# WORLD NEWS

PHOTO: British Museum

# Cyrus Cylinder

Irving Finkel, the British Museum (BM) specialist on the Cyrus Cylinder, has announced that horse bones now in the Palace Museum in Beijing inscribed with extracts from the Cyrus proclamation are genuinely ancient copies. The discovery raises important questions about relations between Iran and China during the 1st millennium BC, and why the text was important enough for the Chinese to copy.

The original text of the Cyrus proclamation is inscribed on a baked clay cylinder, some 225mm (9in) by 100mm (4 in) in diameter. It was written in Akkadian cuneiform script some time after Cyrus the Great's conquest of Babylon in 539 BC. Often characterised as the world's first human rights declaration, the text includes a promise by Cyrus to restore the city and its temples and improve the lot of its citizens, recognising their rights to liberty and freedom of worship.

The cylinder, excavated in 1879 by the archaeologist Hormuzd Rassam, was once considered to be a unique object, made for ritual burial in the foundations of the Esagila, ancient Babylon's main temple, when Cyrus rebuilt it. In January 2010, however, Finkel found two more clay tablets within the British Museum's collection inscribed with extracts from the cylinder.

Finkel deduced that the text was more widely copied and disseminated than had been realised. He decided to re-examine a pair of Chinese bones donated to the Beijing Palace Museum in 1985 by Chinese doctor Xue Shenwei, who bought the artifacts in 1935 and 1940. The text on one of the bones had already been identified as an extract from the Cyrus proclamation

# Australian rock art sail

Australian academics and members of the Aboriginal community working together to record and protect rock art in the Wellington Range, Arnhem Land, have discovered evidence of Southeast Asian sailing vessels visiting Australia in the mid-1600s – the oldest 'contact rock art' yet discovered in Australia. The rock shelter at Djulirri has nearly 1,200 individual paintings and beeswax figures, one of which depicts the characteristic prow of a Southeast Asian sailing vessel known as a *prau*. A large beeswax snake overlying the ship has been radiocarbon dated by Stewart Fallon at the Australian National University (ANU) to between AD 1624 and 1674, providing a minimum age for the painting of the sailing vessel.

The discovery was documented by Paul Taçon (Griffith University), Ronald Lamilami (Senior Traditional Owner) and Sally May (ANU). The Djulirri site where the ship depiction was found 'has more diverse contact period rock art than any other site in Australia', said Professor Taçon. 'Besides paintings of Southeast Asian ships, there are European tall ships and many other forms of watercraft, all of which can be placed in chronological sequence.'

While historians and archaeologists have speculated that visits to the northern parts of Australia from Southeast Asian ships have been happening for hundreds of years before European settlements, this is the first rock art evidence found that dates the visits back to the 17th century. The research will be published in a forthcoming issue of the journal *Australian Archaeology*.

**RIGHT** The outline of the yellow painted *prau*.

# Australia's oldest rock art

Also in Arnhem Land, but in a separate piece of research, archaeologist Ben Gunn has found what could be the oldest rock art painting in Australia. The claim is based on the fact that the red ochre art depicts two large flightless birds of the *Genyornis newtoni* species, which became extinct in Australia at around the time that humans first arrived in the continent, some 40,000 to 50,000 years ago. 'Either the painting is 40,000 years old, which is when science thinks *Genyornis* finally disappeared, or the *Genyornis* lived a lot longer than science has been able to establish,' Gunn said, adding that several other now-extinct animals were also depicted, including the thylacine (Tasmanian tiger), the giant echidna (spiny anteater) and the giant kangaroo.

by Chinese Assyriologist Wu Yuhong, but the text of the second had not been identified, nor the age of the bones.

Finkel made his preliminary conclusions known at an international workshop at the British Museum in June: he said the inscription on the second bone was also from the Cyrus proclamation, and the text used by the copier on the bones was not the Cyrus Cylinder itself, but an intermediary version. The text on the bones omits characters from the original, and the wedges of the cuneiform text are of a style used by scribes in ancient Persia, which is less-developed than those employed on the original cylinder.

It is unclear at what point in the past 2,500 years the copying was done, but Finkel believes that copies of the Cyrus proclamation could have been disseminated during the lifetime of Cyrus, carved on stone, written with ink on leather, or inscribed on a clay tablet and distributed throughout the Persian (Achaemenid) Empire, whose borders stretched into central Asia, to the west of present-day China. The likelihood that the bones are inscribed with a much more recent copy of the Cyrus text is unlikely, given that text only became widely known in the latter half of the 20th century.

PHOTO: Archaeological Heritage Office Saxony/Rengert Elburg

**LEFT** The early Neolithic pot used to close the well, with its pitch repair and secondary pitch and birch-bark decoration.

# Neolithic treasure chest

Thanks to preservation under waterlogged conditions, a well in the federal state of Saxony, Germany, has revealed unprecedented information about woodworking skills, diet, and ritual in early Neolithic Europe. Found in early 2008 at Altscherbitz, during construction work on the Leipzig/Halle airport, the well was carefully isolated and extracted from the ground in one block for excavation under laboratory conditions under the direction of Rengert Elburg of the Saxony State Office of Archaeology.

