



*Qasr Bshir is one of the best preserved Roman military sites in the Middle East, dated by an inscription above the main entrance to AD 293-305. With its four massive corner towers it is tempting to interpret it as a fort, but it is more likely to be a governor's road-station-cum-residence. Jordan is the only country in the region to allow archaeological aerial survey, which has been ongoing since 1997. It has the valuable support of the Royal Jordanian Air Force, the Jordanian Department of Antiquities and the Council for British Research in the Levant (CBRL) where the archive of photographs is open for all to use. This photograph was taken by Bob Bewley in the early morning of 14 May 1998 with a Hasselblad 2000 FC camera using Fuji 220 Velvia film. © Aerial Archaeology in Jordan Project. Robert Bewley.*



2007 has been an important year for Neolithic 'jade' axeheads, with the start of a three-year, million-euro, Europe-wide collaborative research project called 'Projet JADE' which, under the direction of Pierre Pétrequin, is mapping their changing distribution over time and pinpointing the source of individual specimens through non-destructive analysis by spectroradiometry. The team have built up a reference collection of compositional results for over 800 axeheads and c. 4500 raw material and debitage samples from the source areas, the latter collected by Pétrequin through his pioneering fieldwork in the Italian Alps. This means that, for the first time, the precise source of an axehead's rock can be determined. Around half of the c. 130 specimens from Britain and Ireland have already been analysed in this way, and among the results is the discovery that a fragment from Dunfermline in Fife comes from the same parent block as three axeheads in Germany! The picture shows three jadeite axeheads from the Scottish Borders: the central one is from Greenlawdean in former Berwickshire, and the outer two were found at Cunzierton, in former Roxburghshire. Taken by Ian Larner in 1985 for the book, *Symbols of Power at the Time of Stonehenge*, that accompanied the exhibition of the same name at the (then-named) National Museum of Antiquities of Scotland. Information and image provided by Alison Sheridan of National Museums Scotland who is the project co-ordinator for Britain and Ireland.

# EDITORIAL

Our review of the year (overleaf) shows a healthy spread of research from the Lower Palaeolithic to the twentieth century, and placing them in our arbitrary time periods shows – once again – the surprising number of surprising things going on the world over at the same time. It is not too much to say that archaeologists are rewriting the human story every year. Unlike most long-running serials, ours adds most of its new pages at the beginning. Neanderthals are getting more ‘modern,’ designing stone tools and visualising landscape-yield by season, inviting us, in Terry Hopkinson’s words, to review *‘the boundaries we erect to police the uniqueness of humanity.’* At Soucy in the Paris basin they seem to be planning their settlement – or at least its location and activities – between 365 and 345 000 years ago. Definitive skills do seem to pop up earlier and earlier: they were experimenting with bread in Italy 25 000 years ago, and with geometric art in central Europe. And who can resist the image of one of the earliest arrivals in New Guinea, then still joined to Australia, their torso adorned with a dangling shark’s tooth pendant.

New discoveries and analyses continue to whittle away at the evolutionary view of art: realistic horses begin in the French Palaeolithic, while the primitive rock art figures found in Burma were made by quarrymen of the sixteenth century AD. Themes as well as style connect to social context rather than chronology: viz. the feminine (though not exactly feminist) images in shaped flints and Jomon pottery.

All this adds fuel to the argument for the archaeology of recent periods, or of periods where there are plenty of texts. There are always other tales to tell – from the crockery of the kitchens of an Australian colonial estate or the folk art of the English country churchyard. It is not just that history never walked that way: history wasn’t thrilled by what it saw, but archaeology was. Archaeology writes the history of local politics – or rather the history of those that lost the vote: the dissident underworld, in every sense. In one respect there has been a human world system from the Neolithic; but a great many peoples up to the present day did not take part in it and these are archaeology’s people too.

