

II

NOTES ON SOME POPULATION PROBLEMS IN THE AREA BETWEEN THE TWO ROMAN WALLS, I

George Jobey

THE LIMITATIONS imposed upon any form of demographic enquiry in an archaeological context have been clearly set forth on a number of occasions.¹ Any attempt to enter into estimates of population on a basis of old mortality, which is one method of approach, is quite impossible in an area such as this where native burials of the Roman period are notable only for their scarcity. To work towards the same end from known settlements of the period, though they undoubtedly survive in good number, is still hazardous. It involves uncertainties arising from lack of knowledge as to the complete settlement pattern, the impossibility of establishing the precise context or duration of occupation and, thereby, the co-existence of settlements, and often the difficulty of distinguishing between dwellings and buildings that might have been used for other purposes. Even after the sequence of structures on a settlement has been established as, for example, on the recently excavated Romano-British site at Tower Knowe in North Tynedale, there still remains uncertainty as to the number of heads to attribute to individual dwellings.² Nevertheless, for the area in question, it seems that some useful information might be extracted at levels less ambitious than those concerned with total population estimates, rates of growth, or the like. If attention is confined initially to those stone-built native settlements of the Roman period which abound in parts of the Tyne-Forth Province, and enquiries are restricted to such matters as the size of settlements or the possibility of expansion occurring on *individual* sites, then more specific quantitative information might be presented than has been given hitherto. Almost inevitably, in such a presentation there will still be areas of subjectivity apparent to all.³

The general pattern of rural settlement in the area is mainly derived from the results of field-survey supported by excavation. Over parts of the Tyne-Forth Province in the Roman period it is chiefly epitomized by the non-defensive stone-built settlement, often curvilinear or rectilinear in form and containing stone-built huts towards the area of the enclosure facing on to a hollowed yard or yards. Datable Roman material from these settlements ranges from the late first to at least the mid-fourth century A.D. Their form,

¹ e.g. R. J. C. Atkinson, "The Demographic Implications of Fieldwork", in *Field Survey in British Archaeology* (ed. E. Fowler, 1971).

² G. Jobey, *AA*⁴, LI (1973).

³ I wish to acknowledge my debt to a small group of extra-mural students who have checked the validity of my interpretation on a number of sites.

location and distribution have all been described in more recent volumes of the Royal Commission on Ancient Monuments (Scotland), in the pages of these Transactions, and elsewhere.⁴ More recently, it has been demonstrated that on some sites the visible stone huts replaced earlier timber-built versions,⁵ but for the purpose of this enquiry it is the former that concern us since it is generally only these that can be noted in field-survey. At least for the present, the nature of the available records limits investigation to the counties of Northumberland, Roxburghshire, Peeblesshire; the somewhat inadequate plans in the old Inventory for Berwickshire have been made good to some extent by personal knowledge. Selkirkshire which totally lacks stone-built settlements of this order does not immediately enter into the calculations.⁶ Indeed, from western Peeblesshire into south-west Scotland generally this form of enclosure containing round stone-built huts is altogether scarce and, with some exceptions, the general form adopted by Romano-British settlements is still problematical, though now to a decreasing extent.⁷

For the four selected counties the sample of extant settlements in this category, where stone huts are still visible, totals at least some two hundred and twenty-five sites (fig. 1). In some upland areas one suspects that the original pattern of distribution is almost complete, but for areas of more intensive land-usage this obviously cannot be the case, as the annual yield of crop-mark sites from air-photographs alone will illustrate.⁸ Even so, this is numerically a good sample, which in those aspects with which we are concerned is unlikely to be altered much by the discovery of new sites. It will be immediately apparent that in terms of the number of huts the size of individual settlements is generally small (fig. 1) and this is likely to be the case throughout the whole area with the exception of the frontier extra-mural settlements and the possibly unique site on Traprain Law, East Lothian. Seventy per cent of settlements as they now appear on the ground consist of five huts or less and ninety per cent of ten huts or less, whilst fourteen per cent carry only one hut. The average number of huts for a settlement works out at just under five. Admittedly it is not known if all huts were used as dwellings and the problem of co-existence is unresolved. All that can be said in this respect is that it would be difficult on those sites which have been excavated to demonstrate a specific use for the huts other than as dwellings. Moreover, both the smaller settlements and the individual units within the larger nucleated settlements generally have a fairly standard plan in which the spatial relationship between huts would give no reason to doubt the contemporary use of all huts at some stage on individual sites.