Heavy oak timbers were used to line the well, held together by mortise and tenon joints secured by wedges, the first time this type of keyed tenon joint has been recorded for the early Neolithic. On one piece of wood, the last ring under the bark was present and this allowed the felling of the trees to be dated precisely to the winter of 5102-5101 BC.

Complete ears of emmer wheat (*Triticum dicoccum*) and einkorn (*Triticum monococcum*) were found in the base sediment, as well as fruits of the bladder cherry

# INCAS UNDER FIRE

PHOTOS: M Murphy

**LEFT** Skeletons such as this one unearthed in Peru have yielded the first archaeological evidence of Inca deaths caused by Spanish conquistadores around 500 years ago.

Human remains unearthed in Lima, capital of Peru, have yielded the first direct evidence of Inca deaths caused by Spanish conquerors around 500 years ago, says Melissa Murphy of the University of Wyoming in Laramie. In a report on *Violence and weapon-related trauma at Puruchuco-Huaquerones, Peru*, published in the *American Journal of Physical Anthropology*, Prof. Murphy and her colleagues reveal skeletal evidence consistent with injury and death caused by 16th-century European weapons, including lances, hammers and firearms.

To the surprise of the authors, the remains lack bone evidence for sword injuries, even though historians have concluded from Spanish documents from the 16th century that steel swords were the standard military weapon. On the other hand, Murphy explains, 'many of the Spaniards who helped Francisco Pizarro conquer the Incas were fortune-seekers and mercenaries, rather than soldiers', which might explain the absence of sword injuries and the predominance of gunshot wounds.

Skeletons in the Inca cemetery, as well as at another grave site about a mile away, display a gruesome array of violent injuries, many probably caused by maces, clubs and other Inca weapons, the researchers report. Those weapons may have been wielded by members of those Inca communities known to have collaborated with the Spanish, or they might have been borrowed


PHOTOS: Archaeological Heritage Office Saxony/Rengert Elburg

**LEFT** A 7,000-year-old rosehip.

or Chinese lantern (*Physalis alkekengi*) and several complete rose hips, some of them still as red as the day they were picked over 7,000 years ago. Cultivated wheat, barley, peas, lentils, linseed, and poppy seed were all present, as well as weeds associated with human habitation and cultivation, including large quantities of henbane (*Hyoscyamus niger*), the poisonous solanaceous plant used in very small doses for its hallucinogenic properties.

At some stage the well shaft was deliberately filled with a rich mix of pottery, stone and bone tools, bark containers and numerous fragments of string and rope, all mixed in with layers of twigs. Above these layers, a pot was placed, formally closing the well.

This was clearly a vessel of some significance, Rengert Elburg says. Extensive damage to the exterior suggests that it started life as a heavily used domestic pot, with a very slight incised decoration, typical of Linear Pottery Culture. When it broke in two it was mended by gluing the halves together with pitch. The repair was reinforced by binding the two halves together through holes drilled on either side of the break. Then the outside surface of the pot was completely redecorated by covering it with a thin layer of pitch into which narrow strips of birch-bark were stuck in a design completely unrelated to the incised pattern underneath. Traces of wear on the base suggest that the pot continued in use with this new decoration for some considerable time before being carefully placed in the well.

by the Spanish. 'The nature and pattern of these skeletal injuries were unlike anything colleagues and I had seen before,' Murphy says. 'Many of these people died brutal, horrible deaths.'

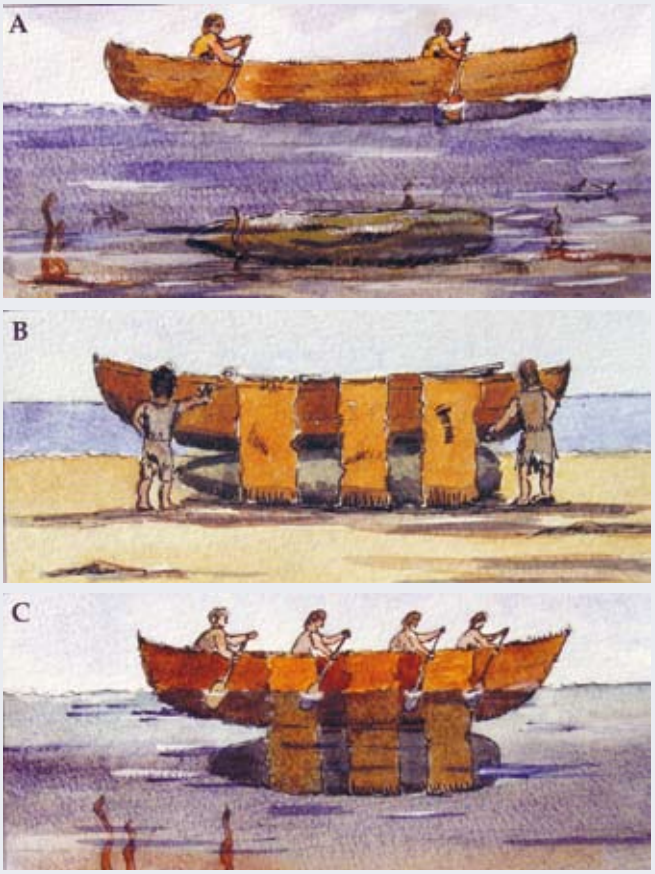
Human remains from two different burial grounds in the Puruchuco-Huaquerones archaeological zone in Lima were examined, both dating from around AD 1470 to 1540, and hence close to the time when the Spanish captured the Inca emperor, around 1532. In one cemetery, bodies had been hastily deposited in shallow graves and some 30 skeletons had head and body injuries inflicted at the time of death, as indicated by a lack of healed bone; others may well have died of soft-tissue injuries that leave no skeletal record.