The diversity of human experience, and the failure of progress to correlate with advancing time, raises venerable but vital questions about innovation *v.* conservatism – those innovating and conserving societies memorably identified by Stuart Piggott.<sup>1</sup> This topic recently brought together a group of scholars at the Konrad Lorenz Institute in Altenberg, Austria which included anthropologists, psychologists, philosophers, geneticists and evolutionary biologists. Mike O’Brien (University of Missouri) and Stephen Shennan (UCL) report:

“It would be difficult to find another topic in anthropology that has played as an important a role as innovation in arguments about why and how human behaviour changes. Archaeologists have looked to diffusion and trade as a source of innovation, adopting without comment the models of their anthropological colleagues as to how and why the innovations arose in the first place.

<sup>1</sup> *Ancient Europe* (EUP 1965): 17.

The workshop began with reviews of the uses and abuses of evolutionary theory and then moved to debates over the similarities and differences between biological and cultural evolution and the epistemological status of analogies. These discussions set the stage for detailed case studies of cultural innovation in animals and in prehistoric and modern human populations. The workshop finished with case studies of technological transitions, from Paleoindian-period projectile points in the United States to the origin of the wheel, the history of bicycles, the spread of modern tractors, and the proliferation of academic jargon.

Writing in the 1920s, Austrian economist Joseph Schumpeter made the distinction between *invention* – the creation and establishment of something new – and *innovation* – an invention that becomes economically successful and earns a profit. This distinction had been made previously in biology – introduction of a novelty versus long-term success of a species – but not in the social sciences. Many viewed population-size as key – in that more people are able to invent, and retain, more ideas in a society. The Upper Palaeolithic transition in Europe could thus be explained by a sharp population increase, rather than a sudden biological change in cognition.

The nature of cultural variation was a recurring theme throughout the workshop – can it be thought of as necessity's daughter or as just copied accidents? One cause that was often invoked, if only implicitly, was social necessity, whether it be a chimp moving up the dominance rankings by clanging trash-can lids together for the first time or people in psychology experiments innovating more in isolated groups than in open ones (presumably a conformity effect).

The lively three-day discussion highlighted how much archaeologists have to gain though theoretical collaboration with population geneticists, philosophers, psychologists and evolutionary biologists. Suffice it to say that the innovation rate at the workshop was clearly at full blast. The final product of the workshop will be a volume published by MIT Press in 2009.”

🏛️ Innovation was perhaps not uppermost in the mind of the Society of Antiquaries of London when it launched its tercentenary exhibition on 11 September. *Making History* does not describe the emergence of archaeological science from its benighted roots, or even the making of history; it celebrates the antiquary and the antiquarian mission. Antiquaries, it seems, are not necessarily archaeological, or even rational, beings. According to the exhibition's honorary curator, the TV historian David Starkey, they should be allowed the attractions of '*compelling nonsense*', and the proper antiquarian response to a monument – Stonehenge for example – is not the '*smug satisfaction of knowledge*' (as owed to 200 years of study) but a '*sense of ancient, atavistic wonder*'.<sup>2</sup>

That's as may be, but it might have been kinder not to parade a great learned society in its pre-Raphaelite underwear. The intellectual successor to the antiquarian mission is archaeological inquiry – focused, conceptual, multi-disciplinary – but there was precious little of that on display. The promisingly entitled section *From Antiquaries to Archaeologists* featured an old 12mm movie from Maiden Castle, Wheeler on *Animal Vegetable and Mineral* and some clips from more recent TV programmes. It's probably no vice for a learned society

<sup>2</sup> David Starkey in *Making History. Antiquaries in Britain 1707-2007* (Royal Academy of Arts, London): 11-13.

