



Life-sized terracotta warriors of China

The student terracotta warrior

A German art student dressed up and posed as one of the terracotta soldiers in the Chinese heritage site of Xian, and was promptly removed by police.

Twenty-six-year-old Pablo Wendel, clad in costume, went into a pit displaying 2,200-year-old life-size pottery figures, and pretended to be one of the terracotta warriors for many minutes.

He was noticed and led away from the site, with police confiscating his costume, and sending him back to the Chinese city of Hangzhou, where he studied.

Reports said that his 'performance art' did not cause damage to the ancient artefacts, and police neither arrested nor charged him.

The terracotta army was constructed to protect the tomb of Emperor Qin Shi Huang, who unified the many Chinese kingdoms into China more than 2,200 years ago.

Discovered in 1974, the clay statues are regarded as one of the greatest archaeological finds of the 20th century. Villagers digging a well in Xian unearthed what became a part of a sensational discovery of about 8,000 human-sized figures of warriors and horses underground. The precious artefacts also provide information on the weaponry, military organisation, and costumes during those ancient times. It is believed that craftsmen made the models after a real army.

Currently, about fifteen terracotta statues are on display in Rome as part of an exhibition on Chinese history. The Scuderie del Quirinale, near the presidential palace, hosts the show, 'Cina: Nascita di un impero' (China: Birth of an Empire). It runs

through till 2007. Meanwhile, the British Museum is negotiating to organise, probably by late 2008, the biggest exhibition of these terracotta statues ever seen outside China.

Mona Lisa pregnant?

'Mona Lisa' may be smiling because she is pregnant or just had given birth to a child, Canadian researchers proposed.

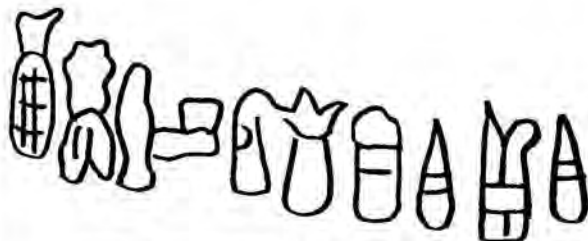
Using laser and infrared scans to create a 3D image of Leonardo Da Vinci's painting, scientists obtained a detailed view under the layers of paint, which revealed a gauzy dress usually worn by pregnant or new mothers in Italy during the early 16th Century.

Apart from the dress, 'Mona Lisa' was portrayed in a slightly different posture, and her hair was held in a bun.

Da Vinci painted the masterpiece between 1503 and 1506, probably modifying it many times. Mysteries surrounding the 'Mona Lisa', one of which is how the image was produced, continue to enhance the portrait as one of the most famous ever. Da Vinci's *sfumato* – smoky – technique still baffles experts.

'Oldest' writing of the New World

New evidence supports the proposition that ancient civilisation in Mexico used a script as long as 2,000 years ago.



Inscriptions on stone slab in Vela Cruz, Mexico

Anthropologists were stunned by the find in the state of Vera Cruz. It was a stone slab with inscriptions of symbolic shapes, prompting experts to consider it the oldest example of writing in the New World. They believed that an ancient pre-Columbian people, the Olmecs, made those inscriptions, and that New World civilisations had established a writing system

about four hundred years before their contemporaries in the western hemisphere.

The object has been dated to the early 1st millennium BC, and belonged to an area once occupied by the Aztecs, Mayas and their predecessors. Known as the 'Cascajal block', it was unearthed by road builders, and weighs 12 kg, measuring 36 cm in length, 21 cm in width, and 13 cm in thickness.

Mexican archaeologists Carmen Rodriguez and Ponciana Ortiz were the first to realise the significance of the discovery, with international archaeologists examining the block in 2006.

The Sumerians are generally considered as the first civilisation to have a form of writing about five thousand years ago, even though claims that Chinese inscriptions are of an earlier period have been put forward.

These whale teeth are made for chewing

A whale fossil with a set of scary teeth has been found in Australia.

The 25-million-years-old discovery was intriguing because it belongs to the group, Baleen whales, whose food source is plankton.

