

Irish Rectangular Neolithic Houses – a short lived phenomenon?

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Irish rectangular Neolithic houses have been found in increasing numbers in recent years with the expansion in developer funded archaeological excavations in Ireland. This has led to a corresponding increase in the numbers of radiocarbon dates which have been obtained from these structures. A simple examination of all the dates currently available for Irish rectangular Neolithic houses, 63 at the last count, from 21 houses, would suggest that they emerge sometime in the centuries leading up to 4000BC and continue for about a millennia, up to 3000BC or beyond ([figure 1](#)).

However many of these dates can be questioned on a number of grounds. Some dates were obtained when radiocarbon dating techniques were less precise and have large quoted error figures, leading to wide calibrated ranges. Others can be questioned on grounds of stratigraphy or contamination. Many dates have been obtained from unidentified wood charcoal, presumably oak charcoal in the majority of cases, and may potentially be displaying “old wood” effects.

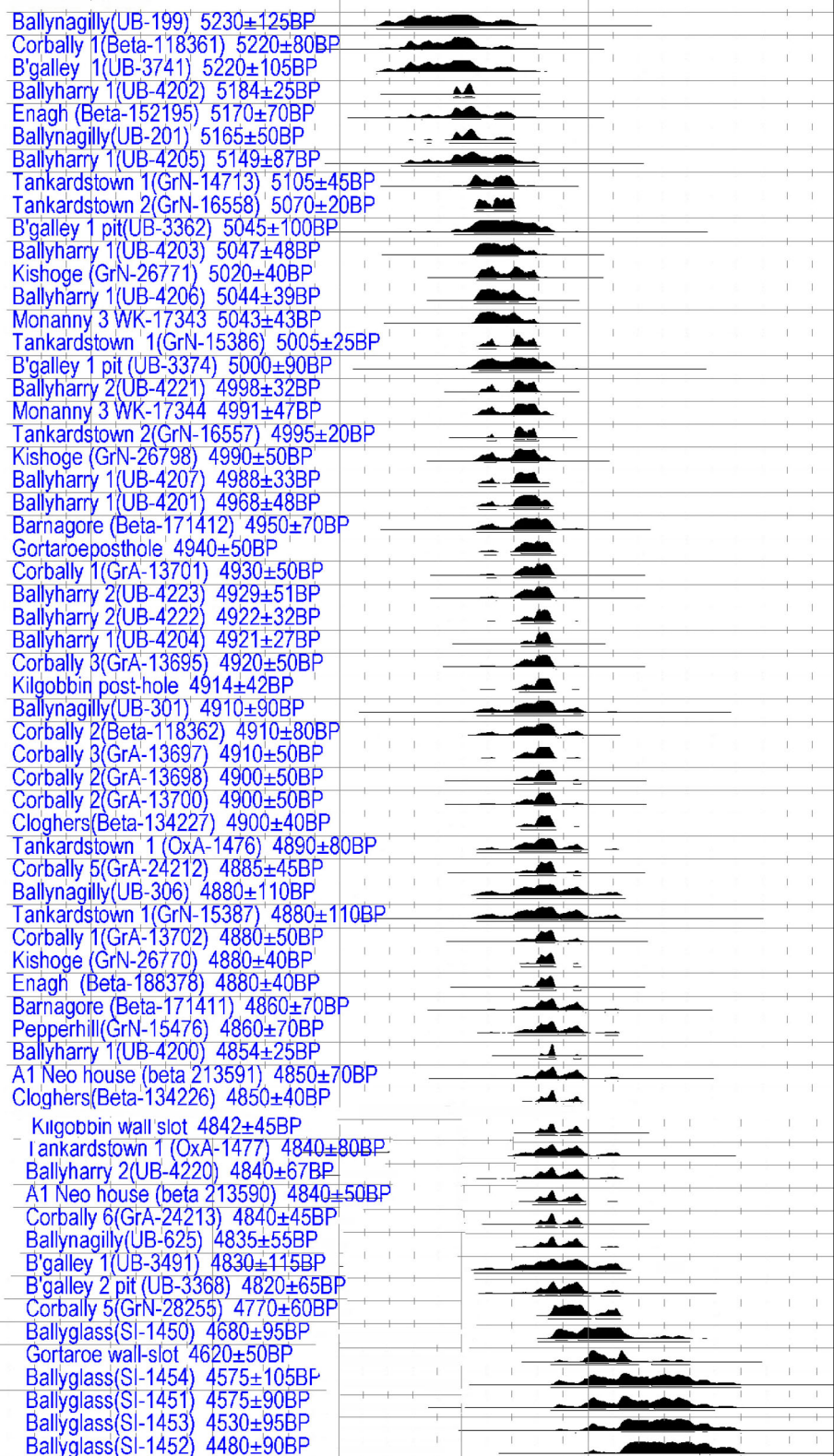
To get an accurate estimate of when Irish Rectangular houses began, flourished and declined it is necessary to use only those dates which are most reliable in terms of their location in the stratigraphic sequence of the site, which have the lowest possible quoted error figures and those dates which have been obtained from materials which are not susceptible to significant old wood effects.

