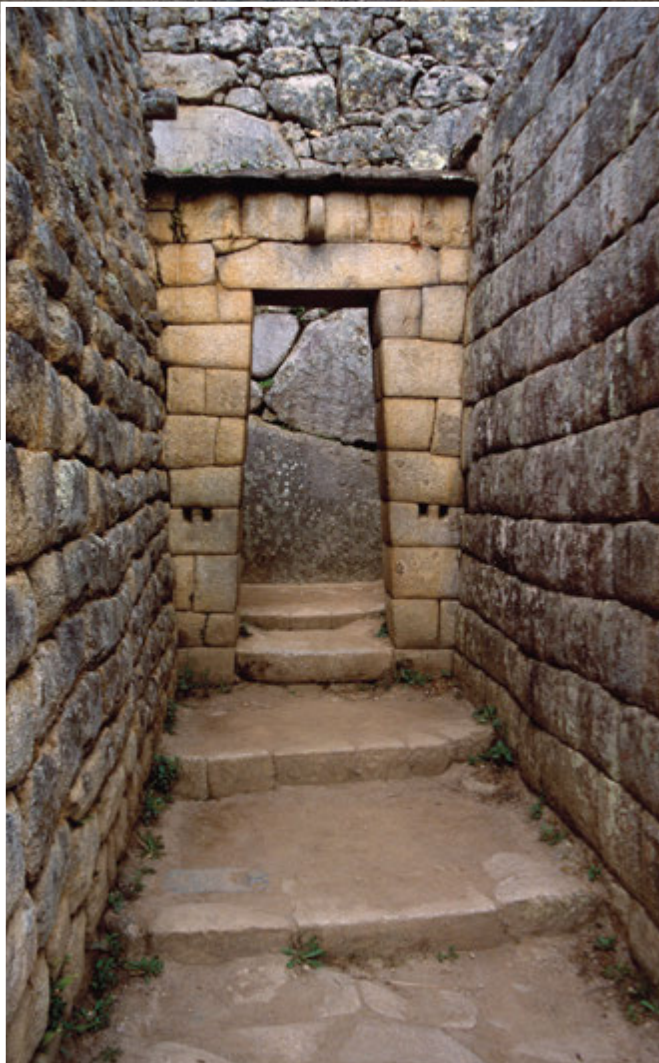
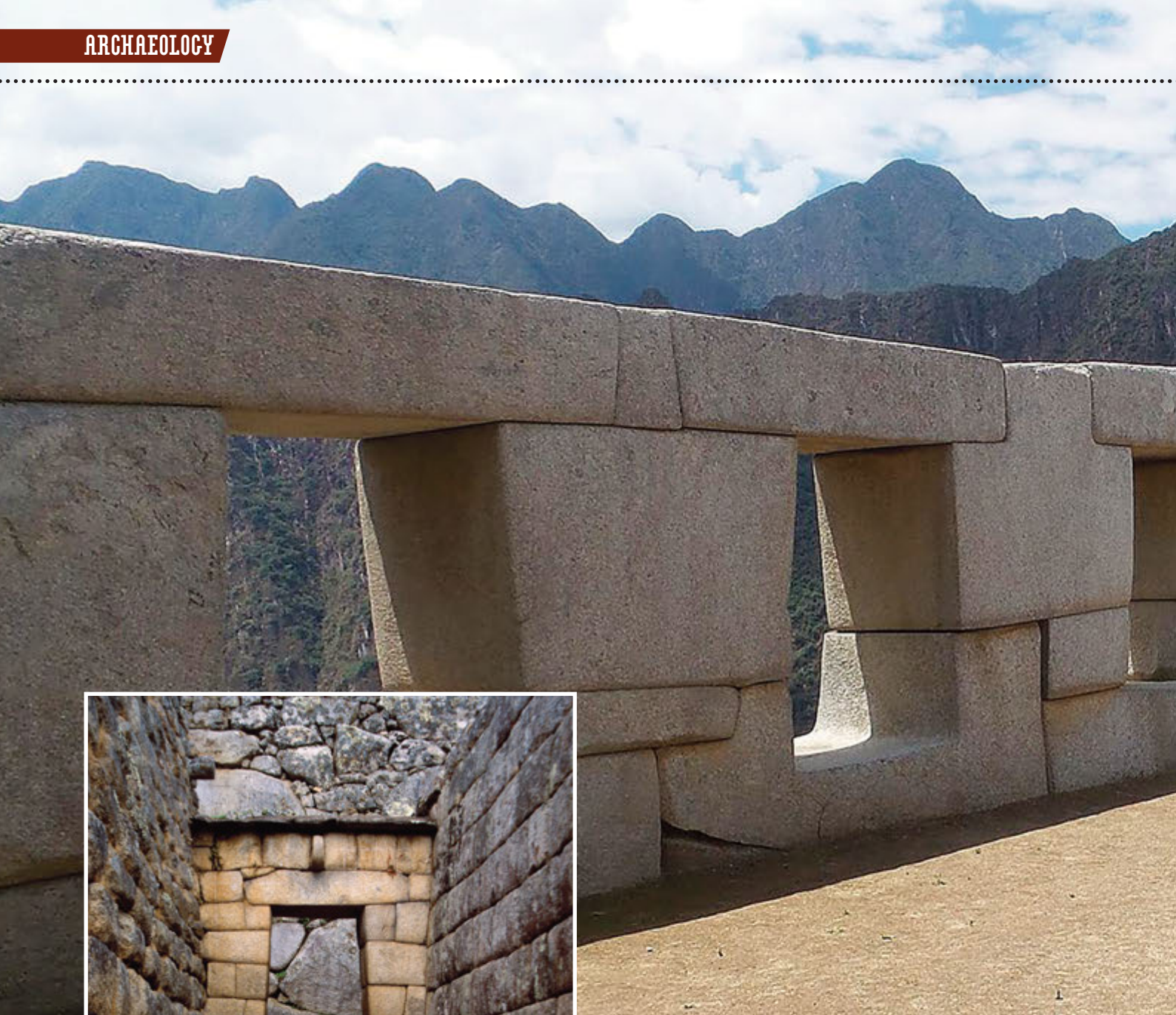


admire beautiful gold and silver plant sculptures, yet there was no such thing in Machu Picchu. Had the Spaniards Sacked the place? It was plausible, but consulting their chronicles there was no mention of the mysterious city, which was odd as the Spaniards



were usually very precise in noting the locations of their conquests and sackings. The answer to this question only arrived in recent times: the sacred city of Machu Picchu was not discovered by Bingham but was explored and plundered by Augustus Berns, a sort of tomb raider, as we would say.





Berns was a German brazen adventurer who reached the city in 1867, 44 years before Bigham, seeking treasures and mostly gold. These Incan riches probably ended up in Berns' possession, but it remains just a plausible theory. According to the Peruvian scholar Victor Angles Vargas, Machu Picchu was abandoned around the 15th century, but what was the reason?

Perhaps the city fell victim to bloody battles between rival tribes? Was the population's fate marked by frequent epidemics? We are unable to give you clear answers, but the enigmas surrounding Machu Picchu are many more.

How was Machu Picchu built?