⁴ R.C.A.M., *Roxburghshire* (1956), *Peeblesshire* (1967). Esp. *AA*⁴, XXXVIII (1960), 1-38; XLII (1964), 41-64. G. Jobey, "Homesteads and Settlements of the Frontier Area" in *Rural Settlement in Roman Britain* (ed. C. Thomas, 1971). There has been no opportunity to publish the majority of the plans for Northum-

berland which are held in the University of Newcastle upon Tyne.

⁵ Note 2.

⁶ R.C.A.M., *Selkirkshire* (1957).

⁷ G. Jobey, *Trans. D. & G. N.H. & A. Soc.*, XLVIII (1971), 78-105.

⁸ N. McCord & G. Jobey, *AA*⁴, XLVI (1968), 51-67, XLIX (1971), 119-130.

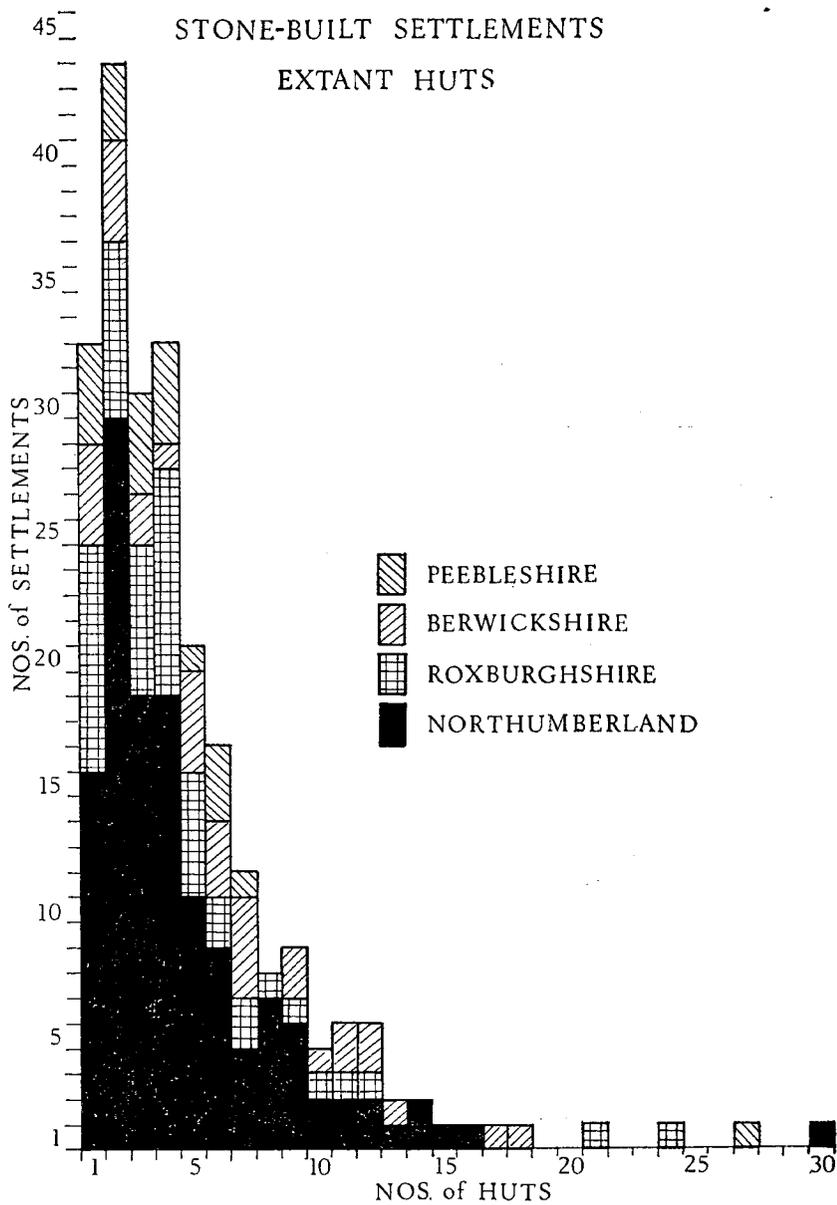


Fig. 1

(Each column represents the total for four counties)

