

GLYN DANIEL MA, Ph.D, Litt.D, FBA, FSA (1914–1986)

Editorial

☪ Glyn Daniel, Fellow of St John's College, Disney Professor Emeritus of Archaeology in the University of Cambridge, and Editor of *ANTIQUITY* since 1957, died at home in Cambridge on 13 December 1986.

A memorial service in St John's, with an anthem Glyn commissioned from Robin Orr, will have been held on 28 February, the eve of St David's Day.

Our warm sympathies are with his widow, Ruth, who retired as Production Editor on 31 December 1986, and will not have Glyn to share her retirement with. In this number, which went to press during his illness, we print a frontispiece portrait of Glyn, taken by the Cambridge studio of Ramsey & Muspratt. On this page are photographs of Glyn, and of Ruth and Glyn together, in younger days.

ANTIQUITY has had only two editors in its first sixty years, and its character is largely due to Glyn. I shall miss his guidance as Editor Emer-

itus and certainly cannot reproduce what has been called 'the particular mixture of pungent distress and deep affection' with which he wrote editorials. I shall not try.

Glyn published in September a fat book of memoirs, *Some small harvest*, reviewed below by Anthony Quinton. Under its light touch – menus of grand dinners, royal anecdotes, and many very funny stories – are moments of poignancy, and some stern words on important matters.

☪ This number of *ANTIQUITY* has a slightly different appearance, with a new page-design, a sewn binding and the illustrations fully integrated with the text. Like the *American Journal of Archaeology*, which has also just switched to integrated pictures, we find there are no longer any advantages in printing separate plates. Invisible (I hope) in the result is another change, a switch from conventional typesetting to an electronic system worked from our own microcomputer; this promises savings in time (three contributions in this number were written after Christmas, though most must be on slower schedules), and in cost (which, *ANTIQUITY* being a non-profit concern, will benefit us all).

These changes are part of a programme of planned development. As Daniel did in 1958, I



should say in this first editorial where and how a new editor will try to steer the journal.

When O.G.S. Crawford founded *ANTIQUITY*, he stated his policy: to summarize and criticize the work of those who are re-creating the past, to inform readers about important discoveries and books published, to warn them of mare's nests, to enable specialists to contribute popular but authoritative accounts of their own researches – but not to be confined too rigidly within the conventional limits of archaeology, for to see the past in the present is to give it life and substance.

Those same words define my aim. When they were written (*ANTIQUITY* 1 (1927): 1–4), there were only a handful of full-time archaeologists in Britain, and a specialist's account could easily be both popular and authoritative. As the subject has grown, so has it become more technical, and the two ambitions are harder to reconcile. 'Technical' does not only mean scientific, for the complexities of black-figure vases or the stratigraphy of robber-trenches can be as obscure to the ignorant as the character of a normal distribution.

The easy choice is to turn *ANTIQUITY* into a magazine, providing popular accounts as *Scientific American* often does so well. Instead *ANTIQUITY* will remain a place of primary publication, whilst emphatically a general journal. This is more than one editor's domestic problem, as it reflects two contradictory processes which affect all working archaeologists.

Firstly, archaeology is balkanizing, as period, regional and technical fields divide into smaller units. Some areas of the subject, early-man studies at one end and post-medieval at the other, have become worlds of their own. Some, like 'industrial archaeology', were never clearly part of the field.

At the same time, the range of places and contexts where relevant information may lie is broadening. Thirty years ago one could be a specialist in the archaeology of, say, Malta in the context of the Mediterranean; now one needs also to be aware of the wider character of island societies and cultures, whether in the Mediterranean at 5000 BC or in the Pacific at AD 1000. When it comes to particular methods and techniques – dendrochronology, inference from surface survey, palaeopathology of skeletal remains – relevant comparative materials can be very distant in time, space and cultural context.

And fundamental issues – to do with saving what survives of the past, and the relations of archaeology to the wider world – affect us all.

So my main audience is the working archaeologist (whether 'amateur' or 'professional' does not come into it), who will, like all working archaeologists, be a specialist. But – and this is the key distinction – I have in mind the specialist who wishes he or she did not end up as specialized as they have had to become. The specialist happy to know only Hohokam ceramics or the chronology of pipe-stem bores has no need of a general journal, and the subject has no need for general journals if it disintegrates into a mass of separate specialisms, each unintelligible to the others. As long as there is a broad discipline of archaeology, there is a role for *ANTIQUITY*.

