



# Adeiladau Amaethyddol Traddodiadol yng Nghymru

Gofal a Chadwraeth

## Traditional Agricultural Buildings in Wales

Care and Conservation



Cadw yw is-adran amgylchedd hanesyddol  
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conservation and appreciation of  
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## Cyflwyniad

Mae hen hanes i amaethu yng Nghymru. Mae olion ei phenodau cynharaf i'w canfod ar y dirwedd: olion systemau caeau, hen derfynau, creithiau aredig. Mae adeiladau yn goroesi hefyd ac mae pob un yn dystiolaeth o hanes amaethu. Yn yr uwchdiroedd, mae olion gwasgareddig adeiladau sy'n dyddio o gyfnod cyn 1500, ond prin yw'r adeiladau amaethyddol a adeiladwyd cyn diwedd yr unfed ganrif ar bymtheg sy'n goroesi'n gyflawn. Tua 1800, dechreuodd ymgyrch estynedig o welliannau amaethu yn y rhan fwyaf o Gymru. Ailwampiwyd y dirwedd yn sgîl amgáu ac adfer tir; cyflwynwyd cynydu ac arferion cynyddio newydd; codwyd mathau newydd o adeiladau; ailgodwyd ffermydd. Mae'r cyswllt rhwng adeiladau a'r modd y trefnwyd y tir yn gliriach ac mae'r adeiladau yn datgelu llawer inni am yr arferion amaethu. Er enghraifft, daeth yn arfer cyffredin i ddarparu llety ar gyfer canran uwch o'r stoc ac roedd galw cynyddol am storffeydd gwell i'r yd neu'r gwair ac adlewyrchir yr arferion hyn yn yr adeiladau newydd a godwyd.

## Introduction

Farming in Wales has a long history. Clues to its earlier chapters are traced on to the landscape: the marks of field systems, former boundaries, the scars of ploughing. Buildings, too, survive, and each one is a piece of evidence for the history of farming. In the uplands, there are fragmentary remains of buildings that date from before 1500, but farm buildings surviving in a complete state are very rare before the late sixteenth century. In much of Wales, an extended campaign of farm improvement began about 1800. Enclosures and land reclamation remodelled the landscape; new crops and cropping practices were introduced; new types of building were provided; farms were rebuilt. The link between buildings and the organization of the land is much clearer, and buildings provide us with better clues to farming practice. It became common, for example, to provide accommodation for a higher percentage of the stock, and there was a growing demand for better storage for corn or hay, and these practices are reflected in the provision of new buildings.



*Gyferbyn: Fferm ystad â chynllun manwl yn Eryri, wedi'i hadeiladu gan ddefnyddio concrid yn y 1870au. Uchod: Defnyddiwyd polion pren garw a haearn gwrymiog i wneud yr ysgubor wellt hon (Llyfrgell Genedlaethol Cymru).*

*Opposite: A well planned estate farm in Snowdonia, built using concrete in the 1870s. Above: Rough timber poles and corrugated iron were used to make this hay barn (National Library of Wales).*



*Yn gyffredinol, roedd gan breswylfeydd y perchenogion mawr ysguboriau, adeiladau a buarthau ynghlwm wrthynt, yn ogystal ag adeiladweithiau y gwnaed gwelliannau iddynt; ond dim ond yn ystod y blynnyddoedd diweddaraf y bu modd i'r iwmyn a'r tenantiaid fanteisio ar y moethusrwydd gwledig hwn ...*

Walter Davies, *General View of the Agriculture and Domestic Economy of South Wales* (1815).

*The residences of the great proprietors in general, had conveniences of barns, buildings and yards attached, upon improved constructions; but it is of late years that the yeomanry and tenantry were invited to partake of this rustic luxury ...*

Walter Davies, *General View of the Agriculture and Domestic Economy of South Wales* (1815).

Mae'r adeiladau sydd wedi goroesi yn asedau unigryw sy'n cyfrannu at ymdeimlad o le a'n dealltwriaeth o hanes. Oherwydd bod arferion amaethu yn parhau i newid, mae iddynt hefyd natur fregus iawn yng nghydestun yr amgylchedd hanesyddol. Ond gellid parhau i wneud defnydd o lawer o'n hadeiladau traddodiadol o hyd; weithiau at eu dibenion gwreiddiol, ac weithiau, wedi'u haddasu at ddefnydd newydd ar y fferm. Gydag atgyweiriadau doeth, gallai eraill gael eu defnyddio o'r newydd. Mae'n hadeiladau fferm traddodiadol gorau mor arbennig fel ei bod yn werth sicrhau eu defnyddioldeb drwy eu hatgyweirio a'u cynnal a'u cadw. Mae cynlluniau amaeth-amgylcheddol a chynlluniau cadwraeth wledig eraill yn cydnabod hyn, a bellach mae sawl ffynhonnell ariannu ar gael sy'n hyrwyddo'r gwaith o'u cadw fel rhan bwysig o'r dreftadaeth wledig.

Nod y llyfr hwn yw egluro ac amlinellu natur arbennig adeiladau fferm traddodiadol a dangos sut y gall gwaith cadwraeth sensitif helpu i gadw eu hanes yn fyw.

The buildings that remain are irreplaceable assets that contribute to a sense of place and our understanding of history. Because farming practices continue to change, they have also become a very vulnerable part of the historic environment. But many traditional buildings can still have a useful life; sometimes for their original purpose, and sometimes, after adaptation, for new uses on the farm. With judicious repair, others could be brought back into use. The best of our traditional farm buildings are so special that it is worth ensuring that they remain serviceable through repair and maintenance. Agri-environment and other rural conservation schemes recognize this, and there are now several sources of funding that promote their preservation as an important part of the rural heritage.

This book sets out to explain and illustrate the special character of traditional farm buildings and to show how sympathetic conservation can help to keep their history alive.

Uchod: Ysgubor ŷd fawr o'r ail ganrif ar bymtheg ar fferm yn Sir Fynwy. Gyferbyn: Gallai cymorth grant roi bywyd newydd i'r fferm segur hon ar yr ucheldir fel sied a storfa ddefaid (Cyngor Bwrdeistref Sirol Conwy).

Above: A large seventeenth-century corn barn on a Monmouthshire farm. Opposite: Grant aid could give this abandoned upland holding new life as a sheep shed and store (Conwy County Borough Council).







## Amaethu a'r dirwedd

Ffurfir y dirwedd wledig yn ôl anghenion amaethu a'r adeiladau fferm yw canolbwynt yr holl systemau defnydd tir. Mae'r patrymau hyn o ddefnydd yn amrywio yn ôl daearyddiaeth a diwylliant i roi amrywiaeth rhanbarthol a lleol amlwg. Yn draddodiadol roedd amaethu yng Nghymru yn gymysgedd o ffermio â'r a hwsmonaeth fugeiliol, ond roedd y cydbwysedd rhwng y ddau yn amrywio. Mae'r adeiladau fferm yn adlewyrchu'r amrywiadau hyn.

Roedd gan bob elfen o'r tir ei adeiladau cyfatebol ar y fferm. O'r caeau â'r daeth y cynydau i'w storio a'u prosesu yn yr ysgubor. Roedd maint yr ysgubor yn cyfateb yn union â'r erwau yr arferid eu haredig, ac yn sgîl y twf yn y cynhyrchiant gwenith roedd angen codi ysguboriau newydd neu ehangu'r hen ysguboriau. O ran y da byw a borai ar y dolydd, câi rhai ohonynt eu cadw dan do dros y gaeaf ac ar rai ffermydd arferid eu cadw i gyd dan do. Arweiniodd y cynnydd yn niferoedd yr anifeiliaid at yr angen am adeiladau ychwanegol.

*Cynhyrchant wartheg a defaid a gedwir yn uchel yn y mynyddoedd yn ystod yr haf; yno hefyd mae eu perchnogion a'u teuluoedd sy'n byw yn ystod y tymor hwnnw mewn hafotai neu laethdai fel y gwna'r ffermwyr yn yr Alpau yn y Swistir.*

Richard Jones (1810).

*Their produce is cattle and sheep which during the summer keep very high in the mountains, followed by their owners with their families, who reside during that season in hafotai, or summer dwellings or dairy houses as the farmers in the Swiss alps do.*

Richard Jones (1810).

## Farming and the landscape

The rural landscape is shaped by the needs of agriculture, and farm buildings are at the hub of whole systems of land use. These patterns of use vary with geography and culture to give marked regional and local variety. Farming in Wales was traditionally a mix of arable and pastoral husbandry, but the balance between the two fluctuated. Farm buildings mirror these variations.

Each element of the land had its complementary buildings in the farmstead. From the arable fields came the crops, to be stored and processed in the barn. The size of the barn related directly to the acreage under the plough, and the expansion of wheat production required the construction of new barns or the enlargement of old ones. On the pastures grazed the stock, some or all of which was over-wintered indoors. Increasing the number of beasts led to a need for additional accommodation.



*Gyferbyn: Fferm ystad â chynllun tynn ar yr ucheldir yng Ngheredigion. Mae'r adeiladau yn cynnwys ysgubor ŷd fach, ysgubor wellt fawr, beudai a stablau (CBHC). Uchod: Beudy ger Penmachno, Gwynedd. Defnyddiwyd adeiladau fel y rhain ar gyfer gwartheg a gâi eu cadw dan do dros y gaeaf ar diroedd pori gwasgaredig.*

*Opposite: A tightly planned estate farmstead in upland Ceredigion. The buildings include a small corn barn, large hay barn, cow houses and stables (RCAHMW). Above: A field cow house near Penmachno, Gwynedd. Buildings like these were used for over-wintering cattle on dispersed grazing lands.*



*Beudy ger Dolgellau, Gwynedd.*

*A field cow house near Dolgellau, Gwynedd.*

Gellid dweud bod yr adeiladau yn adlewyrchu'r modd y trefnwyd y gwaith ar y fferm. Yn yr iseldir yn arbennig, mae'r adeiladau wedi'u casglu mewn grŵp, canolbwynt y fferm. Erbyn diwedd y ddeunawfed ganrif, roedd llawer o'r tir a amgylchynai'r fferm wedi'i amgáu ar ffurf system o gaeau. Yn ardaloedd yr uwchdir, ceid tirwedd fwy agored y tu hwnt i'r caeau â'r caeau pori bach ac erbyn diwedd y ddeunawfed ganrif roedd wedi'i rhannu'n gaeau mawr o dir pori – y *ffridd* – gyda thir pori agored y tu hwnt iddynt.

Yn yr uwchdiroedd, datblygodd system arbennig o hwsmonaeth, gyda'i phatrymau ei hun. Roedd traddodiad cynnar o drawstrefa, lle byddai'r teulu i gyd yn ogystal â'r anifeiliaid yn symud i'r porfeydd uwch yn yr haf – i'r *hafodydd*. Ond roedd hyn eisoes yn anarferol erbyn diwedd y ddeunawfed ganrif, ac aeth yr hafotai hynny na ddatblygodd yn ffermydd parhaol a'u pen iddynt.