In any event, it will be evident that any allowance for such uncertainties will only serve to reduce the notional number of inhabitants on most settlements. Conversely, it might be argued that cognizance should be given to the possibility that the full complement of stone-built huts is now not always visible. This is not generally a major problem in the uncultivated uplands where, aided by the knowledge of fairly standard plans, few stone-founded huts within these enclosures will not betray their presence. It is in those areas of more intensive land-utilisation where greater discrepancies could occur. Just such an area lies in North Tynedale, in Redesdale, and eastwards towards the coastal plain of south-east Northumberland, where by and large a rectilinear form of Romano-British enclosure prevails. In these parts there

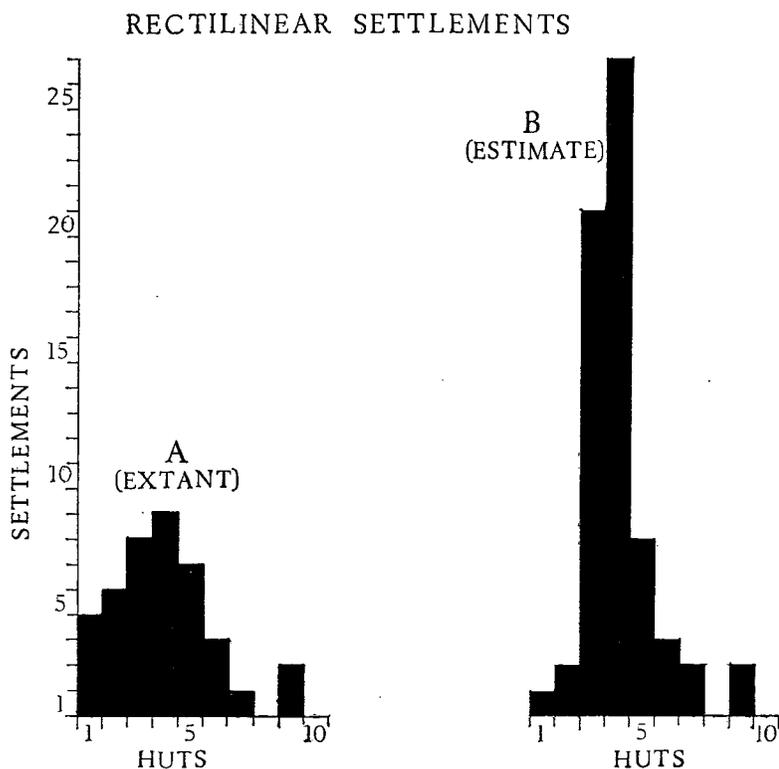


Fig. 2

are at the moment thirty-six rectilinear settlements with visible remains of stone-built huts (fig. 2, A). As has been stated elsewhere in general terms, such rectilinear settlements do not appear to achieve the final size of some of the larger upland settlements.⁹ Eighty-six per cent of these rectilinear sites can now be seen to have five huts or less whilst none have more than nine.

⁹ G. Jobey, note 2.

The average number of huts per site is just under four, or one hut less than the average overall. In addition there are a further twenty-six rectilinear sites in the same area, excluding those showing only as crop-marks on air-photographs, which bear all the other attributes of being of similar nature and context, yet for one reason or another lack reliable indications of stone-founded huts. If the standard plans of the best preserved rectilinear settlements are taken as a guide to the spatial allocation of the huts and the full complement allowed to every rectilinear site according to its area, then the effect overall on these sites will be to reduce slightly the number of home-steads with only one or two huts and increase the proportion of settlements with three or four huts (fig. 2, B). Even so, the average number of huts per site is increased thereby only to 4.3. By and large then, it would seem that the average size of settlement is not greatly altered by an allowance of this nature.

