




Overhead photograph (with north at the top) of a building and burial (to the west) exposed at the top of Kukiti Hill near the village of Khuntsi, Mingrelia. Excavation at the possible site of the 'lost' sixth-century AD fortress of Onoguris undertaken by the Anglo-Georgian Expedition to Nokalakevi (photograph by N. Murgulia; appearing in this month's Project Gallery by Everill et al.)



The Ring of Brodgar, Panorama (2016) in pen & ink, watercolour 67 × 137cm, by Julia Sorrell RI RBA, symbolising dramatic theatre against a backdrop of the ever changing light and colours of the landscape. This was the emotive response Julia Sorrell wanted to capture in her work while visiting Orkney for five weeks in 2015 as winner of the ACE Foundation TravelArt Award (see 'Art and archaeology: the visualisation of Orkney' in this month's Project Gallery).

EDITORIAL

 Almost exactly 50 years ago this month, at a conference held in Monaco, nuclear physicist Hans Suess unveiled the first calibration curve for radiocarbon dates. The crucial paper, ‘Bristlecone pine calibration of the radiocarbon time scale from 4100 B.C. to 1500 B.C.’¹, pushed back conventional radiocarbon ages by several centuries and so ushered in the Second Radiocarbon Revolution, soon leading to a new interpretation of European prehistory that severed the long-held connections between Europe and the Near East. Hitherto, diffusionism had held centre stage, with maps full of arrows showing people and artefacts incessantly on the move. With radiocarbon calibration, independent regional development became the order of the day for explaining cultural change. Fifty years on, however, a range of promising new techniques have become available that seem to reinstate some of the earlier narratives.

It was in the 1980s and 1990s that DNA began to feature in archaeological narratives as geneticists turned their attention to deep-time population history. One milestone was Luca Cavalli-Sforza *et al.*'s *The history and geography of human genes*². By training as a population geneticist, Cavalli-Sforza analysed modern genetic patterns and attempted to track them back into the past. Another milestone was Svante Pääbo's successful extraction of ancient DNA from an Egyptian mummy in 1985³, followed by the first Neanderthal DNA in 1997⁴. The breakneck speed of ancient DNA technology has spawned a proliferation of large-scale studies and equally large-scale claims about human population histories in many parts of the world. Some of the insights have been rather unexpected, not least to European prehistorians. The challenge now is to integrate the genetic evidence with the archaeology. We know that people—perhaps entire communities—were moving in ways that not many of us had anticipated. A new prehistory of Europe appears tantalisingly close. But is it really as simple as that? Does it all come down to DNA?

In this issue of *Antiquity* we present alternative responses from archaeologists grappling with the new scenarios. Their particular focus is the ‘Yamnaya’ incursion that (on the DNA evidence) brought people from the Eurasian steppe into central Europe in the early third millennium BC. We have long known this was a time of major change. Communities gave up burying their dead in megalithic chambered tombs and opted instead for individual

¹ Suess, H.E. 1967. Bristlecone pine calibration of the radiocarbon time scale from 4100 B.C. to 1500 B.C., in IAEA (ed.) *Radioactive dating and methods of low-level counting*: 143–51. Vienna: IAEA.

² Cavalli-Sforza, L.L., P. Menozzi & A. Piazza. 1994. *The history and geography of human genes*. Princeton (NJ): Princeton University Press.

³ Pääbo, S. 1985. Molecular cloning of ancient Egyptian mummy DNA. *Nature* 314: 644–45. <https://dx.doi.org/10.1038/314644a0>

⁴ Krings, M., A. Stone, R.W. Schmitz, H. Krainitzki, M. Stoneking & S. Pääbo. 1997. Neandertal DNA sequences and the origin of modern humans. *Cell* 90: 19–30. [http://dx.doi.org/10.1016/S0092-8674\(00\)80310-4](http://dx.doi.org/10.1016/S0092-8674(00)80310-4)

burial under round barrows. Here the deceased were given new kinds of drinking vessels (Corded Ware beakers) and novel kinds of weaponry (polished stone battle axes) to affirm their newly found status. But was this mainly an internal development, or was it because newcomers appeared on the scene? DNA evidence now shows significant population replacement at just this time, so we might jump to the conclusion that the case was closed—that immigrants brought new equipment and ideologies and set themselves up as the new leaders. After all, it is a familiar enough story from later centuries, when a whole succession of steppe peoples—Scythians, Huns, Avars, Mongols—invaded and dominated Eastern Europe. Did all of that start in the Late Neolithic?

The alternative is more cautious, and questions whether a single event could account for the changes we see. After all, the steppe peoples had long been in contact with their more sedentary neighbours. Was there a sudden change, or a more gradual interaction? Both sides of the argument are presented in a pair of articles in this issue. Those who wish to rewrite the prehistory of Europe from the new genetic evidence will find effective proponents in Kristian Kristiansen and his colleagues (pp. 334–47). The more sceptical can take comfort from Volker Heyd's alternative vision (pp. 348–59). The impact of the archaeological science is very clear, just as it was with radiocarbon dating half a century ago. What is particularly striking, however, is the continuing room for debate. What does the DNA mean in terms of real individuals and real processes? Did the Yamnaya folk sweep all before them or were they peacefully accepted and integrated by their new hosts? Did they change the languages of Europe, introducing proto-Germanic? Did they carry bubonic plague? The answers lie only partly in DNA, and we are once again reminded that archaeology is, at its core, a social science or one of the humanities: an issue discussed by Mike Smith in our Debate section (pp. 520–28).