Yn Eryri, bu'r defnydd o dir pori gwasgaredig yn gyfrifol am feithrin traddodiad hirhoedlog arall. Yn yr ardal hon, byddai'r stoc yn cael ei chadw dan do dros y gaeaf, mewn beudai, ac fe'i porthwyd ar wair o'r porfeydd cyfagos. Mae'r beudai hyn yn parhau i fod yn rhan bwysig o'r dirwedd. Mae'n bosibl bod rhai ohonynt yn dyddio o gyfnod mor gynnar â'r ail ganrif ar bymtheg, sy'n awgrymu hen hanes i'r arfer hwn.

Buildings can be seen to reflect the way work on the farm was organized. In the lowlands particularly, the buildings are gathered together in a group, the focal point of the farm. By the end of the eighteenth century, much of the surrounding land was enclosed as a system of fields. In upland areas, a more open landscape lay beyond the arable and small pasture fields, which by the end of the eighteenth century was typically divided into large enclosed tracts of pasture – the *ffridd* – with open grazing beyond.

A distinctive system of husbandry developed, with its own patterns, in the uplands. There was an early tradition of transhumance, in which not only animals but the whole family withdrew to upland pastures – known as *hafodydd* – in the summer. But this was already rare by the end of the eighteenth century, and those summer houses (*hafotai*) which did not become permanent farms lapsed into ruin.

In Snowdonia, the use of dispersed grazing land fostered another enduring tradition. Here, stock was over-wintered indoors in field cow houses, and was fed on hay from nearby pastures. These cow houses are still an important part of the landscape. Some of them may date from as early as the seventeenth century, suggesting that this practice has a long history.

Roedd tirwedd unigryw i ffermio defaid: roedd ffriddoedd helaeth wedi'u hamgáu yn nodwedd gyffredin o'r unfed ganrif ar bymtheg ymlaen, ac mae'n bosibl bod rhai ohonynt yn dyddio o gyfnod cynharach. Yr unig nodweddion pensaernïol sy'n goroesi i'n hatgoffa o bwysigrwydd defaid yn yr economi wledig yw cytiau bugeiliaid a chorlannau defaid mewn mannau strategol.

Gwelwyd newidiadau radical i'r dirwedd amaethu yn ystod y bedwaredd ganrif ar bymtheg. O tua 1800 ymlaen dyrannwyd tir a fu'n dir comin ers cyfnod cynnar iawn, i berchnogion unigol o ganlyniad i'r Deddfau Cau Tir seneddol enwog. Ar yr un pryd, sefydlwyd ffermydd newydd hefyd; rhai gan dirfeddianwyr blaengar a fuddsoddai yn y gwaith o adfer a gwella'r tir a rhai gan ffermwyr bychain a orfodwyd i grafu bywoliaeth o'r tir ymylol yn sgîl y twf yn y boblogaeth. Yn aml y ffermydd diweddarach hyn a sefydlwyd ar dir llai ffafriol oedd y cyntaf i fynd yn anghyfannedd yn ystod cyfnodau o ddirwasgiad economaidd.

Mae'n bosibl bod gwybodaeth am y defnydd o dir yn y gorffennol i'w chael yng ngwead yr adeiladau fferm. Gallai chwareli bychain ar y fferm fod wedi darparu cyflenwad o gerrig adeiladu. Defnyddid deunyddiau a oedd i'w cael ar y fferm neu'r cyffiniau ar gyfer toeon gwellt a gall y deunyddiau hyn gynnig tystiolaeth fanwl inni o amgylcheddau amaethyddol blaenorol.

Sheep farming had its own landscape: vast enclosed sheep walks were becoming common from the sixteenth century, and some may be earlier. Small shepherds' huts and strategically placed sheep-folds are the sole architectural reminders of the importance of sheep in the rural economy.

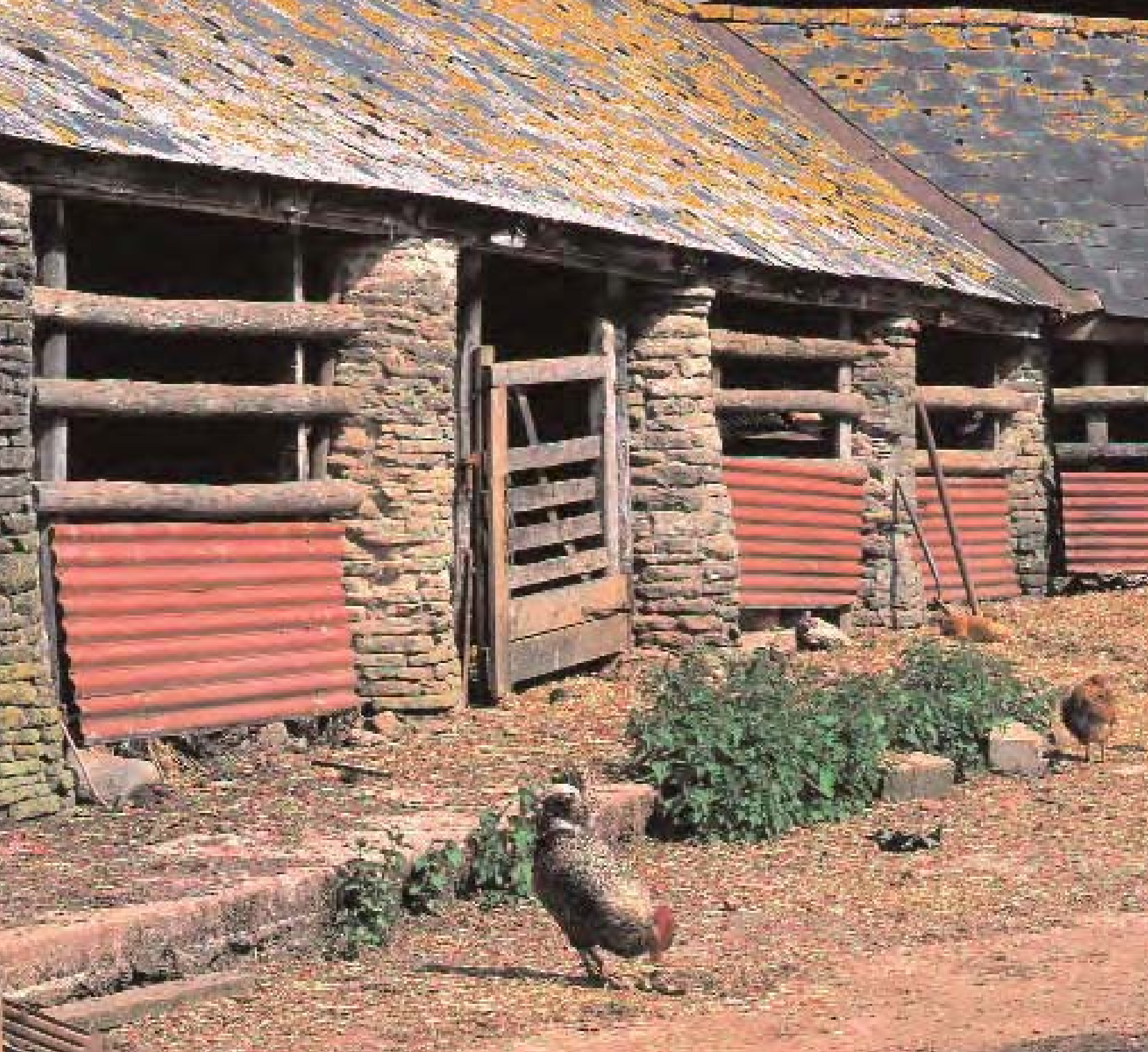
There were radical changes to the farming landscape during the nineteenth century. Land held and used in common from ancient times was allotted to individual owners from about 1800, as a result of the notorious parliamentary Enclosure Acts. At the same time, too, new farms were established; some by progressive landlords who invested in reclaiming and improving the land, and some by small farmers, who were forced by the rise in population to work marginal land. These late-established farmsteads on less favourable land were often the first to be abandoned in times of economic depression.

Farm buildings may contain in the detail of their construction information about land use in the past. Small quarries on the holding may have provided a supply of stone for building. Materials to be found on the farm or in its immediate environs were used for thatching, and can provide detailed evidence for past agricultural environments.



Brig: *Strwythur cellog corlan ddefaid yn Eryri (CBHC). Polion garw a gwellt a ddefnyddiwyd i doi beudy fferm fach yng Ngheredigion (uchod).*

Top: *The cellular structure of a Snowdonia sheep fold (RCAHMW). Above: Rough poles and straw rope used to roof the little cow house of a Ceredigion smallholding.*



## Fferm a swyddogaeth

Mae fferm yn uned weithiol sy'n cynnwys tŷ ac adeiladau fferm. Mae amrywiaeth yr adeiladau yn adlewyrchu trefn economaidd y fferm gyfan. Roedd rhai mathau penodol o adeiladau fferm yn gysylltiedig â'r rhan fwyaf o weithgareddau amaethu: mae ffurfiau nodweddiadol wedi datblygu ar gyfer llochesi anifeiliaid, a storio a phrosesu cynydau. Roedd rhai adeiladau fferm yn cyfuno sawl swyddogaeth o dan yr un to, ond mae'r gwahaniaethau rhwng pob swyddogaeth yn amlwg oherwydd y nodweddion gwahanol a berthynai i bob un ohonynt.

Hyd at ddechrau'r bedwaredd ganrif ar bymtheg, roedd hwsmonaeth gymysg yn gyffredin ym mhob man, er mai stoc a ffermio llaeth oedd fwyaf cyffredin ar yr uwchdiroedd; yn yr iseldiroedd, daeth cynhyrchu grawn yn gynyddol bwysig, yn sgîl rhyfeloedd Napoleon i ddechrau ac yna yn sgîl marchnadoedd cynyddol yr ardaloedd diwydiannol trefol, yn enwedig ar ôl 1850. Yn ddiweddarach, ysgogwyd arbenigedd rhanbarthol fwyfwy ar draws Prydain gan y gwelliannau ym maes trafniadaeth ac yng Nghymru gwelwyd tuedd gref tuag at fagu stoc a ffermio llaeth yn y rhan fwyaf o ardaloedd; erbyn diwedd y bedwaredd ganrif ar bymtheg roedd rhai ffermydd arbenigol wedi'u sefydlu.

Mae adeiladau fferm yn aml yn goroesi newidiadau o'r fath yn economi'r fferm, ac yn darparu tystiolaeth o ddulliau amaethu y dyddiau a fu.