Scientists suggest that the new specimen indicates that ancient Baleen whales hunted prey as toothed whales such as the Orca, Narwhal, Sperm whale and dolphin species did.

They also probably used their big, sharp teeth to catch and chew prey, rather for filter feeding.

The fossil belongs to a species, *Janjucetus hunderi*, which was named after its teenage discoverer, Staumn Hunter, who stumbled upon it in an exposed boulder in 1997 while he was surfing.



The Janjucetus hunderi whale

Thracian dagger

Archaeologists have found a precious dagger in a tomb in the centre of Bulgaria.

The dagger, made of an alloy of gold and platinum, was discovered close to the village of Dubovo, and has been dated to about 3,000 BC.

Over five hundred miniature gold objects were unearthed from the same tomb. They are believed to belong to the mysterious Thracian civilisation, which thrived for about 4,000 years on the edge of the ancient Greek and Roman empires.

The golden dagger measures 16 cm (6 inch) long, and has been described as a sensational discovery. It provided indications that metal processing during that period was far more advanced than what had been known.

Wartime prison art

The paintings of a British woman imprisoned in Singapore during World War II are now displayed in an exhibition in the site of her internment, the Changi Prison, now the Changi Museum.

Mary Angela Bateman was, among thousands of internees, incarcerated by the Japanese for three and a half years. As with several captives, she recorded her experiences in the internment camps, but her work was not recognized until last year. The Changi museum hosted an exhibition that chronicled the experiences of 100,000 prisoners who were captured after the Japanese had taken over the island of Singapore.

Mrs Bateman's collection of fifteen watercolors and sketches were discovered in 2002, in a dusty corner of a junk shop in England.

The artwork became the focus of a collection to commemorate internees' wartime experiences.

Many of the images in her paintings reflected the jail walls and its buildings with clear blue sky in the background. They presented glimpses of the harsh and claustrophobic life in the prison.

'Oldest jewellery'

A study has revealed the earliest known jewelry produced by modern humans. International scientists have identified three shell beads, two from Skhul



The shells were probably beads of bracelets or necklaces

Cave of Mount Carmel, Israel and the other from Oued Djebbana, Algeria, dating them at 90,000-100,000 years old.

Researchers said that the ancient pieces of jewellery, perforated with a sharp flint tool, represent a remarkable early expression of modern behaviour in the archaeological record.

Although humans with modern-looking anatomy are known in the fossil record from about 195,000 years ago onward, experts were still looking for examples of modern behaviour until not too long ago.

They proposed that modern anatomy and modern behaviour did not evolve in tandem.

The argument put forward was that a mutation in the human brain 50,000 years ago might have sparked creativity, and the production of personal ornaments, art and craft, tools and weapons.

Recent discoveries, including the three beads, have weakened the theory of a sudden creative burst in the evolution of modern human behaviour.

Guggenheim in the Middle East

The United Arab Emirates will have its own Guggenheim museum in its booming capital, Abu Dhabi.

Architect Frank Gehry will design the Guggenheim Abu Dhabi, which authorities say will be completed in five years, at the cost of over US\$200 million.

It will become the largest museum of the Guggenheim foundation, whose collections in New York, Bilbao, Berlin, Venice and Las Vegas draw more than two and a half million visitors annually.

Located on Saadiyat Island, which is slated to be a new cultural centre, the museum will occupy an area of 30,000m², twenty-five times bigger than any of the Guggenheim museums.

Ancient carnivorous kangaroo and bird

Fossil evidence of many unknown creatures, including a 'killer kangaroo', was discovered in Australia recently.

Paleontologists also found the remains of a huge flesh-eating bird, dubbed rather spectacularly 'demon duck of doom'.

All together, the excavation team from University of New South Wales unearthed evidence of no less than twenty new species in the Riversleigh fossil fields.

The university team reported that the carnivorous marsupials, from between 10 and 20 million years ago, would not have been similar to kangaroos today because they had long fangs, and galloped with forearms rather than hopped.

That old rat

A scientific expedition to central Laos has captured images of a fossil rock rat. Known as '*Kha-nyou*' to the locals, it was trapped, photographed and later released.