New discoveries in China


📖 Discoveries such as these are widely reported in the mainstream media, and reflect, as ever, the enduring popular fascination with the human past. Indeed, in the UK, hardly an evening goes by without something archaeological on television, whether about Britain or the Americas, or indeed China.

Antiquity has long taken Chinese archaeology to its heart. The first *Antiquity* article on Chinese archaeology (G. Elliot Smith, 'The discovery of primitive man in China') was published in our March 1931 issue, and the first by a Chinese archaeologist (Hsia Nai, 'Archaeology in New China') in September 1963. More recently, we have covered controversies about the Chinese Palaeolithic, the external interconnections of the Chinese Bronze Age and the structure of the Han commanderies. Indeed, there are two articles on China in the current issue: one, by Jessica Rawson, on relations between China and the steppe (pp. 375–88, China having had a no less troubled relationship with its steppe neighbours than has Eastern Europe); the second, by a Chinese team, reporting on the discovery of some remarkable models from a Han-period tomb near Chengdu, which provide the earliest evidence for the use of pattern looms anywhere in the world (pp. 360–74). That discovery is all the more significant as this was the region of China famed for the production of highly prized silk textiles, exported widely through Eurasia as precious luxuries and diplomatic gifts.

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A list of the ten most important discoveries in Chinese archaeology during 2016 was published by *China Daily News* at the end of December, and reminds us once again of both the scale of activity and the quality and significance of the archaeology being unearthed. These discoveries include a large third-century AD tomb, 52m long and 12m deep, at Xizhu in Henan province, which has already yielded 400 objects including lacquer and jades; a massive brick factory with over 500 furnaces at Fuping in Shaanxi, built perhaps to provide bricks for Emperor Zhongzhong's mausoleum (eighth century AD); and a large early settlement and graveyard (c. 2000 BC) in Sichuan, which throws new light on the prehistory of this crucial corner of China where the Qin Dynasty, home of the first emperor, was later to emerge⁵. Amazing new discoveries (not on this list) are also coming from the Neolithic jade workshops of Liangzhu south of Shanghai. We hope to cover some of these in future issues.

Archaeology in the mail

 Further evidence of the popular appeal of archaeology comes with a new set of postage stamps issued by Royal Mail. These eight commemorative stamps, 'Ancient Britain through the post', show four prehistoric sites and four prehistoric artefacts, and are accompanied by information from Tim Darvill. The aim is to show sites and objects as they would have been used; hence, Maiden Castle has an imagined timber entrance tower with people superimposed in ghostly white on an aerial photograph, while the Star Carr antler headdress is being worn and the Drumbest horns are blown.

This is not the first time British archaeology has featured on postage stamps. In 2005, Stonehenge (inevitably!) was pictured on a set of stamps illustrating selected British and Australian World Heritage sites; Hadrian's Wall and the Ring of Brodgar also featured. Two years earlier, Royal Mail had marked the two-hundred and fiftieth anniversary of the British Museum with six stamps showing some of the Museum's most famous objects, including the Sutton Hoo helmet and the Easter Island statue Hoa Hakananai'a (for a recent study of the latter, see Miles *et al.* in *Antiquity* 2014⁶). Going back a little further, in 1989 a set of four postage stamps featured industrial archaeology (Ironbridge; a Cornish tin mine; a Lanarkshire cotton mill; and the remarkable Pontcysyllte Aqueduct).

Archaeology and postage stamps do of course have a much longer association. The first postage stamps featured only a ruler's head or (sometimes) important figures from recent and more ancient times. From the late 1860s, however, pictorial issues began to appear and, with them, archaeology. Postage stamps were an ideal medium for promotion and prestige, and those lands with spectacular remains were not slow to exploit that. Egypt was first, issuing a 1 piastre postage stamp illustrating the Sphinx and the Great Pyramid in 1867⁷. Ottoman Turkey issued pictorial stamps showing Constantine's Column and

⁵ *China Daily News*. China's major archaeological discoveries in 2016, 23 December 2016. Available at: http://www.chinadaily.com.cn/culture/2016-12/23/content_27753651.htm (accessed 1 February 2017).

⁶ Miles, J., M. Pitts, H. Pagi & G. Earl. 2014. New applications of photogrammetry and reflectance transformation imaging to an Easter Island statue. *Antiquity* 88: 596–605. <https://doi.org/10.1017/S0003598X00101206>

⁷ Foss, C. 1999. Postal propaganda. *Archaeology* 52(2): 70–71.



(Top) Maiden Castle (left) and the Star Carr antler headdress (right) from Royal Mail's current stamp series (*Ancient Britain stamps* © Royal Mail Group Limited 2017); bottom left) Egyptian 1 piastre stamp from 1867 showing the Sphinx and the Great Pyramid; bottom right) Tunisian 75c stamp from 1906 showing the Zaghuan Aqueduct.

the Theodosian obelisk at Istanbul in 1914⁸. The Zaghuan Aqueduct, bringing water to ancient Carthage, was featured on Tunisian stamps from 1906. Mussolini's Italy, in a twist of imperialist propaganda, featured the excavation of a Roman road in Libya, aiming no doubt to legitimise his short-lived North African empire⁷. The power of the archaeological postage stamp lived on after the Second World War. Many newly independent countries used postage stamps to restore their links with the past by showing famous artworks and archaeological sites.

In the age of email and the internet, the postage stamp in the twenty-first century will seem anachronistic to many readers—older as well as young. But it is an interesting testimony to the power and appeal of archaeology.

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Durham, 1 April 2017

⁸ Reid, D.M. 1984. The symbolism of postage stamps: a source for the historian. *Journal of Contemporary History* 19: 223–49.