 This is the major reason I may let *ANTIQUITY* grow a little fatter. No reader can, or will want to, keep up with everything in archaeology, broadly defined. Inside a fatter *ANTIQUITY* there should be a thinner *ANTIQUITY*, different for each reader, who will not bother with the rest.

A large portion of this first fatter *ANTIQUITY* is taken up with radiocarbon – still the best example of the technical challenges that this journal and the wider subject must face. A radiocarbon determination is not a date, but a measure of time subject to complex statistical variability in the light of a wiggly calibration curve of radiocarbon 'years' against real elapsed time. The radiocarbon section is full of 1 and 2 sigma variations, Ward & Wilson and Long & Rippeteau averages, Robinson algorithms, and other difficulties. The question arises, 'How many *ANTIQUITY* readers, how many archaeologists, understand these things?' I do not know. What I do know is this. The information so expensively and laboriously won by radiocarbon measurements inescapably takes such a form. To work intelligently with dating – not just in the prehistoric period but also now in a historic period, as Hassan & Robinson show – we will have to cope, by learning to understand the statistics ourselves, or by working with colleagues who do.

There is no alternative or, rather, the alternative will be fatal for *ANTIQUITY* and for archaeology.

We can pretend these things don't exist for the 'mainstream' (and how many excavation reports

are there whose 'specialist appendices', most parts unintelligible to the excavator, made little contribution to the story chosen for the main text?). We can do simple, statistically incorrect comparisons of radiocarbon plots and think they tell us things. That strategy means the 'mainstream' will actually become a narrowing trickle, as it includes less and less of the real and reliable information that exists.

We can leave the technicalities to the boffins who understand these things. That means they will focus, not on the resolution of archaeological questions by relevant research, but on external scientific concerns that may relate not at all to the archaeology. (Think of all the metal analyses, conscientiously conducted on thousands of prehistoric European objects, which yielded precise facts as to what each tiny sample contained – but not much enlightenment about the archaeology of bronze-working.) This last is a real danger. Last year's Hart report to the SERC on science-based archaeology in Britain took that view: the purpose of science-funded archaeology was to develop techniques for their independent scientific interest. Once they were fully understood – i.e., when they became of regular reliable archaeological use – the scientific questions cease, and with them should go the science-budget funding. And it is the SERC which has funded the Oxford AMS machine and high-precision calibration work at Belfast.

Our November issue noted the new conventions for citing radiocarbon dates adopted by the Trondheim meeting of 1985, with the formulae of 'BP' and 'Cal BP', and confirmed that *ANTIQUITY* would stay faithful to its established b.p./BP convention. Signs of strain are evident in this issue, in which one paper works with distinctions the *ANTIQUITY* convention does not comfortably handle and another must use the particular convention of the *Radiocarbon* special calibration issue. That special issue seems itself not to follow the Trondheim convention, and the Trondheim convention is not quite right for archaeologists who deal with other absolute chronologies alongside radiocarbon.

As long as the conventions are confused, archaeologists will be confused. Yet another attempt will be made at this autumn's important radiocarbon conference in Groningen to find a convention that will properly work.

One set of radiocarbon determinations that will interest more than boffins is the series for the Turin shroud, the folded linen cloth bearing a quasi-photographic image of a crucified man. It has been taken as the shroud of Christ, the image burned on by His Resurrection. The leader of a Vatican team, Prof. Pierluigi Bollone, said in 1979, 'According to what appears to be a widely diffused, deeply rooted but totally unwarranted opinion, the Carbon 14 test would . . . definitely solve all doubts concerning the authenticity of the famous Relic. Nothing is further from the truth . . . it would tell us nothing about the nature of its mysterious images.'

Bollone is right of course: a date compatible with authenticity of itself proves nothing, while any later (or much earlier?) date rules out the Shroud. Still, the Church authorities are now to permit a radiocarbon test, with an elaborate programme including six AMS and other small-sample laboratories, among them both Oxford and Harwell. It will be run under double-blind conditions, without a laboratory knowing that its sample comes from the Shroud, or from something else. (One does hope that the Monsignor who snips samples from the Shroud and from a dummy will drop the right pieces in the right envelopes.)

The labs are taking all this very seriously. Already they have run a preliminary comparison between six laboratories on samples of Egyptian linen, date c. 3000 BC, and Peruvian cotton, date c. AD 1200, to ensure a coherent set of results would be generated (*Radiocarbon* 28 (2A) (1986): 571–7). They were, though not until the later set of samples had been withdrawn and replaced by some of surer date.

