

Neolithic and Earlier Bronze Age

Neolithic and Early Bronze Age

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Final Version 02-02-2017

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1. Introduction

This document was compiled following discussions with the panel members and the conference participants. In total 21 people contributed to the formation of the updated themes listed below.

There was agreement amongst the panel members and the conference participants that while the original 2003 themes remained valid it was possible to 'streamline' them and to make them more specific to Wales. The themes proposed below do not replace the 2003 and 2011 ones, but put forward new priorities that enhance the original ones.

There was agreement that there should be less specific focus on the Mesolithic/Neolithic transition and the early Neolithic, and a greater emphasis on the need to address the Neolithic as a whole. Unless otherwise stated, the research themes should be applied to the whole of the Neolithic and Early Bronze Age periods (4000 BC to 1400 BC).

Recommendations are also provided, which, it was felt, would be helpful in the application of the research agenda to both commercial and research projects.

If we preserved everything we would know nothing - one key recommendation that came out of the group discussions was that excavation of Neolithic and EBA sites should be encouraged across Wales. The number of sites, and the number of significant sites, identified over the last decade reveals how much there is still to discover about these periods of early prehistory. While new insights can be gained through reassessing archived assemblages, excavation of sites under modern conditions is the key way for us to extend our knowledge – the dramatic shifts in our understanding of the periods brought about by recent excavations provides a clear demonstration of this.

2. Summary of current knowledge

The following lists new work and discoveries in relation to the existing themes, and was compiled from published journals and following the receipt of information about site discoveries from the WATs and other commercial organisations and academics and discussions with the contributors listed above.

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The summary of current knowledge is not an exhaustive list of newly discovered sites, and only aims to provide an overview of how work over the last 6 years has moved our understanding of the Neolithic and EBA periods forwards.

Since the last 'refresh' of the Research Framework in 2011 a number of significant new discoveries have been made that have expanded our knowledge and understanding of the Neolithic and Early Bronze Age periods in Wales. Most of these discoveries have resulted from development, with large scale developments contributing considerably to the distribution of early prehistoric sites. Research excavations have also been carried out by the Welsh Archaeological Trusts and several Universities and individuals.

The sites included in this update comprise both those excavated and/or published since 2011. The update will discuss sites that have been either fully published or for which there is an interim report or statement available.

Agriculture

Hwylfa'r Ceirw field systems, Great Orme, Gwynedd – A survey of possible Bronze Age field systems

Settlement

Llanfaethlu, Anglesey – 4 early Neolithic houses, a middle Neolithic pit cluster and two Grooved Ware features

Penmynydd, Anglesey - late Neolithic settlement evidence including 5 pits and some postholes but no well-defined structure.

Towy valley, Carmarthenshire - a significant cluster of pits containing early Neolithic pottery, struck lithics and charred corn, partly overlain by a circle of large postholes.

Towy valley, Carmarthenshire - a cluster of pits containing Grooved Ware, which was previously unknown in this part of west Wales.

A further 10 sites producing Neolithic and EBA pits and/or finds were identified on the route of the LNG pipeline through Pembrokeshire and Carmarthenshire.

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Isolated finds of pits containing early Neolithic pottery have been recorded in Cardiganshire and Gwynedd.

Travellers Rest, Carmarthenshire – Neolithic pottery below possible Bronze Age cairn

Borras Quarry, Wrexham – Neolithic and BA pits

Landscape

Pant-y-Ilan, Arthog, Meirionnydd – three new cup mark sites

Llyn Du, Llanbedr, Meirionnydd - a cup and ring mark

Camarnaint, Llanfairfechan, Conwy – a cup mark stone

Treferwydd, Llangaffo – cup marked stone with a central cup and three concentric rings

Monuments

Llanddowror near Carmarthen – a class II henge

Caerau hillfort in Cardiff – a causewayed enclosure.

Penywyrlod, Powys - a chambered tomb

Garn Turne, Pembrokeshire – a chambered tomb

St Lythans, Glamorgan – a chambered tomb

Trefael, Pembrokeshire – cup-marked stone possibly originating as a portal dolmen

Perthi Duon, Anglesey – a portal dolmen

Goldsland Cave, Vale of Glamorgan – Late Neolithic human remains, pottery and lithics within a pit outside the entrance

Hindwell, Radnorshire – Cursus monument

Walton, Radnorshire – Palisaded enclosure

Cerrig Bwlch y Fedw, Denbighshire – Stone circle

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Llwyn-Meurig, Carmarthenshire – Chalcolithic ring ditch containing copper halberd

Four crosses, Montgomeryshire – Bronze Age ring ditch

Bryn Gwyn Stones, Anglesey - standing stones that had once formed part of a stone circle

Steynton, Pembrokeshire – Bronze Age ring ditch

A497 road scheme, Gwynedd – Bronze Age circular ditched enclosure containing a small round cairn

Pan-y-Butler, Cardiganshire - two Bronze Age round barrows

Nantcwnlle, Cardiganshire - a round barrow that had been the focus for activity from the early Neolithic through to the end of the Early Bronze Age.

