

**Relevant recent research undertaken in the last five years
and how this relates to the original research questions**

Many research projects were undertaken in the last five years, this review focuses on those that reached completion through publication (whether in interim or final form) during this period.

Between 2004 and 2008 over 200 publications were produced relating to the Neolithic and Early Bronze Age in Wales – an average of almost 40 a year. This figure alone demonstrates the strength of research into these time periods within Wales. The majority of these publications have taken the form of excavation notices published in *Archaeology in Wales* (140), and in regional Welsh journals (eg, *Brycheniog* and the *Carmarthenshire Antiquary*) or *Archaeologia Cambrensis*. But a few have reached journals with a more international readership (eg, *Antiquity* and the *Proceedings of the Prehistoric Society*). In addition, over twenty articles have been published in edited volumes, and several books have been published covering the Neolithic and Early Bronze Age of Wales. In this latter category is an award-winning introduction to Neolithic tombs in Wales, as well as a major summary of Mesolithic and Neolithic coastal occupation (by Martin Bell), and a guide to Wales's megalithic monuments (by George Nash).

Analysis of the themes covered by these two hundred publications provides one measure of activity undertaken on the research questions identified in the original Research Framework. (Several publications cover more than one theme).

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Original Research Question	Number of publications
Late Mesolithic – Earlier Neolithic transitions	10
Agricultural practices	5
Settlement	51
Exploitation of different landscape zones	41
Ceremonial and funerary monuments	135
Industrial processes and trade connections	20
Material culture	29

Late Mesolithic – Earlier Neolithic transitions

This question has received less attention than others in the publications of recent years, but it has benefited considerably from one outstanding report: Martin Bell's "Prehistoric coastal communities: the Mesolithic in western Britain" (2007, York: Council for British Archaeology). As well as bringing to publication an important series of Mesolithic excavations in the Severn Estuary, this work has also summarised evidence for contemporary occupation around the coast of Wales.

Elsewhere in the UK researchers continue to develop intellectual positions on the question of the Mesolithic / Neolithic transition, but for this question to be addressed in a specifically Welsh context, more targeted excavation and analysis will be needed locally. The summary of radiocarbon dated evidence for all parts of Britain and Ireland produced by Alasdair Whittle, Frances Healey and Alex Bayliss ('Gathering Time', Oxbow Books, 2011) provides an important basis upon which to begin such work.

Agricultural practices

The nature of subsistence in the Neolithic and Early Bronze Age has been flagged as an area of particular interest for many years, with several studies addressing the question specifically in Wales.

However, the past five years have not been the most productive for publications in this area with those that have appeared being site-based studies. There is a pressing need for a summary of the Welsh evidence relevant to this theme in order to highlight more specific areas for future attention.

Settlement

The past five years have been particularly fruitful for the study of Neolithic and Early Bronze Age settlements / domestic sites, with advances in our understanding of the distribution, diversity and chronology of pit clusters, Neolithic houses and burnt mounds.

Excavations at Parc Bryn Cegin have made the greatest difference to our understanding of issues relating to this theme since the site included examples from all three categories. It is to be hoped that similar large scale studies will be feasible in other parts of Wales.

Many other sites have been excavated and published over this period, all helping to diversify the available dataset, including pit clusters at Betws yn Rhos, Borrass Quarry and Cwm Meudwy, the Neolithic house at Parc Cybi and well preserved burnt mounds at Nant Farm and Upper Neeston Farm.

With so much new material available there is great potential for synthetic studies of this theme and for the production of settlement models which are specific to the evidence from Wales.

Exploitation of different landscape zones

The publication of regional components of Cadw's Prehistoric Funerary and Ritual Monument Survey have provided a validated dataset relating to the monumental use of landscape, as well as a number of associated environmental studies. These have provided the raw materials for future study and mark an important milestone in research on this theme. Another notable landscape study dating from this period, and still ongoing, is the SPACES project in Pembrokeshire. Questions of non-monumental landscape use remain harder to answer, not least because of problems in identifying settlement without great good fortune or large scale soil clearance.

As noted for other themes, while data collection will continue there is now a wealth of material awaiting synthesis and interpretation.

Ceremonial and funerary monuments

As per usual, the majority of publications relating to the Neolithic and Early Bronze Age in Wales have focused on ceremonial and funerary monuments. The products of Cadw's Prehistoric Funerary and Ritual Monument Survey have been noted above, and the value of the specific monument records will also be important to future researchers. This project has also led to a range of targeted excavations at stone circles, henges, and other monuments.

