

Notes and News

PESTILENCES

'THE DATE OF CAMLANN'—AND OF THE PESTILENCE OF THE SAME YEAR

I have read the note by Mr P. K. Johnstone, entitled 'The Date of Camlann', in the March number of *ANTIQUITY* (p. 44) with great interest.

The article interests me primarily as a student of the epidemics which ravaged these islands during the 6th century, but the possibility—brought out by Mr Johnstone—of Arthurian chronology also being concerned and possibly clarified adds to the interest of the problem.

There are two entries in the *Annales Cambriae* which are involved, namely:

'537. XCIII Annus. Gueith cam lann, inqua arthur and medraut corruerunt: et mortalitas in brittannia et in hibernia fuit', and

'547. CIII Annus. Mortalitas magna inqua pausat mailcun rex genedotae'.

Mr Johnstone's final misgiving 'We cannot be sure that the compiler of the *Annales* did not blunder in assembling his entries from disparate sources', though true, seems to me to invalidate the whole of his argument—and, indeed, to render the whole of this enquiry of no moment.

Possibly the most pertinent question is the reliability of the dating of the *Annales Cambriae*. The editor of the *Annales* in the Rolls Series, John Williams ab Ithel, describes the three manuscripts (A, B and C): of these, A. (Harley 3859) is the oldest, and is 'of the latter part of the tenth or the beginning of the 11th century' (p. x.)*

The years in the *Annales* are written down to 977 though the last event recorded is in 954, which points to their being finished c. 954 or 955, according to Phillimore.

'The chronology of this document', says Ab Ithel 'is designated by the repetition of the word "annus" for each successive year, whether blank or otherwise, whilst every tenth year is marked x, xx, etc. . . . From a comparison of the dates assigned to many of the events noticed in it by other writers, it would appear that the era on which its chronology rests would concur with the year' [445] 'of the Incarnation, though there is no reason given for this particular date'. (p. xxiv). He has compiled his marginal dating of the entries by adding an extra year for each annus mentioned, from 445 [=year 1] onwards, and correlating with Christian dating. A glance at the facsimile from the manuscript which is given as a frontispiece to the volume, shows at once how the dating has been arrived at.

I can see no obvious flaw if known dates such as the death of Offa in 796 ('Annus CCLII' plus the previous 444 years of the Christian era) be taken as test cases. On the other hand the two dates 537 and 547 do not, as the following argument shows, seem to be correct for the outbreaks of pestilence they chronicle.

Justinian's plague was raging in Constantinople in 542, and appears to have spread north-westwards across Europe. We know from Gregory of Tours (*History of the Franks*, iv, 5) that various parts of France were suffering from it in 543: the plague, called *blefed*, reached Ireland, according to the *Annals of Ulster*, in 544 (really in 545, since these annals are one year behind the true date at this period). If it was carried to these islands from Armorica by means of Celtic saints, it is possible that it may have arrived in Wales and spread to Ireland or the opposite may have happened. There is no record of either pestilence having spread from Wales into England also. The *blefed* must be distinguished from the Yellow Plague which followed it, according to the *Annals of Ulster*, in 548 (really in 549) and which doubtless overlapped it.

* Early 12th century, according to Phillimore.

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The following table shows the sequence of the outbreaks of the two pestilences, with the recrudescences of the Yellow Plague :—

DATE	PESTILENCE	SOURCE OF INFORMATION
[537.	'Mortalitas' in Britain and Ireland	<i>Annales Cambriae</i>].
545.	'Blefed'. ('Mortalitas prima quae dicitur blefed', <i>Annals of Ulster</i> : 'Mortalitas magna', <i>Annals of Tigernach</i>).	<i>Annals of Ulster</i> (under 544), <i>Annals of the Four Masters</i> (under 543), <i>Annals of Tigernach</i> (539 or 540), <i>Chronicon Scotorum</i> (under 541), <i>Annals of Clonmacnoise</i> (under 546).
[547.	'Mortalitas magna'.	<i>Annales Cambriae</i>].
549.	'Mortalitas magna' in Ireland (the Yellow Plague, <i>cron chonail</i>).	<i>Annals of Ulster</i> and <i>Annals of the Four Masters</i> .
550.	'Boy Connell' begins in Ireland.	<i>Annals of Clonmacnoise</i> .
551.	'Mortalitas magna, i.e. Crom Conaill'.	<i>Annals of Tigernach</i> , <i>Chronicon Scotorum</i> , <i>Annals of Inisfallen</i> (under 541).
556.	'Magna mortalitas'.	<i>Annals of Ulster</i> (under 555).