The Laotian rat, believed to be the sole survivor of an ancient group of rodents, is seen in the pictures as a furry and friendly animal, and is as large as a squirrel.

Scientists traced the lineage of the creature to a family of rodents which might have disappeared over eleven million years ago.

The '*Kha-nyou*' has been classified as *Laonastes aenigmamus*, dead specimens of which were sold in a hunter's market last year. Its appearance attracted the international attention of the scientific community, which at first placed the animal in an unknown family related to rodents in Africa and South America. A fossil discovery in China last summer, however, persuaded the researchers to re-examine fossil evidence.

The similarity in skull, teeth, lower jaw bone and skeletal features of the '*Kha-nyou*' and the fossil prompted experts to link the Laotian rock rat to the extinct rodent family, *Diatomyidae*.

Tut's gem linked to extraterrestrial phenomenon

In 1996, Italian mineralogist Vincenzo de Michele noticed a yellow-green jewel in the middle of a Tutankhamun necklace.

After testing, the gem was determined to be made of glass and more ancient than the earliest Egyptian civilisation.

Its origin was traced to pieces of glass scattered in a remote sandy region of the Sahara Desert.

Recently, a BBC Horizon programme presented an intriguing theory linking the jewel to a meteor.

An astrochemist found that the material had been produced at a temperature which only the intensity of a meteorite colliding into earth could have created. However, signs of an impact, even with satellite imagery, were not found.

A geophysicist proposed that a phenomenon such as the aerial explosion above Tunguska might have occurred to heat the ground and turned it into glass in the Egyptian desert.

In 1908, a powerful burst flattened eighty million trees in the Tunguska forest of Siberia. It did not leave a meteorite impact crater, leading scientists to hypothesize that an extraterrestrial object had exploded in the sky.

The 1945 atomic bomb tested in New Mexico formed a thin layer of glass on the sand of the site. Since the area of glass in the Sahara desert is massively larger, it is suggested that what took place there was much more intense than an atomic bomb detonation.

In 1994, the Hubble telescope documented the most massive incandescent fireball ever recorded when the Shoemaker-Levy comet hit Jupiter.

Simulation of such an impact over earth demonstrated that it could generate a fireball that could produce atmospheric temperatures of 1,800°C, ten thousand times more powerful than atomic explosions. A field of glass could be formed as a result.

Scientists suggested that phenomenon such as the Tunguska event could occur as often as every



Tutankhamun's pectoral with desert glass scarab

hundred years, and that they could be compared to the effect of many Hiroshima bombs going off.

Even more devastating than the one supposed to have happened in the Sahara was an event 800,000 years ago in Southeast Asia. An air burst created multiple fireballs, and left glass over three hundred thousand square miles but not a crater. A scientist on the BBC programme said that all humans within the region would have perished in such a phenomenon, from which nothing could survive.

Dawn of agriculture

Scientists reported the discovery of fig fossils, in an archaeological site in the Jordan valley, that may indicate the point when humans started to cultivate food.

Dated between 11,200 and 11,400 years old, the figs were found in a house of an early Neolithic Village, known as Grilgal I. Nine of the figs measured 18 mm across, while the other 313 were smaller.

The Israeli and American research team pointed out that the self-pollinating (parthenocarpic) crops were not a wild breed, and could only have been grown by human cultivation.

Parthenocarpic fig trees do not produce seeds because they cannot reproduce, and appear by coincidental genetic mutation or human intervention (removing a shoot for replanting). The researchers suggested that the planting of fig trees led to the dawn of agriculture.

They also believed that the discovery, indicating that these Neolithic humans combined food cultivation with hunting and gathering, could reveal more about human behaviour at the dawn of the

Neolithic revolution, which was preceded by 2.5 million years of hunting/gathering culture.

Even though the discovered fossil figs pre-date the cultivation of other domesticated staples such as wheat, legumes and barley, determining the origins of agriculture has been made difficult by other fossil finds, such as domesticated rice which were found in Korea, dating back to 15,000 years.

