



CLWYD-POWYS ARCHAEOLOGICAL TRUST

newsletter

Spring 2009

Searching for the Hyssington Bronze Age axe factory

More than half a century ago eastern Montgomeryshire was shown to be the source of stone for particular types of Bronze Age axe-hammers and battle-axes that have been found over southern Britain, from south Yorkshire to Cornwall. The stone from which these implements is made is a distinctive greenish-grey igneous rock known as picrite – rich in the distinctive suite of minerals including olivine, augite, plagioclase feldspar, chlorite and iron ore crystals – which geologists have tied down to an area of only a dozen or so fields within the community of Hyssington, just to the south of Corndon Hill.

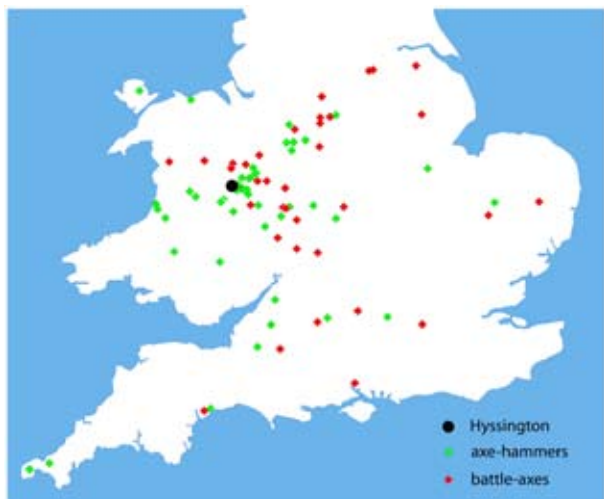
The Trust has recently been trying to locate with greater accuracy the source of the rock from which the axe-hammers and battle-axes were made. Today the bedrock is only exposed at the surface in one or two places. At one of these there are several shallow quarries which looked as though they might represent prehistoric workings. A trench excavated across one



Air photo showing the approximate extent of picrite in the community of Hyssington in eastern Montgomeryshire. The arrow points to one of the few visible outcrops of the rock in the area. Several shallow quarries are visible here where excavations were undertaken in 2007 and 2008.



***Top:** excavations in progress at Hyssington in 2008. **Lower left:** sample of picrite from the outcrop at Hyssington together with an axe hammer and battle-axe in the Powysland Museum in Welshpool made from the same rock. **Lower right:** Dr Steve Burrow of the National Museum Wales experimenting at working the rock by pecking.*



Top: distribution of axe-hammers and battle axes made from Hyssington picrite as shown by thin-sections of rock taken from the implements and examined under a geological microscope. Bottom: one of the rocks found with cross-hatched lines pecked into their surfaces (the visible area is about 25 centimetres across).

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The Hyssington axe factory project has been carried out with help and funding from Cadw and Amgueddfa Cymru National Museum of Wales. For more information on the project visit

www.cpat.org.uk/projects/longer/hyssing/hyssing.htm

of the larger quarries brought to light two iron shovels – showing that this quarry at least was fairly recent! A further three trenches were excavated, including one across one of the other small quarry scoops. Each of the trenches produced further evidence for small-scale stone quarrying, exploiting the natural fissuring in the rock, but unfortunately produced no dating evidence.

Several slabs of rock with cross-hatched lines pecked into their surface were discovered which are potentially of interest since they appear to have parallels at Neolithic sites on Orkney and in Ireland.

Many questions remain unanswered about the suggested axe factory. Was stone obtained from loose boulders, like the ones to be seen in local field-banks and stream beds? Have earlier quarries been hidden from view by more recent farming activity?

Some things are clear, however. Hyssington picrite was clearly thought to be an ideal raw material for making implements with shaft-holes needed for fitting them on to wooden handles. The stone is both dense and resistant to splitting but since it can only readily be worked by pecking, making an axe-hammer or a battle-axe from it is likely to have been a slow and laborious process and may well have been carried out away from the site and where people lived.

Llanelwedd burial cairns, corn-drying kiln and bread oven



In the Spring 2008 issue of the *Newsletter* we reported on the excavation of one of two Bronze Age burial cairns being excavated in advance of extensions to Hanson's Quarry at Llanelwedd, overlooking Builth Wells.

The excavation of the second burial cairn has now been completed, with help from Hanson's and funding from the Aggregates Levy Sustainability Fund for Wales and Cadw. The second cairn was almost exactly the same diameter as the first and was also defined by a kerb of stones, in this instance made of rounded boulders rather than upright slabs. In the case of the first cairn the burial had been placed in a central cist or stone box, sealed by a capstone.