History tells us that the Incas had no draft animals or wheel, yet whoever has the opportunity to admire the

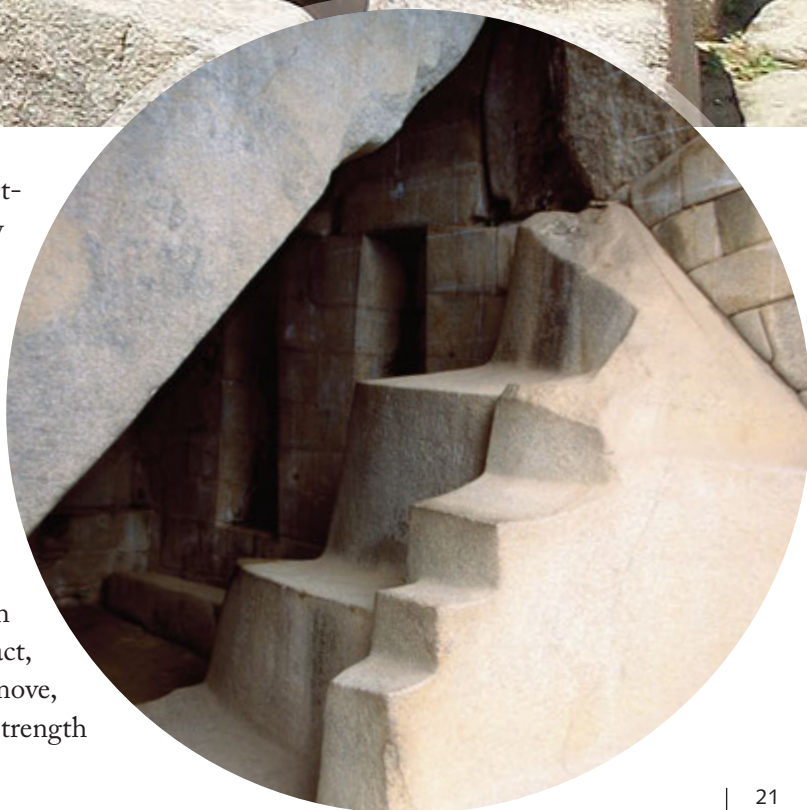


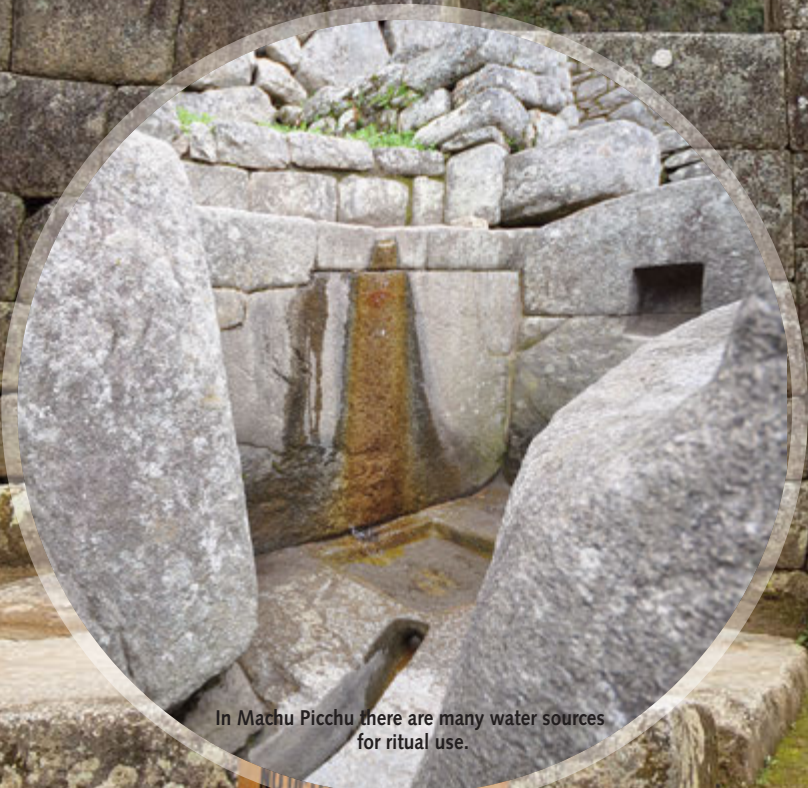
Temple of the Three Windows.

city ruins can't help but wonder how they transported the enormous amount of stones, each a few tons heavy, necessary to build it.

To this day, if we try to fit a razor blade between two stones we are to find it near impossible, because the stones are a perfect fit with one another, despite centuries of erosion.

Perhaps the secret lies in the particular masonry technique used by the Inca people; huge stones with many edges that fit together in a way as not to need mortar, a kind of puzzle able to defy time and the continuous attacks of nature such as earthquakes. The area is highly seismic. In fact, during earthquakes the stones of Machu Picchu move, but do not collapse, but they seem to follow the strength





In Machu Picchu there are many water sources for ritual use.



of nature in its dangerous wake. As if this wasn't enough, these huge blocks of stone are the keepers of another mystery. How did the Incas develop this construction technique?

In a wall in the city of Cusco, we found a rock with twelve edges, while not far from Machu Picchu, another one has even forty. Besides, how did they carve the granite? What tools did the Inca use? No archaeological research has ever found tools strong enough to cut stone. The Incas were masters of melting and alloying soft metals, they worked with bronze and copper, but they never made iron tools, and the artefacts found were unable to cut stone, yet they did it! How? According to local stories, they shaped the stones using hematite shards, but in this case, we should assume that this material was easily found on the Andes as if the place had suffered a massive meteor rain, but there is no historical trace of that.

Some scholars believe the Inca used wet wooden shovels to move the heavy rocks, but this doesn't explain how they built the massive structures made by a single stone or with intricate patterns.

Lastly, there is a highly debated theory: the Incas knew how to soften stone. This would be the reason why in Machu Picchu and other locations there are walls, monuments and buildings with the same characteristics: no room between stones, the rocks often with impossible curves and patterns as if they were fused instead of having been placed. Many myths mention a plant capable of softening stone, it would be a small red plant 25 cm tall with many names, among which *Pito*. Unfortunately, despite plenty of research, no proof supporting this theory has been found to this day.

What is the goal of Machu Picchu?

According to some researchers, Machu Picchu would have served as a base to manage the empire, or what was left of it, due to its proximity to Cusco. The city was not very populated and was able to contain no more than 750 people, although only an estimated 200 skeletons have

been found. The low population combined with the majority of the building being temples lead us to believe that it was mostly a religious centre, where they preserved and followed ancient traditions. Regarding the skulls found, many presented the classic elongated skull, especially in the pits dedicated to the noblemen. We know that the deformation of the skull was an ancient custom of which the origin remains its deepest mystery. Who were these elongated skull individuals and why were they buried in Machu Picchu? The explanation of the archaeologists, however, excludes any mystery. Machu Picchu would be nothing more than the residence where the royal elite retired to entertain guests and carry out some activities such as hunting...

Bingham's mockery

Hiram Bingham devoted all his energies to finding Vilcabamba, the "lost city of the Incas", but as we have seen



The Temple of the Moon is an Inca temple for ceremonies in Huayna Picchu, near Machu Picchu.



The sacred Plaza (Plaza Sagrada).







he discovered Machu Picchu instead. In reality, “luck” mocked him, as Bingham found Vilcabamba, but didn’t realize he did!