Hotels, resorts and spas linked to lootings

Art experts are increasingly pointing at the hotel, resort and spa businesses as major contributors to the rise in demand for precious artefacts stolen from heritage sites.

A trend has been growing in the way luxurious hoteliers, and resort/spa developers are decorating their premises with authentic antiquities.

In the province of Ayutthaya, Thailand, there were reports of orders from foreign countries for objects such as old urns in the backyards of temples. Over many years, several thefts of artefacts took place, and only a few of the stolen items were recovered. Buddha statues, antique wooden cabinets and roof ornaments are some the popular antiquities looted from Buddhist temples.

Recently, a 230-year-old antique cabinet containing sacred Buddhist scripture was stolen from a temple, Wat Sing, in Nonthaburi, and believed to have been smuggled out of the country.

Heritage sites: a failure to act?

The World Heritage Committee (WHC), a Unesco agency, has recently disagreed with advocates and activists on the issue of protecting World Heritage Sites through measures aimed at cutting greenhouse gas emissions.

Having heard evidence during a meeting in Lithuania that 125 sites, including the Himalayas and the Great Barrier Reef, are vulnerable to the effects of climate change, WHC resisted calls to take action as recommended by the campaigners. It also declined to advise countries to refer to projections of the Intergovernmental Panel on Climate Change (IPCC) in conducting risk assessment of the sites.

Environmental groups were upset by the setback, and accused governments behind the opposition to

reduction of emissions. *BBC News* reported that the WHC was perceived as failing to protect some of the most important sites from climate change.

Interestingly, a WHC survey found that 125 sites are indeed threatened by climate change.

Prehistoric spiders

Creatures were spinning webs to trap insects during the existence of dinosaurs on earth.

These web weavers were discovered in amber from more than 100 million years ago.

Two specimens are described in '*Biology Letters*', the UK Royal Society journal.

Dating to the Lower Cretaceous, the fossils were embedded in amber from Alava, northern Spain.

Amber is a resin in trees that has solidified over millions of years, and helps researchers with their study of ancient life forms when fauna and flora are preserved in the wholly organic substance.

The found species used two different kinds of silk to create webs. One was strong and rigid, and the other stretchy and flexible; their combined quality helped to withstand the tension from an insect flying into it, and the caught insect's attempts to break free.

During the Cretaceous, the population and diversity of spiders might have increased, the article in the journal suggested, with the explanation that as flora grew in abundance, insects that pollinated them also proliferated, presenting spiders a stable food source.

Spiders dating from the Devonian period between 350 and 420 million years ago, before the era of dinosaurs, have been discovered in fossils. While the organs – spinnerets – which weave the webs were observed, how spiders used the spinnerets has yet to be determined.

Buddha ashes enshrined

The ashes and bones of Buddha were placed inside a pagoda in Mumbai, India, during a ceremony drawing thousands of Buddhists on 29th October this year.

As part of celebrations to commemorate the 2,250th anniversary of Buddha's enlightenment, organisers said that it was the first time the relics were

enshrined. Resurrected after 2,000 years, the remains of Buddha were found during an archaeological expedition in 1920. It had been kept in an ancient pagoda in the south of India, and thereafter stored in a Buddhist monastery for more than 85 years.

It is believed that after the death of Buddha, his remains were divided and placed in eight different domes across Asia, which were constructed by his disciples.

Indian emperor Asoka collected and kept them in several small pagodas some 2,000 years ago.

Historical brothel breathes new life as art

An ancient brothel in the archaeological complex of Pompeii has been restored, renovated, and revealed officially to the public recently, *AP* said.

Regarded as the most popular brothel in the ancient Roman city, the 'Lupanare' – "Lupa" is the Latin word for prostitute – is a two-floor structure, with five rooms on each floor, and explicit erotic frescoes. The beds, which were made of stones, were covered with mattresses.

Pompeii was devastated by a volcanic eruption in 79 AD. The six-metre-deep cocoon of volcanic ash preserves a significant record of life in the ancient city.

The local office of Pompeii is now managing the famous tourist destination. Information provided by the office said that ancient Pompeii had many brothels, and the prostitutes were slaves, usually of Greek or Oriental origin.