Top: the first burial cairn, excavated in 2007. Middle: the second cairn, excavated in 2008. Bottom: visit in 2008 by pupils from Llanelwedd Primary School.





Yet again, no trace of the original burial had survived but it is clear that in the second cairn the burial had been placed in a wooden chamber or coffin

placed in a large rock-cut pit. The pit itself had been dug into the local igneous rock employing the quarrying technique used for mining metal ores in the Bronze Age known as fire-setting.



Both burial cairns probably date to about 2000 BC. It is hoped that charcoal from the pit will shortly be submitted for radiocarbon dating to enable us to date the construction of the cairns more precisely.

During the excavation of the second cairn the opportunity arose to look at another site set into the hillside just a few yards away. This turned out to be a much later corn-drying kiln of later medieval or post-medieval date belonging to a long-abandoned farmstead.

The kiln proved to be a fairly large and complex structure with a stokehole at the lower end and a drying chamber at the upper end. Wet corn would have been placed on a wooden floor and slowly dried by hot air channelled through a stone-lined flue. Samples of charred plant material from the stokehole should tell us about the kinds of crops that were being dried as well as the fuel that was used.

An unusual feature of the corn-drying kiln was the remains of a circular bread oven that had been built on top of the flue. This would originally have had a domed top and an oven door opening from the stokehole of the corn-drying kiln. At one time many remote farms probably had outdoor bread ovens. Straw and sticks were burnt inside the oven to heat it up. After the ashes were raked out the dough was placed inside for baking.



Top left: burnt igneous rock quarried from the burial pit by fire-setting. Top right: sampling the charred plant material in the stokehole of the corn-drying kiln. Bottom: excavation in progress on the bread oven set on top of the flue.

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For more information about the Llanelwedd project visit
www.cpat.org.uk/projects/longer/llanelwe/llanelwe.htm

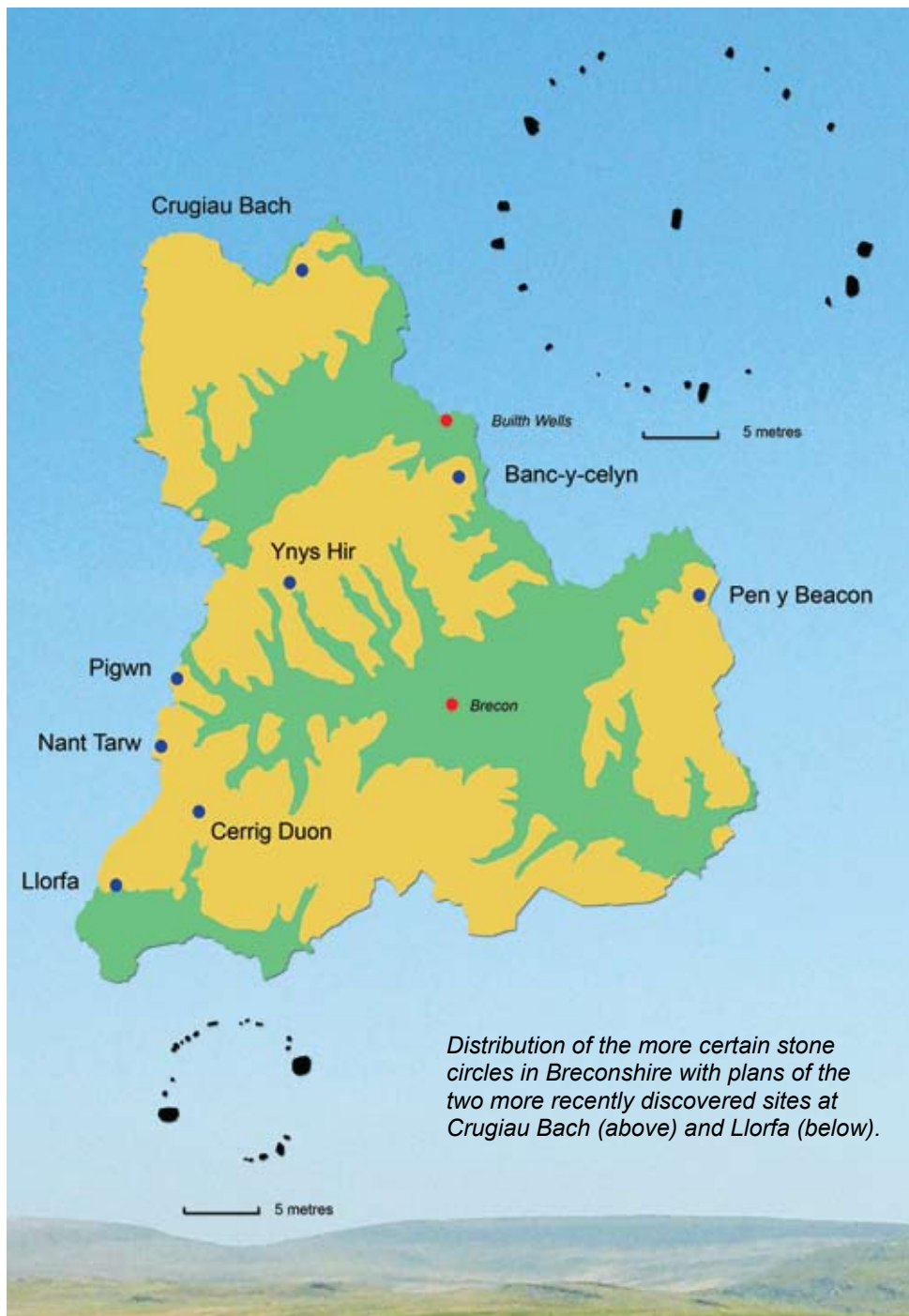
Two 'new' prehistoric stone circles in Breconshire