Several individuals had been subjected to extreme violence, having been shot, stabbed or struck repeatedly, perhaps indicating the desire to intimidate others into acquiescence, the report suggests.

One skull had radiating fractures consistent with damage produced by early guns that shot ammunition at low velocities, while another had three small rectangular openings in the back of the head that most closely resembled injuries from Medieval weapons tipped with steel spikes, like those from an English battlefield cemetery dating from 1461.

In the second cemetery, 18 out of 138 skeletons showed signs of violent death from Inca weapons, such as maces and clubs. It is possible, says Murphy, that the Spanish adopted Inca-style weapons, but more likely that their arrival triggered conflicts and civil war between Inca communities.

**BELOW** An Inca skull, shown from the top and front, displays holes and fractures consistent with a gunshot injury.




**ABOVE** Is this how the Mesolithic and Neolithic communities of the Atlantic zone transported the exotic stones that they used for in constructing megalithic monuments?

# MEGALITHIC FLOAT

Francesco Benozzo, of the University of Bologna, studies the continuity of Palaeolithic words into recent languages as a means of understanding ancient societies. In *The European Archaeologist,* he reports on recent field research near the Portuguese megalithic site of Almendres, where the name used to indicate a megalithic stone is *ventrecurgo,* and near Kercado, in the Morbihan region of Brittany, where the word *bronbag* is used. Both words mean the same, he says: *ventre* means 'belly' and *curgo* is the Celtic word for 'boat', found in Irish *currach* and Welsh *cwrgw* (the origin of English 'coracle'); while *bron* is the Breton word for 'breast', and *bag* is the Breton word for 'boat'.

Benozzo believes these dialect names confirm the hypothesis that the large slabs of stone used for building megalithic monuments were transported by lashing them to the bottom of a skin-covered boat. This hypothesis was first proposed by Geraldine and Matthew Stout in their book on the passage tomb at Newgrange (*Newgrange,* published by Cork University Press), based on the practice of the quarrymen in Ireland who, until the 19th century, transported 3-tonne blocks of stone in this way, waiting for the tide to lift the boat and its underhung cargo of stone, which weighed far less under water.

'The words *ventrecurgo* and *bronbag* indicate that the stone was seen and described as the 'breast' or 'belly' of the boat and the two words preserve a memory of the prehistoric transportation of stones by sea,' Benozzo argues, adding that the two words corroborate linguistically an explanation that was previously 'a brilliant archaeological conjecture'.

NEWS SECTION: Christopher Catling

# Tracing the travelling Empress

Human remains found wrapped in costly dyed silk in Germany's Magdeburg Cathedral in 2008 have been confirmed as those of Eadgyth (pronounced 'Edith'), the wife of the Holy Roman Emperor Otto I and grand-daughter of England's Alfred the Great.

Archaeologists at the UK's Bristol University announced the results of tests to measure the isotopes in the teeth from the upper jaw. Dr Alistair Pike said that micro sampling 'allows us to reconstruct the sequence of a person's whereabouts, month by month up to the age of 14.' In this case, the results pointed to the chalk regions of southern Britain, and exactly matched historical records of Eadgyth's childhood and adolescence in Wessex.

Prof. Mark Horton, added: 'Eadgyth seems to have spent the first eight years of her life [AD 910–18] in southern England, but changed her domicile frequently, resulting in quite variable strontium ratios in her teeth. It is likely that she moved around the kingdom following her father, King Edward the Elder, during his reign. Her remains show femur lesions typical of someone who was a frequent horse rider'. Only from the age of nine do the isotope values remain constant. This was a traumatic period in her life, when her mother was divorced and she and Eadgyth were banished to a monastery – maybe Winchester or Wilton in Salisbury. Isotope analysis of the bone revealed a high protein diet consistent with a monastic diet consisting largely of fish.

Ten years later, in AD 929, Eadgyth and her sister Algiva were sent to Saxony by their half-brother, King Athelstan of England, as potential wives for Otto, Duke of Saxony, later crowned Holy Roman Emperor. Otto chose Eadgyth as his bride, and they had at least two children before she died on 26 January 946, at the age of 36. Her bones will be reburied in Magdeburg Cathedral later this year, 500 years after their last interment in AD 1510.

PHOTOS: J Liptak and J R Ulbrich: LDA Halle/ Landesamt für Denkmalpflege und Archäologie Halle (Saale)

**BELOW** Anthropological examination of the skeletal remains.