

Committee being in some way linked—for example, by a common central interest in ‘Arthur’, by Mr Ashe’s roles as editor of the first and secretary of the second, and by Dr Radford, Mr Alcock and Mr Rahtz being common to both—I can’t see why critics of my review seem so keen to dissociate the two. What is the book about, if not mainly about ‘Arthur’ and ‘Camelot’? The publishers may like to think that it is a summary of the present state of knowledge of the ‘dark ages’ (horrible term!) in Britain. It is a most lop-sided summary, in that case.

Dr Radford has avoided two of my serious criticisms. The first was on the impropriety of the use of the word ‘Arthurian’, as a cultural or chronological label. I need not repeat my strictures on this. The second was on the shaky validity of the imported pottery, in what I believe to be a ‘secondary find-spot’, as a chronological guide to an event or events (the *floruit* of ‘Arthur’, Mons Badonicus, the battle of Camlann, etc.) which themselves lack any firmly agreed chronology. The plain truth is that, barring some quite unforeseeable narrative inscription, or wondrously preserved MS, turning up, a question like ‘Was Arthur

here?’ or ‘Was this Arthur’s stronghold in the year 500?’ is unanswerable in terms of archaeology. Nor is it possible to give a satisfactory answer in terms of legitimate inference so long as we lack general agreement as to the existence, dates, career, and locale, of ‘Arthur’; and it should be borne in mind that a respectable academic view (which I myself happen personally to share) would locate the entire Arthurian episode, if it be an historic one, in North Britain. It is because of such factors that I regard the statements and claims put out about South Cadbury—and I accept that these are not necessarily made, supported, or authorized by all the Committee or their Director on all or any occasions—as exceeding the limits of inference, and liable to recoil on us all to the detriment of future projects. Why not have a try at projecting the Iron Age image—the oppidum of the Durotriges Lindinenses, or whoever it was involved with in pre-Roman times? Is it old-fashioned of me to suppose that the public’s right to be kept informed is, if a right at all, a right to a straightforward critical evaluation of *all* the evidence? Or does the Iron Age lack the monetary appeal of ‘Arthur’?

## Radiocarbon Dates for the Newgrange Passage Grave, Co. Meath

In the interim report on the Newgrange excavation in ANTIQUITY, 1968, 40, mention was made of the fact that the tomb builders had caulked the roof joints with burnt soil and sea sand. Where the arrangement of this material could best be observed, it was clear that the sea sand had been put into the joint first followed by the packing of burnt soil, the aim evidently being to prevent the ingress of water which would percolate down through the cairn. This precaution was additional to the system of water grooves described in an earlier interim report (ANTIQUITY, 1964, 288).

The sea sand is identical in its constituents with that on the present sea shore around the mouth of the River Boyne, about 20 km. down river from the site. The burnt soil seems to have come from a domestic area because it contained a few fragments of worked flint

similar to those found in the course of the excavation and some scraps of animal bone. Perhaps turves into which these items had been trampled had been removed from an adjacent area and fired. There was so much of the material present that it looked as if it had been burnt specially for the purpose. The burning was not done *in situ* on the roof of the passage. The material was light grey in colour and when wet was very sticky—almost putty-like to the touch.

Two large samples of it were collected—Sample no. 1 from the caulking of roof-slab 3 (i.e. the third from the passage entrance) and Sample no. 2 from under the cross-lintel which supports the boulder cap at the point of junction of the passage roof with that of the chamber (FIG. 1). The material could have been put into these positions only at the time the

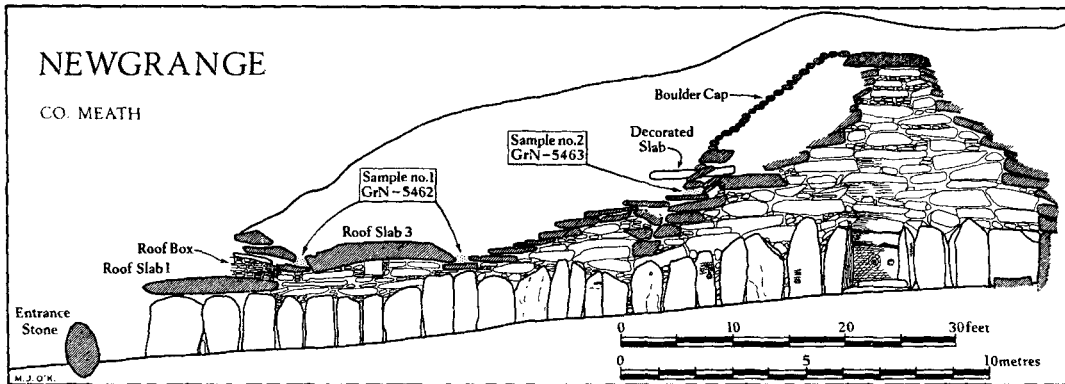


Fig. 1. Section of Newgrange Passage Grave with positions of charcoal samples dated by C14

tomb was being built, and since then it has lain covered by an undisturbed layer of cairn material more than 3 m. thick. The burnt soil contained charcoal in fragments from small twigs, Sample no. 1 providing 10.3 grams and Sample no. 2 providing 50.8 grams. All of Sample no. 1 and 20 grams of no. 2 were sent to the Radio carbon laboratory in the Royal University at Groningen, Netherlands, and

thanks to Professors Waterbolk and Vogel we now have two dates—Newgrange no. 1 (GrN-5462)  $2550 \pm 45$  BC, and Newgrange no. 2 (GrN-5463)  $2465 \pm 40$  BC. Presumably the two may be put together to give a round figure date of 2500 BC, which makes the tomb perhaps half a millennium older than was thought possible even in fairly recent times.

MICHAEL J. O'KELLY

## Statistics in Archaeology

In the September 1968 issue of *ANTIQUITY* Colin Renfrew refers to Hole and Shaw's recent book on seriation [1] as 'the first monograph on the use of statistics in archaeology'. We feel that this is an opportunity to draw attention to a little-known monograph by the late Oliver Myers, entitled *Some Applications of Statistics to Archaeology* and published by the Government Press, Cairo, in 1950. Myers, whose pioneering work in the field has been too little recognized, would himself have dated the first monograph on statistics in archaeology to 1877 when Flinders Petrie published his *Inductive Metrology*.

Myers's monograph deals with three subjects. Two of these, the correlation between absolute frequencies of different artifact classes in different parts of the same site, and the effects of weathering on the hardness and size of potsherds, are at a basic observational level. The third is concerned with the problem posed

by the fact that many Saharan surface sites contain the debris of culturally different occupations. Myers provided a system, based on a correlation between areal distribution, for obtaining, under favourable circumstances, valid culturally associated groups of artifacts. Among the techniques used and described are tests of differences between population means, correlation and the analysis of variance.

Among his other work were a neat demonstration of the extent and essential randomness of vertical transport of sherds in archaeological deposits and a seriation technique with a difference [2]. This relied, not on the difference between individual assemblages, but, after the manner of dendrochronology, on marrying up short stratigraphically sound sequences, to produce a long overall sequence. It was thus the patterns of change within each segment which were fundamental to the method, matching and calibration of one segment