The recent discovery of two previously unknown prehistoric stone circles in Breconshire clearly shows how much there is still to learn about the archaeology of mid Wales. One of the circles was discovered by the Trust on moorland at Crugiaiu Bach, in an area of remote unimproved moorland to the south-east of the Claerwen valley in community of Llanwrthwl. The second circle, also discovered by the Trust, is at Llorfa, on a moorland ridge west of Craig-y-nos, in the community of Ystradgynlais.

Like many other stone circles they are probably of early Bronze Age date and are characteristically sited on fairly level ground and open to the sky in all directions. There is still much speculation about the purpose of these enigmatic sites, though it has been suggested that they played a role in ritual activities and in calculating the seasons of the year.



Part of the recently discovered Crugiaiu Bach stone circle south of the Elan Valley in Llanwrthwl community. The circle is about 24 metres in diameter and composed of perhaps up to 50 small stones of which only 21 are now visible above the peat and turf.



Recent survey work funded by Cadw has shown that both ‘circles’ are in fact slightly elliptical in plan. The Crugiau Bach circle, which is one of the largest stone circles in Breconshire, is composed of 21 visible stones set in a circle about 24 metres in diameter. The Llorfa circle, by contrast, is one of the smallest circles, being composed of 20 visible stones set in a circle only about 10 metres in diameter. One thing the circles have in common is the relative smallness of the stones that go to make up the circles – a characteristic of other known circles in mid Wales. In the case of the Crugiau Bach circle the highest stone stands to a height of only 74 centimetres whilst only about 5 centimetres of some of the other stones is visible. The rest of these stones and other ‘missing’ stones are almost certainly hidden in peat growth. The tallest stone at Llorfa has now fallen but perhaps stood to only 60 centimetres whilst several stones only stand to a height of less than 10 centimetres.

The smallness of the stones is one of the reasons why these and no doubt other similar sites have remained undiscovered for so long. Though hidden and protected by peat growth, early sites of this kind are clearly extremely vulnerable to disturbance, including upland ‘improvement’.



The Llorfa stone circle in the community of Ystradgynlais, west of Craig-y-nos. The circle is about 10 metres in diameter and composed of 20 visible stones.

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For more information on stone circles and other prehistoric burial and ritual monuments in Breconshire and other parts of the Clwyd-Powys area visit

<http://www.cpat.org.uk/projects/longer/pfr/pfr.htm>

Tracing the archaeology and history of the town of Flint

Perhaps uniquely amongst Welsh towns, Flint has been more or less wholly rebuilt on at least four or five occasions over the centuries, often hiding all trace of what had gone before. Flint has been in turn a Roman settlement, a medieval new town (deliberately burnt down and rebuilt), and an industrial town



The town of Flint, on the shores of the Dee estuary. Coins in order of appearance: as of the Roman emperor Nero of the 60s AD, silver penny of King Edward I of the 1260s, a penny token issued by Flint Lead Works in 1813, and a penny piece of the mid 1960s.

following the Industrial Revolution. Its most recent incarnation has been the commercial and administrative centre which developed from the 1960s onwards.