Fan Foel, Carmarthenshire – Bronze Age round barrow

Pentrehobin, Flintshire – Bronze Age ring ditch

Ffairfach, Carmarthenshire – 5 Bronze Age ring ditches

The Pillar of Eliseg, Denbighshire – Bronze Age cairn

Bedd Morris Standing Stone, Pembrokeshire – Bronze Age dates from stone socket

Nantcwnlle, Ceredigion – Bronze Age round barrow

Llanfyrnach, Pembrokeshire – Possible pond barrows

Tinkinswood, Glamorgan - Undated round barrow

Travellers Rest, Carmarthenshire – possible Bronze Age cairn

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Industry

Burnt Mounds

Since 2011, a significant number of burnt mounds have been identified, predominantly in SW and NW Wales. In SW Wales, 39 burnt mounds were identified during excavations on the route of the LNG pipeline, all of which produced charcoal and have been dated to the Bronze Age. In NW Wales several burnt mounds were investigated during the construction of the Pwllheli to Blaenau Ffestiniog Pipeline, Gwynedd including a large site near Pentrefelin.

Extraction Sites

Research around the Preseli Hills in Pembrokeshire has identified two possible sources for the Stonehenge Bluestones: the Carn Menyn and Carn Goedog outcrops on Mynydd Preseli and the Craig Rhos-y-Felin outcrop at Pont Saeson.

Bronfloyd Lead Mine, Ceredigion – possible Bronze Age mining hammer

3. 'Refreshed' Themes

3.1 Settlement

The concept of Neolithic settlement can be problematic, with a focus on identifying 'houses' and other structural remains to explain how and where people lived. In reality, evidence for domestic activity can be far more ephemeral, often constituting clusters of postholes and/or stakeholes, clusters of pits, individual pits, hearths or simply spreads of material culture. Evidence for domestic activity can also be identified in apparently 'ritual' deposits – pits containing structured deposition, for example. It is likely that evidence for Neolithic domestic activity is being overlooked because it often does not conform to preconceptions or is considered too ephemeral to be of significance. Settlement should, therefore, be understood as being represented by a range of features including pits, trenches, postholes, stakeholes, hearths, artefact scatters, all of which could contain significant evidence relating to Neolithic domestic activity.

The following research themes are proposed:

- What did everyday life in the Neolithic and EBA look like and how could this influence the types of settlements we are likely to find?
- Is the apparent bias towards early Neolithic 'houses' in north Wales reflective of a regional tradition or is it a result of modern land development patterns or better archaeological recognition?

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- Why do 'houses' stop being built around 3500 BC?
- Are we focused too much on 'houses' and the idea of settled occupation? What other forms of settlement were practiced and how do we recognize them?
- Why do we find so little settlement evidence for the later Neolithic and EBA? Is the lack of settlement in these periods reflective of the nature of the archaeological resource or are we simply not recognizing it during excavation?
- How does evidence for settlement fit into patterns of landuse and are there clear regional variations?
- What can palaeoenvironmental evidence reveal about settlement practices, particularly on sites where there is little or no material culture?
- What form of settlement was occurring in the uplands and do surviving field systems have a Neolithic or EBA origin?

Recommendations:

There was a consensus amongst the panel and the conference participants that the developer-funded system is not currently adequate or flexible enough to facilitate the discovery of Neolithic and EBA settlement sites, or to enable sufficient excavation when they are discovered. The use of small evaluation trenches was highlighted as insufficient when sampling possible early prehistoric sites, and the need for open-area excavation was emphasized. The panel and conference concluded that the main recommendations in relation to Neolithic and EBA settlement are:

- It is vital that we appreciate that **any** evidence for Neolithic or EBA settlement is extremely important and needs adequate investigation. This should be recognized within the planning sector and reflected in DC decisions.
- A more pragmatic approach should be advocated by all involved in DC, with strategies that are appropriate to individual sites and which can be changed depending on what is found. (See the case study below for an illustration of how a flexible and adaptable approach can work when Neolithic/EBA evidence is revealed.)