From a sample consisting of twenty-five stone-built huts on twelve more recently excavated settlements the interior diameters of huts range from 4.5 metres to one particularly large example of 9.1 metres, and the floor area from 18 square metres to 65 square metres. Over half have floor areas falling between 28 and 45 square metres, the average overall being just over 34 square metres. Various assumptions have been made as to the number of inhabitants that might be housed in a given hut. Slightly more sophisticated formulae based on ethnographic samples and floor-areas have also been proposed but with no greater chance of being correct at the moment.¹⁰ However, with a tentative allocation of a family unit of five persons to a hut, and assuming the co-existence of all huts as dwellings on any one settlement, then it will be evident that the size of the social groups could range from five to one hundred and fifty persons (fig. 1). But the uncertainties here are manifest and any future consideration of the comparative sizes of these settlements with, for example, pre-Roman hillforts and related settlements in the area, will be best made on another basis.

Almost forty years ago, R. G. Collingwood, writing in terms of Roman Britain as a whole, stated that the distribution of inhabitants in the Romano-British countryside was qualitatively prehistoric.¹¹ Few might now wish to agree wholeheartedly with such a bald statement. His information with respect to native settlement in the inter-mural zone was of course limited and seems to have been based upon some wrong assumptions as, for example, the context of many of the northern hillforts. However, a now well-known phenomenon in the eastern Border counties is the manner in which non-defensive stone-built settlements of the Roman period can be seen to overlie earlier hillforts and related settlements, providing thereby not only a general context for the stone-built settlements but also what has been claimed as an eloquent reflection of the *pax Romana* at work in parts of the Tyne-

¹⁰ e.g. note 1.

¹¹ R. G. Collingwood and J. N. L. Myres,

Roman Britain and the English Settlements (1936), 181.

Forth Province.¹² What is perhaps not generally realized is the extent to which this may occur. There are seventy-one possible instances in the four counties under consideration (fig. 3), not including other occasions where

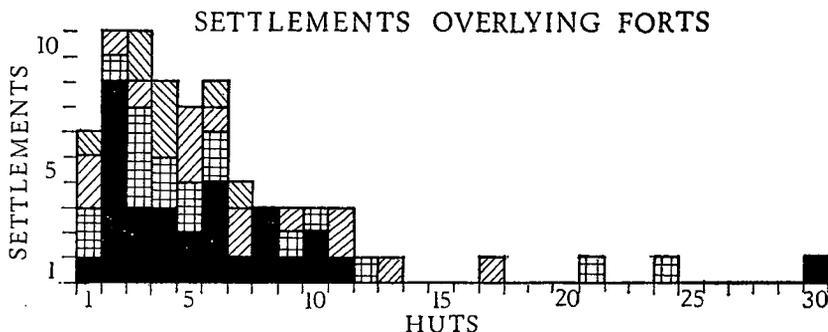


Fig. 3

later stone-built settlements lie in such close proximity to earlier defensive works that there could be little to quibble about in attributing to them the same location. Further excavation on less well-preserved sites in the more low-lying areas could also reveal more examples, as the recent excavations at Hartburn illustrate.¹³ The seventy-one instances would account for thirty-seven per cent of the total number of extant stone-built settlements. Admittedly this is a proportion which could easily be exaggerated since the survival rate of hillforts, in particular, is likely to be greater than that of the more vulnerable Romano-British settlements in other locations. Whatever the case may prove to be, some nineteen per cent of the surviving hillforts and related settlements in the four counties would at the moment appear to have later stone-built huts either within them, overlying their defences, or immediately adjacent to them. It is of course not known if these later huts represent settlement on the same site without any significant break in occupation, and excavated examples do not always give an unequivocal answer to this particular problem. However, our concern at the present is not with this question or with the problems of locational analysis and the possible effects of Roman peace or precept upon it. In terms of size it may be noted that many of these later settlements overlying earlier works remain small, the average number of huts per settlement being of the order of six. On the other hand, fifty per cent of the settlements with ten or more huts occupy the sites of earlier defensive works, including three of the four largest settlements, presumably in situations which still had much to commend them even though defensive requirements had gone. Moreover, even a cursory glance at the published plans will indicate that some of these

¹² e.g. K. A. Steer, "The Severan Reorganization" in *Roman and Native in North Britain*

(ed. I. A. Richmond, 1958), 103-106.