Archaeologists have discovered that the last refuge of the Incas was a site called Espíritu Pampa, located in the forest about 130 kilometres west of the Inca capital Cusco. In 1911, Bingham arrived at Espíritu Pampa but he did not realize the importance of the archaeological site because he did not have the technology to investigate places so buried in dense vegetation. It was after 1960, when comparing some cartographic surveys and the archaeological excavations conducted by Vincent Lee, in the 1980s, that we understood how extensive the archaeological site of Espíritu Pampa was.

“We discovered – Lee declared – that the city was made up of 400-500 buildings... but Bingham had only seen 20” so he deduced that the site was too small and unimportant to be Vilcabamba. Too bad, however, that the natives, when they referred to Espíritu Pampa, called it Vilcabamba Grande, the truth was right under his nose, but Bingham did not see it!

The Incas and Machu Picchu are yet to reveal their secrets or maybe we, like Bingham, have the answers under our noses and cannot see them?



THE SUN VIRGINS DESACRATON

by GIUSTINA VENEZIANO



When you visit Macchu Pichu, you may be surprised by its terracing agriculture, once destined to grow corn and potatoes, by its "U" shaped urban area with two major architectural complexes, which combined have 3000 steps of stairs and roads and also have a hydric canal system. Here you can find sixteen liturgical fountains placed one after the other next to the entry steps. At the top, there's a beautiful double jamb door which leads to the Sun Temple (El Torreón), a solar observatory. Next to the temple, there is a two-story building known as "Ñusta Palace" (princess), where the high priest lived. Leaving the complex we reach the "quarry" or "Caos Granítico" an area full of scattered granite blocks that are thought to have been brought from adjacent mountains.

The origins of the city are still shrouded in mystery. Why do the chronicles from the 16th century not mention

Machu Picchu? Why wasn't it destroyed by the colonizers and religious emissaries charged with "eradicating blasphemy"? These remain partly unanswered: what we know of the origin, function and construction of Machu Picchu is nothing but a hypothesis.

Some believe it was the last outpost of the Andes, the starting point to venture into the jungle and subdue new civilizations, or that it was a fortress used to monitor the arrival of the enemy. Others believe it to be a hidden sanctuary, a peaceful *Aclla Huasi*, home to virgins dedicated to the cult of the Gods.

Based on the examinations performed on the exhumed bodies, the population in Machu Picchu (which in its heyday it must have been about 1000 people) was 80% women. It is reasonable to believe this was a "llacta", that is an administrative-religious city inhabited by high state officials, priests and a bevy of servants and



craftsmen. Its isolated location suggests that it may have been a refuge for the selected few of the Incan nobility in case of an attack. The researcher Waldemar Espinoza Soriano says that not even the population of the Andes knew the exact location of Machu Picchu, only the "sapa inca" or "only king" and the members of the Pachacútec royal family. He adds: "*Macchu Picchu had a defensive function. It was a refuge Illacta, with all the means necessary to resist a siege and be isolated for decades*".



What we do know is that the city suddenly and indefinitely became uninhabited, until it disappeared in the jungle. There is another enigma regarding the reason behind this exodus. There are different hypotheses, among which a terrible epidemic that forced the population to quickly abandon the city built in a humid and bug-infested area. This theory stems from the fact that up to the early 20th century, the entire area was plagued by malaria outbreaks.

Another hypothesis is about the Antis, a nation enemy to the Incas coming from the jungle: they could have managed to reach and pass the bulwarks of Machu Picchu, where a gruesome battle ensued, showing how unsafe the city was, leading to it being abandoned and forgotten.

There is also a suggestive theory

about a religious sacrilege: according to Garcilaso de la Vega, a chronicler of the time, a sacrilege may have been performed by the priests in the city. According to Incan tradition, anyone who laid with the Sacred Sun virgins would be executed alongside their family and their residence would be cursed and subsequently abandoned. Nonetheless, this hypothesis was debunked in 2000 when the anthropologist John Verano from Tulane University in New Orleans discovered that the skeletal remains actually belonged equally to male and female individuals.

So it is much more likely that the skeletons in Machu Picchu belonged not to violated Incan priestesses, but instead servants coming from different areas of the Empire working in the city.

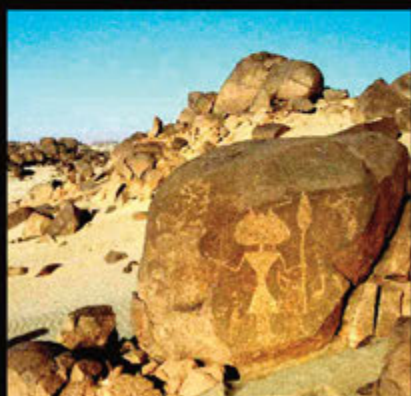
Mystery solved?







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Irina Bokova

Director-General of UNESCO



ARCHAEOLOGICAL SITE OF SABRATHA, LIBYA
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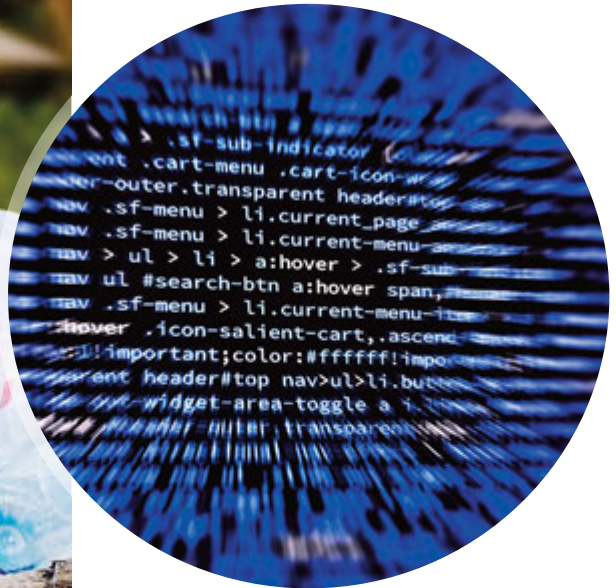


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THE DIGITAL DATA APOCALYPSE!

THE STORAGE OF INTERNET DATA AND THE EXTINCTION OF HUMAN KIND





The extinction of the human race is imminent, but it won't be caused by a nuclear war, an asteroid, a natural disaster nor climate change, but rather by the data stored and shared online each second. According to a study entitled "The Information Catastrophe", recently published in the AIP Advances and conducted by Melvin Vopson, theoretical physicist and lecturer at the School of Mathematics and Physics at the University of Portsmouth in the UK, the Internet will be our end... But how?

The main issue, as the physicist emphasizes, will be data storage. Provocatively, we can say that digital information will one day reach a point where the number of stored bits will exceed the atoms that make up our planet.