Other recommendations are:

- There needs to be recognition that excavation sampling must be viable to allow the collection of data. A minimum of 50% excavation of features should be advocated within DC decisions.
- The importance of palaeoenvironmental remains needs to be

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recognized, and where a Neolithic or EBA site is suspected a programme of palaeoenvironmental sampling should be implemented.

- An analysis of data relating to clusters of artefact scatters held in the HERs could help to identify potential new settlement areas.
- Preservation *in situ* should not be the default approach, full excavation of sites is sometimes preferable.

Case Study – Llanfaethlu Neolithic site and the DC process

Jenny Emmett (GAT)

Catherine Rees (CR Archaeology)

The discovery and excavation of the Neolithic settlement was fortuitous. Had trial trenching revealed the full extent of the archaeology, it is possible that the local authority may have chosen an alternative site for the school (though it must be noted that there were other constraints on the project and the council were fully aware of the risks of further discoveries on the site). In the event, the success of the project owed much to the support of the local authority, coupled with interest from the local community and full exploitation of the educational potential of the site.

Initial works at the site, comprising a desk based assessment and magnetometer survey, suggested the site had high archaeological potential and evaluation trenching was conducted. Twenty 20m x 2m trenches were excavated, which covered approximately 2% of the site, the trench locations being informed by the geophysical survey and the provisional site layout. Only one trench uncovered significant archaeological activity, whilst the remainder of the site appeared underwhelming.

The Neolithic activity identified in the trench was immediately recognised as potentially nationally important and the possibility of an Early Neolithic structure along with a clear large Middle Neolithic pit group was raised. The trench was initially extended in an attempt to define the extent of the activity and it was demonstrated that there was clear structural evidence and that the features covered an area beyond the new trench limits.

Based on the initial interpretation of a pit group and single structure, it appeared that the majority of Neolithic activity at the site had been located and excavated by the evaluation. It was felt that this reduced the merits of preservation *in situ* and that the considerable benefits to archaeological knowledge and outreach which would be gained from full excavation would adequately mitigate the loss of the site to development. Additionally, concern over contamination by reburial and re-excavation, and a direct threat of nighthawks during the evaluation, contributed to a decision to excavate where investigation might otherwise have halted when the potential of the features became apparent. A different decision on any of these points might have meant the full extent of the site remained undiscovered, with an arbitrary area defined for preservation based on the assumption of a single house; or resulted in considerable disruption during construction, upon exposure of the whole site.

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Full excavation of the Neolithic activity was therefore considered to be the most appropriate strategy. As all Early Neolithic house structures previously excavated in North Wales had been single buildings not over 15m in length, an excavation area measuring 40m x 40m was opened, centred on the location of the initial discovery with the expectation that this would comfortably expose any structure in its entirety. This excavation was undertaken well in advance of the main development so as to minimise the risks of delaying the project build. The decision to commence prior to planning consent being granted relied upon the demonstrable commitment of the developer to proceed with the scheme and to fund in full the archaeological programme. It was also influenced by the belief at each stage that the majority of the site had already been exposed and by a shared ambition to maximise the research potential of the site, given that the principle of its physical loss had been accepted.

A case might have been made for additional trial trenching to delimit the settlement. However, experience has shown trial trenching to be ineffective in defining discrete activity; indeed, the subsequent stripping of the whole development site revealed that several other trenches had fallen neatly within separate groups of features without yielding any hint of their presence. This site is unique in Wales and there was no reason to suspect that a multi-structure settlement would be uncovered at the site and it was deemed more advantageous, in archaeological, time and financial terms, to examine any possible structure as a whole rather than to expose part and have to return to excavate at a later date.

The opening of the 40m x 40m trench revealed the site as a multi-structure settlement. Three houses were identified and it was discovered that at least one, and possibly two, of the structures extended beyond the trench limits. Further targeted excavation was therefore conducted to complete the full excavation of all three house structures.

An unusual opportunity then arose to conduct fieldwalking of the site, following the deturfing of the site for ecological reasons. The general paucity of artefacts within the region coupled with the predominance of pasture means this is rarely a productive technique in north-west Wales. However, a sizeable artefact assemblage was recovered with several concentrations identified. It is hoped that overlaying these results with the geophysics, trenching and actual excavation plans will provide a useful illustration of the efficacy of the various techniques with a view to informing future practice.