¹³ G. Jobey, *AA*⁴, LI (1973).

larger settlements, if all stone huts were in contemporary use, are greater than could be accommodated within the earlier defences.

The form of some of these larger agglomerations of enclosed huts and yards at once raises the question of whether or not any growth in the number of huts can be detected on *individual* settlements. Much the same problem concerning a possible growth in the number of inhabitants was posed during excavation of the small settlement at Tower Knowe in North Tynedale, where there was an increase in the number of huts from one to two in the timber-built phases rising to three in the stone phase, but here with little change in the total roofed area.¹⁴ Such an exercise involving extant stone-built huts can only be conducted upon certain hypotheses, again on the fringes of valid archaeological inference. They are as follows: that all huts

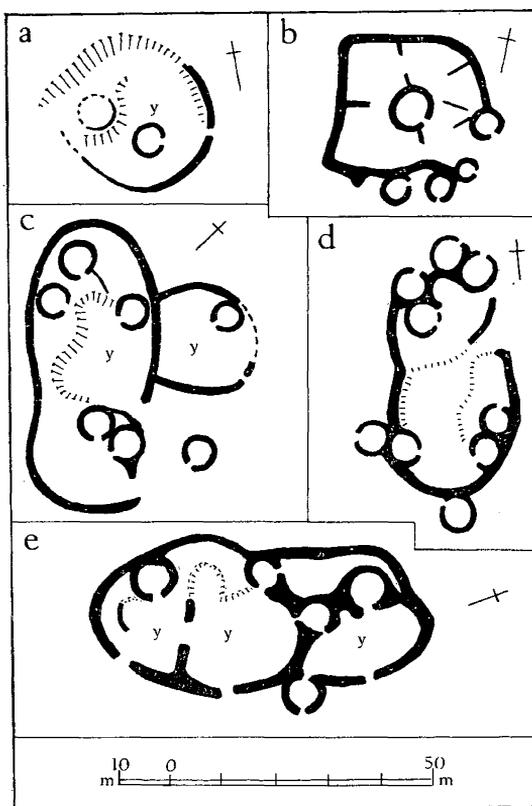


Fig. 4

- a. Elsdon Burn; b. Milking Gap;
 c. Brands Hill 2; d. Southern Knowe;
 e. Cockburn Law (after R.C.A.M., Scotland)
 For refs. and further examples v.
 AA⁴, XXXVIII, XL & XLII

¹⁴ *Ibid.*

on any one settlement co-exist as dwellings at some stage; that huts which appear in what would seem to be secondary positions, such as in interior yards or outside of or overlying enclosure walls, are so positioned as a result of expansion; and lastly that nucleated or conjoined settlements, where one enclosure wall appears to be secondary to another, arise not only from economy of effort but also as a result of expansion (figs. 4 & 5). An analysis of the plans on a county basis, Berwickshire perhaps being the least reliable source, shows the proportion of sites on which expansion in the number of huts may have taken place, based upon the above suppositions (fig. 6). The average for the three counties of Northumberland, Roxburghshire and Peeblesshire could be as high as thirty-one per cent.