Mr Johnstone says, 'No other pestilence is mentioned between 500 and 539. The Blefed must be the pestilence mentioned by the *Annales Cambriae* along with Camlann', but as I have just shown, both of the *Annales Cambriae* entries (included in the above table) are earlier than the corresponding Irish entries in the *Annals of Ulster*—the 537 one by seven (or eight) years and the 547 one by one year (or two years). W. BONSER.

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PESTILENCES IN SIXTH CENTURY BRITAIN

Mr P. K. Johnstone's note in *ANTIQUITY*, XXIV (1950), 44 is valuable not only for the light it throws on the date of Camlann, but for the distinction between two pestilences afflicting Britain in the mid- 6th century A.D. Such plagues can be of considerable chronological importance, and, in the 5th century, Mr C. E. Stevens has drawn attention to the probable equation of the *pestifera lues* or *famosa pestis* placed by Gildas shortly before the Saxon invasions with the *pestilentia quae fere in toto orbe diffusa est* recorded by Hydatius in relation to a comet datable to 442 (1). Incidentally, it appears that this plague is independently referred to in the *Vita Sancti Winwaloei*, written by Wrdisten, Abbot of Landevennec, in the second half of the 9th century, as that which drove Fracanus, cousin of Catovius the ruler of *Nomnia* in Britain (emended by Doble to *Domnonia*) to Brittany some time in the 5th century (2), though Wrdisten may have simply elaborated his story from the mention of plague in Gildas.

¹ *Eng. Hist. Review*, LVI (1941), 363.

² A. de la Borderie, *Cartulaire de l'Abbaye de Landevennec* (Rennes, 1888); G. H. Doble, *Saint Winwaloe* (Cornish Saints, no. 4; 2nd Edn., 1940); Kenney, *Sources of Early Irish History*, I, p. 175.

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The recent discussion of the medical aspects of the pre-Conquest plagues of Britain by Dr Bonser and Lt.-Gen. Sir William MacArthur (3) gives point to Mr Johnstone's separation of the 'blefed' of 539–540 from the 'Yellow Plague' of c. 549, the most famous victim of which was Maelgwn Gwynedd. Sir William points out that the explicit descriptions of the symptoms of the *flava pestis* preclude one from identifying it with bubonic plague, and he concludes that it was in fact a severe form of relapsing fever with the common accompaniment of jaundice, probably brought on by a period of famine. This renders connection of this pestilence with the outbreak of bubonic plague in the Eastern Roman Empire in Justinian's time (4) impossible, but the 'blefed' of c. 539 might be related to this, and to that recorded in Europe in 542—*horum exordia malorum generalis orbis terrarum mortalitas sequitur et inguinum percussione melior pars populorum* (5). In the early Irish Saints' lives, however, such as those of Declan, Rua, Mochua, and Finnian of Clonard, the 6th century plague is always described by some phrase indicating it to be the *flava pestis* and there seems no certain remembrance of any other (6). If Sir William MacArthur is correct in connecting this outbreak with a period of famine, it is possible that the story of the famine in Cornwall, in the episode of the visit of the Alexandrian ship to Britain in the 6th century, contained in the Life of John the Alms-giver (died 616), may have a foundation in fact (7). If bubonic plague did indeed reach these islands in c. 539 it is in the context of the trade contacts with the Mediterranean implied by such stories, and by the actual archaeological evidence (8), that its appearance can best be understood.