The town's history begins in about AD 60 when a Roman industrial settlement was founded in the Pentre Ffwrdan area of the town, where ores mined on Halkyn Mountain, just to the south, were smelted for both lead and silver. As well as workshops and furnaces, an impressive Roman villa was also built here – complete with bath-house, underfloor heating and ornately painted walls. This possibly housed the family of a high-ranking official who supervised the management of the mining and ore-processing industry. The siting of the settlement was ideal. It lay astride the Roman road west of Chester, running along the north Wales coast, as well as having quays along the Dee estuary where ships could berth.



Good communications were undoubtedly important factor in the next major phase in the town's history, when in 1277 it became the spearhead of King Edward I's first conquest of Wales, handling troops and supplies ferried by ship and raft upstream from Chester and across the estuary from the Wirral. A castle was built on a rocky outcrop, referred to by the English word 'flint', which gave the town its name. A new town was built on the landward side, separated from the castle by a massive moat and quay flooded by the tidal waters in the estuary. The town was symmetrically laid out, with a regular pattern

of streets and lanes and became a focus of settlement within Edward's newly conquered territory. The town was destroyed by fire to protect the castle during the Welsh revolt of 1294. It was subsequently rebuilt and though it remained relatively small it became an important agricultural centre, market town, and administrative centre for the newly-created county of Flintshire.

Good transport links by road, ship and then by rail continued to play a vital role in Flint's development as an important industrial centre. From the end of the 17th century mines



on the fringes of the town were producing coal for export as well as in support of a burgeoning lead smelting industry. The decline in the lead industry at the middle of the 19th century led to the growth of various chemical industries including the manufacture of synthetic fibres which became the mainstay of the economy during the first half of the 20th century.

Few visible traces have survived of Flint's Roman, medieval and industrial past, though no doubt much history still lies hidden in the ground.



The regular plan of the medieval town of Flint, just inland from the castle, is fossilised in the street plan of the modern town. The line of the medieval town defences and the principal gates are indicated in the photo above.

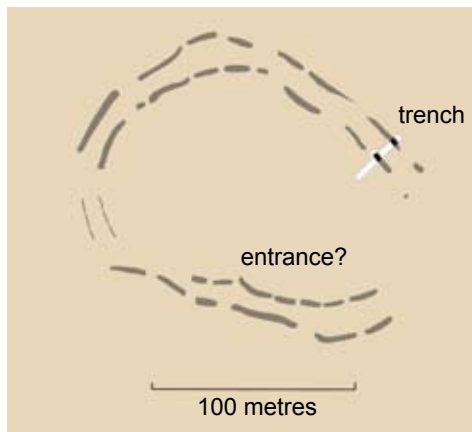
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For a fuller study of Flint's archaeology and history, funded by Cadw, visit

<http://www.cpat.org.uk/ycom/flint/flint.htm>

A Neolithic causewayed camp at Womaston, Radnorshire

The recent discovery of a causewayed enclosure close to the hamlet of Womaston has added to the remarkable cluster of prehistoric and later sites that are known in the Walton Basin in eastern Radnorshire. Air photographs taken by Chris Musson in 2006 and subsequently by Toby Driver of the Royal Commission revealed the clear outlines of part of a monument type known as a 'causewayed enclosures' because of the numerous gaps in the ditches.

Sites of this kind are known to have been built in the earlier Neolithic period, between



Top: composite plan of parts of the Womaston Neolithic causewayed enclosure known from aerial photography and geophysical survey, showing location of the trench excavated in 2008. Above: Members of the Radnorshire Society being shown around the excavations in August 2008.

about 4000–3000 BC. Characteristically, the enclosure is sited on a low knoll, with panoramic views of the surrounding countryside. The purpose of these sites is still hotly debated but it has been suggested that they might have been enclosed settlements, cattle enclosures, religious sites or trading centres.

Geophysical survey and trial excavation was carried out in the summer of 2008 with funding from Cadw with the aim of defining the site's outlines more fully and finding out something about its state of preservation and its dating. The enclosure is now known to be about 145 by 90 metres across internally, with a possible inturned entrance on the southern side. The two ditches, enclosing an area of 1.2 hectares, are up to just under 3 metres wide and 2 metres deep and separated by a gap of over 8 metres. In some instances the ditches seem to have been dug as a series of intercutting pits that were later recut.

General dating is confirmed by fragments of early Neolithic pottery from the ditch silts though it is hoped that more precise dating will soon be provided by samples of charcoal which have been sent for radiocarbon dating.



Butt-end of one of the inner ditch segments of the Womaston Neolithic enclosure. There are suggestions that the ditch had originally been dug as a series of intercutting pits.