## Farm and function

A farmstead is a working unit of house and farm buildings. The array of buildings reflects the economic organization of the whole farm. Most farming activities had dedicated building types: distinctive forms have developed for animal shelter, and crop storage and processing. Some farm buildings combined several functions under one roof, but the different uses can be recognized because each use had different characteristics.

Until the early nineteenth century, mixed husbandry prevailed everywhere, though stock and dairy dominated in the uplands; whilst in the lowlands, grain production became increasingly important, stimulated at first by the Napoleonic wars, then by the growing markets of urban industrial areas, especially after 1850. Later, improved transport encouraged greater regional specialization across Britain, and in Wales there was a strong shift towards stock-rearing and dairy farming in most areas; some specialist farms had been established by the later nineteenth century.

Farm buildings often survive such changes in the economy of the farm, and provide evidence for abandoned modes of farming.



Gyferbyn: Cysgodfan gyda llwybr wedi'i godi ar fferm yn Sir Fynwy. Uchod: Rhes amaethyddol ar gynllun L ar fferm yng nogledd Eryri, a ddatblygwyd yn y bedwaredd ganrif ar bymtheg drwy gyfuno dwy hen ysgubor, gyda llety uchel i dda byw.

Opposite: A shelter shed with raised walkway on a Monmouthshire farm. Above: An L-plan agricultural range on a farm in north Snowdonia, developed in the nineteenth century by combining two earlier barns, with lofted accommodation, for livestock.



*Ysgubor hardd yn Sir Gaerfyrddin, gyda drysau uchel yn rhoi mynediad i loriau dyrnu dwbl (Archeoleg Cambria).*

*A fine Carmarthenshire barn, with high doors giving access to twin threshing floors (Cambria Archaeology).*

## Adeiladau ar gyfer cnydau

Gweithredai'r ysgubor fel storfa ac adeilad gwaith lle dyrnwyd y grawn. Roedd angen drws ym mhob pen ar gyfer dyrnu (a oedd yn caniatáu i'r awel chwythu drwyddi ar gyfer nithio), gyda llawr caled ar gyfer dyrnu yn y canol. Mewn sawl ardal — yn enwedig yr ardaloedd hynny lle cynhyrchid cnydau grawn ar raddfa fawr — roedd gan yr ysguboriau ddrysau mawr i roi mynediad i gertiau, ond pe câi'r ysgubau eu storio y tu allan a'u dwyn i mewn ar gyfer dyrnu yn unig, byddai drws cul yn gwneud y tro. Fel arfer agennau awyru ac nid ffenestri sydd gan ysguboriau a godwyd at ddibenion storio a dyrnu.

Roedd tîrfeddianwyr blaengar yn cyflwyno peiriannau dyrnu a nithio o ddiwedd y ddeunawfed ganrif ymlaen, ond prin fu'r datblygiadau peirianyddol ar lawer o ffermydd Cymru yn sgîl prinder arian i'w fuddsoddi. Roedd cenhedlaeth gyntaf y peiriannau hyn yn gofyn am injan ceffyl, ac mae rhai enghreifftiau o dai injan a godwyd yn bwrpasol wedi goroesi. Roedd peiriannau ager yn fwy prin o lawer, ond mae tai ar gyfer injan stêm sefydlog yn parhau yn nodwedd ym muarth rhai o'r ystadau mwy uchelgeisiol.

Er mwyn pesgi'r gwartheg, roedd angen rhyw fath o ddarpariaethau i baratoi porthiant. Cyflwynwyd melinau eithin a bwerwyd gan ddŵr ar ddechrau'r bedwaredd ganrif ar bymtheg, ac yna wrth i gnydau porthiant ddod yn fwyfwy pwysig, weithiau defnyddiwyd

## Buildings for crops

The barn was both a store and a working building, where grain was threshed. Threshing required opposed entrances (permitting a through-draught for winnowing), with a solid floor, for threshing, between them. In many areas — and especially those dedicated to extensive cereal production — barns had large doors to permit carts to enter, but if sheaves were stored outside and brought in purely for threshing, a narrow doorway might suffice. Barns for storage and threshing usually have ventilation slits but no windows.

Progressive landlords were introducing threshing and winnowing machines from the end of the eighteenth century, though shortage of funds to invest limited the progress of mechanization on many Welsh farms. The first generations of these machines required horse-engines, and some examples of purpose-built engine houses survive. Steam-powered machines were much more rare, but houses for stationary steam engines are still a feature of the farmyard on some of the more ambitious estates.

If cattle were to be fattened on the farm, some food preparation was necessary. Water-powered gorse mills were introduced in the early nineteenth century, then as fodder crops became more important, powered machinery was

peiriannau a bwerwyd ar gyfer torri ac o ddiwedd y bedwaredd ganrif ar bymtheg ymlaen roedd cegin foch yn gyffredin iawn.

Daeth ysguboriau ar gyfer storio gwair hefyd yn gyffredin yn ystod y bedwaredd ganrif ar bymtheg. Yn Eryri, mae ysguboriau gwair ag iddynt ochrau agored gyda phileri o gerrig neu lechi yn nodwedd ar lawer o ffermydd. Yn ddiweddarach, disodlwyd y tasau ar gyfer gwair ac weithiau yd gan helm wair o haearn gwrymiog.

## Adeiladau i'r da byw

### Y stabl

Roedd ceffylau wedi graddol ddisodli'r ych ar gyfer gwaith trwm yn y ddeunawfed ganrif a'r ceffyl gwedd oedd yr anifail mwyaf gwerthfawr ar y fferm. O'r holl adeiladau amaethyddol, y stabl yn aml yw'r adeilad a godwyd orau ac yn ôl cynllun manwl. Roedd ffenestri gan lawer o stablau, ynghyd â thafnod ar gyfer storio gwair neu fel llety ar gyfer gweision fferm.

*Ymhlith yr adeiladau eraill mae ysgubor, stabl, sied anifeiliaid a sied droliau. Gan fod yr yd bob amser yn cael ei storio yn yr ydian, efallai na fyddai angen ysgubor fawr, ond ar fferm o unrhyw faint, byddai dwy yn gyfleuster mawr ...*

Charles Hassall, *General View of the Agriculture of the County of Carmarthen* (1794).

*The other buildings are a barn, a stable, a beast house, and a cart house. As the corn is always stacked in the rickyard, a large barn may be unnecessary, but on any extent of holding, two would be a great conveniency ...*

Charles Hassall, *General View of the Agriculture of the County of Carmarthen* (1794).

sometimes used for cutting, whilst boiling houses were widespread from the later nineteenth century.

Barns for storing hay became commonplace during the nineteenth century. In Snowdonia, open-sided hay barns with stone or slate piers are a feature on many farms. Later, pole barns or corrugated iron Dutch barns took the place of thatched ricks for hay and sometimes for corn.

## Buildings for Livestock

### The stable

Horses had gradually replaced oxen for heavy work from the eighteenth century, and the working horse was the most valuable animal on the farmstead. The stable is often the most highly designed and best built of the agricultural buildings. Stables often had windows, and lofts for the storage of hay or the accommodation of farm servants.



Brig: Mae'r rhes o stablau hon ar fferm yn Eryri yn debyg i dŷ o ran maint a chymesuredd ei hadeiladu. Uchod: Mae'n debygol i'r rhes fawr hon o stablau, a gysylltid â Gweithiau Haearn Nant-y-glo, Blaenau Gwent, fod yn gartref i ferlod tramffyrdd a'u porthiant.

Top: This stable range on a Snowdonia farm resembles a house in scale and symmetry. Above: This large stable range, associated with Nantyglo Ironworks, Blaenau Gwent, probably housed tramroad ponies and their fodder.



Brig: Mae'r drysau llydan a diffyg ffenestri yn y rhes unllawr hon yn nodweddiadol o feudai'r bedwaredd ganrif ar bymtheg. Uchod: Sied droliau ar fferm yn Sir Benfro. Mae ansawdd da'r gwaith carreg yn pwysleisio pwysigrwydd yr adeilad.

Top: *The broad doorways and lack of windows in this single-storey range is characteristic of a nineteenth-century cow house. Above: The cartshed on a Pembrokeshire farmstead. The good quality stonework emphasizes the importance of the building.*

*adeiladodd y tirfeddiannwr yr ysgubor, y sied droliau, y stabl, y beudy a'r sied ar gyfer da llai eu maint ond bu'n rhaid i'r tenant wneud yr halio am ddim. Cododd y tenant weithdy, sied i'r lloi a sied i ddiogelu'r peiriant dyrnu, sied uwchlaw'r domen dail a bwthyn i'r labrwr ar y fferm.*

Royal Commission on Land (1895), Cyf III, t.184.

*the landlord built the barn, carthouse, stable, cowhouse and shed for small cattle but the tenant had to do all the haulage free. The tenant built a workshop, a shed for the calves and a shed to protect the threshing machine, a shed above the manure heap and a cottage for the labourer on the farm.*

Royal Commission on Land (1895), Vol III, p.184.

### Y beudy

I'r gwrthwyneb, roedd y beudai yn adeiladau diffenestr. Roedd tafnod i'w chael yn aml mewn enghreifftiau cynnar, ond yn y bedwaredd ganrif ar bymtheg, fe'i hystyrid yn arfer da i gadw gwartheg mewn adeiladau unllawr. Yn y beudai diweddarach hyn cadwyd yr anifeiliaid mewn corau; dim ond ar dennyn y cadwyd yr anifeiliaid yn yr adeiladau cynharach. Roedd sawl patrwm i'r corau. Weithiau byddai'r anifeiliaid yn wynebu ar hyd neu ar draws yr adeilad ac weithiau roedd cyntedd bwydo ar wahân. Hyd yn oed ar ôl colli'r corau, gallai'r fframiau drysau i'r corau a'r cyntedd bwydo ddangos y patrwm gwreiddiol. Weithiau, dros fisoedd y gaeaf, byddai'r gwartheg yn cael eu cadw mewn siediau a oedd yn agored ar un ochr gan roi mynediad i fuarth wedi'i amgáu, a adwaenwyd fel cysgodfannau.

### The cow house

By contrast, cow houses were often window-less. Early examples often had lofts, but it was considered good practice in the nineteenth century to accommodate cows in single-storey ranges. In these later cow houses the beasts were in stalls; in the earlier buildings the animals had simply been tethered. There were various layout patterns of stalls. The animals might face along or across the building, and sometimes there was a separate feeding passage. Even when the stalls have been lost, the doorways that gave access to the stalls and the feeding passage may show the original layout. Cattle were sometimes over-wintered in open-fronted sheds, called shelter sheds, that gave access on to an enclosed yard.