Following planning consent, watching brief and strip, map and recording were carried out on all further parts of the project involving ground works. These further works uncovered a fourth Early Neolithic house, two human burials one of which is believed to be associated with the fourth house further smaller pit groups, two larger Later Neolithic/Early Bronze Age pit groups, structural evidence for a Later Neolithic structure, a curvilinear feature, a burnt mound and two flint scatters.

The quality and quantity of artefactual material and environmental evidence for the site is unknown elsewhere in Wales. Early engagement with the regional curator and a strong, collaborative relationship between developer, contractor and curator led to the maximisation of information gained and the minimisation of time lost on site. Indeed, through conducting the excavation of the three Neolithic houses and the initial pit group prior to any works beginning on site, and by the archaeological and site contractors adopting a flexible approach to the timings of site works, arrangements were made whereby all excavation was able to take place without delaying the development programme.

This is an unprecedented site which highlights the limitations of conventional archaeological investigation processes. Such sites are important in convincing planning authorities to support more extensive evaluation when developers seek to reduce their environmental expenditure and political pressure aims to reduce obstacles to development. There is a clear research need to use the opportunities presented by development to expand our understanding of this period; and an argument could be made that current guidance supports this, introducing the concept of conserving significance rather than preservation per se. This will however sit uncomfortably with professionals only recently attuned to the (still valid) presumption in favour of preservation in situ; and will also have implications for archives already facing considerable challenges.

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Key elements of approach:

- Standard staged process suggested relatively confined area of activity
- Organic expansion responsive to discoveries
- Research and educational potential vs. merits of preservation by scheduling and feasibility of long term management of the site
- Support of local authority
- Funding programme – confidence in scheme and flexibility to vary process
- Nighthawk threat
- Risk of contamination

Conclusions:

- As we already know, higher densities of trenches are needed to characterise prehistoric activity effectively, but open area excavation is really necessary to achieve proper understanding
- The difficulty in supporting more excavation is that it is contrary to the planning framework, which generally favours preservation of important sites;
- Additionally, the limited existing information base impedes debate as to whether we have a limited resource over which restraint should be exercised in excavation; or whether we simply need to dig more to find more.

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3.2 Human Remains

Finds of human remains of Neolithic and EBA date are rare in Wales although it should not be assumed that poor preservation of remains is an inevitability. The significance of any human bones of Neolithic and EBA date cannot be underestimated, and recovery and analysis of remains should be maximised.

- What do human remains tell us about diet and lifestyle of the populations and how they changed through time?
- Can regional variation in diet be identified in the human remains assemblages?
- Is the use of caves for human burials fully recognized by either archaeologists or cavers and are resources of material being missed because of a lack of co-operation between the two disciplines?

Recommendations:

- A set of 'Best Practice' guidelines for the recovery of early prehistoric human remains in Wales should be developed and protocols imposed through DC.
- Any site where human remains of Neolithic or EBA date are recovered should be considered to be extremely significant. Full excavation, sampling and analysis of features containing human remains should be carried out.
- The significance of assemblages of human remains should be highlighted to individuals who may encounter them, such as cavers, to ensure that all finds are reported and treated properly.
- In order to maximise the information that the resource can provide full analysis (C14 and isotope) of all human bones should be carried out.
- Reassessment of human bones stored in museum collections could reveal significant new information about the Neolithic and EBA periods.
- Retention of human bones is essential to enable future research.
- The creation of a Science Advisor role for Wales would be a significant step forward in the study of early prehistoric human remains.

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3.3 Monuments

There was a general feeling amongst the conference participants that the focus was too much on early Neolithic monuments and not enough on later Neolithic/EBA monuments and multi-period monuments. The study of later Neolithic monuments should be a focus for future research.

- Can we move beyond form and landscape setting of funerary monuments to consider the nature of the burial rites involved?
- Is it possible to gain greater chronological resolution in relation to changes in burial practice across key periods (eg. Early/middle Neolithic transition, emergence of late Neolithic/EBA single grave traditions)?
- What forms do monuments in the middle and later Neolithic take?
- What do changes in burial practice reveal about belief systems?
- Why are there so few late Neolithic monuments recorded in south Wales?

Recommendations

- The use of absolute dating techniques and total survey should be adopted as standard practice during excavation.
- All burial deposits should be subject to full excavation, sampling and analysis.