Giant statue unearthed in Mexico city

The biggest Aztec idol ever found was publicly displayed by Mexican archaeologists recently, reports *Reuters*. Researchers claimed that it might be an entrance to a secret chamber at a ruined temple under Mexico city.

Discovered at the archaeological site of Templo Mayor, close to Zocalo Square, the immensity of the 14 metre, 12.4 tonne monolith and detailed relief of the earth god, Tlaltecuhltli, astounded excavators and experts.

From the 14th century, the Aztecs civilisation dominated an empire covering the Gulf of Mexico, the Pacific Ocean and most of Mexico. Its rulers started constructing the pyramid-like Templo Mayor in 1375. War-like and deeply religious, the Aztecs constructed many monuments. They were subjugated by the Spanish in 1521.

Scientists believed that the huge stone slab is a giant idol, and covers the door to a hall yet to be uncovered.

Archaeologist on trial

An archaeologist will be tried in a court of law in Turkey for "inciting hatred based on religious differences", *AFP* reported.

Muazzez Ilmiye Cig, 92 years old, has offended Islamists by writing in a scientific paper that the woman's practice of wearing headscarves could be traced to pre-Islamic sexual rites.

The eminent Turkish archaeologist is an expert on the first known urban civilisation of fourth millennium BC, the Sumerians. In a book published in 2005, she wrote that Sumerian priestesses wore headscarves when initiating the young into sex.

Ms Cig has been known to support Turkey's secular political system, and recently wrote to the wife of Prime Minister Recep Tayyip Erdogan, urging her to discard her headscarf and set an example to young people.

Mummy dogs

Archaeologists have dug up over forty mummified dogs in southern Peru.

The remains of the animals, buried with food and blankets alongside humans, were unearthed during an excavation of the ancient Chiribaya civilisation (AD 900 - 1350).

Investigators suggested that mummification of the dogs proves the existence of a belief that animals had an afterlife, a belief which ancient Egypt held.

Beige, long-haired, and featuring medium-sized snouts, the Chiribaya dogs found in the desert sand of Ilo Valley seemed similar in appearance to small golden retrievers.

'Monster' fossil haul in Arctic

Palaeontologists in Norway have uncovered a trove of fossils belonging to gigantic marine reptiles which lived during the era of the dinosaurs.

The fossils on the Arctic island chain of Svalbard archipelago, between Norway and the North Pole, are a hundred and fifty million years old.

Thriving in deep sea which was quite cool then, the creatures were supreme predators. One skeleton has been dubbed the 'Monster', due to its huge size.

The finds in a remote area of Spitsbergen, the biggest island in the Svalbard, were made during fieldwork by scientists from the University of Oslo's Natural History Museum. They reported that the area was rich with fossils, but the remains are of two major categories of extinct sea animals, the plesiosaurs and the ichthyosaurs.



'Monster' predators of the Arctic

Plesiosaurs are similar in appearance with the mythical descriptions of the Loch Ness monster, and might be of one of two varieties: small head, long neck, or big head and short neck, also known as pliosaurs.

The 'Monster' was an enormous pliosaur, whose vertebrae of the neck are the size of a dinner plate, and teeth are as large as bananas.

The bones of twenty-two plesiosaurs and six ichthyosaurs have been identified. After their deaths, the carcasses of these sea reptiles remained in the mud at the bottom of the ocean where there was little or no oxygen.

Bee fossil/DNA

The oldest known bee has been identified by scientists. It was trapped in tree sap, and is believed to be a hundred million years old.

Preserved in amber, the specimen is said to be at least 35-45 million years older than the earliest known bee fossil.

It was recovered from a mine in the Hukawng Valley of Burma, and has been named '*Melittosphex burmensis*'. The amber specimen is kept in good condition with clearly visible legs and wings. It has common features with the wasps, and may support the belief that pollinating bees evolved from carnivorous wasp ancestors.

Coincidentally, in a related event, the DNA of the honey bee has been published, and it presents remarkable links with mammals and humans.

