in the early Anglo-Saxon period to production on a regional scale in the mid Saxon period although in other respects, such as the location of production and the shape and nature of the distribution patterns, the 7th century can be seen to be a pivotal period for the production and distribution of pottery.

DAVID WILLIAMS and ALAN VINCE

NOTES

4 Carried out on behalf of the East Midlands Anglo-Saxon Pottery Project. Large granitic erratics have been reported from Trent valley gravels but extensive study of sands used as potting temper in the Trent valley confirms that there has been very little northward movement of rocks from the Charnwood outcrop.
8 English Heritage Ceramic and Lithic Petrology Project, Department of Archaeology, University of Southampton.
9 Internet Archaeology, Department of Archaeology, University of York.

A MAP OF MOTTES IN THE BRITISH ISLES (Fig. 8)

No distribution map, particularly of monuments over a wide area, can ever be considered complete. New work, whether discovering more examples which have been omitted, or excavation disproving the identification of some thought to belong on the map, will always mean that it needs to be updated. This map improves on that by Renn,1 and puts together the ones published in King2 for England and Wales; Simpson and Webster,3 reinforced by Stell4 for Scotland, and that of McNeill5 for Ireland. These same maps have also been republished in Higham and Barker6 but not together. Even if the lists for each region were all totally reliable, it is not, of course, true that all the mottes on the map were contemporary. Most of the mottes of England were probably erected before the beginning of the 1170s; the mottes of Ireland after that date. Within each region there is no guarantee that the mottes were contemporary or even that they were all coexistent. We think of such a map as being the result of a steady accumulation of sites, but at least some of the earlier ones may have gone out of use as others were built.

All of this must make us wary of drawing any firm conclusions about the distribution of mottes, but it should not completely prevent us from doing so. The distributions should be studied as regional phenomena, but it is also useful in setting the agenda for study to compare the patterns within the regions. The main question which lies behind such a map is this: does the map represent a reasonable picture of the distribution of lesser castles of the 11th and 12th centuries? The addition of the known stone castles would not make a marked difference to the overall pattern, but the addition of other forms of earthworks might. This is certainly the case in Wales and S. England where the identification of lesser enclosure castles (ringworks) does raise the number considerably. Spurgeon7 has shown that there is a geological reason for their differing distributions in Glamorgan and made the case for their identification as castles the stronger. In Ireland, on the other hand, there
**FIG. 8**

Distribution of nottes in the British Isles
is much less justification for including such sites among the list to fill out gaps in the motte distribution, because there is no contemporary source for a castle which can be equated with a ringwork there, nor any definition which can yet be provided to differentiate a ringwork from the many earlier enclosures, usually known as ringforts or raths.\(^8\) Again this is a question of comparison and contrast between differing regions.

While it was impossible to have a castle without a lordship, it was by no means essential for every lordship to have a castle. It might be assumed that the proportion of lordships with castles would be fairly steady, so that the proliferation of castles might be expected to be a reflection of the proliferation of lordships. Especially with motes, which are lesser castles, their distribution will reflect the distribution of lesser lordships; the fragmentation of lordships perhaps. In fact, the distribution of lordships is not that variable; great monumental blocks of territory to be governed from a single castle were no part of the landscape. In any distribution of castles, therefore, we are looking at the results of the variations in the need which lords felt to equip themselves with a castle. In particular with motes, we are often seeing the extent of the need which the lesser lords felt to have a castle; a measure of the way castles moved down the social scale.

The obvious concentration of sites lies in Wales, particularly along the central March with England. Southern Wales also shows a dense distribution, especially if the ringworks are added, although W. Glamorgan in the centre of the S. coast does not. The next densest distributions lie in Ireland, along the NW. frontier of Meath and in the centre of the lordship of Ulster. South-western Scotland also has many motes. These have, rightly, been explained in terms of being areas of military tension, to be precise, areas where small scale warfare and raids were to be expected. It is interesting to contrast them with two other areas. The number of motes in the northern Welsh March drops off when compared with the distribution in the middle March, probably reflecting the continued existence of two relatively powerful and stable lordships, Gwynedd and the Earldom of Chester on either side during the 12th century. More striking is the relative sparseness of motes on the eastern Border between Scotland and England. Again, we have here a situation with two powerful kingdoms, where there was either war involving large armies or peace. Lesser castles were useless in the case of the former, and redundant in the case of the latter.