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For further information about the Womaston Neolithic causewayed enclosure project visit

www.cpat.org.uk/projects/longer/womaston/womaston.htm

Invasion of the Penycloddiau Iron Age hillfort

The Trust was pleased to be involved in two events during 2008 bringing crowds of visitors to Penycloddiau, one of the fine Iron Age hillforts which crown the Clwydian Range.



In early May we were invited to carry out trial work on a low mound towards the northern end of the hillfort as part of the conservation and management work being undertaken by the Heather and Hillforts Landscape Partnership Scheme. The aim of the project at Penycloddiau was to see if anything could be learnt about the date and purpose of the mound which is being affected by the many people that walk over it each year.



Many visitors took part in the guided walks organised by the Heather and Hillforts initiative which took in a tour of the hillfort and its landscape as well as calling in at the excavation. Initial results suggests that the mound is likely to be a Bronze Age burial cairn but further work is needed to be certain.

In late September the Trust was involved with two days of activities for children from eight local primary schools, arranged as part of the Denbighshire Walking Festival. Various craft activities were organised in Nannerch Village Hall, which included making helmets, face and arm painting, and making clay tiles and brooches.

As part of a visit to the Penycloddiau hillfort, Trust staff gave short talks to school parties on what archaeologists do, the tools they use and the kinds of things they expect to find during excavation. The children, who ranged in age from 7 to 11, bombarded us with many questions and all really enjoyed their visit.

Top: visitors to the excavation of the mound towards the northern end of Penycloddiau hillfort in May 2008. **Bottom:** children taking part in one of events organised as part of the Denbighshire Walking Festival in September 2008.

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For further information about the Heather and Hillforts initiative and CPAT's involvement at Penycloddiau visit

www.heatherandhillfort.co.uk/english/Eng-main.htm

www.cpat.org.uk/news/news.htm

Finding the 'Lost Garden' of Powis Castle

One of the intriguing aspects of Powis Castle is the 'Lost Garden' that once lay below the Great Lawn. A perspective drawing of the castle in the 1750s shows that at that time the lawn was occupied by an ornate Dutch water garden graced with parterres, ponds and statuary. The water garden is thought to have been developed from about 1705 when at least one pool, described as a 'noble Bason' is known to have been in existence. The water garden is again shown on a plan of Powis Castle and its grounds in 1771 by the architect Thomas Farnolls Pritchard (the designer of the famous Coalbrookdale Bridge), but appears to have been replaced by the present lawn early in the following century.

In the autumn of 2008 CPAT was commissioned by the National Trust to see whether any trace of the earlier garden could be identified from geophysical survey. The results of the magnetic gradiometer survey show that traces of the garden do indeed survive below the turf.



Powis Castle from the air in 2003, with the Great Lawn in the foreground.

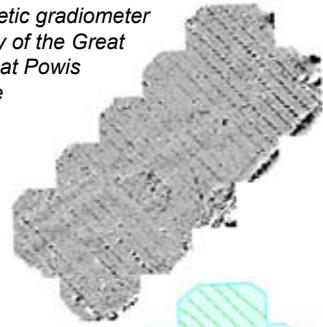
A similar view in about the 1750s, reproduced by courtesy of Powys County Archives, shows that the lawn was occupied by an ornate Dutch water garden.



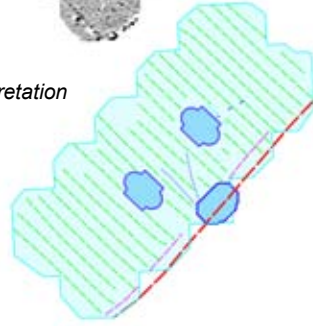
© Powys County Archives









magnetic gradiometer survey of the Great Lawn at Powis Castle



interpretation



-  ornamental pools
-  18th-century drains?
-  parterres?
-  survey area
-  modern drains
-  main drain

Above: Geophysical survey in progress at Powis Castle's Great Lawn. **Right:** in amongst later features the survey has revealed faint traces of the three pools up to 70 feet (21 metres) across depicted on 18th-century plans and perspectives of the castle.

The Trust is grateful to individual landowners for permission to carry out the projects described in this Newsletter. Funding or help has been provided by the following organisations:



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Welsh Assembly Government



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The Clwyd-Powys Archaeological Trust
7a Church Street
Welshpool, Powys, SY21 7DL

tel 01938 553670, fax 01938 552179
email trust@cpat.org.uk
website www.cpat.org.uk

Registered Charity 508301
Limited Company 1212455

*Front cover: Hyssington
Bronze Age axe factory dig.*



Aggregates Levy
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