Time and topics: summary of studies published in *Antiquity* 2007

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1. **Before 100 000 BP:** Pre-Acheulian industries in the Caucasus (Derevianko *et al.*); Lower to Middle Palaeolithic transition in Europe (Hopkinson); Lower Palaeolithic open settlement in France (Lhomme).
  2. **One hundredth to twenty-fifth millennium BP:** Aurignacian cave dwellers in Iran (Otte *et al.*); An ornamental shark-tooth from Sahul (Leavesley); Modern humans in East Timor (O'Connor); Resisting the cold in Ice Age Tasmania (Gilligan); Grinding flour in Italy (Revedin *et al.*); Art in the Czech Republic (Farbstein & Svoboda).
  3. **Twenty-fourth to thirteenth millennia BC:** Gravettian technology in France (Klaric); Feminine flint plaquettes from Poland (Schild *et al.*); Images of horses (Pigeaud); A hunter-gatherer's toolkit from Jordan (Edwards); Hunter-gatherer burials in south-east Australia (Littleton); Children's finger flutings revisited (Stapert).
  4. **Thirteenth to sixth millennia BC:** 'Lascaux on the Nile': late Pleistocene rock art in Egypt (Huyge *et al.*); Oldest image of a boat on the Nile (Usai & Salvatori); Water management in the Levant (Kuijt *et al.*); A funeral feast in Israel (Goring-Morris & Horwitz); Seasonal farming in Northern Greece (Valamoti); Rock engravings at Philippi, Greece (Dimitriadis *et al.*); Sea levels on Orkney (Dawson & Wickham-Jones); Rice cultivation in China (Li Liu *et al.*); Fish traps in the Liffey estuary, Ireland (McQuade & O'Donnell); Vital statistics of Jomon figurines (Hudson & Aoyama).
  5. **Fifth millennium BC:** Urbanism in northern Mesopotamia (Oates *et al.*); Earliest wine-making in Greece (Valamoti *et al.*); Rice in the lower Yangtze (Fuller *et al.*); The onset of hierarchy at Varna, Bulgaria (Chapman *et al.*); Warfare among the *Linearbandkeramik* people (Golitko & Keeley); Isotopes and people in the *Linearbandkeramik* (Bickle & Hofmann); Architecture in Peru (Moore); Lake dwellers at Lough Kinale, Ireland (Fredengren).
  6. **Fourth millennium BC:** Statuettes at Rawk (Steimer-Herbet *et al.*); Detecting pork casseroles in Britain (Mukherjee *et al.*); Onset of cereal cultivation in Britain and Ireland (Brown).
  7. **Third millennium BC:** Urbanism in Syria's arid zone (Castel & Peltenburg); Bell Beakers in Europe (Vander Linden); Silbury Hill in its landscape, England (Bayliss *et al.*); Monumentality and settlement at Stonehenge (Parker Pearson *et al.*); Measured landscapes in England (Hill); Chopping up sheep with an Irish halberd (O'Flaherty); Neolithic ash mounds in India (Fuller *et al.*); Landscape survey in Mongolia (Wright *et al.*); Copper alloy composition in Anatolia (Zimmerman & Yildirim).
  8. **Second millennium BC:** Interpretation of the Nebra disc (Pásztor & Roslund); the Bronze Age in the southern Urals (Hanks *et al.*); Cowpea cultivation in Ghana (D'Andrea *et al.*); Death by spearing in Australia (McDonald); Rethinking Erlitou (China) (Li Liu & Hong Xu); An earthquake in Anatolia (Okse); Further evidence for mummification in Bronze Age Britain (Parker Pearson *et al.*); World's oldest chocolate (Powis *et al.*).
  9. **First millennium BC:** An earthen sculpture from Guatemala (Love & Guernsey); Plant offerings on funeral pyres in Greece (Mégalaoudi *et al.*); Image of an ammonite on a Greek coin (McMenamin); Obsidian in the South Seas (Galipaud & Kelly).
  10. **First millennium AD:** Rome and Mesopotamia importing pottery into India (Tomber); A mass grave in the catacombs (Blanchard *et al.*); High altitude iron smelting in the Alps (Morin *et al.*); Roman military occupation in Turkey (Bennett & Goldman); The temple at Uppåkra, Sweden (Larsson); Emergence of Viking towns (Sindbaek); Fur traders in Sami country (Bergman *et al.*); Irrigation and nomads in Iran (Alizadeh & Ur); Buddhist land control in Sri Lanka (Coningham *et al.*); Aztec city of Calixtlahuaca in Central Mexico (Smith *et al.*); Cultivated wetlands and complex society in Chile (Dillehay *et al.*); Later Stone Age occupation on the Ghaap plateau, South Africa (Herries *et al.*); Transition to farming in Kenya (Lane *et al.*); Creating towns in Tanzania (Wynne-Jones).
  11. **Second millennium AD:** New towns in Wales (Lilley *et al.*); Popular culture in British churchyards (Mytum); Crockery and social order in Australia (Brooks & Connah); German merchants in Finland (Immonen); Urbanism in Finland (Herva *et al.*); The power of Ottoman bows (Karpowicz); Rock art by artisans in Myanmar (Burma) (Gutman *et al.*); Copper ingots and society in Zimbabwe (Swan); Gold mining in New Zealand (Jones).
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to recount its own childhood, even to revel in it, but to pass directly from Maiden Castle to *Time Team* is to leap from childhood to dotage in a single bound. And what is the obsession with all this low level ephemera? Many of the Society's fellows have made TV programmes, but many more use its inestimable library, full to the brim with archaeology – to write books. Research is what they do. It might have been worth reminding visitors that over the past 50 years the Society of Antiquaries, led by its research committee, has initiated *hundreds* of modern scientific research projects and published *dozens* of meaty Research Reports. In this work lies the principal value of the Society for the public, and arguably its most useful legacy.

