



PARTNERIAETH TIRWEDD Y
CARNEDDAU
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Tirwedd Bwyeill Neolithig *Landscape of Neolithic Axes* **Penmaenmawr a/and Llanfairfechan**

Popeth Am Fwyeill *All About Axes*



Golygfa ar hyd arfordir Mynydd Penmaenmawr
View along coast of Penmaenmawr Mountain

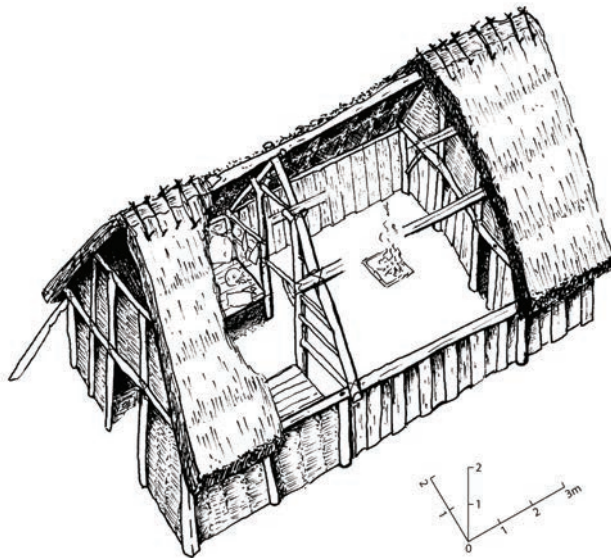


Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust



Bwyeill Neolithig carreg

Y cyfnod Neolithig (tua 4000 CC i 2500 CC) yw'r adeg pan y cyflwynwyd ffermio i Brydain gyntaf, ynghyd â thechnolegau newydd fel crochenwaith. Tua dechrau'r cyfnod hwn codwyd adeiladau pren mawr a thuag at y diwedd codwyd henebion enfawr a ddiffiniwyd gan byst pren. Roedd angen bwyeill i wneud y rhain, yn ogystal â chlirio coedwigoedd ar gyfer amaethyddiaeth, ond roedd hyn cyn y gweithiwyd metel, felly roedd yn rhaid defnyddio cerrig i wneud pennau bwyeill. Defnyddiwyd fflint oherwydd gellir ei napio (ei naddu'n ofalus trwy gyfrwng dull rheoledig) i siapio pen bwyell, ond mae'r fflint yn eithaf brau. Gwell fyth yw carreg galed nad yw'n frau ond sydd â graen digon mân i'w napio fel fflint. Ar draws Prydain dim ond nifer fach o leoedd y gellid dod o hyd i gerrig addas a dosbarthwyd pennau bwyeill a ffurfiwyd o'r ffynonellau cerriq hyn mewn mannau eraill.



Neolithic stone axes

The Neolithic period (about 4000 BC to 2500 BC) is when farming was first introduced to Britain, along with new technologies such as pottery. Towards the start of this period large timber buildings were built and towards the end huge monuments defined by timber posts were constructed. Axes were necessary to make these, as well as to clear forest for agriculture, but this was before metalworking, so stone had to be used to make axeheads. Flint was used because it can be knapped (carefully flaked in a controlled manner) to shape an axehead, but flint is rather brittle. Even better is a hard stone that is not brittle but has a fine enough grain to be knapped like flint. Across Britain there were only a small number of places where suitable stone could be found and axeheads made from these stone sources were distributed elsewhere.

Adluniad o adeilad Neolithig Cynnar a ddarganfuwyd yn Llandygai ger Bangor

Reconstruction drawing of an Early Neolithic building found at Llandygai near Bangor

Mae'n debyg bod pennau bwyeill carreg wedi'u dosbarthu fel rhan o rwydweithiau cyfnewid rhoddion, yn hytrach na masnachu mewn ystyr fodern, gydag bwyeill yn cael eu rhoi fel anrhegion i gynyddu statws y rhoddwr neu greu rhwymedigaethau cymdeithasol. Mae dosbarthiad y bwyeill, felly, yn dangos maint y cysylltiad rhwng pobl yn y cyfnod Neolithig. Mewn llawer o achosion darganfuwyd pennau bwyeill

Stone axeheads were probably distributed as part of gift exchange networks, rather than trade in a modern sense, with axes being given as gifts to increase the status of the giver or create social obligations. The distribution of axeheads, therefore, indicates the extent of connection between people in the Neolithic period. In many cases axeheads have been found in ceremonial monuments, deposited in pits or ditches after having been deliberately

mewn henebion seremonïol, wedi'u dyddodi mewn pyllau neu ffosydd ar ôl cael eu torri'n fwriadol. Mae hyn yn awgrymu bod iddynt arwyddocâd symbolaidd, yn ogystal â bod yn offer ymarferol, ac fe'u hadneuwyd fel rhan o ddefod mewn man arbennig. Gan fod y bwyell wedi teithio'n bell, mae'n debyg eu bod yn cael eu hystyried yn arbennig ac yn brin. Mae'n debygol y byddai straeon sy'n gysylltiedig â chynhyrchu, cyfnewid a pherchnogaeth pob bwyell yn cael eu trosglwyddo gyda'r fwyell ei hun, gan ychwanegu at eu pwysigrwydd i bobl oedd yn berchen arnynt.