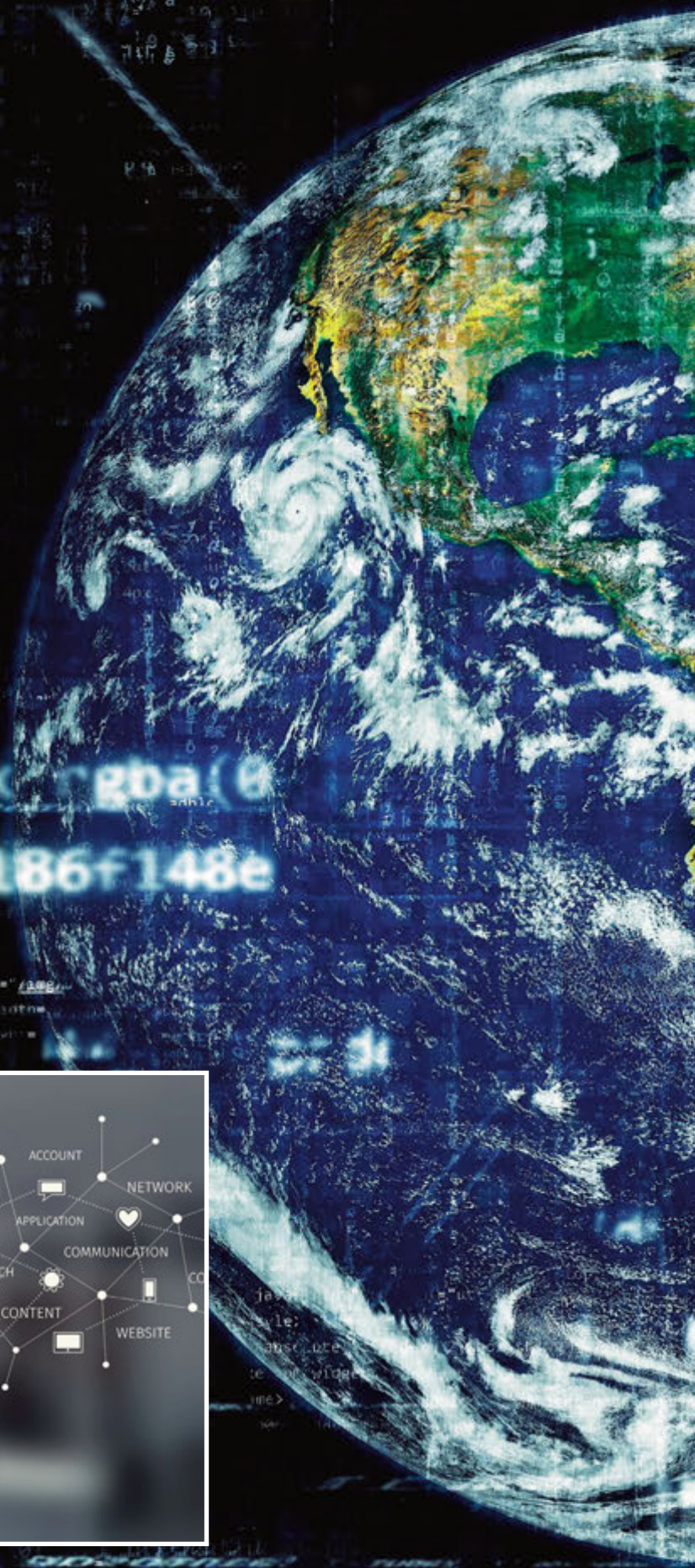
According to Vopson "We currently produce ~10²¹ bits of digital information yearly on Earth (10 followed by 21 zeroes)", this is based on an estimate by IBM experts, who calculated that humans produce 2.5 quintillion bytes of digital data per day.

With an estimated growth rate of 20%, the number of bits we produce will exceed the number of atoms on the planet in about 350 years." *We are literally*

changing the planet one bit at a time — said Vopson — and it is an invisible crisis". To better understand what we are heading towards, we must consider, for example, the number of bits produced each year, the data storage capacity, the energy production and the bit size compared to the atom (mass distribution). There are also man-made factors, such as population growth and information technology access rate in developing countries.

In his study, Vopson specifically investigated the population growth of bits:

"If we hypothesize more realistic growth rates of 5%, 20% and 50% — he writes — the total number of created bits will be equal to the total number of atoms on Earth respectively in ~1.200 years, ~340 years and ~150 years". In the worst-case scenario of 150 years, it would take an estimate of 130 years for all that generated energy to be absorbed by the creation and storage of digital data. In this decidedly apocalyptic scenario, by 2245 the mass of digital information would be half that of the Earth.





According to the IBM report, 90% of the digital information we have today was produced in the last ten years. Rolf Landauer, a German physicist who worked at IBM, previously pointed out that every time a bit was eliminated, a minimum amount of heat was produced, this meant that the process was physically irreversible and therefore the digital information became physical. *"The growth of digital information — continues Vopson — seems truly unstoppable"*. This whole scenario is undoubtedly paradoxical, especially if we consider that in reality, the power needed to support all current digital information would be equal to the power currently being produced on Earth! Will we survive? The bits will tell us...



Sardinia:

DOMUS DE JANAS

and the cult of the Mother Goddess

© by **GIORGIO MURRU**
DIRECTOR OF THE MENHIR MUSEUM IN LACONI
© photo: **NICOLA CASTANGIA**



The Mother Goddess "Cuccuru is Arrius".



The cult of Mother Goddess is an ancient Mediterranean belief that originated in the Anatolian regions and migrated to Sardinia, where the cult of the goddess is attested and widespread since the beginnings of Middle Neolithic, about 5,500 BC.

The highest expression of the cult of Mother Goddess in Sardinia is the *Domus de Janas* and the burial caves dug into the hard bedrock with stone chips. Small cells that over time became underground basilicas where the ancient Sardinians laid the dead and their belongings for the long journey to a new rebirth. The idea was to bring the dead back to the earth, to return them to the mother who gave birth to them and who, in an outpouring of love, would welcome them and give them a new life.



Above, Cardedu and Domus de Janas in Monte Arista.
To the left, menhir statue from Pranu Maore. Photo © Nicola Castangia



The archaeological site of Goni, Pranu Muttedu.



Other artistic forms will reflect the image of this increasingly human deity, stone figures with shapes that were initially round and voluptuous (see photo Cuccuru is Arrius), then slender and essential, minimalist, but always with an ultra-modern artistic expression (see photo *Turriga*).

A new religion seeped into this cultural background of rocks, of silent cyclopean rocks that rose to the sky to meet and embrace that celestial God who is warm, bright and reassuring, every day: the sun!



Corte Noa, menhir from Laconi.



Who brings this new faith? ...And how do the resistant Sardinians embrace it? With a revolution. Imagine that! At the end of the Neolithic, people, probably with Balkan influences, mostly from Ukraine, bring a new religion, an ideologically opposed faith. The frenetic construction of 3,500 *Domus de Janas*, the largest expression of hypogeum in the world, is countered by the brazen erection of idols after the new fashion of erecting, building, trying! Communities of farmers and herdsmen shared living quarters with other farmers and herdsmen. It is an extraordinary moment in the history of the Sardinians. Communities living together, often in a small space, despite different ideological and religious principles and be-



Above, Lotzorai, Domus de Janas in Tracùcu.
To the right, the Mother Goddess of Turriga.



Bau Carradore, menhir-staty från Laconi.



Cirquittus, menhir of Laconi.

liefs, finding a positive connection and able to meet, unite and, above all, respect each other.

Looking at the menhir statues exhibited at the Menhir Museum in Laconi, in the center of Sardinia, we can grasp the signs of this extraordinary contact, the crossroads between two different worlds, and sense in them that megalithism overcame and surpassed a millenary culture while, through a true mutation (transposition), it recognized and claimed the unique signs and symbols of archaic religion. Tall male figures, armed with “double daggers”, powerful and virile, wrapped in cloaks covering their shoulders, often hooded to emphasize their rank, the dominant families they represent having made them immortal. On their chests they have a trident motif that is “reversed”. A representation of the now deceased, upside down on his final journey to Mother Earth, as in the processions of



Above the fake door from Putifigari, S'Incantu. To the right, menhir "Piscina 'e Sali III".