My colleague the esteemed Dr Harumpher, who is not ashamed of his antiquarian streak, reminds me of two more upcoming anniversaries: the *Geographarians*, who accept that the earth isn't flat, but still rather like the idea; and the *Physiwick Club*, whose fellows meet on Tuesdays to take tea and extol the poetic qualities of unsuccessful pre-Newtonian equations.<sup>3</sup>

☞ The quinquennial Congress of Medieval Europe gave me a chance to escape from Britain's louche anti-intellectualism to Paris where perhaps the most noteworthy achievement was the rise and rise of INRAP – the signal that research, far from being snubbed by the learned societies, has taken root within the soul of commerce. To explain: archaeology's biggest problem today is how to give research value to the huge volume of work turned over by the Cultural Resource Management process – known in France as *l'archéologie préventive*. Some countries (e.g. Britain) have decided that the object of the exercise is to get the stuff out of the way of developers, using the most obliging consultant and the cheapest contractor. This contractor is paid to dig, record, report and store, not to design research or study its results. In other countries, the research result *is* the product, what you came to get, so money must be found to allow informed, centralised study to take place.

INRAP (*Institut national de recherches archéologiques préventives*) is a giant research institute which carries out and writes up most of the archaeology turned up in the course of building car-parks, railway lines and motorways in France (and Guadeloupe). It is funded by the simple expedient of placing an archaeology tax on every square metre developed.<sup>4</sup> This tax is used to carry out evaluations (*diagnostics*), taking advantage of a budget which is independent of the developer. However, once a site is located and considered by the Ministry of Culture to be a research target, the developer must either avoid it or pay to have it excavated by INRAP – or by another body accredited by the state.

INRAP's responsibilities include the '*scientific exploitation of its activities and dissemination of its results*' and it also has a duty to contribute to teaching, cultural diffusion and the appreciation of knowledge. For this INRAP funds on-site exhibitions and also publishes works of synthesis such as *Cent mille ans sous les rails* (2006, Editions Somogy/INRAP), period-series such as *L'âge du Bronze en France* (2007, Editions La Découverte), books for children, for example *L'archéologie à petits pas* (2007, Editions Actes Sud Junior) and its quarterly journal *Archéopages*. The great joy of this system is that qualified specialists can

<sup>3</sup> We are pleased to publish a somewhat divergent verdict on this exhibition by our Exhibitions Correspondent in the Debate section.

<sup>4</sup> *Relevance d'archéologie préventive* or RAP. In 2006 it was 0.37 euro a square metre. The budget in 2006 was 129m euros. An estimated 70 000 hectares are developed in France each year.

be appointed to cover particular areas, such as Neolithic pottery or medieval textiles, across great swathes of territory, with the secure backing of a research institute rather than being self-employed in a cottage surrounded by boxes.