Bwyell garreg Neolithig wedi'i sgleinio a ddarganfuwyd yn dal yn ei hafft bren yn Ehenside Tarn, Cumbria; nawr yn yr Amgueddfa Brydeinig (delwedd: yr Amgueddfa Brydeinig)

Neolithic polished stone axe found still in its wooden haft at Ehenside Tarn, Cumbria; now in the British Museum (image: British Museum)

broken. This suggests that they had a symbolic significance, as well as being practical tools, and were deposited as part of a ritual in a special place. As the axes had travelled a long way they were probably seen as special and rare. It is likely that stories associated with the production, exchange and ownership of each axe would be passed on with the axe itself, adding to their importance to people who owned them.



Roedd pennau bwyell carreg Neolithig wedi'u gosod mewn hafftiau coed, neu weithiau cyrn, ac yn achlysurol iawn mae pennau bwyell yn dal yn eu hafftiau i'w cael mewn safleoedd dwrlawn, lle mae'r pren wedi goroesi. Byddai bwyell mawr wedi cael eu hanelu fel bwyell fodern i dorri coed, ond roedd rhai pennau bwyell yn fach iawn a gellid eu defnyddio ar gyfer gwaith cain neu efallai eu bod yn symbolaidd yn unig. Roedd y pennau bwyell yn aml yn cael eu sgleinio

Neolithic stone axeheads were set in wooden, or occasionally antler, hafts, and axeheads still in their hafts are very occasionally found in waterlogged sites, where the wood survives. Large axes would have been swung like a



Atgynhyrchiad o fwyell carreg Neolithig yn cael eu defnyddio i dorri coeden

Replica Neolithic stone axes being used to fell a tree

ar eu hyd a'u lled, sy'n cymryd amser hir. Er y gall sgleinio ar flaen y min a lle mae'r hafft yn eistedd wella'r perfformiad, nid oes angen ymarferol i sgleinio'r pen bwyell gyfan. Fodd bynnag, mae sgleinio yn dod â chymeriad y garreg allan ac yn rhoi rheolaeth fanwl dros siâp y gwrthrych, gan awgrymu bod sgleinio yn ymwneud ag arddull nid swyddogaeth. Mae sgleinio yn amlygu cymeriad y garreg, gan ei gwneud yn fwy adnabyddadwy, efallai oherwydd bod y tarddiad yn arbennig o bwysig. Roedd y mwyafrif o ffynonellau cerrig a ddefnyddid ar gyfer pennau bwyell un ai ar greigiau neu fynyddoedd trawiadol neu'n agos atynt, gyda cherrig weithiau'n cael eu chwarelu o leoliadau ysblennydd pan oedd ffynonellau haws ar gael. Mae hyn yn awgrymu bod y lleoliadau hyn yn bwysig ac efallai bod straeon am y mynydd cyfriniol y cafwyd y garreg ohono wedi cylchredeg â'r bwyell. Roedd pobl Neolithig yn gyfarwydd iawn â cherrig ac mae'n rhaid eu bod wedi gallu adnabod carreg o wahanol ffynonellau, felly byddai pen bwyell wedi'i sgleinio'n gywrain yn dangos ei fod yn ddilys.

modern felling axe to fell trees, but some axeheads were very small and could be used for fine work or may have been purely symbolic. The axeheads were often polished all over, which takes a long time. While polishing at the cutting edge and where the haft sits can improve the performance, there is no practical need to polish the whole axehead. However, polishing brings out the character of the stone and gives fine control over the shape of the object, suggesting that polishing was about style not function. Polishing emphasises the character of the stone, making it more identifiable, perhaps because the origin was of particular importance. Most stone sources used for axeheads were on or close to impressive crags or mountains, with stone sometimes quarried from spectacular locations when easier sources were available. This suggests that these locations were important and stories about the mystical mountain from which the stone was obtained may have circulated with the axes. Neolithic people were very familiar with stone and must have been able to identify stone from different sources, so a finely polished axehead would show that it was genuine.



Lleoliad prif safle chwarel bwyell yn Great Langdale. Lle anodd cael mynediad ato a lleoliad trawiadol (llun Steve Burrow)

Location of main axe quarry site at Great Langdale. Difficult to access and an impressive location (photo Steve Burrow)

Daeareg Llanfairfechan a Phenmaenmawr

Mae Llanfairfechan a Phenmaenmawr yn eistedd ar wastadedd arfordirol cul gyda bryniau'n ffurfio pen gogleddol cadwyn o fynyddoedd y Carneddau y tu ôl iddynt. Yr amlycaf o'r bryniau hyn yw Mynydd Penmaenmawr, bryn creigiog sy'n codi o'r môr. Arferai gael ei goroni gan fryngaer yr Oes Haearn, o'r enw Braich y Dinas. Fodd bynnag, chwarelwyd y bryn a llawer o ben y mynydd fel nad yw yno mwyach ac ail-fodelwyd ei lethrau gan sgrïau o wastraff chwarel. Mae darn o'r creigiau gwreiddiol a'r sgri naturiol oddi tanynt yn dal i oroesi ar ochr orllewinol y mynydd. Yn rhedeg i'r

The Geology of Llanfairfechan and Penmaenmawr

Llanfairfechan and Penmaenmawr sit on the narrow coastal plain with hills forming the northern end of the Carneddau Range behind them. The most prominent of these hills is Penmaenmawr Mountain, a sheer craggy hill rising out of the sea. It used to be crowned by an Iron Age hillfort, known as Braich y Dinas. However, the hillfort and much of the top of the mountain have been quarried away and its slopes remodelled by screes of quarry waste. A length of the original crags and natural scree below them still survives on the western side of the mountain. Running east from



Mynydd Penmaenmawr a fyddai wedi bod yn fwy amlwg cyn ei chwarelu .

Penmaenmawr Mountain, which would have been more prominent before quarrying.