There is one side issue with regard to the death of Maelgwn in the Yellow Plague of c. 549 that is worth following. The earliest MS of the *Annales Cambriae* (Harley 3859 compiled in the late 10th century) simply records his death by *mortalitas magna*, but we can trace the elaboration of the story in successive centuries in an interesting manner. The *Vita Sancti Teiliavi* in the Book of Llandaff, compiled c. 1150, takes the fact of Maelgwn's death from the *Annales* but describes the *flava pestis* and its accompanying portents in detail (9), but early in the 13th century Welsh tradition in the form of the earliest MS of the Brut describes further how Maelgwn 'went into a church hard by his own castle at Deganwy and it was there he died (10)'. A later version of the *Annales*, of c. 1286, inserts another fragment of tradition after the entry of Maelgwn's death by *mortalitas magna*—*Unde dicitur Hir hun Wailgun en llis Ros. Tunc fuit lllalwelen* (11). This seems to quote a proverbial saying 'Long the sleep of Maelgwn in the court of Rhos' and 'lallwelen' is presumably a corruption of 'y fad felen', the Yellow Plague. By the 15th century however this death in the church of Rhos near Deganwy is presented in

³ *Journ. Brit. Arch. Ass.*, 3rd s. IX (1944), 48–71.

⁴ Cf. Procopius, II, XXII.

⁵ Chronicle of Victor Tonnennensis, ed. Mommsen in *MGH Chron. Min.* II (1893), 201.

⁶ Plummer, *Vitae Sanct. Hib.* (1910), II, 48, 242; Whitley Stokes in *Anec. Oxon.*, 1890, 229, 287 (Book of Lismore).

⁷ Leontius, *Vita Scti. Joannis Eleemosynarii*; Migne, *Pat. Graec.*, XCIII, 1614 ff. Cf. V. c.H. Cornwall, Part 5 (1924), 19.

⁸ Cf. Radford in *Trans. Devon Assoc.*, LXXIX (1947), 27.

⁹ Book of Llan Dav (ed. Gwenogvryn Evans, 1893), 107; cf. Doble, *Saint Teilo* (Lampeter, 1942) and in *Journ. Theo. Studies*, XLIII (1942), 204; XLIV (1943), 59.

¹⁰ Dingestow Court Brut (Nat. Library Wales MS. 5266), f. 288.

¹¹ MS. 'B' in Buffus Hardy's edition in *Mon. Hist. Brit.* and in Rolls Edition (1860), written on fly-leaves of an abridged Domesday in the P.R.O.

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more dramatic form, describing how Maelgwn, having taken sanctuary, 'saw the Yellow Plague through a hole in the door of the church' (12). It is at this stage that the story is taken up in its well-known prophetic form in the spurious *Hanes Taliesin* (13), where the bard describes the monster with yellow eyes and teeth and hair which will come upon Maelgwn from the marshes of Rhianedd—a legend first given currency in English by Thomas Love Peacock's rendering of the 'Dymma Fustl y Beirdd' in his *Misfortunes of Elphin* published in 1829, a decade before its appearance in Lady Charlotte Guest's translation of the *Mabinogion*.

STUART PIGGOTT.

ANCIENT MINING AND METALLURGY

Shortly after the end of the late war, the Royal Anthropological Institute formed a committee, with representatives of various branches of science concerned, to investigate various problems of ancient mining and metallurgy, and this Committee is at the service of archaeologists and others who wish for assistance upon such problems. It is also very willing to advise excavators concerning the technology of metal tools and other artifacts, and in certain cases to carry out complete analyses of such material.

One of the most crucial problems in study of the development of technology and applied science is the extent to which native copper was used in prehistoric times, and how far the discoveries of its properties of malleability and fusibility preceded that of the art of extracting copper from its ores. It is generally admitted that native copper was used before smelted copper. Indeed, one school holds that early metal-using cultures were dependent upon native copper for a considerable time, so that there would be two phases in intelligent metallurgy (apart from a supposedly still earlier phase in which, as in pre-Columbian North America, copper was worked cold as a superior kind of stone). We badly need data to determine how far cultures using only native copper preceded those using the smelted copper, but this is bound up with a further problem, namely the best method of distinguishing the native copper from the metal from oxidised ore.