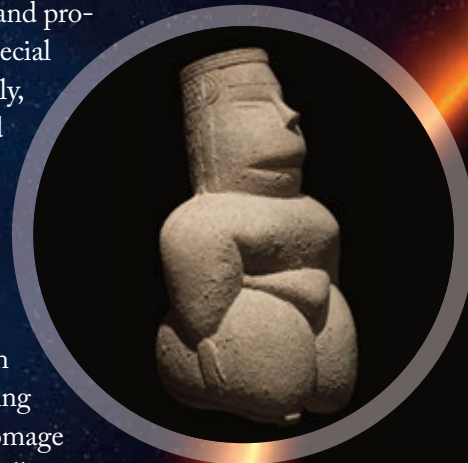
souls found in some *Domus de Janas*. They are the most obvious manifestation of a changing world. The Stone Age, the Neolithic, gave way to a new technological revolution, namely metallurgy, mainly of copper. The new era determined new balances in social life, distinguishing the bearers of the new

shiny tools and recognizing them at the top of the social ladder. Deified leaders, heroes and warriors, priests who were able to connect with the supernatural and provide answers to the great mysteries of life such as birth and death.



Menhir Museum in Laconi.

In addition to the male stone gods, there were also female figures, small, tiny, but full of charm and meaning. There was much talk about what they represented, wives and sisters of the great leaders or perhaps the feminine element of community life? Until a very special figure was found in Laconi. The figure has a mantle, round and pronounced breasts held in place by the special workmanship, and just below, in the belly, a magnificent square frame underlined at the bottom by an engraved line, a belt (see photo Piscina 'e Sali III). The depiction of the “false door” is a familiar motif in the *Domus de Janas*, the door through which one enters the world and through which only souls can pass on their final journey to the loving arms of the Great Mother. Another homage to this deity to whom the Sardinians will remain faithful (see photo S'Incantu).



Menhir “Genna Arrele II” and next page menhir “Barrili I”
In the oval at the top, the Mother Goddess “Cuccuru is Arrius”.



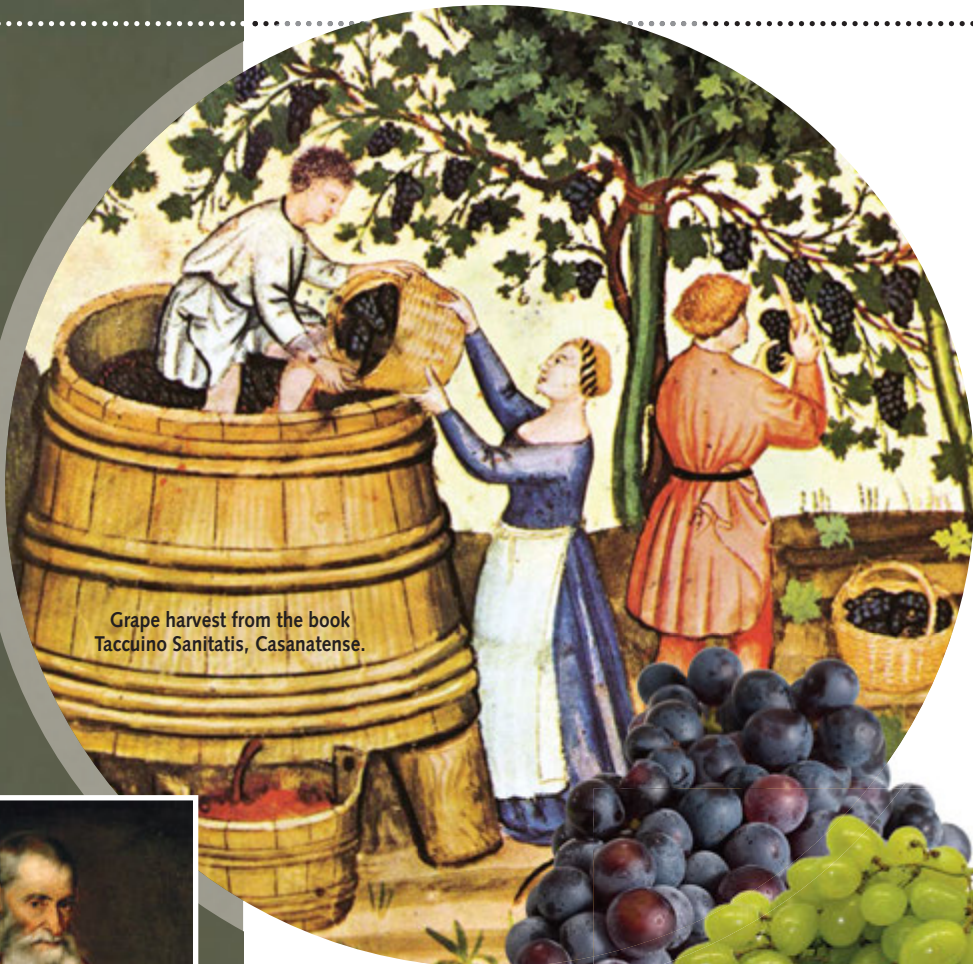


Sante Lancerio

THE FIRST SOMMELIER IN HISTORY

WINE TASTING AND ODD POTIONS DURING THE RENAISSANCE

Young Man Drinking a Glass of Wine, painting by Jan van Bijlert



Grape harvest from the book *Taccuino Sanitatis, Casanatense*.



Pope Paul III,
a painting by Titian.



Portrait of Guido Ascanio Sforza di Santa Fiora.

In the ancient world, the cultivation of vine has very distant roots, but the tasting of the “grape nectar” has a very different history. The properties of wine, as we know, are countless some good some less so. In fact, in the Roman world the proverb *In vino veritas*, or “in wine lies the truth”, was a very direct and popular way, as the Romans were, to highlight how easy it became, without inhibition, to reveal facts and thoughts truthfully, things they would never say while sober. As the Roman poet Horace wrote in his *Epistulae* “*Quid non ebrietas designat? Operta recludit*” (“What cannot be achieved through inebriation? It reveals secrets”), while in another of his works titled *Ars Poetica*, he stated that “*Reges dicuntur multis urgere culullis, / Et torquere mero, quem perspexisse laborent / An sit amicitia dignus*” (“Kings are said to press with many a cup and test with wine the man whom they desire to try wheathe he is worthy of their friendship”). In short, wine discovers the thoughts even of the most cautious and wise, word of Theognis, a Greek poet. In the sixteenth century, however, the history of wine took a decisive turn. In fact, efforts were made to combine wine

with food based on its particular taste given by the different geographical area of origin. So we can ask ourselves, who was the first *sommelier* in history? Without a doubt, one name stands out above all: Sante Lancerio, bottler of Alessandro Farnese who became Pope in 1534, with the name of Pope Paul III.

Sante Lancerio was a historian and a geographer, but above all the person responsible for the supply of his Holiness's wine. During his 25 years of service in the Vatican Lancerio collected

an extraordinary amount of information and advice on the different types of wines, gathering all his experiences in a letter to Cardinal Guido Ascanio Sforza in which he minutely described 53 types of wines.