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3.4 Raw material extraction and use

- Where did people acquire flint, chert, quartzite etc for knapping?
Are specific areas of the coast good for the collection of beach flint and what are the sources for other, non-flint lithic resources? Is flint being imported from outside Wales?
- What role did Wales play in the development of copper working in the period around 2400BC?
- Can we recognise a chalcolithic period in Wales?
- Can we refine our understanding of the distribution and movement of 3rd millennium metalwork within Wales?
- Can we refine our knowledge about the sources and distribution of late Neolithic/EBA mace heads and axes across Wales?
- What was the social context for access to and exchange of materials within the Welsh landscape?

Recommendations:

- Metallurgical analysis of 3rd millennium metalwork should be carried out as standard when they are recovered through excavation.
- All finds of lithics should be collected during excavation and then given to a specialist to determine what is worked – *the conference raised the problem that archaeologists from outside Wales do not recognize the significance of flint finds as they are not used to working in an area dominated by beach flint.*
- Petrological analysis of stone axes and maces heads should be carried out as standard when they are recovered through excavation.
- Periodic reviews of materials being reported to PAS and the HERs should be carried out to identify clusters and patterning across landscapes – *the panel highlighted the hugely significant but often underrated role the PAS plays, with 40% of all recorded chalcolithic sites in Wales identified through the PAS.*
- There is huge potential for extending our knowledge of the Neolithic and EBA periods by reviewing materials held in museum collections.
- Archives and artefacts should be brought together to allow future study.

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3.5 Material Culture

No new themes were put forward by the panel, but it was felt that the study of material culture would benefit from the following recommendations.

Recommendations:

- Material culture studies should focus on current weaknesses, such as our lack of understanding of Neolithic pottery
- Assemblages of material culture from excavations in the 1950s and 1960s have not been assessed and hold great potential for further study.
- Archives and artefacts should be brought together to allow future study.

The lack of artefact specialists in the future was raised as a concern by the conference participants, as there appears to be a general lack of interest amongst students of material culture. The need for current specialists to pass on their knowledge and expertise to others was highlighted.

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3.6 Regionality and Connections

Whilst recognizing that there is regional diversity within Wales, it was considered significant to establish connectivity between regions and with the rest of the UK.

- What aspects of the Neolithic and EBA are specific to Wales and are there areas of research that only fieldwork in Wales could address?
- Is the assumption that there was contact between the west of Wales and Ireland throughout the Neolithic and EBA borne out by the evidence?
- Can regional trends be identified in the evidence and are they real or a reflection of fieldwork (ie. are houses unique to north Wales and causewayed enclosures unique to south Wales)?
- Is there an East/West divide in Wales and does this tie into connections outside the country (ie. Is the east of Wales more connected to England and the west to Ireland)
- How wide is the distribution of Welsh axes (stone and copper) throughout the UK?

Recommendations:

- Comparative studies of Welsh sites and artefacts and those along the Atlantic fringe should be encouraged
- Petrological analysis of axes should be encouraged
- Metallurgical analysis of axes should be encouraged

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3.7 The Coast

The coastline of Wales is 1400km long and being dramatically changed as a result of weather, development and other impacts. It was felt that the coast should be considered as a resource in itself.

- Is the potential of the coastal zone to provide information about the exploitation of landscapes in the Neolithic and EBA periods being realised?
- Do we fully understand the impact sea level change had on the coastline of Wales during the Neolithic and EBA?
- Do other estuaries in Wales hold the same potential for preservation of early prehistoric sites as the Severn Estuary?
- Is the threat posed by coastal erosion being properly exploited to increase our understanding of the Neolithic and EBA?

Recommendations:

- The strength of the Welsh coastal resource should be recognised and championed.
- Greater provision should be made to allow comprehensive investigations of sites exposed by coastal erosion

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4. Ways of Working

Wales is a small country with a large number of heritage organisations. There is the potential for good collaboration between bodies, but this is not being fully realized.

- Better communication should be encouraged between heritage organisations in Wales to achieve better results – this must involve all sectors: commercial organisations, Cadw, WATs, Universities, local authorities etc
- The research questions posed should be routinely used to encourage excellence in both developer funded archaeology and research excavations.
- Research should be encouraged in areas where developer funded work is not happening, ie. mid-Wales.
- PhD students should be encouraged to work on ‘holes’ in our understanding.
- A research ‘hub’ should be established to allow different parts of the heritage sector to highlight research and request help. For example, a forum (or similar) where students can post requests for sites or assemblages that they could work on in support of their research. In the case of commercial sites, where developers will only pay for minimal analysis, this would enable further work to be carried out at no extra cost.