These questions are not easy to answer and as it seemed most necessary to clear up such an unsatisfactory position, the Committee started to investigate the problem and has issued a preliminary report (see *Man*, 1948, 3 and 17). In a measure this report cleared the ground by stating the difficulties to be overcome. In order to make further progress, a large body of material must be examined, and therefore archaeologists are asked to advise the Secretary of the Committee (Miss S. Benton, F.S.A., c/o Royal Anthropological Institute, 21 Bedford Square, London, W.C.1) of material from early cultures of which they have knowledge, or which they could send for examination and report.

AMERICAN EXCAVATIONS

The University Museum of the University of Pennsylvania is currently engaged in archaeological research in Iraq, Iran, Turkey, Cyprus, British Honduras and Alaska. All of these researches have begun since 1947 with the return to normal after World War II.

In Cyprus, at the ancient site of Kourion, the Museum is continuing excavations begun several years before the last war. At the moment Dr B. F. Hill, George McFadden

¹² Brut in Cotton Cleo B. V. I am indebted to Prof. Henry Lewis for this information.

¹³ Text in *Myvyrian Archaeology* (2nd edn., 1870), 29; cf. Ward, *Cat. Romances . . . in Brit Museum* 1 (1883), 421 for the MSS.

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and DeCoursey Fales are completing the Roman Theatre and the Roman Baths on what is known as Kourion Bluff, also the Sanctuary of Apollo which has produced a remarkable collection of terra cotta figurines dating from several periods in the history of Kourion. Dr and Mrs John Young are preparing the final study of these figurines for publication by the Museum this year. Further publications completing the work at Kourion, particularly those covering the Bronze Age site at Bamboula near Kourion, should be completed within the next two or three years.

In Iraq the Museum has joined with the Oriental Institute of Chicago to continue excavations at the site of Nippur where some sixty years ago the University Museum began its work in the Near East. This is the Mecca of the Babylonians which has produced the majority of the literary tablets or what has been described as the world's earliest known literature. This season of research under the direction of Dr Thorkild Jacobsen and Dr Donald McCown has meant the completion of the Temple of Enlil dating from Ur III and discovery of additional literary tablets which give us fresh knowledge about the religion, mythology and philosophy of the Sumerians. Two of these reported by the Press describe a curious murder trial about 1900 B.C. and something of the moral and religious philosophy of the same period in a tablet concerning the goddess Nanshe. Excavations at Nippur will continue in 1951.

In Iran Dr Carleton Coon has discovered the first extensive remains of an Upper Palaeolithic culture as well as nicely stratified Mesolithic and Neolithic cultures in cave deposits known as the Belt and the Bisutun caves. The large collections representing Upper Palaeolithic, Mesolithic and Neolithic periods are now in process of study but it is possible to say that they indicate some startling conclusions. The Museum intends to continue excavations in Persia also in 1951.

The site at Gordion, some 60 miles from Ankara in Turkey, was begun by Dr Rodney Young and his associates from the University Museum in April of this year. With luck which comes to archaeologists only once in a long time they struck an exciting tomb containing a hoard of gold objects on the first day of excavation. It is a Phrygian tomb which probably dates from the 7th century B.C. and encourages the excavators to believe that Gordion is a most productive site. The excavation of additional tombs and the big city site of Gordion will continue through May, June and July of this year.

Dr Linton Satterthwaite has just cabled the Museum from British Honduras that he has discovered some new and remarkable Old Empire Maya monuments at the ancient Maya city of Caracol. He is laying plans to continue work at this site and at Cayo x where he will dig some house mounds next year. The Museum plans to continue in British Honduras with most hearty cooperation from the Department of Antiquities. To British readers it may not be surprising that other Middle American countries are not at present too cooperative in this kind of research.

In Alaska the University Museum is working in collaboration with the Danish National Museum and the University of Alaska with the joint research under the direction of Dr Froelich Rainey, Dr Helge Larsen, Denmark, and Dr Louis Giddings, University of Alaska. Last year Giddings and Larsen discovered on Seward Peninsula ancient flint industries which appear to link Upper Palaeolithic industries of the Old World with the so-called Folsom and Yuma complexes of the New World and thus give us the first real evidence of ancient connections between the two continental land masses.

The specific researches referred to above indicate the general fields in which the University Museum expects to concentrate during the next several years and reflect the intention to carry on in areas where the Museum has concentrated during the past half century.

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