Llun o'r awyr o Chwarel Graig Lwyd a dynnwyd ym 1993 yn dangos brigiad Y Graig Lwyd a chwarelwyd yn rhannol (ffotograff gan G. I. Davies)

Aerial photograph of Graig Lwyd Quarry taken in 1993 showing the outcrop of Y Graig Lwyd partly quarried away (photograph by G. I. Davies)

dwyrain o Fynydd Penmaenmawr mae crib o'r enw Clip yr Orsedd ac mae brigiad creigiau o'r enw'r Graig Lwyd yn ei ben dwyreiniol, a chwarelwyd oddi yno yn rhannol hefyd. Roedd gan y fan hon sgrïau naturiol oddi tanodd, ac mae rhai ohonynt wedi'u claddu o dan wastraff chwarel ond mae llawer wedi goroesi i raddau helaeth ac mae gordyfiant o lystyfiant rhostir drosto.

Penmaenmawr Mountain is a ridge called Clip yr Orsedd at the eastern end of which is a rock outcrop known as Y Graig Lwyd, also partly quarried away. This had natural screes below it, some of which are buried under quarry waste but much survives largely over grown with heath vegetation.



Map o Llanfairfechan a Penmaenmawr a rhan ogleddol y Carneddau (© Hawlfraint a hawliau cronfa ddata'r Goron 2021. Rhif Trwydded yr Arolwg Ordnans 100021874. Llywodraeth Cymru.)

Map of Llanfairfechan and Penmaenmawr and the northern part of the Carneddau (© Crown Copyright and database right 2021. Ordnance Survey 100021874. Welsh Government.)

Mae Dinas a Garreg Fawr yn edrych dros Llanfairfechan hefyd. Mae Dinas wedi'i hamgylchynu gan sgrïau helaeth ac mae gan Garreg Fawr hefyd ardaloedd o sgri, er bod llawer o hyn o dan lystyfiant. I'r dwyrain o Dinas mae llwyfandir ucheldirol, o'r enw Waun Llanfair, gyda mynyddoedd Tal y Fan a Moel Lwyd y tu hwnt. Mae Waun

Llanfairfechan is also overlooked by Dinas and Garreg Fawr. Dinas is surrounded by extensive screes and Garreg Fawr also has areas of scree, though much of this is under vegetation. To the east of Dinas is an upland plateau, known as Waun Llanfair, with the mountains of Tal y Fan and Foel Lwyd beyond. Waun Llanfair is



Dinas o Garreg Fawr gyda Chlip yr Orsedd yn y cefndir

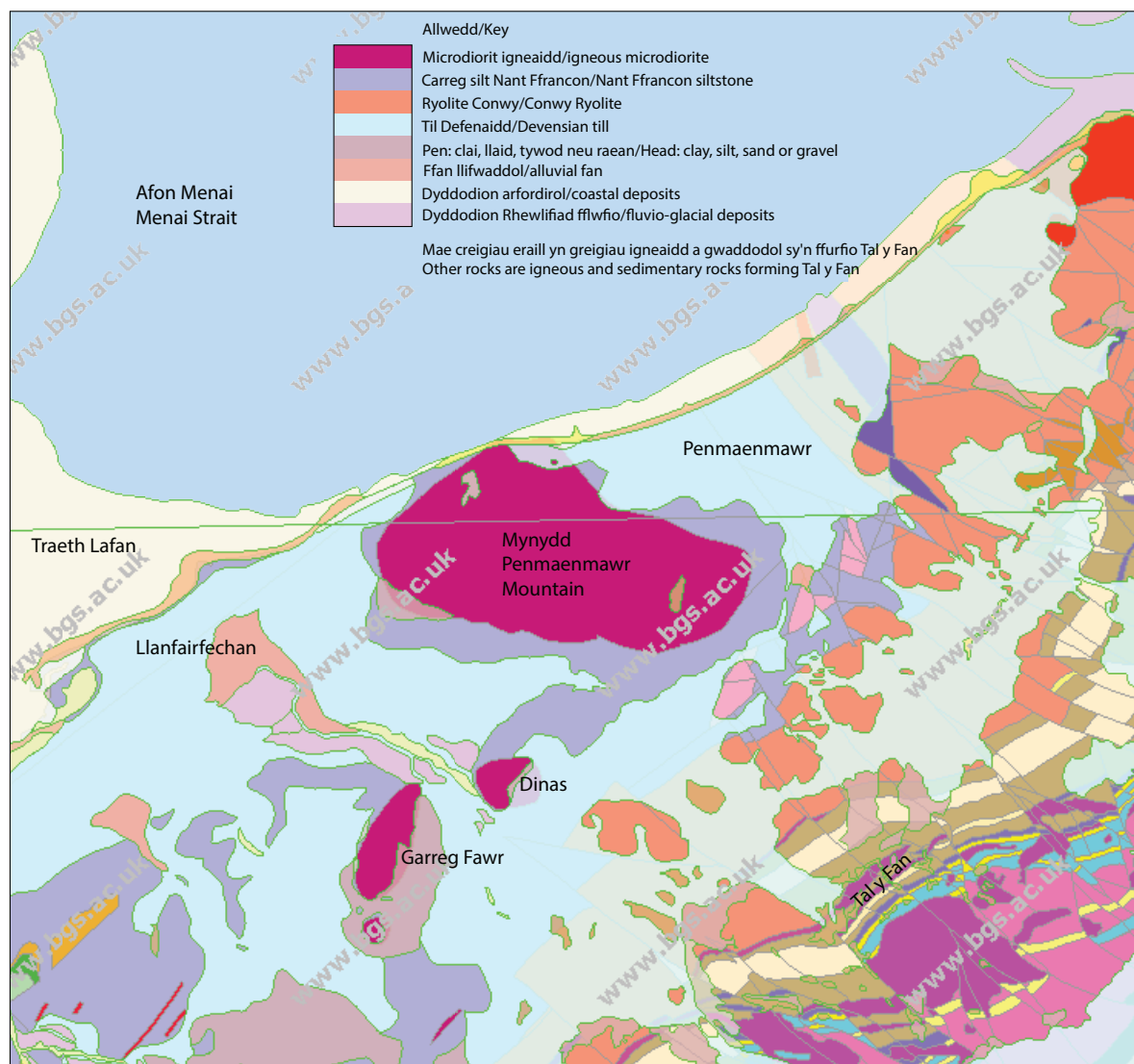
Dinas from Garreg Fawr with Clip yr Orsedd in the background