The bottler of Pope Paul III therefore had the task of selecting the wines for the table of His Holiness not only in the Vatican, but also during the numerous papal trips around the world. An aspect of his work that allowed Lancerio to be able to record, evaluate and know both the characteristics of wines and



Portrait of Pope Paul III, a painting by Titian.



the different peculiarities of the places of production. But what made Lancerio's work unique? Without a shadow of a doubt, the most important aspect of his "reviews" was given by the diversity of characteristics of the wine in question that he considered. For the first time in history Lancerio began to speak not only about the taste of wine, but commented on the aroma, colour and aftertaste of the various qualities.

Many of the adjectives that modern winemakers and especially sommeliers use were used by Lancerio, for whom a wine could be dry, strong, mature, round, smoky, or powerful, or "waxed or gilded" adjectives chosen to classify the colour.

Finally, the notes of the papal botler were enriched by his reflections on the best moments to taste a wine that ranged from the choice of season, to the hour and even to the Pope's mood.



Monk tasting wine,
a work by Antonio Casanova y Estorach.

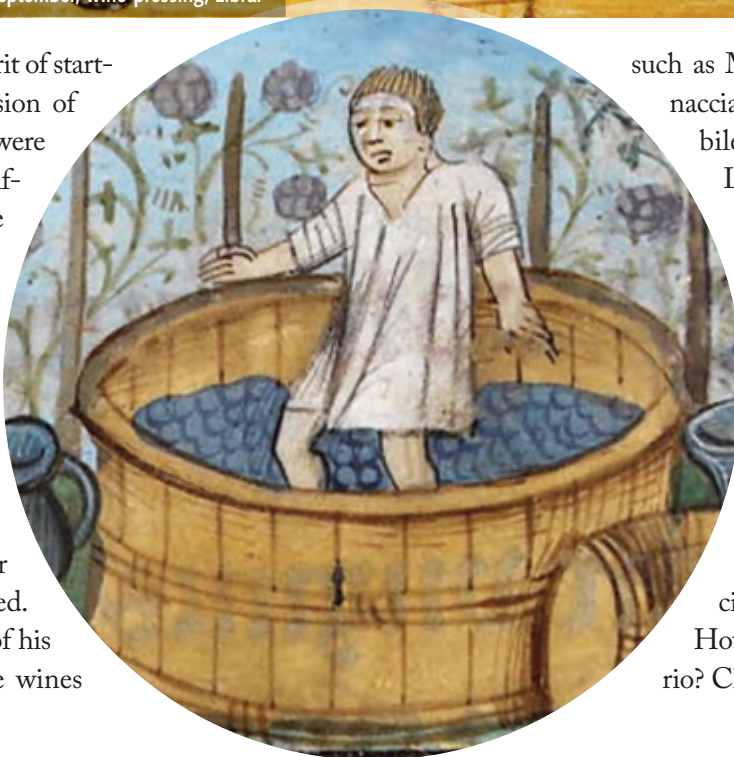


The Happy Violinist with a Glass of Wine,
a painting by Gerard van Honthorst.



Cellarer and barrels (Treatise on the Vices). Below, image from the book *De Grey Hours* f.9.r September, wine-pressing; Libra.

Lancerio also had the merit of starting to propose a succession of wines during meals that were chosen according to the different properties of the taste, so you could sip light white wines for the beginning of the meal, then the red ones for the meats and roasts and strong or heavy wines for desserts. At the end of the meal, the so-called Hippocras or spiced wine could be tasted. For Lancerio at the top of his classification there were wines



such as Malvasia, Greco d'Ischia, Vernaccia di San Gemignano and Nobile di Montepulciano, while Lancerio writes the Moscatello is ideal for "hosts and drunkards", the Greco della Torre immediately becomes dark, so it is good for servitude but not for high prelates, the Rosso di Terracina is excellent for notaries and copyists, while the Mangiaguerra di Napoli is dangerous for the clergy, but ideal to "incite the lust of courtesans".

How can we disagree with Lancerio? Cheers!



Monk at the Wine Tasting, a work by Josef Wagner-Höhenbergs.

HIPPOCRAS, HEALTHY AND DIGESTIVE WINE

In the ancient world the healing and medicinal properties of wine were well known, according to classical sources it was Hippocrates, the great Greek doctor of the fifth century BC, the first to let the flowers of two wild plants soaking in strong Greek wine to obtain a medicinal drink. Hippocrates used two different types of flowers, dittany, a spontaneous plant with a flavour similar to lemon and named after Dikti, a mountain on the island of Crete, and Artemisia, a plant also known as the name of absinthe, which takes its name from the Greek artemes which translates as healthy. The Greek physician thus obtained a drink with powerful digestive and stimulating properties that took the name of Hippocras. From Greek sources, especially Dioscorides, we know that the Romans flavored hippocras with myrtle leaves, a practice that was recommended to "improve the character of women". Ancient sources don't reveal if this gimmick ever worked, but if you want to try...

During the Middle Ages, thanks to the new trade routes opened by the merchants of Venice, the hippocras was enriched with new spices such as cardamom, cinnamon, cloves, myrrh or rhubarb.





ANABASIS

THE LAST MARCH OF THE TEN THOUSAND GREEK WARRIORS

by VITTORIO DI CESARE & MASSIMO BONASORTE





Spring, 401 BC: Cyrus the Younger, second-born son of the Persian king Darius and Satrap of Lydia, took off from Sardis alongside his army and on September 3rd they reached Cunaxa, a city about 90 Km from Babylon. This march was caused by political and military powerplay.

Cyrus moved his army against his brother Artaxerxes II, who took the Persian throne after their father in 404 BC. His goal was to eliminate Artaxerxes II and seize the power of the entire Persian empire. Cyrus brought with him an army made mainly by men from Asia Minor and Greek mercenaries: *contractors*, as we would say today.



Painting by Adrien Guignet "Retreat of the Ten Thousand". Above, Greek vase with warriors.





These warriors were under the leadership of a valorous Spartan warrior, Clearchus. He was an exile from Sparta, after 403, when the city of Byzantium was reconquered by Sparta, and Clearchus was sent with an army to defend it against the Thracians.

The general, however, instead of carrying out his orders, established his own illegal government in Byzantium, to the point where they had to send an expedition against him. Threatened by the death penalty, he fled and found sanctuary with Cyrus the Younger.

So, Clearchus' new "mission" began, which takes us to the following:

1000 hoplites, armoured infantry with helmets and spears, 800 Thracians, plus 200 Cretan archers, 800 Spartan warriors armed with light shields and 500 peltasts (infantrymen). 300 Greeks follow-

ing Sosis the Saracusan and 1000 hoplites of Sofonetus of Arcadia will later join Cyrus the Younger's army. The Greek contingent will eventually count 11,000 men, plus the servants and women following that army which also included Cyrus's Asian soldiers.

In Cunaxa, the undisputed value of the Greeks exploded after the passage of the watchwords "Zeus the saviour" and "Victory". The warriors sang their *paean* (the sacred song to Apollo) and the enemies would flee in fear at the mere sight of those warriors. Their victory seemed certain, but the battle was disastrous, the gods had turned their gaze to Artaxerxes. In his conquering spree, Cyrus found himself surrounded and alone in an attempt to assassinate his brother and was killed in the battle. His decapitated and mutilated body will be left by Artaxerxes impaled and exposed on the battlefield, to admonish anyone who wished to try again to overthrow the only king of the Persian Empire. With Cyrus the Younger dead, the battle was futile.



