

## CELTIC EARTHWORKS - 1931 POPULATION MAP

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**CELTIC EARTHWORKS OF SALISBURY PLAIN:** based on Air Photographs. Scale 1 : 25,000. *Southampton: Ordnance Survey. Folded, 2s 3d; on paper flat, 1s 6d; mounted and folded, 3s; mounted in sections to fold, 4s*

On this map Old Sarum and Salisbury occupy the south-west corner, the river Bourne, from Allington to Salisbury, meanders across the centre from north-east to south-west, and the Avon along the west side. Though the lettering owing to the scale is in some cases necessarily very small, it is admirably clear. The contour interval is 5 metres. The Celtic features, marked in red, are linear earthworks (including double banks, bank and ditch, flat ditches), fields and lynchets, tumuli and barrow circles, with distinctive markings for those vouched for by air photography but not tested with spade or probe. The whole of this area save, generally speaking, the valley of the Bourne, the neighbourhood of Old Sarum and Salisbury, and the district south-east of Winterslow, is rich in Celtic remains, the most intensive regions being to the north-west and north-east of this map, and close north-east of Salisbury. This map is the first of a series of six designed to cover the Plain; it is hoped "to publish the remainder at fairly frequent intervals." Enclosures on Cockey Down, on the Postway, and outside the camp of Ogbury on the east are here published for the first time. Field archaeologists have here a wealth of suggestion for their activities. Their results should be communicated to the Ordnance Survey, so that this map may be confirmed or corrected.

S. E. W.



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**POPULATION OF GREAT BRITAIN 1931.** A map, in two sheets, on the scale of 1 : 1,000,000. *Southampton: Ordnance Survey Office 1934. 1s 6d each sheet*

This is the first map of the distribution of population over Great Britain to be produced on an adequate scale; and it will be welcomed by all those who wish to know more of the resources and possibilities of the country.

Density of population is shown by tints of colour from white through browns to black. The densities were calculated for the smallest Local Government unit areas: *i.e.* civil parishes or townships in the rural districts and wards in the urban

districts, with allowance for uninhabited areas such as parks, lakes, woodland, etc. And the boundaries of the resulting areas were somewhat generalized before reduction to the scale of this map. The result is to produce a very vivid picture of the main facts of the distribution of the population, within which a considerable amount of detail can be seen on closer study.

The chief difficulty in the making of such a map is present in a high degree in this country. It is the representation of very great variations of density within a small area. Here there are large parts of the Highlands with less than one person per square mile. At the other end of the scale are densities of more than 76,800 per square mile in "Very Congested" parts of some cities. The range of densities employed requires twelve tints. The densities, and the terms employed to describe them, are as follows:

<i>Description</i>	<i>Number per Square Mile</i>		<i>Number per Acre</i>	
Occasional .. ..	0 to	1	0 to	0.002
Very Sparse .. ..	1 ,,	25	0.002 ,,	0.04
Sparse .. ..	25 ,,	50	0.04 ,,	0.08
Thin Rural .. ..	50 ,,	100	0.08 ,,	0.16
Normal Rural .. ..	100 ,,	200	0.16 ,,	0.31
Close Rural .. ..	200 ,,	400	0.31 ,,	0.625
Transitional .. ..	400 ,,	1,600	0.625 ,,	2.5
Semi Urban .. ..	1,600 ,,	6,400	2.5 ,,	10
Urban .. ..	6,400 ,,	25,000	10 ,,	39
Close Urban .. ..	25,000 ,,	64,000	39 ,,	100
Congested .. ..	64,000 ,,	76,800	100 ,,	120
Very Congested .. ..	76,800 and over		120 and over	

This scale is too complicated, and the progression too irregular, to give completely satisfactory results. The descriptive terms are, of course, based solely on conditions in Great Britain; but even there the so-called "rural" densities are pitched too high. Large areas in Eastern England, from Yorkshire to Suffolk, which are wholly rural, are marked from "Very Sparse" to "Thin Rural." Only where there is either specially intensive rural development, as in part of the Fenland, or some outspread of residential settlement from towns or industrial areas, do we get the "Normal Rural" of the map. The "Close Rural" is only very exceptionally rural; it is in most cases found only in mining or industrial or suburban districts. And urban conditions are found where the density reaches only 400 per square mile.