Garreg Fawr o Dinas
Garreg Fawr from Dinas



Llanfair bellach yn lle gwlyb, corsiog ac yn anghyfannedd i raddau helaeth, ond mae wedi'i orchuddio â henebion o'r Oes Efydd a'r Oes Haearn sy'n arwydd o ddefnydd mwy dwys yn y gorffennol. Ychydig y tu hwnt i

now a wet, marshy and rather desolate place, but it is covered with Bronze Age and Iron Age monuments indicative of more intensive use in the past. Just beyond Waun Llanfair, at Cefn Coch above Penmaenmawr, is a group



Daeareg ardal Llanfairfechan a Penmaenmawr
(British Geological Survey, Geology of Britain Viewer)

The geology of the Llanfairfechan and Penmaenmawr
area (British Geological Survey, Geology of Britain
Viewer)

Waun Llanfair, yng Nghefn Coch uwchben Penmaenmawr, mae grŵp o henebion o'r Oes Efydd gan gynnwys cylch carreg ysblennydd y Meini Hirion.

Roedd yr ardal hon o ddiddordeb i'r bobl Neolithig, ac felly o ddiddordeb i ni heddiw, oherwydd ei daeareg. Mae'r creigwely o dan y rhan fwyaf o'r ardal yn garreg silt, craig waddodol, ond yn ymwithio trwy'r dyddodion hyn mae ymwithiadau o fagma folcanig, sy'n ffurfio Mynydd Penmaenmawr, Dinas a Charreg Fawr. Yn dechnegol, mae'r creigiau hyn yn Microdiorit, a elwir yn 'augite granophyre', ond cyfeirir atynt yn lleol fel "Pen Granite". Mae'r graig hon wedi'i graenio'n ddigon mân i gael ei napio yn fras, gan ganiatáu iddi gael ei siapio'n setiau a ddefnyddir ar gyfer palmantu strydoedd Lerpwl a dinasoedd eraill. Fodd bynnag, o amgylch ymylon yr ymyriadau magma, lle mae'r graig doddedig yn oeri'n gyflym, mae'r garreg wedi'i graenio'n fân iawn, ac mae'n arbennig o addas ar gyfer cynhyrchu pennau bwyell carreg. Mae brigiad Graig Lwyd wedi'i wneud o'r garreg raenog iawn hon ond mae craig debyg ar Ddinas, Garreg Fawr ac o amgylch ymyl orllewinol Mynydd Penmaenmawr.

Ffynhonnell Bwyell Graig Lwyd

Mae'n hysbys ers 1919 bod pennau bwyell carreg wedi'u cynhyrchu ger brigiad creigiau o'r enw Y Graig Lwyd, uwchben Penmaenmawr (ar gyrion Chwarel Graig Lwyd). Cafodd y pennau bwyell carreg eu hadnabod gyntaf gan Samuel Hazzeldine Warren, daearegwr oedd yn treulio ei wyliau ym Mhenmaenmawr. Cynhaliodd Warren sawl tymor o gloddio a daeth o hyd i oddeutu 3 tunnell o bennau bwyell anorffenedig ac wedi torri, yn ogystal â llawer iawn o wastraff. Dangosodd Warren fod y sgrïau naturiol o dan y graig yn cael eu defnyddio fel ffynhonnell garreg ar gyfer y pennau bwyell. Yn y 1990au cynhaliodd Ymddiriedolaeth Archeolegol Gwynedd arolygon manwl o'r ardal waith sydd wedi

of Bronze Age monuments including the spectacular Meini Hirion stone circle (also known as Druid's Circle).

This area was of interest to the Neolithic people, and therefore of interest to us today, because of its geology. The bedrock under most of the area is siltstone, a sedimentary rock, but protruding through these deposits are intrusions of volcanic magma, which form Penmaenmawr Mountain, Dinas and Garreg Fawr. Technically these rocks are a Microdiorite, known as augite granophyre, but they are referred to locally as "Pen Granite". This rock is sufficiently fine grained to be coarsely knapped, allowing it to be shaped into setts used to pave the streets of Liverpool and other cities. However, around the margins of the magma intrusions, where the molten rock cooled quickly, the stone is very fine grained, and is particularly suitable for stone axehead manufacture. The Graig Lwyd outcrop is made of this very fine grained stone but there is similar rock on Dinas, Garreg Fawr and round the western margin of Penmaenmawr Mountain.



Samuel Hazzeldine Warren

Graig Lwyd Axe Source

It has been known since 1919 that stone axeheads were produced near a rock outcrop known as Y Graig Lwyd, above Penmaenmawr (on the edge of the Graig Lwyd Quarry). The stone axeheads were first recognised by Samuel Hazzeldine Warren, a geologist who holidayed

goroesi yn Graig Lwyd ac ymgymryd â pheth gwaith cloddio ar raddfa fach. Datgelodd un cloddiad ardal lle'r oedd carreg wedi'i chwarelu'n uniongyrchol o'r creigwely ar ben y bryn, felly roedd carreg chwareli a sgri yn cael eu defnyddio i wneud pennau bwyell.