Xenophon and the Ten Thousand coming in sight of the sea.







Mortal trap

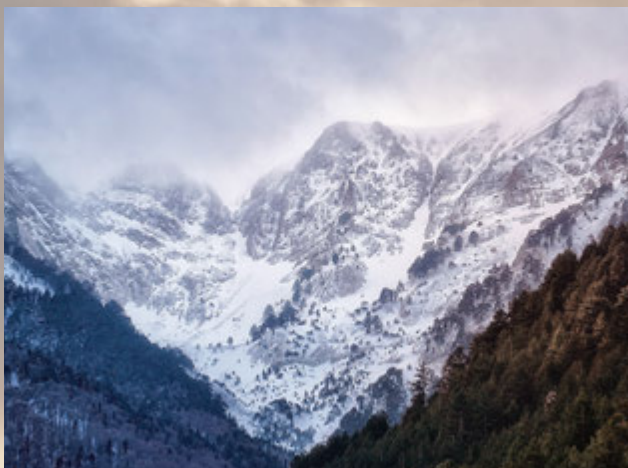
The Persian commander Tissaphernes, hoping to find a diplomatic solution, summoned to his camp the five Greek strategists: Proxenus the Boetian, Menon the Thesalian, Agias the Arcadian, Clearchus the Laconian and Socrates the Achaean. None will survive the meeting: after deceitfully eliminating their escort, Tissaphernes took them to Artaxerxes, who decapitated them all but Menon, who was tortured and mutilated before being killed a year later. Tissaphernes would later wage war against Sparta, but after being defeated Artaxerxes accused him of treason in 395 BC and execute him.

The Greek warriors then, without losing morale, chose two new commanders: Cheirisophus as general commander,

Xenophon as second in command. Thus began a troubled backward march towards Greece that would engage them for a year, meter after meter, kilometre after kilometre, in an eternal battle against enemies, ruthless nature and the harsh environments they would pass through. Over 6000 kilometres of suffering that they overcame with indomitable courage. The army of the Ten Thousand marched north through Armenia in the middle of winter; they were hit by a snowstorm which killed many of them. Only 6,600 Greeks managed to reach Trebizond (Trabzon) on the Black Sea coast. As they saw the seashore from the Pontic Mountains, they shouted the famous phrase: "*Thalassa! Thalassa!*" ("The sea! The sea!"). From there, they sailed to Thrace, where many dishonourable acts took place.







The Greeks allowed themselves a series of killings, massacres and lootings probably due to the impossibility of finding ships to return to Greece. In 399 BC those who were not employed again in battle reached Greece. Xenophon (430-354 BC) would describe the journey of

the Ten Thousand in the book *Anabasis* (a term that means “ascent” in Greek) as the long desperate march towards their homeland, guided by himself after the Greek commander Clearchus died.

We wonder to this day what fortitude and what organization miracle allowed the Greeks, equipped with heavy armour and shields, to fight lightly armed indigenous warriors who were used to the impervious mountainous terrain. The Greeks probably created an assault team capable of countering the surprise attacks of the enemy using guerrilla tactics, scouting and clearing the road for the main army.

International plotting

Sparta was likely the cause of all that suffering, taken that it had been double-crossing since the beginning of the Ten Thousand expedition. Sparta allied itself with Artaxerxes when the Great King had financed the war of



Sparta against Athens and the city was greatly embarrassed when Cyrus requested the expedition of its famous warriors, who would have secured his victory. Sparta was at a crossroads. Refusing his request would mean vengeance in case Cyrus was to be victorious. On the other hand, if Artaxerxes won, they would have been charged with treason, equally risking to face retaliation for joining the rebellion. Sparta then allowed Cyrus to secretly recruit the soldiers he required through officers who had no ties to the city, among which Xenophon. But the solution to this dilemma came with a terrible decision: the Ten Thousand had to win or “disappear”. Sparta would not take them back.

Commander or executioner?

Anabasis then became the chronicles of a handful of desperate men, who had lost a war and still managed to return



home even if it truly wanted them dead. The very moment when hostilities with Persia resurfaced, once the alliances were changed, Sparta would recover what was left of the army of the Ten Thousand. The valorous warriors would have to make the journey for the third time, after two years of endless suffering to return home. Knowing all this, we can say that the Anabasis is a story filled with treason. The commander of the Ten Thousand army, Clearchus, has been severely judged by historians, including Plutarch, who blamed him for the unfortunate outcome of that expedition.

His decision to remain stationary with part of the army

in a secluded position while Cyrus faced his brother's central deployment compromised the outcome of the battle. Only the Spartan phalanx managed to disperse part of the Persian formation, chasing it off to later discover that it had been pointless. It is also believed that Clearchus' strategic decision had depended on Sparta's secret order to put an end to the expedition whose fate had been decided on departure. The Anabasis, in short, is a tale in which the different aspects of a cruel political game were dominated by the determination of an army without certainties, unable to trust its leaders nor the local guides, whose only interest was to deceive the foreigners.



The necropolis of Naqsh-e Rostam in Iran where several Persian kings are buried.

The adventure based on international intrigue becomes a contemporary story, potentially similar to the experience of modern soldiers used by States that do not want to directly interfere in the internal affairs of other countries in order not to break the delicate facade of geopolitical relations.