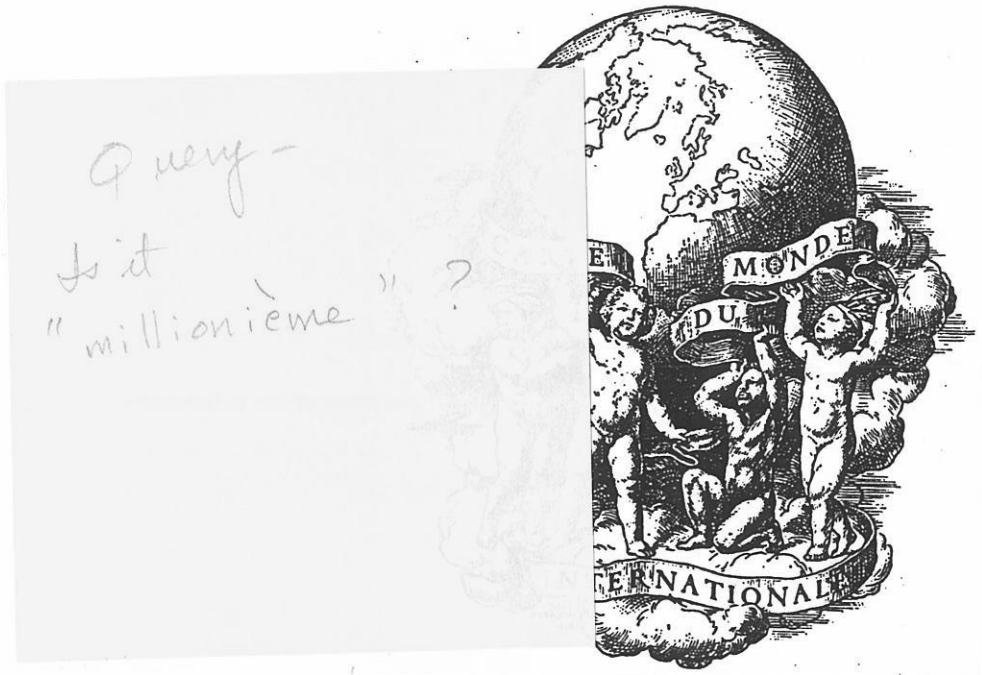
At the other end it is interesting to note that a commonly accepted maximum density for town-planning schemes of one-family houses is twelve houses per acre over built-up areas. This gives somewhat fewer than sixty persons per acre, or 38,400 per square mile, which is within the "Close Urban" of the map. Greater densities are, of course, reached, without any nearer approach to overcrowding, where the housing is in the form of blocks of flats; but such areas are too small to be shown effectively on this scale. The attempt to show the variations of density within the towns fails because the wards are too small area units for the scale of the map; they are hardly visible except in London, Glasgow, and Liverpool. The difficulty is clearly seen by comparing the inset map of London, on the scale of  $\frac{1}{4}$ -inch to a mile, with the same area shown on the main map. The map would gain by the placing of all the really urban densities into not more than two colours, *e.g.* "urban" from, say, 640 per square mile to 38,400, and "congested" for all above the latter figure. Subdivision of these urban densities could be usefully shown on insets, such as that given for London, for the seven or eight major conurbations. At present the towns do

not stand out very clearly on the map unless there is a considerable area with the density here termed "Congested."

There would also be a gain in the reduction of the number of tints employed and a clearer definition of each. Even when the map is fresh some of these are not too readily distinguishable from each other. When it has been in use for some time they will be less clear. This difficulty could be met by the device, already employed on our geological maps, of using a symbol as well as a colour.

As published the map contains a large number of names. Those of the towns are useful; but most of the rest are irrelevant to the purpose of this map and should be omitted. The county names are wisely left to inset diagrams. And, while it is useful to have the rivers shown, the canals are not needed. On the map before me there is some failure to register. The Scottish part of the map was prepared by Mr. A. C. O'Dell; the rest was compiled in the Ordnance Survey Office. Its completion and publication is due mainly to the initiative and energy of the Director-General, Brigadier H. S. L. Winterbotham, who has thereby done a great service to all concerned in the development of the country. It is to be hoped that such a map will be regularly issued with the Reports of all future censuses, as well as separately.

C. B. F.



Ellis Martin design, used on the cover of the annual reports of Carte du Monde au millionieme, the Central Bureau of which was for many years at the Ordnance Survey Office, Southampton