Has France cracked the problem of maximising the research dividend from ‘compliance archaeology’? Time will tell: INRAP is only 5 years old, and still undergoing both internal and external adjustments. But with its respect for research as the true mission of archaeology, the French model certainly deserves to be taken at least as seriously as the Atlantic model in the future development of archaeological procurement.

☛ Elsewhere the tendency of government organisations to adopt ‘preservation by record’ (i.e. excavation) rather than designed research as the proper response to development sadly shows no sign of abatement. Our correspondent Nathan Schlanger, who happens to work for INRAP, sends me the following troubled letter from Israel: “Mammon and ideology make a heady archaeological concoction, nowhere more so than in the dense and overheated atmosphere of Jerusalem’s Old City. Professional archaeologists, planners and conservators met recently at the Israeli Academy of Sciences to express their growing unease over the archaeological and architectural posterity of the city. Some building works are clearly inevitable, for example the upgrade of the antiquated sewage system, the clearing of unsalubrious zones for recreation and tourism, and indeed the excavation of the unstable ramp leading to the Moughrabi Gate of the Temple Mount/Haram al-Sharif. At the same time, there are growing pressures, driven by economic capital and political zeal, to build and rebuild in the historic zone, to develop, expand and populate, indeed to take root in these *lieux de mémoire*. The mitigation proposals put forward are often unsatisfactory: they amount to entombing ancient streets and dwellings into concrete basements, creating on-site museums at the expense of the sites themselves, and indeed, targeting those aspects of the archaeological heritage most cherished by the entrepreneurs concerned. In an unusual travesty of the ‘polluter-pays’ principle, heaps of monies are readily proffered for sites to be excavated – and the state and municipal authorities in charge of archaeology have to resist becoming mere sub-contractors or rubber stampers for clearing the ground.

Not only must archaeologists overcome the flaws inherent in the commercial system, they have also to curb their own predilection to excavate more and more, often without sufficient provision for publication, restoration and public access. To be sure, Jerusalem has long been declared an ‘archaeological reserve’, but in this holy city more than elsewhere, the devil is in the detail: in the procedures, the implementations, the compromises. Consensus will not always be achieved, but Jerusalem is surely one city which should accept, and indeed treasure for posterity, the material as well as spiritual heritage of its past”.

☛ The website for *Medieval Europe 2007* and virtually all the papers were in French, which caused considerable stress to many Scandinavians (who nevertheless came) and to the English medieval archaeologists (who mainly stayed away). At one perspective, this is absurd – why wouldn’t an international conference in Paris be largely in French? At another, of course, lack of communication diminishes discussion, and discussion is what moves the subject forward. I believe in, and have tried to practice, the recording and publication of sites in the language of the country in which they are located (OK, I drew the line at Gaelic).

This desire is owed to some feeling that there is a connection between the expression of a material culture and its expression in its local language. I think it would be wrong or sad to lose this association. However, there is little doubt that we are about to lose it and lose it permanently. The economics of Europe and the world have already put those who don't speak English at a disadvantage. Even in our tiny portion of society, a Latvian archaeologist desiring advancement is not likely to advance far in international terms by publishing in Latvian. What is to be done? As archaeologists we should be used to this kind of thing and ready to take action. In the next century, some 100 languages are likely to become redundant; so they must be conserved – but not just added to the antiquarian haversack: it is an opportunity to study their association with the landscape and the materiality of their users. The names given by practitioners in their native languages to types of monuments, pottery and techniques of excavation and even tools have potentially much to teach us.



While conference organisers continue to claim that simultaneous translation is too expensive, we risk observing the spectacle of non-English speakers lecturing each other in an English that even the English cannot understand. But in Paris, young contributors from France, Finland, Russia and elsewhere showed us the way forward, and it was the simplest imaginable and had no cost at all. You just put English subtitles onto your PowerPoint presentation, and speak in your native language (or vice versa). Soon the ingenious programmers of the age will no doubt come up with the next stage: a continuous ticker tape of the talk running along the bottom of the screen; and after that, please, a choice of subtitle languages selectable by every delegate from their own seat.

Martin Carver  
York, 1 December 2007