Are 3000 BC and AD 1200 the labs' best guess of the real date of the shroud? *ANTIQUITY* not being licensed for gaming, we cannot run a sweepstake on the result, but some guide to form is given by David Sox's *Relics and shrines* (1981).

St Peter's chair, the saint's supposed throne now encased in a Bernini reliquary, is made of several woods variously dated 4th–6th and 10th–12th centuries AD. A fragment of the True Cross, now in the Stavelot Triptych in the Pierpont Morgan collection, New York, is dated to a.d. 595±115. (Calvin's gibe that there were enough fragments of the True Cross to build 'a good ship' is unfair. An 1870 calculation estimates the volume of the Cross at 178 million cubic millimetres, of which only 3.942 million

survive in relics; a satisfactory 174 million have succumbed to taphonomic processes.) With the Pierpont Morgan fragment is a piece of the Virgin's robe, carbon-dated to the 13th century AD.

No shroud has been carbon-dated before. The standing of the Cadouin shroud in France, the leading previous pretender, has not recovered since 1934, when it was found to have been woven in Egypt during the 10th century AD; its embroidered bands bless Allah in Kufic script. There are rival tunics of the Passion in Argenteuil and Trier, as well as another shroud in Besançon. Scientific tests on the Argenteuil tunic, made before its abduction by Action Directe in 1983 (the first relic to be held to terrorist ransom), are said to show it was woven at about the time of Christ.

The pattern of these relic dates is reasonably happy, to the social historian of religion if not to the faithful. They fall neatly in or a little before that medieval period when the relic cult boomed. ANTIQUITY's money in the Shroud stakes will be on the late side, the 12th century AD.

At the British Archaeological Awards, the Richard Colt Hoare Prize for the best archaeology book of 1985/6 went to John and Bryony Coles for *Sweet track to Glastonbury* (Thames and Hudson, £18, reviewed in our last number, 60: 243–4), their splendid account of 20 years' fieldwork in the peatland of the Somerset levels. *Sweet track* confirms what John Coles argues in his *Archaeology of wetlands* (Edinburgh University Press 1984): wet sites are so rich they cost up to 9 times more to excavate than the dry equivalent, but yield so much they may be better value. John Coles, now with Bryony at the University of Exeter, has founded the Wetland Archaeology Research Project to promote the cause. The first number of its newsletter, *News-WARP*, came out in December with articles from Britain, Ireland, France and Italy. Further details from *WARP*, Department of History & Archaeology, University of Exeter, Exeter EX4 4QH, England.

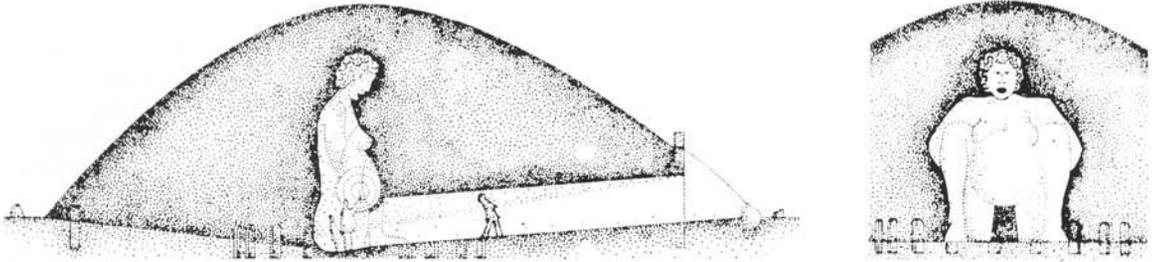
Free newspapers are common nowadays. *History & Archaeology Review* is a logical extension, a free specialist magazine paid for by advertising, published by Alan Sutton in Gloucester. Its first issue, in autumn 1986, had Francis Pryor in top form on Fenland archaeo-

logy (wetlands again!, and yet more wet things from him in this ANTIQUITY); the ubiquitous Barry Cunliffe, who runs its archaeology reviews, on the mixed state of archaeological publishing; and a good clutch of reviews. Three issues a year are planned. To subscribe, write to: *History & Archaeology Bookshop, Freepost (GR 1751), Gloucester GL1 1BR.*

We print two sections of the Goddess Mound, a new celebration of ancient truth designed by Cristina Biaggi and Mimi Lobell and planned for Vassar College, or if Vassar will not have such a radical thing, for a more sympathetic New England women's college. The Mound is a modern folly in one sense, and some may say both senses, of the word. Its inspiration is the great mother goddess of neolithic Malta and Scotland, the old European lady most researchers killed off years ago, but whose reality is intelligently promoted by Marija Gimbutas at UCLA.