Dewiswyd a phrofwyd darn o sgri trwy ei napio yn fras. Os nad oedd yn ymddangos yn addas fe'i taflwyd i ffwrdd. Torrodd rhai pennau bwyell wrth iddynt gael eu napio a thaflwyd y rhain hefyd. Gelwir y darnau anorffenedig hyn yn "frasffurfiau", a'r rhain y daeth Warren o hyd iddynt, yn ogystal â naddion o gerrig wedi'u torri i ffwrdd yn ystod y napio. Anfonodd lawer o'r enghreifftiau gorau i amgueddfeydd ledled Prydain.

in Penmaenmawr. Warren undertook several seasons of excavation and found about 3 tons of unfinished and broken axeheads, as well as immense amounts of waste. Warren showed that the natural scree below the crag were used as a source of stone for the axeheads. In the 1990s Gwynedd Archaeological Trust carried out detailed surveys of the surviving working area at Graig Lwyd and undertook some small scale excavations. One excavation exposed an area where stone had been quarried directly from the bedrock on top of the hill, so both quarried stone and scree was being used to make axeheads.

A piece of scree was selected and tested by roughly knapping it. If it did not seem suitable it was thrown away. Some axeheads broke while they were being knapped and these were



Cloddiwyd ffos ym 1993 a ddatgelodd chwarelu Neolithig gyda brasffurf bwyell wedi'i gosod yn y gornel, ffotograff a dynnwyd gan John Llywelyn Williams ym 1993

Trench excavated in 1993 that revealed Neolithic quarrying with an axe roughout placed in the corner (photograph taken by John Llywelyn Williams in 1993)

Ar Graig Lwyd hefyd mae wyneb craig naturiol gyda'i rhan isaf wedi'i thorri ac wedi'i chwarelu'n fras. Mae'n ymddangos bod rhywfaint o'r chwarelu wedi cael ei wneud yn gymharol ddiweddar, ond mae rhywfaint yn ymddangos fel petai'n hynafol. Cefnogir y farn y gallai'r chwarelu hyn fod yn Neolithig gan graith naddion mawr ar wyneb y graig. Mae'r graith hon wedi'i gwneud gan naddion mawr o gerrig yn cael eu taro o'r graig. Mae marciau crychau yn y graith yn dangos iddi gael ei tharo oddi tanodd, o bosibl gan

also thrown away. These unfinished pieces are known as "roughouts", and it was these that Warren found, as well as flakes of stone chipped off during knapping. He sent many of the best examples to museums around Britain.

On Graig Lwyd there is also a natural rock face with its lower part broken and roughly quarried. Some of the quarrying seems to be relatively recent, but some appears ancient. That this quarrying might be Neolithic is supported by a large flake scar on the rock



Wyneb creigiog wedi ei chwarelu ar Graig Lwyd gyda chraith naddion yn cael ei nodi

Quarried rock face on Graig Lwyd with flake scar being pointed out



ordd garreg fawr a anelwyd at i fyny. Mae'n ymddangos yn debygol iawn bod olion y broses chwarelu wedi'u claddu wrth droed wyneb y graig ac y byddai y fan hon yn lle da i ymchwilio ymhellach.

Roedd y gwaith arolwg yn nodi pantiau, yn ôl pob tebyg yn ymwneud â gweithio bwyell, yn ymestyn i lawr llethr y bryn bron cyn belled â Fferm Graig Lwyd. Cadarnheir hyn gan fap sgets a grëwyd gan Warren sy'n nodi darganfyddiad naddion ar hyd a lled yr ardal hon. Mae'n disgrifio dod o hyd i "nifer fawr o naddion ychydig uwchben adeiladau'r fferm" ar Fferm Graig Lwyd a phen bwyell wedi torri o drac y fferm. Adroddwyd am frasffurf o ardd islaw Fferm Graig Lwyd ac mae'n debygol bod gweithio bwyell wedi digwydd yn y caeau o amgylch ac o dan y ffermdy.

Tirwedd gweithio bwyell

Sylweddolodd Warren y gellid dod o hyd i frasffurfiau pennau bwyell, nid yn unig yn Graig Lwyd, ond dros ardal lawer ehangach. Ers hynny mae rhai archeolegwyr wedi cydnabod bod y gwaith ffurfio bwyell carreg yn ymestyn i Garreg Fawr a Dinas, ond ychydig o waith archeolegol proffesiynol sydd wedi'i wneud i ymchwilio i'r dirwedd ehangach. Fodd bynnag, ers y 1990au

face. This scar has been made by a large flake of stone being struck from the rock. Ripple marks in the scar show that it was struck from below, possibly by a large stone maul swung upwards. It seems highly likely that traces of the quarrying process are buried at the foot of the rock face and that this would be a good place to investigate further.

The survey work indicated hollows, probably relating to axe-working, extending down the hill slope almost as far as Graig Lwyd Farm. This is confirmed by a sketch map created by Warren that marks the discovery of flakes all across this area. He describes finding "a great number of flakes a little above the farm buildings" at Graig Lwyd Farm and a broken axehead from the farm track. A roughout has been reported from a garden below Graig Lwyd Farm and it is likely that there was axe-working in the fields around and below the farmhouse.