### Y cwt moch

Y mochyn oedd prif gynhaliath economi cartref y fferm ac mae cytiau moch yn nodwedd gyffredin. Mae'r rhan fwyaf ohonynt ar ffurf sied fach â tho gyda lloc cysylltiedig. Tua diwedd y bedwaredd ganrif ar bymtheg ar y ffermydd mwy, byddai'r cwt moch wedi'i gysylltu â chegin foch ar gyfer paratoi porthiant. Mae'n bosibl mai math cynharach o adeilad oedd y cwt moch crwn cromennog, ond roedd y math hwn o gwt yn parhau i gael ei godi ar ffermydd bach yn y bedwaredd ganrif ar bymtheg. Yn aml, roedd ganddo loc caeedig, ond ceir hefyd rai enghreifftiau o lochesi moch mewn caeau pori a awgrymai genfaint a gâi fwy o ryddid i grwydro.

### Y sied droliau

Roedd y drol yn eitem werthfawr a fynnai ei llety ei hun. Yn aml arferid cyfuno'r sied ag iddi flaen agored gyda granar uwchben, gan fod grawn hefyd yn werthfawr iawn. Roedd angen i'r storfa rawn fod yn lân ac wedi'i hawyru'n dda ac felly arferid plastro neu wyngalchu'r granar.

### *Cytiau moch o waith maen heb fodfedd o bren neu haearn, ac eithrio drws*

Walter Davies, *General View of the Agriculture and Domestic Economy of South Wales* (1815).

### *Pigsties of entire masonry without an inch of wood or iron, excepting for a door*

Walter Davies, *General View of the Agriculture and Domestic Economy of South Wales* (1815).

### The pigsty

The pig was a mainstay of the domestic economy of the farmstead, and pigsties are commonplace. Most take the form of a small roofed shed with an enclosed pen attached. In the later nineteenth century on larger farms the pigsty might be linked to a *cegin foch* or boiling house for the preparation of fodder. The circular domed sty may be an earlier building type, but it was still being built on small holdings in the nineteenth century. It often had an enclosed pen, but there are also some examples of pig shelters in pasture fields, implying more freely ranging herds.

### The cartshed

The cart was a valuable item of equipment, deserving its own accommodation. Its open-fronted shed was often combined with a granary above, grain being another valuable commodity. Storage of grain relied on good ventilation and a clean interior and the granary was therefore often plastered or limewashed.



Brig: Cwt moch cromennog a chrwn a wnaed o gerrig sychion ym Morgannwg (CBHC).  
Uchod: Cytiau moch pâr ar fferm ystâd yn y bedwaredd ganrif ar bymtheg ym Mhowys, gyda thoeau o fflageni lleol. Gwahanir y ddwy gorlan gan flociau mawr o gerrig. (CBHC).

Top: A domed and circular drystone pigsty in Glamorgan (RCAHMW).  
Above: Paired pigsties on a nineteenth-century estate farm in Powys, roofed with local stone flags. Large blocks of stone separate the two pens (RCAHMW).



## Pensaerniaeth adeiladau fferm

Er mai yn ôl ffurfiau traddodiadol y codwyd adeiladau fferm, roedd manylion eu cynllun yn amrywio yn ôl hanes cymdeithasol ac economaidd penodol y fferm.

Caiff maint y fferm ei adlewyrchu ym maint ei hadeiladau. Yr hyn sy'n nodweddiadol o Gymru yw'r amrywiaeth mawr o ran maint daliadaethau amaethyddol. Yn ôl ffurflenni cyfrifiad o'r bedwaredd ganrif ar bymtheg disgrifiwyd dynion â daliadaethau o gyn lleied â phedair erw fel ffermwyr. Yn amlwg, nid oedd gan fferm mor fach yr un anghenion o ran adeiladau â fferm y plas ar ystâd fawr. Mae ffermydd yn olrhain hierarchaeth economaidd a chymdeithasol fanwl o'r tyddyn bychan, a fyddai wedi cynnwys annedd fechan a beudy cysylltiedig a chwt moch yn unig, i gymhlyg mawr gydag adeiladau at lawer o ddibenion arbenigol.

Yn aml caiff perchenogaeth a statws fferm, ni waeth beth fo'i maint, ei hadlewyrchu yn ei nodweddion pensaernïol. Roedd adnoddau a buddsoddiadau ar gael i ystadau mawr nad oeddent ar gael i'r deiliad bychan. Fodd bynnag, hyd yn oed ar ystadau mawr, y tenant fu'n gyfrifol yn aml am godi neu atgyweirio'r adeiladau. Hwyrach y bu'r drefn hon yn gyfrifol am gadw arferion adeiladau traddodiadol a rhanbarthol, gan ei bod yn cadw'r cyfrifoldeb dros adeiladu o fewn y gymuned leol.

## The architecture of farm buildings

Although farm buildings took conventional forms, the detail of their design varied according to the particular social and economic history of the farm.

The size of a farm is reflected in the size of its buildings. Wales is characterized by an enormous diversity in the size of agricultural holdings. In the nineteenth-century census returns, men having holdings of as few as four acres were described as farmers. Obviously such a tiny farm did not have the same requirement for buildings as the home farm of a large estate. Farmsteads map out a detailed economic and social hierarchy from the tiny smallholding, which may have comprised only a dwelling with a small cow house attached and a pigsty, to the large complex with buildings for many specialist functions.

The ownership and status of a farm, irrespective of its size, is often reflected in its architectural character. Large landed estates had access to resources and investment that were denied to the small freeholder. Even on large estates, though, it was often the tenant who built or repaired the buildings. This may have preserved traditional and regional building practices, since it kept the responsibility for building within the local community.



*Gyferbyn: Stabl, ysgubor a rhes beudy ar fferm yn Sir Benfro. Daw ei gymeriad cryf o'r defnydd o ddeunyddiau adeiladu lleol a'r dulliau adeiladu. Mae'r toeau sydd wedi'u growtio'n helaeth yn nodwedd gyffredin o ardaloedd arfordirol Sir Benfro. Uchod: Stabl a beudy a welir drwy fwâu cerrig cain sied droliau ar fferm ystad cartref ym Mhowys. Mae maint yr adeiladau a'u manylder ansawdd uchel yn dangos eu statws (CBHC).*

*Opposite: A stable, barn and cow house range on a Pembrokeshire farm. Its strong character comes from the use of local building materials and methods of construction. The heavily grouted roofs are a common feature of coastal Pembrokeshire. Above: A stable and cow house range seen through the elegant stone arches of the cartshed on an estate home farm in Powys. The scale of the buildings and their high-quality detailing indicate their status (RCAHMW).*



*Buarthau pâr ar Ynys Enlli, a adeiladwyd tua 1870-75 fel rhan o'r gwaith cyffredinol o ailadeiladu ffermydd yr ynys gan drydydd Barwn Newborough. Maent yn enghreifftiau nodedig o gynllunio modelau fferm ar ddiwedd y bedwaredd ganrif ar bymtheg (CBHC).*

*Paired farm courts on Bardsey Island, built about 1870-75 as part of a general rebuilding of the island's farms by the third Baron Newborough. They are remarkable examples of later nineteenth-century model farm planning (RCAHMW).*

## Patrwm y buarth

Ceir dau brif fath o batrwm: y fferm linellol, lle byddai'r adeiladau i gyd mewn rhes, a'r buarth wedi'i ffurfio o sawl adeilad ar wahân. Tybir mai yn nhraddodiad y tŷ hir y mae gwreiddiau'r fferm linellol. Yn ôl y traddodiad hwn roedd pobl a'u da byw yn byw o dan yr un to ac roedd y cyntedd i'r annedd yn gweithredu fel y cyntedd bwydo i'r da byw. Mae'r tai hir gwirioneddol sydd wedi goroesi yn brin iawn: y patrwm mwy cyffredin yw'r rhes linellol o adeiladau gydag adeiladau fferm a'r tŷ wedi'u codi mewn rhes ond gyda drws ar wahân i bob un. Mae ffermydd o'r math hwn yn fwy tebygol o fod yn gysylltiedig â ffermio uwchdirol a gallant fod yn ffermydd cynharach, neu, yn syml, ffermydd llai. Wedi dweud hynny, mabwysiadwyd y patrwm llinellol weithiau hyd yn oed ar gyfer ffermydd newydd neu ffermydd mawr a ailgodwyd yn y bedwaredd ganrif ar bymtheg, efallai er mwyn defnyddio'r gofod a oedd ar gael yn effeithlon.

Roedd y patrymau eraill, lle gosodwyd swyddogaethau gwahanol mewn adeiladau ar wahân yn amrywio o gasgliad anffurfiol o adeiladau annibynnol i fuarth a gynlluniwyd yn ofalus.

Roedd sylwebyddion amaethyddol yn argymhell ac yn cymeradwyo patrwm lle trefnwyd yr adeiladau mewn dilyniant priodol a rhesymegol, a lle y gellid casglu tail yn gyfleus. Roedd darparu trefniant mor rhesymegol yn ddud, gan ei bod yn gofyn am ymgyrch adeiladu gydlynus: mewn sefyllfa

## The layout of the farmyard

There are two main styles of layout: the linear farmstead, in which all the buildings are in line, and the yard made up of several separate buildings. The linear farmstead is often thought to originate in the longhouse tradition, in which humans and stock were housed under the same roof, and the entrance passage for the dwelling served as the feeding passage for the livestock. True longhouses are rare survivals: more common is a linear range in which the farm buildings and the house are built in line, but each has independent access. Farms of this type are likely to be associated with upland farming and may be earlier, or simply smaller, farmsteads. That said, a linear arrangement was sometimes adopted even for newly built or rebuilt large farms in the nineteenth century, perhaps for economy of space.

The alternative layout, in which separate functions were housed in separate buildings, ranges from an informal collection of independent buildings, to a carefully planned yard.

Agricultural commentators recommended and approved a layout where the buildings were logically arranged in a functional sequence, and where manure could be conveniently collected. Providing such a rational arrangement was expensive, since it

Ile mai fesul tipyn y gellid amnewid adeiladau, roedd yn anodd sicrhau patrwm cydlynus. Felly gwaith ystadau blaengar a chyfoethog oedd y rhan fwyaf o'r ffermydd a godwyd yn ôl cynllun manwl, os nad bob un ohonynt. Mabwysiadwyd ymagwedd arbrofol gan rai ohonynt a chynlluniwyd y ffermydd yn hynod fanwl.