The distributions may also reflect chronology. Higham\(^9\) has pointed to the period of the civil war of Stephen and Matilda as a time when a number of the motes of Devon might have been constructed, although he is careful not to do more than put this forward as a suggestion. The same explanation might be invoked for the relative frequency of motes across the Midlands of England, although we must remember that there are as many ringworks as motes in Hampshire and Wiltshire, which would tend to reduce the impression of a concentration of castles in the Midlands; however, these counties were areas of conflict also in the same civil war. In this context, it is interesting to note that where the motes proliferate, in the E. Midlands, that they do tend to be smaller, particularly than those further to the east.\(^10\) Here, as elsewhere, the proliferation of motes means in effect the proliferation of lesser motes. The interpretation of the building of more motes as a response to a relatively short-lived crisis highlights their numbers in the regions of their greatest density. These must reflect a long term need for so many motes to accumulate, not a single phase of their building.

T. E. McNeill and M. Pringle\(^11\)

NOTES

THE EARLY NORMAN CASTLE AT LINCOLN AND A RE-EVALUATION OF THE ORIGINAL WEST TOWER OF LINCOLN CATHEDRAL (Figs. 9 and 10, Pl. XVI)

This note emerges from discussions undertaken as a result of work carried out on two related projects, both funded by English Heritage. The first of these is the production of a synthesis of the archaeology of Lincoln, based primarily on the post-excavation and publication work carried out by the City of Lincoln Archaeology Unit on excavations undertaken between 1972 and 1987.1 The second is the Lincoln Urban Archaeology Database (U.A.D.), a GIS-based database of archaeological interventions in the city and their interpretation in terms of monuments.2 The two initiatives together have provided the means to re-examine previous archaeological discoveries. Theories about the layout of the city and how it changed with time can be viewed, and alternative theories presented in the form of digital maps. The revised sequence and interpretation of the early Norman castle in Lincoln proposed in this note could easily have been made at any time in the last decade, and indeed may well have been. However, without almost instantaneous access to the totality of the archaeological record and cartographic sources there would be no means of testing the proposal and deciding that it was able to explain the known relevant facts and observations better than the existing orthodoxy.

Our main sources for Lincoln Castle in the 11th century are the Anglo-Saxon Chronicle and Domesday Book. From the Chronicle we know that the castle was a royal foundation of 1068, one of a number established following the northern revolt which led to the Harrowing of the North. Domesday Book records that Lincoln in 1066 had 970 inhabited messuages (mansiones hospites). In 1086, 240 of these were waste. 166 were destroyed on account of the castle and the remainder outside the castle boundary, "not because of the oppression of the sheriff's and officers but by reason of misfortune, poverty and the ravages of fire".3 This passage has given rise to much discussion, mainly concerned with whether there could actually have been 166 occupied properties on the site of the castle and, assuming that the passage should be taken literally, the possible fate of the displaced occupants.4 Study of finds from excavations carried out in the Upper City in the 1970s and 1980s has, if anything, made the problem more acute, since it is clear that the area was never occupied with anything like the intensity of the commercial centre in the lower city, immediately to the S., and although there was an intensification of domestic occupation in the second half of the 10th century, it was probably given over to churches and elite residences. The production of the Lincoln U.A.D. and the synthesis of Lincoln's archaeology, appear to have provided a solution to the problem. The area of the present castle enclosure at Lincoln (which has hitherto been thought to represent the early Norman castle) amounts to 39,500 sq.m., whereas the total area of the city likely to have been occupied in 1066 amounts to 987,000 sq.m.5 Thus the present castle only occupies 4% of the total whereas 166 as a percentage of 940 is 17.65%. Unless the present castle area was occupied with a density five times that of the remainder of the city, or a substantial part of the area included in the calculation was not subject to geld, then it is highly unlikely that 166 houses stood on the site of the later castle or that the area of this later castle could have been assessed at such a figure. However, if we take instead the entire area of the upper city, the area known since at least 1163 as the Bail,6 we find that it occupied 156,500 sq.m., or just under 16% of the total area of the city.7 It seems clear, therefore, that the entire Bail...