Axe-working Landscape

Warren realised that axehead roughouts could be found, not just at Graig Lwyd, but over a much wider area. Since then some archaeologists have recognised that the stone axe workings extended to Garreg Fawr and Dinas, but little professional archaeological work has been done to investigate the wider landscape. However, since the 1990s David T

mae David T Jones o Llanfairfechan wedi bod yn casglu brasffurfiau pen bwyell ac yn archwilio safleoedd gweithio bwyell o amgylch Llanfairfechan. Mae ei waith wedi dangos bod tirwedd gyfan o weithio bwyell wedi'i chadw yn yr ardal, nid ond ar un safle yn unig. Y gwaith hwn yw sylfaen y prosiect cyfredol.

Mae safleoedd gweithio bwyell wedi'u nodi gan Mr Jones ar ochr ogleddol Garreg Fawr, wrth droed Dinas ac islaw wyneb gorllewinol Mynydd Penmaenmawr. Yn yr holl achosion hyn, roedd sgri naturiol yn cael ei ddefnyddio i ddarparu carreg ar gyfer pennau bwyell. Mae rhai brasffurfiau

Jones of Llanfairfechan has been collecting axehead roughouts and exploring axe-working sites around Llanfairfechan. His work has shown that there is a whole landscape of axe-working preserved in the area, not just a single site. This work forms the basis of the current project.

Axe-working sites have been identified by Mr Jones on the northern side of Garreg Fawr, at the foot of Dinas and below the western face of Penmaenmawr Mountain. In all these cases natural scree was being used to provide stone for axeheads. Some roughouts and stone flakes have been found away from the rock sources, especially around Waun Llanfair,



Y sgrïau isaf yn Dinas a ddefnyddir i wneud bwyell
The lower screes at Dinas used for axe-making

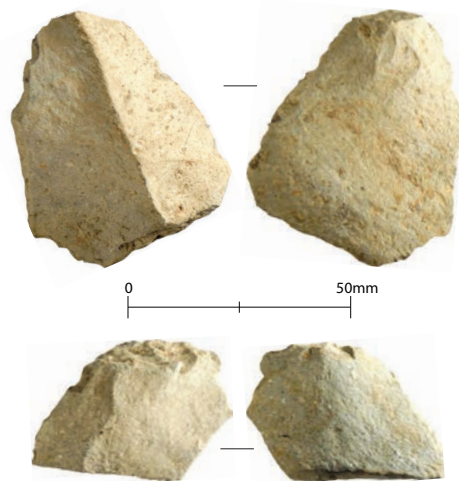
Brasffurf fel yr un y daethpwyd o hyd iddo
wrth droed Dinas
A roughout as found at the foot of Dinas



a naddion cerrig wedi'u darganfod draw oddi wrth y ffynonellau creigiau, yn enwedig o amgylch Waun Llanfair, a thybir bod rhywfaint o waith brasffurfio mwy manwl wedi digwydd yn yr ardaloedd hyn. Nid yw'n hysbys eto ble digwyddodd y sgleinio terfynol. Efallai ei fod wedi'i wneud gerllaw, gan ddefnyddio tywod o un o'r nentydd, neu gallai'r brasffurfiau fod wedi eu cludo allan

and it is assumed that some finer working of roughouts occurred in these areas. It is not yet known where the final polishing occurred. It may have been done nearby, using sand from

Naddion wrth wneud bwyell a ganfuwyd
ar Waun Llanfair
*Flakes from making axes found on Waun
Llanfair*



i aneddiadau yn yr iseldiroedd. Nid ydym
ychwaith yn gwybod lle'r oedd y bobl a oedd
yn gwneud y pennau bwyell yn byw. Mae'r
rhain yn bethau yr hoffem eu darganfod.

Dosbarthiad a Dyddodiad

Dosbarthwyd pennau bwyell o
Benmaenmawr a Llanfairfechan ledled
Prydain yn y cyfnod Neolithig. Rydyn ni'n
gwybod hyn oherwydd astudiwyd samplau
o bennau bwyell carreg o bob rhan o Brydain
yn ficrosgopig i nodi'r mathau o fwynau
oedd ynddynt. Cymharwyd y samplau hyn
â ffynonellau cerrig sy'n hysbys i nodi o ble
y daethant. Canfuwyd bod y nifer fwyaf o
bennau bwyell yn dod o ffynhonnell yn
ardal ganolog y Llynnoedd, wedi'i ffocysu o
amgylch Great Langdale, ond y ffynhonnell
nesaf a ddosbarthwyd fwyaf eang oedd y
garreg o Benmaenmawr a Llanfairfechan.
Mae pennau bwyell o'r ffynhonnell hon
wedi'u darganfod dros y rhan fwyaf o Gymru
a Lloegr. Mae crynodiad amlwg o bennau
bwyell o Benmaenmawr a Llanfairfechan
yng Ngogledd Swydd Efrog, sy'n awgrymu
cyswllt penodol â'r rhanbarth hwn.