## Deunyddiau adeiladu

Roedd y dewis o ddeunyddiau adeiladu yn dibynnu ar gyllideb yn ogystal ag ar pa un a oedd y deunyddiau eu hun ar gael. Gallai tîrfeddianwyr mwy cyfoethog gludo deunydd, neu noddï mwy o waith yn eu dull o ennill a gweithio, ac weithiau mewn ffurfiau arbrofol o adeiladu. Cymhelliant rhai o'r arbrofion hyn oedd yr awydd i ddod o hyd i ddulliau rhatach o adeiladu: bu diddordeb am gyfnod mewn concrid fel y gwelir yn y gyfres o ffermydd ar ystad Gregynog ym Mhowys ac ar dir Edmund Buckley yn Ninas Mawddwy, Gwynedd. Arloeswr cynharach byth oedd Evan Thomas o Dŷ'r Sili ym mro Morgannwg: defnyddiodd haearn bwrw ar gyfer toi'r ysgubor a'r stablau ar ei fferm fodel a ddyddiai o 1816–1817.

Mae'n debygol i'r rhydd-ddeiliaid bychan a'r ffermwyr tenant fod yn ddibynnol iawn ar ddeunyddiau lleol, wedi'u rhoi at ei gilydd yn ôl traddodiad yr ardal leol. Roedd eu rhan barhaol yn y gwaith o godi adeiladau fferm

required a coordinated campaign of building: where buildings could only be replaced piecemeal, a coherent layout was harder to achieve. Most, if not all, of the tightly planned farmyards are therefore the work of progressive and wealthy estates. Some of these took an experimental approach, and the farmyards were rigorously designed.

## Materials for construction

The choice of materials for building depended on budget as well as availability. Wealthier landowners could bring materials in, or could sponsor more labour in their winning and working, and sometimes in experimental forms of construction. Some of these experiments were motivated by the search for cheaper forms of building: there was a brief interest in concrete, as witnessed by a series of farms on the Gregynog estate in Powys, and on the land of Edmund Buckley in Dinas Mawddwy, Gwynedd. An even earlier pioneer was Evan Thomas of Sully House, in the vale of Glamorgan: on his model farm of about 1816–17 he used cast iron for the roofs of barn and stables.

Small freeholders and tenant farmers were likely to be heavily dependent on local materials, assembled in locally traditional ways. Their continuing role in the construction of farm buildings



Brig: Yn stablau Gweithiau Haearn Nant-y-glo, defnyddiodd y to drawstiau haearn, ac roedd y llechi wedi'u gwifro i geibrau haearn. Uchod: Adeiladwyd y rhesi ar y fferm ystad hon yn Eryri drwy ddefnyddio gwaith adeiladu concrid yn y lle gwreiddiol, techneg arloesol ar y pryd.

Top: At Nantyglo Ironworks stables, the roof used iron trusses, and the slates were wired to iron rafters. Above: The ranges on this estate farm in Snowdonia were built using in situ concrete construction, a pioneering technique.



*Dechreuodd yr ysgubar wellt hon ei bywyd fel annedd: gellir gweld creithiau'r simnai ar y talcen. Fe'i hadeiladwyd gan ddefnyddio pridd (clom), a defnyddiwyd canghennau garw fel ceibrau ar gyfer y to gwellt (CBHC).*

*This Pembrokeshire hay barn started life as a dwelling: the scars of the chimney can be seen on the gable end. It was built using earth (clom), and rough branches were used as rafters for the thatched roof (RCAHMW).*

yn gyfrifol, fwy na thebyg, am gynnal arferion traddodiadol. Datgelir lefelau gwahanol o fuddsoddiad mewn ffyrdd cynnil iawn – yn y dewis a'r cyfuniad o ddeunyddiau a'r modd y'u defnyddiwyd.

Weithiau, datgelwyd tystiolaeth bwysig o bensaernïaeth cartref gynnar mewn adeiladau fferm. Weithiau mae ffyrdd traddodiadol o adeiladu, a ddisodlwyd maes o law gan ddeunyddiau neu dechnegau newydd, wedi'u cadw yn adeiladau'r fferm tra bod y tai sy'n eu defnyddio'n brin iawn o'r olion hyn. Un enghraifft yw to gwellt; enghraifft arall yw adeiladu wal gerrig sych. Mae'n bosibl i dai cynharach fod wedi'u cadw'n llythrennol, wrth i hen dŷ gael ei aildddefnyddio at ddibenion amaethyddol.

Dros amser, roedd dewis ehangach o ddeunyddiau adeiladu ar gael i'w defnyddio. Er enghraifft, gyda datblygiad chwarylydda a gweithgynhyrchu a'r gwelliant dilynol o ran cludiant, gwelwyd cerrig a briciau yn graddol ddisodli pren.

### Pren

Fframiau pren yw nodwedd mwyaf cyffredin dwyrain Cymru, ond mae'n bosibl iddo fod yn hŷn na'r defnydd o gerrig mewn mannau eraill hefyd: gellir gweld gwaith coed cain weithiau wedi'i ymgorffori mewn adeiladau sydd wedi'u codi'n bennaf o gerrig. Roedd dewis a pharatoi'r pren, creu uniadau a chodi'r ffrâm yn waith medrus a gymerai lawer o amser.

probably helped to sustain traditional practices. Differing levels of investment are revealed in subtle ways — in the choice and combination of materials, and in their handling.

Sometimes important evidence for early domestic architecture has been uncovered in farm buildings. Traditional ways of building that were later replaced by new materials or techniques are sometimes preserved in farm buildings, while the houses using them have become very scarce. The survival of thatch is one example; another is dry stone wall construction. Early houses may even be literally preserved, when a former house has been re-used for agricultural purposes.

Over time, a wider choice of building materials became available. For example, with the development of quarrying and manufacture, and then the improvement in transport, stone and brick gradually replaced timber.

### Timber

Timber-framing dominates much of east Wales, but it may have preceded the use of stone elsewhere: fine carpentry can sometimes still be seen encapsulated within buildings which are predominantly made from stone. Selection and preparation of the timber, and jointing and erecting the frame were all time-consuming, skilled tasks.

Mewn adeiladau domestig, roedd y traddodiad ffrâm bren ar ei gryfaf yn yr unfed ganrif ar bymtheg a'r ail ganrif ar bymtheg; goroesodd gryn dipyn yn hwy mewn adeiladau fferm, er yn ddiweddarach, gwelwyd maint y trawstiau a ddefnyddiwyd yn lleihau. Er bod traddodiadau adeiladu yn gyffredin yng nghyd-destun adeiladau domestig ac amaethyddol, mae gwahaniaethau i'w gweld yn y gwaith cladio a mewnlenni yn y fframiau. Yn aml byddai ffrâm tŷ wedi'i mewnlenni â phlethwaith a chlai, ond byddai paneli plethwaith agored neu fyrddau hindraul yn gwneud y tro mewn adeilad fferm. Byddai'r pren wedi'i drin o bosibl â chalch, neu'n ddiweddarach, â haen o bitwmen i'w gadw.

Weithiau mae'r paneli mewnlenni wedi'u disodli gan waith brics a phwysau'r gwaith hwn fyddai wedi achosi i'r ffrâm anffurfio. Yn aml byddai strapiau haearn gan y gof yn cael eu gosod i gryfhau trawstiau a oedd yn methu dal y pwysau.

In domestic building, the timber-frame tradition was strongest in the sixteenth and seventeenth centuries; it survived much longer in farm buildings, though later on, timbers of diminishing size were used. Although the traditions of construction are common across domestic and agricultural buildings, there are differences in the cladding and infilling of the frame. Where the frame of a house was often infilled with wattle and daub, open wattle panels or weatherboarding might suffice in a farm building. The wood might be treated with lime or, later, a coating of bitumen, as a preservative.

Sometimes the infill panels have later been replaced with brickwork, and its weight has caused the frame to distort. Blacksmith-made iron straps and ties were often introduced to strengthen timbers that were struggling to perform their role.

*Yn 1884, atgyweiriwyd y stabl gan y tîrfeddiannwr, codwyd beudy ar gyfer 21 o fuchesi, sied i'r da a chytiau moch. Bûm yn gyfrifol am halio popeth oedd yn gysylltiedig â'r uchod ac rwyf yn barod i brofi i'r gwaith halio gostio mwy i mi na'r adeiladau a'r costau atgyweirio i'r tîrfeddiannwr. Gwrthodwyd rhyddid i mi gludo cerrig o chwarel ym mhen uchaf y fferm oherwydd yr oedd yng nghyffiniau gwarchodaeth cwningod, ac o ganlyniad, bu'n rhaid i mi fyned fwy na phum gwaith y pellter ar hyd ffordd wael tu hwnt.*

Royal Commission on Land (1895), Cyf III, t. 184 (tystiolaeth T. Davies).



*Mewn rhai ardaloedd, roedd pren yn cael ei ddefnyddio o hyd ar gyfer adeiladu adeiladau fferm yn y bedwaredd ganrif ar bymtheg. Yn yr adeilad hwn yn Sir Drefaldwyn, mae'r tu allan wedi'i orchuddio â byrddau hindraul, ond mae'r parwydydd agored ar y tu mewn yn dangos ei strwythur yn glir.*

*In some areas, timber was still being used for the construction of farm buildings in the nineteenth century. In this building in Montgomeryshire the exterior is weatherboarded, but the open partitions inside clearly reveal its structure.*



*In 1884, the landlord repaired the stable, built a cowshed for 21 cows, a shed for cattle, and pigsties. I did the whole of the haulage of everything connected with the above and I am prepared to prove that the haulage cost me more than the buildings and repair cost the landlord. I was refused liberty to carry stones from a quarry at the top of my farm because it was within the precinct of a rabbit reserve, and I consequently had to go more than five times the distance over a fearfully bad road.* Royal Commission on Land, (1895), Vol III, p.184 (evidence of T. Davies).



### Carreg

Mae cynifer o arddulliau o waith maen ag y mae o fathau o garreg yng Nghymru a gallai'r modd y defnyddid y garreg ddibynnu ar p'un a gafodd ei chloddio o'r chwarel neu ei chasglu o waith clirio caeau neu o wely'r afon. Mae cymeriad unigryw yn perthyn i bob carreg adeiladu. Yn gyffredinol roedd angen gwely mortar da ar gerrig glai de a gorllewin Cymru er mwyn codi wal gadarn, tra bod carreg folcanig Eryri yn cynhyrchu cerrig y gellid eu cyd-gloi yn ddiogel i godi waliau cerrig sychion. Aeth cryn dipyn o ymdrech a sgiliau i godi hyd yn oed yr adeilad mwyaf di-nod—a hynny er mwyn cludo'r deunyddiau i'r safle, cyn hyd yn oed osod un garreg ar ben y llall. Gallai defnydd llawn dychymyg o ddeunyddiau greu adeiladau ag iddynt nodweddion hynod amrywiol. Roedd y defnydd o garreg nadd ar gyfer manylion, cyfuniad addurniadol o gerrig gwahanol neu'r defnydd o garreg gyda

### Stone

There are at least as many styles of stonework as there are types of stone in Wales, and how the stone was used might depend on whether it was quarried, or gathered as boulders in field clearance or from riverbeds. Different building stones have their own character. The shales of south and west Wales generally needed a good mortar bed to make a sound wall, whereas the volcanics of Snowdonia produced a stone that could be interlocked securely in drystone construction. In even the humblest building, considerable effort and skill was expended — not least in getting materials to the site, before so much as one stone was laid on top of another. The imaginative use of materials could produce buildings of markedly varied character. Dressed stone for detail, the decorative combination of different stones, or the use of stone with other

Uchod: Dwy dechneg gyferbyniol o weithio gyda cerrig, wedi'u seilio ar nodweddion nodedig deunydd sydd ar gael yn lleol.