Within Neolithic studies, the single greatest step forward over this period is, arguably, the discovery of multiple causewayed enclosures in Wales – a monument class conspicuous by its total absence just fifteen years ago. These discoveries are a testament to the continued importance of aerial photography. Excavation at several henges and pit circles (eg, Dyffryn Lane, Vaynor Farm and

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Meusydd) has also done much to diversify the evidence-base for these monument types in Wales away from traditionally cited sites.

No large scale excavations of Neolithic tombs have been published over this period, instead the emphasis has been on synthetic studies, on analysis of rock art, and on the study of human bone assemblages from previous excavations. When the latter projects come to completion, they may provide the basis for a redefinition of research aims in this area, hopefully leading to further targeted fieldwork.

Industrial processes and trade connections

There has been a flurry of activity around Neolithic and Early Bronze Age stone axe production sites, including excavations at Mynydd Rhiw and at Cwm Mawr, the former greatly extending the area of known quarrying and producing a well-dated sequence. Work has also continued into copper mining sites in Wales, notably at the Great Orme, but also with follow-up work in central Wales.

Advances have also been made in the understanding of the stone-transportation question from the Preseli Hills to Stonehenge with excavations at both sites, but also with detailed consideration of the potential for glacial transportation of stone between the two areas.

Even so, much work remains to be done. The petrology of stone axes in Wales deserves review and the call for analysis of source material outcropping from drift and beach deposits deserve attention. Research in this latter area has the potential to significantly alter our models of industrial processes and trade connections over these periods.

Material culture

Material culture studies have been something of a poor relation in Wales over the past five years. The Portable Antiquities Scheme has brought to light several relevant finds, and they continue to feature as the products of excavation but major analytical programmes and syntheses are few and far between. One very notable exception is the publication of the work by Williams and Jenkins on the petrology of Neolithic and Early Bronze Age pottery. Ongoing projects have continued on other material and artefact types, for example human remains from tombs and barrows, study of the morphology of Bronze Age pottery, but these await completion.

The lack of integration of material culture and monument studies at a level beyond the excavation report remains a concern.

Research questions for the next five years

The research questions noted above remain valid and the commentary that has accompanied them has flagged specific areas that deserve attention. In general it would be useful if there were a greater balance of efforts invested in each theme, bringing up the level of available data and associated interpretation so that more holistic models could be produced. For example, the Mesolithic / Neolithic Transition, Agriculture, Landscape Use and Material Culture do not receive the attention that is generally given to Settlement, Funerary and Ritual Monuments and Industrial Processes. The result is an imbalance in our perception of what life was like in Wales during the Neolithic and Early Bronze Age.

One additional research question identified in discussions at the September 2010 workshop was a need for a greater emphasis on chronology. Developments in sampling strategy, analytical

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technique, and Bayesian statistics have greatly improved the precision of radiocarbon dating, allowing more detailed chronologies to be produced for specific site and artefact types. The extent of these developments have been exemplified in the careful work at Parc Bryn Cegin which has significantly advanced our understanding of Neolithic house, pit cluster and burnt mound use in Wales. It is proposed that chronology be recognised as a separate research priority.

To summarise therefore, the research themes identified for the Neolithic and Early Bronze Age in Wales are.

1. Chronology of material culture and monument types

Key questions:

- a. At what date did the Neolithic begin in Wales?
- b. What is the date of the major monument and artefact types of Wales's Neolithic and Early Bronze Age?

2. Later Mesolithic – Earlier Neolithic transitions

Key questions:

- a. Did farming replace or supplement the economy of later Mesolithic communities?
- b. What was the environmental context for the transition?

3. Agricultural practices

Key questions:

- a. What was the relative significance of arable farming and of animal husbandry during the earlier Neolithic?
- b. Did farming practices change during the later Neolithic and Early Bronze Age?

4. Settlement

Key questions:

- a. How mobile were communities across this period?
- b. Did settlement patterns vary in different parts of Wales?

5. Exploitation of different landscape zones

Key questions:

- a. Did settlement focus on specific landscape zones and did those zones vary across this period?
- b. What evidence is there for different types of land use in different landscape zones?

6. Ceremonial and funerary monuments

Key questions:

- a. What do monuments tell us about the nature of society?
- b. What can their immediate environs tell us about the development, role and use of monuments?

7. Industrial processes and trade connections

Key questions:

- a. How did procurement strategies for stone and metal ores differ?
- b. What were the mechanisms for the dispersal of stone and metal goods?
- c. Can we identify trade in other materials?

8. The distribution and context of material culture deposition

Key questions:

- a. How deliberate were deposition strategies at specific sites?
- b. What do material culture groups tell us about the societies that created them?