Brasffurf bwyell a ddaethpwyd o hyd iddi yn Dinas
gan David T Jones

Axe roughout found at the Dinas by David T Jones

*one of the streams, or the roughouts could have
been taken to settlements in the lowlands. We
also don't know where the people that were
making the axeheads were living. These are
things that we would like to find out.*

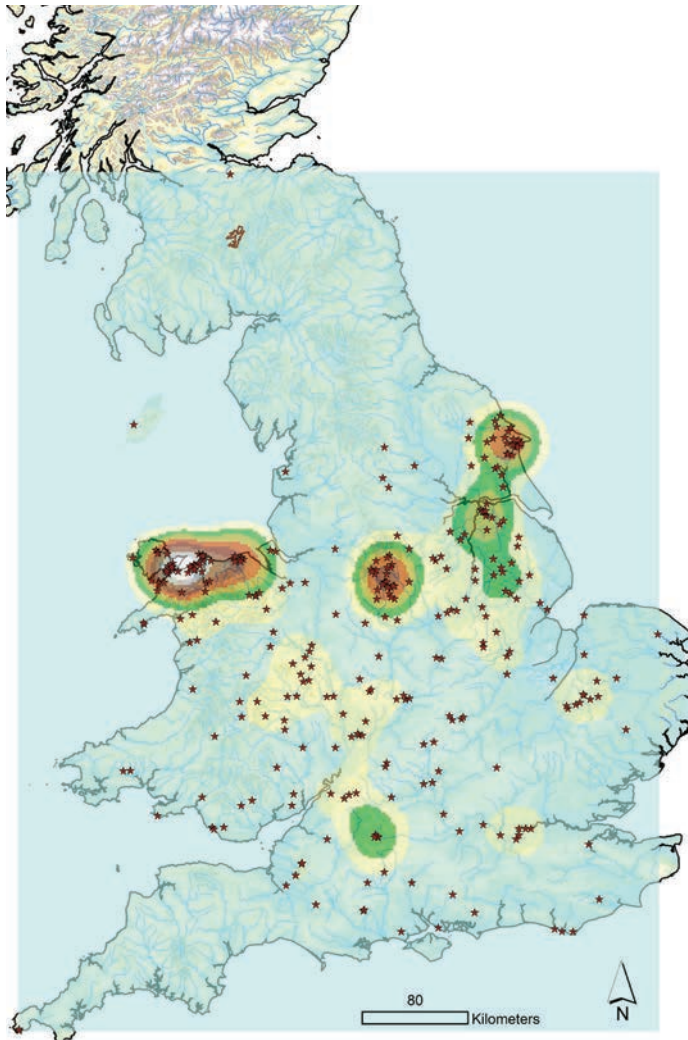
Distribution and Deposition

*Axeheads from Penmaenmawr and
Llanfairfechan were distributed across Britain
in the Neolithic period. We know this because
samples from stone axeheads from across
Britain were studied microscopically to identify
the types of minerals they contained. These
samples were compared to known stone
sources to identify where they came from.
The largest number of axeheads was found to
come from a source in the central Lake District,
focussed around Great Langdale, but the next
most widely distributed source was the stone
from Penmaenmawr and Llanfairfechan.
Axeheads from this source have been found
over most of England and Wales. There is
a distinct concentration of axeheads from
Penmaenmawr and Llanfairfechan found*

Fel pennau bwyell eraill fe'u canfyddir yn aml wedi'u claddu mewn pyllau mewn henebion, megis gwerysloedd sarn (safleoedd caeedig wedi'u diffinio gan ffosydd gyda llawer o sarnau yn eu croesi ac yn cael eu defnyddio ar gyfer cynulladau mawr) neu mewn meingylch (henebion crwn mawr wedi'u diffinio gan ffos y tu mewn i glawdd). Mae'r rhan fwyaf o bennau bwyell o safleoedd o'r fath wedi'u torri neu eu llosgi cyn cael eu claddu i'w gwneud yn amhosibl eu defnyddio. Gall y pennau bwyell fod yn gysylltiedig ag esgyrn anifeiliaid sy'n cynrychioli darnau cig neu yn gysylltiedig â chrochenwaith, neu'n fwy anaml ag esgyrn

in North Yorkshire, suggesting a particular contact with this region.

Like other axeheads they are often found buried in pits in monuments, such as causewayed camps (enclosed sites defined by ditches with many causeways across and used for large gatherings) or in henges (large circular monuments defined by a ditch inside a bank). Most axeheads from such sites have been broken or burnt before being buried to deliberately make them unusable. The axeheads can be associated with animal bones representing joints of meat or with pottery, or more rarely with human bones.



Map o bennau bwyell o ardal Graig Lwyd a ddarganfuwyd ar hyd a lled Cymru a Lloegr gyda dadansoddiad ystadegol yn tynnu sylw at grynodiadau o bennau bwyell (trwy garedigrwydd R A Williams, o'i draethawd PhD)

A plot of axeheads from the Graig Lwyd area found across England and Wales with statistical analysis highlighting concentrations of axeheads (courtesy of R A Williams, from his PhD thesis)

dynol. Nid gwastraff yn unig oedd yr eitemau hyn ond gwrthrychau a ddewiswyd ac a osodwyd yn ofalus yr ymddengys eu bod yn offrymau i'r hynafiaid neu'r duwiau.

These items were not just waste but carefully selected and placed objects that seem to have been offerings to the ancestors or gods.

Daethpwyd o hyd i lawer o bennau bwyell wrth aredig neu wrth gynnal gwaith arall ar y ddaear. Nid yw'r rhain o reidrwydd yn gysylltiedig ag anheddiad Neolithig ac ymddengys eu bod wedi'u colli wrth eu defnyddio, efallai yn y goedwig wrth dorri coed. Fodd bynnag, nid yw llawer o'r pennau bwyell hyn wedi torri na'u difrodi, ac ymddengys mai pur anaml yr oedd y rhain wedi cael eu defnyddio. Efallai bod rhai o'r rhain hefyd yn offrymau a adnewwyd mewn lleoedd mwy gwyllt yn hytrach nag mewn heneb.