Above: Two contrasting techniques of working stone, based on the distinctive characteristics of locally available material.



deunyddiau eraill yn cyferbynnu â'r defnydd o gerrig o'r caeau/meysydd lleol. Mae'r gwahaniaethau hyn yn helpu i ddisgrifio cydestun economaidd a chymdeithasol yr adeilad, yn ogystal â daearyddiaeth fras y deunyddiau.

### Brics

Hyd at ddiwedd y bedwaredd ganrif ar bymtheg, gyda diwydianeiddio cynhyrchiant a chludiant rhad, roedd y defnydd o frics wedi'i gyfyngu i'r ardaloedd hynny a allai fanteisio ar gyflenwad cymharol leol o glai. Hyd yn oed wedyn, roedd yn arwydd o gryn wariant: rhaid oedd cloddio'r clai, mowldio'r brics a'u tanio, cludo'r deunyddiau i'r safle, cyn i'r llafurwyr medrus eu gosod. Yn aml, gwneid defnydd cyfyngedig o frics i ategu neu fewnlenwi ffrâm bren, neu i ddarparu deunydd nadd i'r cerrig adeiladu mwy anhydrin. Daeth brics yn fwy cyffredin yn sgîl gweithgynhyrchu ar raddfa fawr ac roedd hyn yn rhan o'r tueddiad ehangach i wneud llai o ddefnydd o ddeunyddiau a gynhyrchwyd yn lleol.

*Anam y byddai pobl yn adeiladau gyda briciau pe byddai deunyddiau gwell ar gael i'w prynu am bris cymedrol*

Walter Davies, *General View of the Agriculture and Domestic Economy of South Wales* (1815), t.124.

*Very few persons would build with bricks, were other better materials procurable at a moderate expense*

Walter Davies, *General View of the Agriculture and Domestic Economy of South Wales*, (1815), p.124.

materials, contrasts with the basic use of local field stone. These distinctions help to describe the economic and social context of building, as well as a basic geography of materials.

### Brick

Until the later nineteenth century, with the industrialization of production and the availability of cheap transport, the use of brick was generally confined to areas within easy reach of a source of clay. Even then, it represented a display of conspicuous consumption: the clay had to be dug, the bricks moulded and fired, the materials transported to site, before the skilled labour of laying them could begin. Often, brick was used sparingly, to underpin or infill timber-framing, or to provide dressings for the more intractable building stones. With large-scale manufacture, brick became much more commonplace, part of a wider move away from locally produced materials.



*Ysgubor storfa yn Sir Drefaldwyn a adeiladwyd â briciau a wnaed â llaw (uchod). Mae'r awyrellau siâp losen (uchod) yn cyfuno'n daclus yr angen ymarferol â'r awydd addurnol. Mae'r adeilad wedi'i atgyweirio'n ddiweddar drwy Tir Gofal.*

*A storage barn in Montgomeryshire built with hand-made bricks (top). The lozenge shaped vents (above) neatly combine the practical with the decorative. The building has recently been repaired through Tir Gofal.*



Uchod: Gwyngalch ar waliau mewnol y stablau yn Nant-y-glo. Gyferbyn: Buarth llawn stoc. Mae'r brif res o dŷ, sied droliau ac ysgubor wedi'i nodi gan y defnydd o wyngalch (Llyfrgell Genedlaethol Cymru).

Above: *Limewash on interior walls to the stabling at Nantyglo. Opposite: A well stocked farmyard. The main range of house, cartshed and barn is distinguished by the use of limewash (National Library of Wales).*

### Defnyddio calch

Roedd calch yn elfen hanfodol i'r rhan fwyaf o waith adeiladu; roedd yn allweddol i waith adeiladu traddodiadol oherwydd ei amryw briodweddau defnyddiol. Cynhyrchwyd calch drwy losgi calchfaen mewn olyn galch. Ar gyfer adeiladu, gellid ei ddefnyddio i wneud mortar, render a gwyngalch. Roedd gwerth amaethyddol ychwanegol iddo fel gwrtaitth.

Mae technoleg adeiladu fodern yn dibynnu ar adeiladweithiau cadarn gydag arwynebeddau caled anhydraidd: mae'r athroniaeth adeiladu traddodiadol yn wahanol iawn. Yn aml, arferid defnyddio mortar calch ar hen adeiladau, a wnaed gyda chalc wedi'i gymysgu â phridd, tywod neu hyd yn oed lwch glo. Mae hyn dipyn feddalach na'r sment Portland modern ac roedd yr uniadau hyblyg a grëwyd yn caniatáu i'r adeilad symud ychydig. Roedd yr uniadau meddal hyn hefyd yn sicrhau bod y gwedd yn hydraiddd a oedd yn galluogi'r gwlybanaeth i dreiddio allan o'r cerrig neu'r brics i'r mortar ac yna gael ei anweddu yn ôl i'r aer.

Mewn rhai ardaloedd, roedd yn arfer traddodiadol i ddiogelu gwaith carreg gyda haen amddiffynnol o render calch. Weithiau byddai hyn yn haen lawn o render a oedd yn gorchuddio'r gwaith maen yn llwyr ac weithiau render rhannol a oedd yn dangos amlinell y gwaith maen. Roedd hwn yn rhan annatod o'r wal, gan ddarparu amddiffyniad rhag hindreuliad tra'n gadael i'r wal anadlu. Caiff gwyngalch effaith debyg a gellir ei osod yn uniongyrchol ar frics

### The uses of lime

Lime was a vital component of most building; its many useful properties made it a key ingredient in traditional construction. Lime was a manufactured product, made by burning limestone in a kiln. For building, it could be used to make mortar, render and limewash. It was of additional agricultural value as a fertilizer.

Modern building technology relies on rigid structures with hard impenetrable surfaces: traditional building philosophy is very different. Old buildings often used a lime mortar, made from lime mixed with an aggregate such as earth, sand or even coal dust. This is much softer than a modern Portland cement, and the flexible joints that were created allowed the building some degree of movement. These soft joints also ensured that the fabric was 'breathable', enabling moisture to be absorbed out of stone or brickwork by the mortar, and then to evaporate back into the atmosphere.

In some areas, it was traditional practice to protect stonework with a 'shelter coat' of lime render. Sometimes this was a full coat of render that covered the masonry completely, and sometimes a partial render that allowed the contours of the stonework to show through. This was an integral part of the wall, providing a defence against erosion by the weather, while allowing the wall to breathe. Limewash has a similar effect,





Gwyngalch ar waliau mewnol yn yr ysgubor hon yng Ngwynedd. Mae calch hefyd wedi'i ddefnyddio yn y gwaith fflaglu plastr ar ochr isaf y to, a gafodd ei adnewyddu gyda chymorth grant gan Barc Cenedlaethol Eryri.

*Limewash on interior walls in this Gwynedd barn. Lime has also been used in the plaster torching on the underside of the roof, which was renewed with the help of a grant from Snowdonia National Park.*

neu'r gwaith maen, neu fel yr haen olaf ar ben haen o rendr. Yn draddodiadol, ychwanegwyd ychydig o wêr i'r gwyngalch i wella ei wydnwch ac mewn rhai ardaloedd, roedd yn arferol ychwanegu lliw at y gwyngalch fel radl neu ocr coch.

Weithiau, er darbodusrwydd, dim ond y prif ffasâd neu'r drychiadau hynny a oedd yn nannedd y gwynt a'r glaw fyddai'n cael eu gwyngalchu. Fe'i defnyddid hefyd mewn adeiladau ffrâm bren fel elfen o'r gwaith paneli, neu fel gorffeniad i'r pren ei hun. Oherwydd natur ddiheintiol gwyngalch, fe'i defnyddid y tu mewn hefyd yn aml, yn enwedig lle cedwid da byw neu rawn.

and might be applied directly on to the brick or stonework, or as the final coating on top of render. A small quantity of tallow was traditionally added to limewash to improve its durability, and it was usual in some areas to add pigments such as raddle or ochre to colour the limewash.

Sometimes weather-proofing of stonework surfaces with lime was prudently confined to weather-facing elevations or the principal façade. It was also used in timber-framed buildings, as a component of the panelwork, or as a surface finish for the timber itself. Because limewash also had prized disinfectant qualities, it was often applied internally, especially where livestock was housed or grain was stored.

*Mae twristiaid i Forgannwg ... yn sylwi ar yr arfer gyffredin o wyngalchu, nid yn unig y tu mewn a'r tu allan i'r tai, ond ysguboriau a stablau hefyd, waliau buarthau a gerddi, cloddiau cerrig y gwrychoedd, a hyd yn oed gerrig mawr ar eu pennau'u hunain.*

Walter Davies, *General View of the Agriculture and Domestic Economy of South Wales* (1815), t.140.

*Tourists to Glamorgan ... notice the universal custom of whitewashing, not only the inside and outside of houses, but barns and stables also, walls of yards and gardens, the stone banks of quickset fences, and even solitary stones of large dimensions*

Walter Davies, *General View of the Agriculture and Domestic Economy of South Wales* (1815), p.140.

### Deunydd toi

Bu unwaith amrywiaeth rhanbarthol ehangach mewn deunydd toi nag sydd bellach. Gyda datblygiad chwarelydda ar raddfa fawr, lledaenodd y defnydd o lechi ar draws Cymru o ddechrau'r bedwaredd ganrif ar bymtheg. Bellach, mae deunyddiau sy'n benodol i ardal leol yn gymharol brin, ond ceir rhai ardaloedd lle gwelir teiliau carreg, a gwelir hefyd enghreifftiau o doeon gwellt sydd wedi goroesi.

### To gwellt

Roedd traddodiadau rhanbarthol cryf ynghlwm wrth ddulliau gwaith toi ac roedd amrywiaeth helaeth yn y dewis o ddeunyddiau, ar gyfer yr haen sylfaenol a'r haenau ar yr wyneb. Roedd towyr yn defnyddio deunyddiau lleol. Oherwydd y gellir adnabod deunyddiau planhigion mewn toeon hynafol, gallent gynnig tystiolaeth bwysig o economi'r fferm drwy ddangos sut y defnyddid y tir.