In practice this means utilising AMS dates of materials such as hazelnut shell or cereal grains which have been found in direct association with structural elements of these Neolithic rectangular houses. When all the dates so far obtained are whittled down using these criteria, only fifteen “gold standard” dates from six sites are left. These sites are reasonably spread around the country with examples in the northwest, southwest and southeast and are a representative sub-sample of Irish rectangular Neolithic houses as a whole, both in terms of their forms and associated material culture.

It is obvious, from even a brief examination of the calibrated ranges of these dates ([figure 2](#)) that there is a much narrower date range for the utilisation of these structures than is indicated by an examination of all the available dates. Using the OXCAL v3.10 the dating of the start of rectangular Neolithic houses in Ireland can be estimated at *3715 to 3650 BC* and the dating of the end of these structures can be estimated at *3690 to 3625 BC*. The likely span of the use of these structures can be estimated as having a 95.4% probability of being 65 years or less. The dating of

this subset of the available data is highly significant. While not the only event in the Neolithization of Ireland the scale of the emergence of so many structures, spread so widely over the country, in such a short time period is suggestive of the arrival of a large group of settlers in the years around 3700BC. This may be linked to similar developments in Britain at the same time. Their equally rapid disappearance is less easy to explain but may involve the merging, acculturation and competition of different cultural groups in Ireland.

The large amount of ongoing discovery of rectangular Neolithic houses provides a great opportunity to further refine our view of this phase of the emergence of the Irish Neolithic and field archaeologists must be encouraged to use best practice when obtaining radiocarbon dates; carefully choosing short lived materials to date, from archaeological contexts whose stratigraphic position can clearly be linked to the construction or use of the structure.



5000CalBC

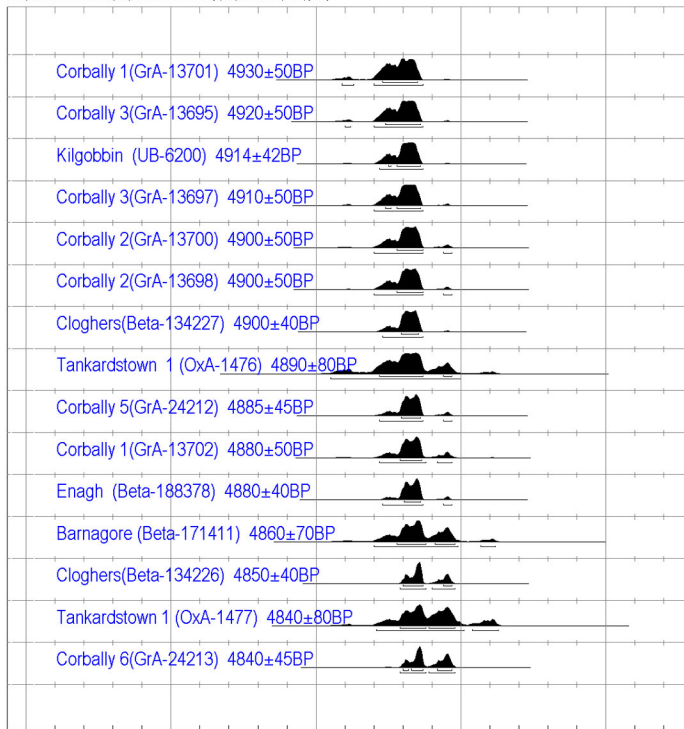
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Calibrated date