Estimated to contain about 10,000 genes, the bee is reported to have a brain slightly bigger than the full-stop period mark you see at the end of this sentence.

Today, there are some 20,000 species of bees. They nurture their offsprings with pollen.

Flora on earth were dependent on conifers to spread plant seeds in the wind prior to 100 million years ago. Later, pollinating bees help flowering plants to proliferate.

Grave robbers lead to archaeological find

While digging by the Step Pyramid at Saggara, near Cairo, looters were caught by police.

The arrest led archaeologists to excavate and uncover the tombs of three royal dentists.

The Step Pyramid is considered the oldest pyramid in Egypt. The tombs discovered near it are dated 4,200 years old. Two hieroglyphs displaying an eye over a tusk indicated that the remains belong to the dentists of the pharaohs.

One of the tombs contained a curse written on the entrance, which has been deciphered as warning: "Anyone who enters my tomb will be eaten by a crocodile and a snake."

On the walls and pillars of the grave were figures depicting the daily life of the chief dentist, including rituals such as the slaughter of animals, honour rites for the dead, and leisure activities.

A hole in a Picasso

An American tycoon accidentally caused a hole in the Picasso painting he owned and was selling.

Steve Wynn, a Las Vegas magnate, was showing the painting (with a sale price of US\$139m) to visitors at his Las Vegas office when he hit it with his elbow while speaking and gesturing. *BBC* news reported that his reaction was: 'Look what I've done; thank goodness it was me.'

He bought *Le Reve* (*The Dream*) for US\$48.4m, and had already sealed a deal to sell the 1932 painting at US\$4m higher than the private-sale record (*Gustav Klimt's 'Adele Bloch-Bauer 1'*). For the record sale at art auction, Picasso's *'Boy With a Pipe'* fetched US\$104.1m in 2004.

Mr. Wynn will now, however, withdraw the sale, and repair the painting, whose centre bore the damage of a hole the size of a coin.

Lucy goes to US

Ethiopia has consented to allow Lucy, the 3.2 million-year-old skeleton, to go on an American tour.

Another hundred and ninety Ethiopian relics, including some of the most ancient human stone tools, will form part of the travelling exhibition.

The first stop for Lucy will be the Houston Museum of Natural Science in Texas, which has been negotiating for four years in finalising the loan of the ancient bones of this famed human ancestor. Then, the exhibition will continue from Washington, to New York, Denver, Chicago and six other yet-to-be-confirmed destinations.

Lucy was found in 1974, in Hader, Ethiopia, by palaeoanthropologists who were reported to be smitten by the Beatles' song, 'Lucy in the sky with diamonds'.

Ancient giant camel bones found

Fossils of a giant camel have been discovered in Syria. The remains of the animal, dated 100,000 years old, were found in the central region of the country by a Swiss-Syrian team of archaeologists.

Reports said that the ancient dromedary is an unknown species. It was about 4 metres tall, and as large as a giraffe or an elephant, and twice the size of a contemporary camel.

Over forty fossils were unearthed by the same team between 2005 and 2006; some fossils of other camel species have also been discovered at the El Kown site, dating to one million years ago.

El Kown is a 20 km-wide gap between two mountain ranges with natural springs, where bones of human, flint and stone tools were found.

Ancient necropolis under the Vatican

While excavating to prepare the ground for the construction of a multi-storey car park under the Vatican, bulldozers stumbled upon a burial site dating to the time of Christ.

It turned out to be a Roman necropolis, with over two hundred tombs uncovered. There were also statues, vases, terracotta urns, coins, skeletons and funerary inscriptions.

The underground 'world of the dead' provides glimpses into the life of ancient Rome, and an unprecedented study of Romans belonging to the lower and middle classes.

Unearthed remains included those belonging to artisans, a theatre set designer, letter carrier, circus horse trainer, and slave who became part of the respected household staff of Emperor Nero.

A fascinating feature throughout the necropolis was the common items emerging from the tombs in the form of terracotta pipes. An ancient practice of families was to picnic by the graves, occasionally pouring wine, milk or honey down the pipes to feed the departed.