The egg-shaped Mound, 29.53 megalithic yards in its longest diameter, has a stone kerb and outer stone ring. Its exterior is to resemble Maes Howe and Silbury Hill. The entrance-passage leads down to the interior of a hollow female figure, crouched in childbirth, whose rhythms are inspired by the Hypogeum in Malta. The passage faces sunrise at the midwinter solstice; the Mound is sited to make a set of solar alignments; the Mound and the stones are metaphors of lunar cycles, in numbers and megalithic-yard dimensions, since the moon is the heavenly body which has longest been linked with women; and the female sanctuary within is a metaphor for Venus.

The Mound is, or will be, a physical manifesto of feminist prehistory, in reaction against the male-centred or andro-centric bias of archaeology, as she is now practised. The most striking of a growing body of feminist history and archaeology is, to my probably andro-centric mind, Marilyn French's *Beyond power: on women, men & morals* (1985, now in Abacus paperback), which tries to show that patriarchy is not what nature intended and should be vigorously denied. This is a good radical point of departure, especially when the literature of prehistory so often and casually places the men outside with the atlantids, arrowheads, and metalwork, and the women at home with the pottery and plant foods. But what is the empirical evi-



Two sections of Biaggi & Lobell's design for the Goddess Mound. Overall height 8.5 m.

dence for gender roles in the deep past? Practically zero – at least as we now understand the evidence. So French's polemic depends instead on a miscellany of sources, many of those in archaeology not of the best quality. The whole venture is incorrigibly Victorian in spirit, both in the idea that nature ever 'intended' anything to be the proper state of human societies and in thinking that the eye of conviction can distinguish by simple glance the 'survivals' of old practices, which are natural and important, from the later things which are unnatural and unimportant.

Another book on ANTIQUITY's desk with a Victorian flavour is Professor George Eogan's *Knowth*, a handsome account of 24 years' work on the great passage-grave cemetery in eastern Ireland (Thames and Hudson, 1986, £18). It will be reviewed in our next number.

Knowth fills me with joy: it is one of the unknown wonders of ancient Europe, an immense mound, two superbly constructed passages and chambers within it, a wealth of megalithic art, and at least 17 smaller passage-graves round its base, the whole carbon-dated to about 3000 BC. Eogan explains that it was, when he decided to begin work in 1960–61, 'the largest unopened mound in Ireland, if not in western Europe'. His particular concern was the chronology of passage-graves with distinct chambers and passages in relation to those with 'undifferentiated' structures – a question still unresolved.

The completeness and thoroughness of Eogan's work is inescapably reminiscent of General Pitt-Rivers. All 17 satellite sites are fully excavated and some of their mounds reconstructed, all the main mound's kerb is exposed, almost all its interior is dug into, the eastern passage is excavated and its roof is removed.

Only the western passage now awaits treatment.

When Wheeler decided to excavate Maiden Castle, Sir George Hill said slyly, 'It's a fine place to dig – and a fine place to leave undug.' This is more than a romantic sentiment, though there is a special sadness to a site when the digger has done with it. When plans to dig again at Maiden Castle became public, car-stickers appeared in Dorset reading 'Don't let them rape the Maiden.' English Heritage were required, very properly, to show that the destruction that excavation must cause would be justified by the benefits, considered in relation to what would be left undisturbed at Maiden Castle and other relevant sites. This they fully did (ANTIQUITY 59 (1985): 97–100), and the work went ahead. (One resulting find last summer was half an alligator, but that's another story.)

Consider Knowth in this light. What is the archaeological resource? How long ought it to last? What has been destroyed? What benefits have resulted?