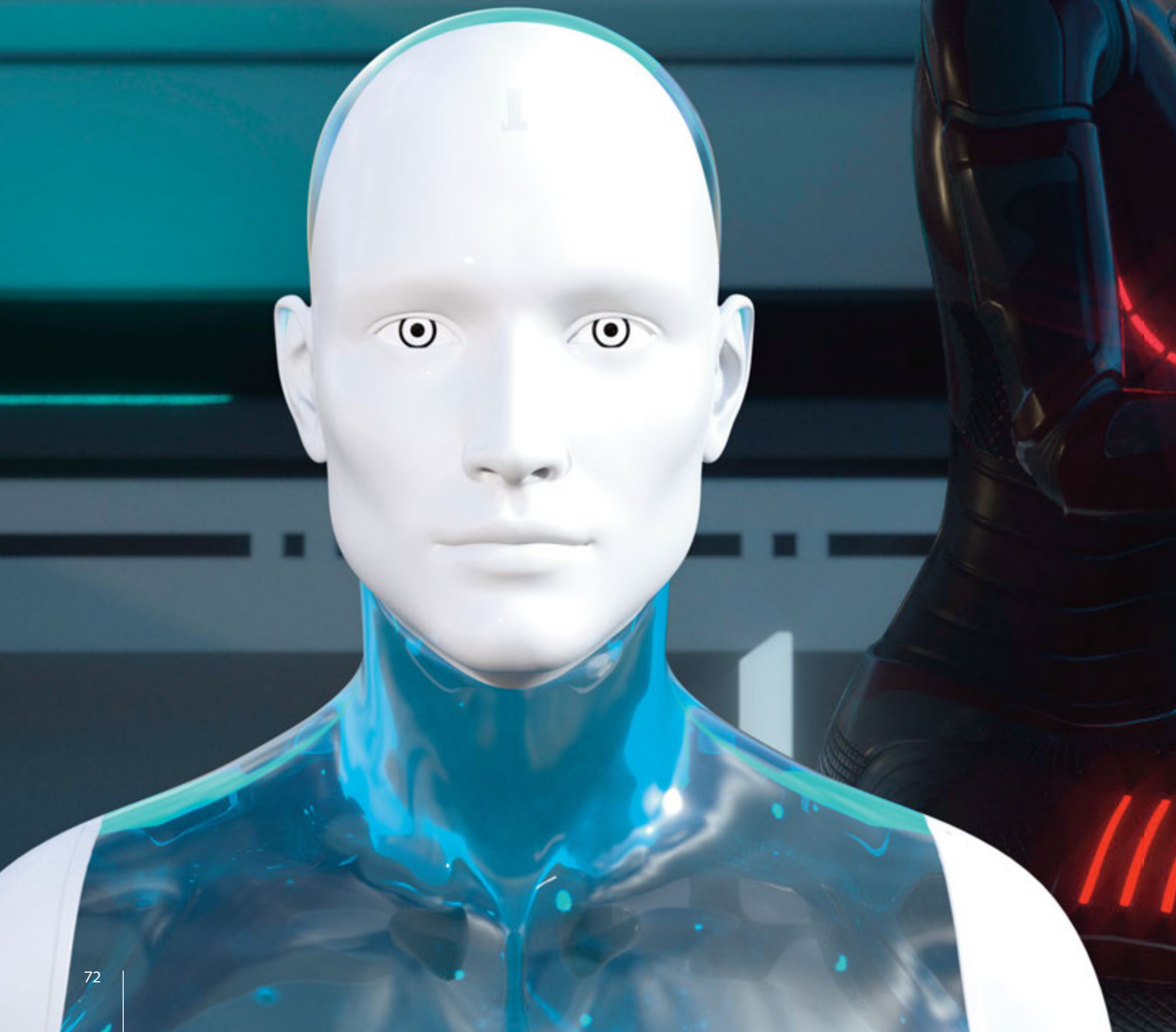
The departments formed by contractors are often defined as “disposable armies” due to the excessive amount of covert and secret operations carried out during the Cold War and especially during the decolonization of Africa in the 1960s. Stories of men used and abandoned, many of which will never be written.



Microsoft and the Eternal Life

ONLINE CHAT WITH THE DEAD:
The new frontier of CHATBOTS

by MASSIMO BONASORTE





What happens after death? Is there an eternal life? Primal questions that humans continue to ask today, despite our current level of technology. We cannot give a scientific answer, only a religious one, based on the various manifestations of the different cultures that have populated our planet for millennia. Microsoft, however, seems to have taken the questions seriously and seems to have discovered the elixir of life.

The United States Patent and Trademark Office recently granted Microsoft a patent for software capable of creating a *chatbot*, or online conversational application, based

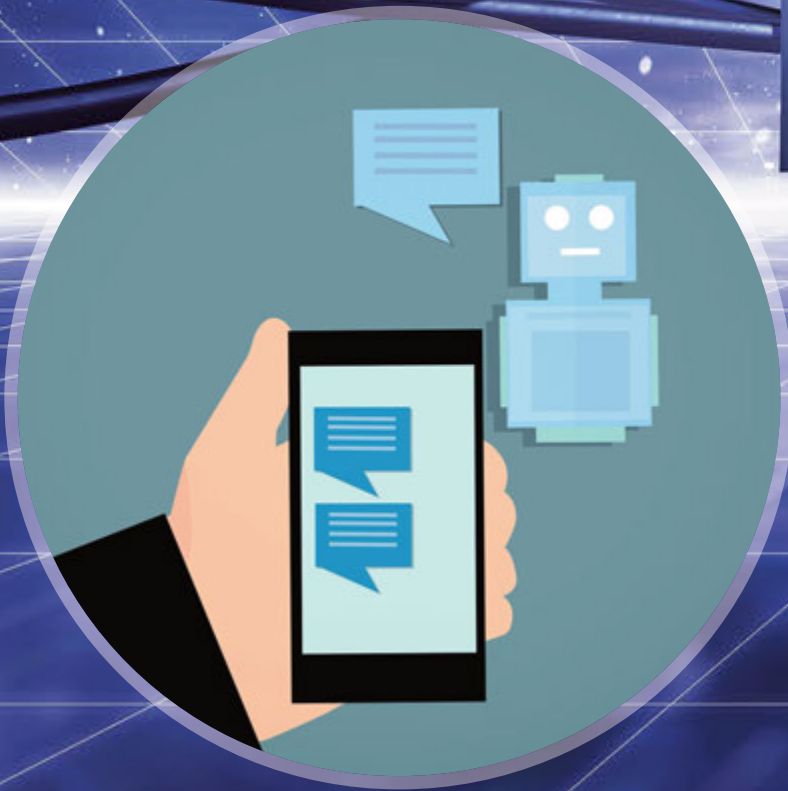
on the characteristics of a particular deceased person. The *chatbot* would use all of the deceased's social data and create a sort of virtual version of the deceased, managed by artificial intelligence.

According to the new Microsoft patent, it is possible to use images, voice memos, social media posts, instant messages and emails to create an avatar or profile of the deceased's personality.

With the digital profile, engineers can "train" a chatbot to speak like the deceased. More worryingly, the application could also take the form of a deceased loved one with a 2D or 3D "model" and use their voice while talking to the person.

The creation of such a *chatbot*, apart from the moral, ethical and religious aspects, opens a complicated scenario regarding the data and privacy rights of the deceased.

Faheem Hussain, a clinical assistant professor at Arizona State Univer-



sity's School for the Future of Innovation in Society, told Reuters in April 2020 *“Technically we can reconstruct any human online, given enough data.”* *“In most countries around the world – according to Edina Harbinja, senior lecturer in media law and privacy at Aston University in Birmingham – the data of deceased people is not protected. Therefore, nothing in the laws would prevent the creation of an avatar or android that looks like the deceased.”* This could be done without the de-

ceased's consent and the data used could breach the privacy of others if, for example, it included conversations the deceased had with friends, relatives and others who were involved in their lives at various levels.

Live in the afterlife

The scenarios that emerge, however, are less poetic and much more heartbreaking, considering the sensationalism that feeds without any scruples, for example, the world of the Internet and television.







In February, for example, one channel (South Korean) aired a tearful reunion between a mother and her deceased 7-year-old daughter, recreated through virtual reality as a digital avatar modelled on a child actor using the mother's photos and memories. But that's not all. Some are thinking far ahead, hypothesizing that not only will an avatar of the deceased be created, but a real second virtual life in which the avatar, controlled by an artificial intelligence, could live on and interact online even after the person who created it dies. ETER9 is a social network from a Portuguese develop-





er Henrique Jorge, which has the feature of pairing each user with an AI “counterpart” that learns to mimic the user’s online behaviour to be able to post, comment and share media autonomously, even after the account owner has passed away. And as Jorge told Thomson Reuters Foundation, *“If users choose to keep their counterpart active for eternity, they will have an extension of themselves alive forever. In a few years, your great-grandchildren will be able to talk to you even if they never had the chance to meet you in person.”*

Will the web be populated by timeless virtual beings in the future? Do you really want to live forever?

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Right now, plans to land civilians and vehicles on the Moon threaten to desecrate six pristine Apollo Lunar landing sites. The UN has safeguarded other irreplaceable property here on Earth. Doesn't the Moon deserve the same protection? Take the next small step. Visit us at ForAllMoonkind.org if you agree.

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