### Llechi a cherrig

Cafodd llechi eu defnyddio'n helaeth, ond roedd gwahaniaethau pwysig yn y modd yr ymdriniwyd â hwy. Unwaith y cloddiwyd am lechi'n fasnachol a'u cludo o amgylch y wlad, daeth yn arfer cyffredin i orchuddio toi mewn llechi unffurf. Hoeliwyd y llechi teneuach, a dorwyd gan beiriannau, i'r estyll. Dim ond y llechi hŷn neu'r llechi cerrig a dorwyd i amrywiaeth o feintiau er mwyn defnyddio'r holl ddeunydd a oedd ar

### Roofing materials

There was once much greater regional variety in roofing materials than there is now. With the development of large-scale quarrying, the use of slate spread across Wales from the beginning of the nineteenth century. Materials specific to an area are now relatively rare, but there are still areas where stone tiling can be found, and there are also surviving examples of thatch.

### Thatch

There were strong regional traditions in the manner of thatching, and considerable variation in the choice of materials, both for the base and the surface layers. Thatchers used materials to be found locally. Because plant material in ancient roofs can be identified, they may provide important evidence for the economy of the farmstead by showing how the land was used.

### Slate and stone

Slate may have been used widely, but there were important differences in its handling. Once slate was commercially quarried and transported around the countryside, it became common for roofs to be covered in slates of even size. These thinner, machine-cut slates were nailed to the battens. Older slates or stone slates were cut into a variety of sizes to utilize all the available material. They were thick



Brig: Galluogodd grant gan Cadw i'r to gwellt hir ar y fferm fach hon yng Ngheredigion gael ei adfer. Uchod: Credir bod y llechi to hyn wedi dod o chwarel fach ar y fferm, yn Sir Drefaldwyn.

Top: A grant from Cadw enabled the long-straw thatch roof on this Ceredigion smallholding to be reinstated. Above: These roofing slates are thought to have come from a small quarry on the farm, in Montgomeryshire.



Brig: To brat ar fferm yn Sir Gaerfyrddin. Uchod: To llechi haenol ar fferm yn Sir Benfro. Mae cymeriad traddodiadol y to hwn wedi'i gynnal drwy waith atgyweirio rheolaidd.

Top: A to brat roof on a Carmarthenshire farm. Above: A bedded slate roof on a Pembrokeshire farm. The traditional character of this roof has been maintained through regular repair.

gael. Roeddent yn drwchus ac wedi'u gosod gyda phegiau pren. Byddai'r llechi hyn o feintiau amrywiol yn cael eu didoli yn ôl eu maint a gosodwyd y mwyaf ar waelod y to gan orffen gyda'r lleiaf ar grib y to mewn haenau lleihaol. Yn anochel, mae gofyn mwy o fedrusrwydd i osod to o lechi amrywiol eu maint na defnyddio'r llechi modern unffurf. Mae'n hanfodol bod yr haenau yn lleihau o ran maint mewn modd cyson. Bydd y llechi'n amrywio o ran lled, ac mae'n rhaid bod yn ofalus er mwyn sicrhau eu bod yn gorgyffwrdd yn ddigonol fel bod y to'n ddiddos. Ceir ambell i hynodrwydd rhanbarthol, fel to brat, neu do o lechi wedi'u gosod er darbodusrwydd a welir yn arbennig yn ne-orllewin Cymru: yma byddid yn hepgor pob ail neu drydedd lechen, gan arbed deunyddiau, cynyddu awyriad a rhoi golwg nodedig i'r to. Mewn ardaloedd arfordirol agored, yn enwedig, neu pan fyddai'r llechi lleol yn fach ac o ansawdd gwael, byddai'r llechi yn aml wedi'u gosod ar wely o forter calch a'u growtio.

Mae teiliau'r grib ar hen doeon yn debygol o fod yn deiliau carreg neu glai ag iddynt uniadau bôn, tra bod cribau modern yn aml yn gorgyffwrdd. Weithiau diogelwyd ymyl y to traddodiadol gyda cherrig clo er mwyn atal y llechi ymyl rhag codi yn y gwynt. Mewn rhai ardaloedd, hoeliwyd llechi i'r ymylon fel diogelwch rhag y tywydd.

Y tu mewn, byddai'r toeon llechi cynnar weithiau'n cael eu selio oddi isod gyda mwsogl; erbyn dechrau'r bedwaredd ganrif

and were fixed with wooden pegs. These random-sized slates were sorted into sizes, and the largest ones were placed at the bottom of the roof. They gradually reduced in size up towards the ridge. These are known as diminishing courses. Setting out a random roof inevitably requires more skill than using modern even-sized slates. It is essential that the courses reduce evenly. The slates will vary in width, and care has to be taken to ensure adequate overlaps are created to make the roof weathertight. There are some regional quirks, such as the *to brat* or economy slate roofs found especially in south-west Wales: here, every second or third slate in each row was left out, economizing on materials, increasing ventilation, and lending a distinctive appearance to the roof. In exposed coastal areas especially, or where locally available slates were small and of poor quality, slates were often bedded in lime mortar and grouted.

The ridge tiles on old roofs are likely to be butt-jointed stone or clay, whereas modern ridges are often overlapping. The edge of a traditional roof was sometimes protected with coping stones to prevent the verge slates lifting up in the wind. In some areas, slates were nailed to the verges as weather protection.

Internally, early slate roofs were sometimes sealed from the underneath with moss; by the early nineteenth

ar bymtheg disodlwyd yr arfer hwn gan arfer o orchuddio ochr isaf y llechi gyda chymysgedd o blastr calch a blew gwartheg.

Tra'r oedd yn bosibl gosod to gwellt ar wely anwastad o bren, roedd angen strwythur to mwy gwastad ar lechi. Mae pob to llechi yn arwydd o gryn wariant.

### Haeearn gwrymiog

Cynnyrch arall o'r Chwyldro Diwydiannol oedd haeearn gwrymiog wedi'i galfaneiddio. Rhoddwyd patent i'r broses galfaneiddio yn 1836 a dechreuwyd gwneud defnydd mwy cyffredinol o'r deunydd hwn yn ail hanner y bedwaredd ganrif ar bymtheg. Fe'i defnyddid gan fwyaf fel deunydd toi — dros do gwellt a oedd yn dirywio, er enghraifft, neu yn lle gwellt fel deunydd amgen rhad a pharhaol ar adeiladau newydd. Roedd dalennau ohono hefyd yn ddeunydd cladio waliau cyfleus a osodwyd yn lle byrddau hindraul ar rai adeiladau ffrâm bren. Tuag at ddiwedd y bedwaredd ganrif ar bymtheg, gwelwyd dyfodiad yr helm wair barod, ac roeddent yn britho cefn gwlad erbyn hanner cyntaf yr ugeinfed ganrif. Dynodir eu cost gymharol rad gan y ffaith eu bod yn nodwedd amlwg o'r ffermydd bychan ar gyrion mynyddoedd y Preselau er enghraifft.

century this practice had given place to torching the undersides with a mixture of lime plaster and cow hair.

Whereas thatch could be accommodated to an uneven bed of timber, slate required more precision in the levelling of the roof structure. Every slate roof represents the outlay of considerable expense.

### Corrugated iron

Galvanized corrugated iron was another product of the Industrial Revolution. The galvanizing process was patented in 1836, and the material came into more general use in the second half of the nineteenth century. Its most frequent application was as a roofing material, to cover failing thatch, for example, or as a cheap and durable alternative to it in new building. Sheets also made a convenient wall cladding, applied to replace weatherboarding on some timber-framed buildings. Towards the end of the nineteenth century, prefabricated Dutch barns became available, and they became widespread during the earlier twentieth century. Their relative cheapness is indicated by their prevalence on the smallholdings that occupy, for example, the margins of the Preseli range.



*Mae haeearn gwrymiog wedi'i ddefnyddio'n aml yn y gwaith o atgyweirio toeau, ond roedd hefyd yn ddeunydd derbyniol ynddo'i hun ar gyfer toi a chladio, ac wrth adeiladu adeiladau parod.*

*Corrugated iron has often been used in the repair of roofs, but it was also an accepted material in its own right for roofing and cladding, and in prefabrication.*



Uchod: Pyst rhwymo o haearn yn stablau Gweithiau Haearn Nant-y-glo. Gyferbyn: Corau pren, cafnau bwyd a rheseli gwellt ar fferm yn Sir Benfro.

Above: *Iron tethering posts in the stables of the Nant-y-glo Ironworks.* Opposite: *Timber stalls, feeding troughs and hay racks in a Pembrokeshire farm.*

## Manylion mewnol

Fel adeiladau gwaith, mae adeiladau fferm wedi'u haddasu yn ôl gofynion cyfnewidiol. Serch hynny, mae defnydd cynharach o'r adeiladau hyn wedi'u cadw mewn rhai nodweddion mewnol. Weithiau mae corau, cafnau bwyd, mansieri a chistiau grawn yn goroesi ond hyd yn oed pan gollir y manylion hyn, gall fod cliwiau eraill i ddefnydd blaenorol yr adeilad. Er enghraifft, efallai y gwelir tystiolaeth o'r defnydd blaenorol a'r modd y defnyddid y gofod yn y llawr. Mae lloriau dyrnu yn lloriau o fath arbennig, ac fel arfer fe'u gwneid o ddeunyddiau lleol: defnyddid amrywiaeth o drawstiau derw, llechi llawr, mortar, cerrig cobl a phridd. Mewn stablau, roedd yn bwysig atal y ceffyl rhag llithro ac roedd cerrig â rhychau ynddynt, briciau neu deiliau yn gyffredin, er y defnyddid cerrig cobl hefyd. Yn draddodiadol, defnyddid cerrig cobl hefyd ar gyfer lloriau beudai.

Nid y tu mewn i'r adeiladau traddodiadol y defnyddid deunyddiau ar gyfer lloriau yn unig. Yn aml, byddai coblau wedi'u gosod yn y buarth ac mae tramwyfeydd ar oledd y tu blaen i'r beudai neu'r stablau yn nodwedd sy'n parhau ar rai ffermydd.

## Interior detail

As working buildings, farm buildings have been subject to adaptation to suit changing requirements. Nevertheless, some interiors retain vestiges of earlier uses. Stalls, feeding troughs, mangers and grain bins are sometimes still intact, but even where these details have been lost, other clues to previous uses may survive. Floors, for example, may contain evidence for the former use and arrangement of the space. Threshing floors are a special type, and were usually made with locally available materials: oak plank, stone or slate flags, mortar, pitched cobbles and earth were all variously used. In stables, it was important to prevent the horse from slipping, and scored stone, brick or tile were common, though cobbles were also used. Cobbles were also the traditional flooring in cow houses.

Laid floor surfaces are not confined to the interiors of traditional buildings. Yards were often also cobbled, and raised pitched walkways in front of cow houses or stables remain a feature of some farms.