Dyddiad

Mae'r gwaith o wneud bwyell Neolithig ym Mhenmaenmawr a Llanfairfechan wedi'i ddyddio yn ôl dyddiad y cyd-destunau y darganfuwyd pennau bwyell gorffenedig ynddynt. Darganfuwyd rhai naddion o bennau bwyell caboledig o'r ffynhonnell hon mewn tŷ Neolithig Cynnar yn Llandygai, a oedd yn dyddio i tua 3700-3600 CC. Mae pennau bwyell eraill o henebion meingylch Neolithig Diweddar yn dangos bod bwyell o'r ffynhonnell hon yn dal i gael eu gwneud tua 3000 CC ac yn ddiweddarach. Fodd bynnag, prin iawn yw'r dyddiadau o'r ardaloedd ffynhonnell eu hunain. Mae'n bosibl bod pennau bwyell wedi'u gwneud yma o ddechrau'r cyfnod Neolithig, efallai mor gynnar â 3900 CC, neu hyd yn oed bod y garreg wedi'i defnyddio yn y cyfnod Mesolithig blaenorol. Efallai bod pennau bwyell hefyd wedi'u gwneud ymhell i'r Oes Efydd. Efallai y defnyddiwyd gwahanol ffynonellau cerrig ar draws y dirwedd ar wahanol adegau. Mae cyfrannu at ddeall dyddiad gwneud bwyell yn nod pwysig i'r prosiect ond mae'n dibynnu ar ddod o hyd i aelwydydd a ddefnyddiwyd gan y gwneuthurwyr bwyell i ddarparu deunydd ar gyfer dyddio radio carbon.

Gwarchod

Gellir niweidio'r safleoedd gweithio bwyell yn hawdd a cholli llawer o wybodaeth archeolegol os aflonyddir arnynt. Mae'n

Many axeheads have been found during ploughing or other groundwork. These are not necessarily associated with Neolithic settlement and seem to have been lost during use, perhaps in the forest while felling trees. However, many of these axeheads are not broken or damaged, and some seem to have been barely used. May be some of these were also offerings deposited in wilder places rather than in a monument.

Date

The Neolithic axe making at Penmaenmawr and Llanfairfechan is dated by the date of the contexts in which finished axeheads have been found. Some flakes from a polished axehead from this source were found in an Early Neolithic house at Llandygai, which dated to about 3700-3600 BC. Other axeheads from Late Neolithic henge monuments show that axes from this source were still being made in about 3000 BC and later. However, there are very few dates from the source areas themselves. It is possible that axeheads were made here right from the start of the Neolithic period, perhaps as early as 3900 BC, or even that the stone was used in the preceding Mesolithic period. Axeheads may also have been made well into the Bronze Age. Different stone sources across the landscape may have been used at different times. Contributing to understanding the date of the axe-making is an important aim of the project but relies on finding hearths used by the axe-makers to provide material for radiocarbon dating.

Protection

The axe-working sites can be easily damaged and much archaeological information lost if they are disturbed. It is important not to dig or turn stones over in looking for axehead roughouts. We want to preserve this important landscape for future generations to explore. Most of the known axe-working sites are on private land so there is no public access.

However, if you find a roughout in your garden or loose on the ground surface it is very useful

bwysig peidio â chloddio na throi cerrig drosodd wrth chwilio am frasffurfiau pennau bwyell. Rydym am ddiogelu'r dirwedd bwysig hon i genedlaethau'r dyfodol ei harchwilio. Mae'r rhan fwyaf o'r safleoedd gweithio bwyell hysbys ar dir preifat felly nid oes mynediad cyhoeddus ar gael.

Fodd bynnag, os dewch o hyd i frasffurf yn eich gardd neu'n rhydd ar wyneb y ddaear, mae'n ddefnyddiol iawn cofnodi'r wybodaeth hon. Gallai ddynodi gweithio bwyell mewn lleoedd lle na ystyriwyd hynny o'r blaen. Os dewch chi o hyd i frasffurf pen bwyell, anfonwch ffotograff gyda manylion o ble y daethpwyd o hyd iddo i Gofnod Amgylchedd Hanesyddol Gwynedd yn her@heneb.co.uk, fel y gellir gwneud cofnod o ble y daeth.

Er cof am David T Jones

Nododd David T Jones lawer o'r safleoedd o amgylch Llanfairfechan a pharhaodd i gasglu a chofnodi hyd yn oed pan nad oedd tirwedd bwyell Neolithig yr ardal yn cael y sylw gan y gymuned archeolegol ehangach yr oedd yn ei haeddu. Rhannodd ei wybodaeth yn hael, ac mae ei wybodaeth a'i gasgliad wedi bod yn sail i'r gwaith presennol. Ar ôl iddo farw ym mis Mehefin 2021, rhoddwyd ei gasgliad o frasffurfiau i Amgueddfa Penmaenmawr, lle bydd ar gael i'r cyhoedd ac mae'n ffurfio teyrnged addas i ddiddordeb hir a diwyd David yn y deunydd hynod ddiddorol hwn o'r gorffennol pell.

for this information to be recorded. It could indicate axe working in places not previously suspected. If you find an axehead roughout please send a photograph with details of where it was found to the Gwynedd Historic Environment Record at her@heneb.co.uk, so that a record can be made of where it came from.

In Memory of David T Jones

David T Jones identified many of the sites around Llanfairfechan and carried on collecting and recording even when the landscape of Neolithic axes in the area was not getting the attention from the wider archaeological community that it deserved. He generously shared his information, and his knowledge and collection have formed the basis for the present work. After his death in June 2021 his collection of roughouts was donated to Penmaenmawr Museum, where it will be publicly accessible and form a fitting tribute to David's long and diligent interest in this fascinating material from the distant past.