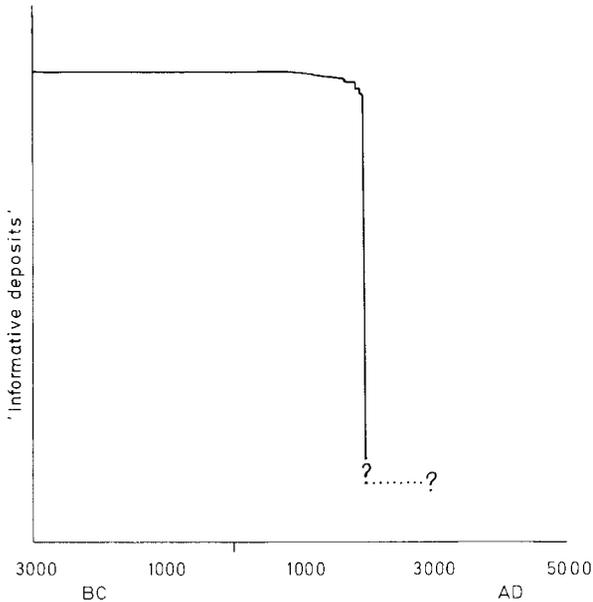
Three very large chambered mounds survived in the Boyne valley into modern times, Newgrange, Dowth, and Knowth. They are so large, and the valley is so lightly developed, that it is unlikely there were ever many, or any, more.

Newgrange, with one large passage-grave, was first entered in 1699, and variously investigated until its thorough study by O'Kelly from 1962 to 1975. Some parts were left unexcavated, and the façade was restored with a concrete retaining wall.

Dowth, with two small passage-graves, was much mutilated by gravel-quarrying in 1847–8.

Knowth, with two large passage-graves, was re-modelled during the early Christian period and as a Norman motte. It was excavated a little by MacAlister fifty years ago, but was otherwise unknown until Eogan began his work.

After 140 years of vigorous interference with



the Boyne sites the benefits, in archaeological understanding, are enormous. So has been the cost, for not much remains intact.

Has it been worth it? That depends on how long what is left will have to last, and means forecasting the future of the world. Nuclear accidents aside, the Boyne sites might naturally last until the next glaciation. No one can forecast when that will arrive, and human interference with the climate is so gross that the mechanisms by which glaciations arrive may work faster or may work not at all. Take a guess of 3000 years from now to the glaciation, and plot as a sketch the consumption of the archaeological resource over time from the Boyne monuments' building in about 3000 BC to about AD 5000. What is striking is not the overall shape of the graph, but that the period since 1847 – the many long years since a modern archaeology began – is such a tiny fraction of the time axis; the archaeological consumption of the Boyne sites has been nearly completed in about *one-sixtieth* of their 'natural' life-span. The benefits have been great, the cost is terrifying.

There is an irony to this. Several radiocarbon measurements exist for the main Knowth sites, for the satellites, and for Newgrange (but not, alas!, the kind of coherent set published in this number for Hazleton). By applying the standard procedures, discarding outliers and dubious determinations, testing and averaging, to the uncalibrated dates, one arrives at the most eco-

nomical explanation of the overall pattern of Boyne dates. First, there is no significant difference between the dates for Knowth, for the Knowth satellites, and for Newgrange: all three are contemporary. Second, their overall date is 4435 ± 25 b.p. which, allowing for 2 standard deviations each way, is about a century. It looks as if the the passage-graves, built over a century or so, have been largely destroyed by quarrying and excavation over much the same span of time.

Proper work with the calibration curve will give a truer answer than this back-of-an-envelope figuring – especially as the curve about 4435 b.p., equivalent to about 3050 BC, has a wiggly patch. Meanwhile if excavation work on the western passage and the rest of Knowth pauses for perhaps one-tenth of its 'natural' life-span, it will have to be suspended for the next 800 years.

CHRISTOPHER CHIPPINDALE

The Ewanrigg structure

The response to my request for information about a stone-lined structure at Ewanrigg, Cumbria (ANTIQUITY 60 (1986): 225–6 & pl. XXXIIa) has been very useful. All correspondents have suggested 'corn-drying kilns'; this is what we expected, but we wanted to be sure there were no similar prehistoric structures.

This diagnosis has been confirmed by the preliminary result of the examinations of soil samples (by Marijke van der Veen). A collection of seeds was found – wheat, barley and especially oats, an assemblage which would point to a medieval corn-drying kiln.

Radiocarbon dates confirm the post-Roman date (of great interest as the rest of the site revealed 30 bronze-age cremations and one Beaker burial). The dates, uncalibrated, begin in the 7th century a.d. and run through the 10th to the 11th.

R.H. BEWLEY

Correction

A slip requires correction in Ian Kinnes's and I.J. Thorpe's note in the November 1986 issue (Radiocarbon dating: use and abuse, ANTIQUITY 60: 221–3). Its FIGURE 1 (referring to Knap of Howar) should not have been included, and the figures captioned as 2 and 3 are the ones mentioned in the text as FIGURES 1 and 2 respectively.