Quite clearly the rate of possible growth on individual settlements is not

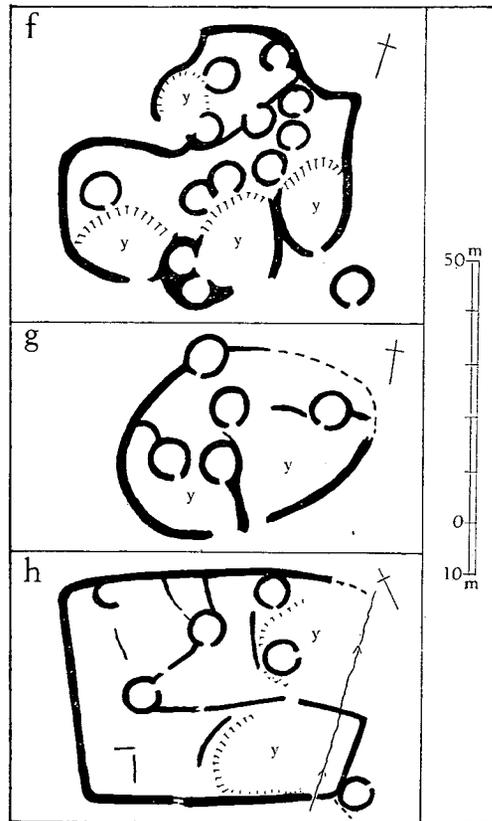


Fig. 5

f. Greaves Ash East; *g.* Coppath Burn;

h. Bridge House

For refs. and further examples *v.*

AA⁴, XXXVIII, XL & XLII

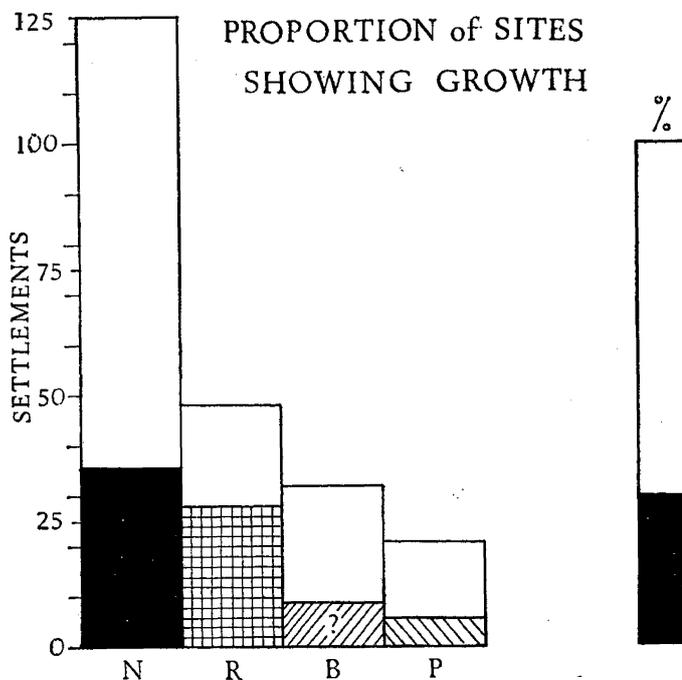


Fig. 6

capable of being assessed, even in the most tentative terms, and the degree of expansion, particularly on some of the larger settlements, raises further problems not easily resolved. However, from twenty of the best examples chosen from amongst those settlements with a final total of five or less huts, the average degree of growth from what are understood as being the original foundations to the maximum number of huts ultimately present on the sites could be of the order of thirty-seven per cent. There is obviously no means of knowing if new settlements were also established at a distance from the original foundation by a process of hiving-off, once the size of the parent site had reached an optimum. Moreover, such figures cannot be used to make firm claims for a general increase in population throughout the area in question, since they apply only to *individual* settlements for which there is no proof of precise co-existence as inhabited sites. Still less can they portray with any surety what might have been the case throughout the intra-mural zone generally. However, they provide an hypothesis to be tested in future excavation; and it may not be without some small import that, as at Tower Knowe in the east, recent excavations on a native settlement of the Roman period in Eskdale, Dumfriesshire, in the west, indicate that the number of timber-built huts in the enclosure had increased in *number* from one to four and to the extent that in the final phase one of the huts could only be fitted

in by pushing out material from the enclosure bank over the river-scarp.¹⁵ At the very least, for one reason or another, it has become increasingly more difficult over the years to support the idea, once so neatly argued by Collingwood, that whole tribes might have been removed from the intra-mural zone to the forests of Wurttemberg at the time of the construction of the Antonine Wall.¹⁶ The evidence as we have it would hardly support any theory of extensive depopulation and could well point to the possibility of a steady growth.

(To be continued)

¹⁵ Boonies (NY:306900), report forthcoming.

¹⁶ R. G. Collingwood, *op. cit.*, 146. For a

view to the contrary v. J. P. Gillam in *Roman and Native in North Britain*, 66.