## Cadw cymeriad adeiladau fferm

Mae adeiladau fferm yn cyfrannu'n fawr at gymeriad lleol ac ymdeimad o le. Efallai fod adeiladau mwy di-nod ffermydd yr un mor bwysig ag adeiladau cynnar neu fawr neu adeiladau sy'n bensaernïol uchelgeisiol. Peryglir gwerth hanesyddol unrhyw adeilad o'r fath yn hawdd gan esgeulustod, addasiadau anghymarus neu waith atgyweirio amhriodol. Dylai unrhyw waith adfer fod yn seiliedig ar yr angen i sicrhau bod yr adeilad yn para yn yr hirdymor tra'n cynnal cymeriad yr adeilad. Mae hyn yn cynnwys ei olwg, ei wead hanesyddol a'i ddefnydd traddodiadol. Mae'r sgiliau a ymgorfforir yn ei adeiledd yn haeddu parch. Mae'n bwysig dechrau drwy astudio'r adeiladau presennol, yn ofalus, parchu'u nodweddion arbennig a gweithio gyda deunydd gwreiddiol ac yn ôl manylion gwreiddiol ble bynnag y bo'n bosibl, gan osgoi newidiadau nad oes tystiolaeth i'w hategu. Mae traddodiadau gwahanol yn perthyn i bob ardal, wedi'u haddasu yn ôl amgylchiadau lleol a'r deunyddiau a oedd ar gael. Mae astudiaeth fanwl o arferion lleol yn fan cychwyn amhriadiadwy i unrhyw raglen waith.

## Conserving the character of farm buildings

Farm buildings contribute strongly to local character and a sense of place. The modest buildings of smallholdings may be as important as early, large or architecturally ambitious buildings. The historic value of any is all too easily compromised by neglect, unsympathetic alteration or inappropriate repair. Any remedial work should be guided by the need to ensure long-term survival, whilst maintaining the character of the building. This includes its visual appearance, its historic fabric, and its traditional use. The skills embodied in its construction deserve respect. It is important to start by making a careful study of the buildings as found, to respect their particular characteristics and to work with original material and detail wherever possible, avoiding changes for which there is no evidence. Each locality had its own traditions, adapted to local conditions and available materials. Careful study of local practice is an invaluable starting point to any programme of work.



*Gyferbyn: Mae cymeriad traddodiadol y fferm hon yn Sir Benfro wedi'i gynnal drwy waith atgyweirio cyson. Uchod: Mae cymorth grant tuag at waith atgyweirio cyffredinol ac ailldoi wedi adfywio'r fferm hon yn Eryri.*

*Opposite: The traditional character of this Pembrokeshire farmstead has been maintained through steady repair. Above: Grant aid towards general repairs and reroofing have given this Snowdonia farm range a new lease of life.*



*Beudy ger Penmachno. Helpodd cymorth grant gan Barc Cenedlaethol Eryri i atgyweirio'r adeilad rhestredig hwn, a oedd wedi bod dan berygl hyd hynny.*

*A field cow house near Penmachno. Grant aid from Snowdonia National Park helped to repair this listed building, which had hitherto been at risk.*

## Egwyddorion cyffredinol

- Mae cyfres gydlynus o arferion adeiladu i'w gweld mewn adeiladau fferm traddodiadol. Yn hanfodol i'r rhain mae'r egwyddor y gallai adeiladau 'anadlu' – y gallai gwlypter dreiddio'r ddwy ffordd. Mewn gwaith atgyweirio, dylid parchu egwyddorion gwreiddiol y gwaith adeiladu: osgoi deunyddiau anhreiddiadwy ac annog awyriad.
- Mae gwerth hanesyddol i'r holl wead gwreiddiol, a gall fod yn anodd ailadrodd ei briodoleddau. Felly, dylid atgyweirio yn hytrach nag amnewid ble bynnag y bo'n bosibl, a dylid sicrhau'r gwaith atgyweirio lleiaf posibl.
- Codwyd adeiladau traddodiadol gan ddefnyddio dulliau a sgiliau traddodiadol. Mae tystiolaeth o'r dulliau a'r sgiliau hyn wedi'u cadw ym manylion y gwaith adeiladu. Mae gwaith atgyweirio cynnil yn diogelu'r wybodaeth hanesyddol hon.
- Pan gaiff technegau traddodiadol eu parchu, cynhelir cywirdeb strwythurol yr adeilad. Fodd bynnag, gall technegau modern a brofwyd fod yn briodol i gywiro gwendidau yn y gwaith adeiladu gwreiddiol neu sicrhau y collir cyn lleied â phosibl o'r deunydd gwreiddiol. Er enghraifft, mae atgyfnerthu trawst gwan drwy folltio platiau dur o boptu iddo yn waith atgyweirio onest a fydd yn hawdd ei ddeall yn y dyfodol, gan gadw'r pren gwreiddiol.

## General principles

- Traditional farm buildings demonstrate a coherent set of building practices. Fundamental to these is the principle that buildings could 'breathe' – moisture could get in, but it could also get out. In repair work, respect the original principles of construction: avoid impervious materials and encourage ventilation.
- All original fabric has historic value, and its properties may be hard to replicate. Therefore, repair rather than replace wherever possible, and keep repair to the essential minimum.
- Traditional buildings were put together using traditional methods and skills. The evidence of these is preserved in the detail of construction. Conservative repair preserves this historic information.
- When traditional techniques are respected, the structural integrity of the building is maintained. However, proven modern techniques can be appropriate to correct inherent defects in the original construction or to minimize the loss of original material. For example, a weak beam reinforced by bolting simple steel plates on either side is an honest repair that will be clear to understand in the future, and preserves the original timber.

- Yn aml mae adeiladau traddodiadol yn defnyddio deunyddiau lleol, a hwyrach mai'r ardal leol yw'r ffynhonnell orau o ddeunyddiau ar gyfer atgyweirio neu amnewid. Os na fydd hyn yn bosibl dylid dewis deunyddiau sydd â phriodoleddau tebyg i'r gwreiddiol o ran perfformiad yn ogystal â golwg.

## Waliau

- Roedd amrywiaeth mawr yn y deunyddiau a'r ffyrdd y'u defnyddid. Wrth atgyweirio gwaith maen, dylid defnyddio'r un math o garreg, arddull nadd a'r dulliau o osod gwaith newydd.
- Dylid osgoi defnyddio sment mewn adeilad lle defnyddiwyd mortar calch yn wreiddiol. Bydd dŵr yn difrodi'r garreg neu'r brics yn hytrach na chael ei amsugno gan y mortar calch.
- Mae mortar calch hefyd yn ddeunydd hanesyddol. Dylid ystyried ail-bwyntio fel atgyweirio, i'w wneud dim ond pan fo angen. Mae calch bellach ar gael gan gyflenwyr adeiladwyr a chyflenwyr arbenigol. Fel arfer, defnyddid deunyddiau lleol yn gymysg â'r calch ac mae'n bwysig i unrhyw waith atgyweirio barchu'r cymysgedd a'r golwg cyhyd ag y bo'n bosibl.
- Dylid ail-bwyntio waliau brics yn dwt, gan ddefnyddio'r mortar i ddiogelu ymylon yr hen friciau sy'n feddalach na briciau modern. Nid yw pwyntio strimynnog yn draddodiadol.

- Traditional buildings often used local materials, and the local area may be the best source of materials for repair or replacement. Where this is not possible, choose materials that have similar properties to the original, in performance as well as appearance.

## Walls

- Materials and the ways in which they were used varied enormously. In repairing stonework, match the type of stone, the style of dressing and the method of laying in any new work.
- Avoid using cement in a building where lime mortar was used originally. Water will damage the stone or brick instead of being absorbed by the lime mortar.
- Lime mortar is also a historic material. Treat repointing as a repair, to be carried out only where necessary. Lime is now readily available from builders' merchants and specialist suppliers. Local materials were usually used for the aggregate mixed with the lime, and it is important that any repair should respect the original mix and appearance as far as possible.
- Repoint brick walls neatly, using the mortar to protect the edges of old bricks, which are softer than modern bricks. Ribbon pointing is not traditional.



*Gwaith carreg a atgyweiriwyd drwy ddefnyddio mortar calch, a ffenestr nodedig a gadwyd.*

*Stonework repaired using lime mortar, and a distinctive window retained.*



Brig: Mae'r gwaith cladio byrddau hindraul ar res fferm â fframiau pren ym Mhowys wedi'i adnewyddu gyda chymorth Tir Gofal. Uchod: Byrddau hindraul a haearn gwrymiog ar sied droliau a granar.

Top: *The weatherboard cladding on a timber-framed farm range in Powys renewed with assistance from Tir Gofal. Above: Weatherboarding and corrugated iron on a cartshed and granary.*

- Dylid seilio'r dewis o orffeniad ar astudiaeth ofalus o'r gwead gwreiddiol. Dylid cadw neu ddefnyddio gorchuddion hanesyddol fel gwyngalch, rendr calch neu fyrddau hindraul.
- Pan ddefnyddid rendr calch neu wyngalch, roedd yn haen amddiffynnol gan ddiogelu'r wal rhag y tywydd. Yn aml defnyddir olew had llin yn lle'r gwêr gwreiddiol. Dylid ailgyflwyno'r rendr calch priodol, gan barchu traddodiadau lleol ac ystyried y lliw a ddefnyddid.

### Fframiau pren

- Pan fo angen atgyweirio adeiladwaith pren, dylid defnyddio pren gwyrdd i gyfateb â'r gwreiddiol.
- Os yw'r ffrâm wedi anffurfio, ni ddylid ceisio ail-greu llinellau syth: dylid ystyried yr anffurfiad fel rhan o esblygiad yr adeilad. Os yw'r anffurfiad oherwydd gwaith atgyweirio amhriodol diweddarach, fel mewnlennwad briciau sy'n rhy drwm, gall fod angen newid hyn.
- Dylid osgoi ychwanegu pwysau pren ychwanegol mewn ymdrech i gryfhau'r adeiladwaith. Yn draddodiadol defnyddid strapiau haearn a wnaed gan of ac maent yn ateb da i'r broblem.
- Mae'n hawdd atgyweirio byrddau hindraul drwy osod byrddau newydd yn lle'r rhai diffygiol gan ddefnyddio pren sy'n cyfateb â'r rhai gwreiddiol. Bydd angen cadwolion ar gyfer pren meddal newydd, ond ni ddylid

- Choice of finish should be based on careful study of the original fabric. Retain or reinstate historic coverings such as limewash, lime render or weatherboarding.
- Where lime render or limewash was used, it was a shelter coat protecting the wall from the weather. Linseed oil is often used to replace the traditional tallow. Reinstall an appropriate lime render respecting any local traditions regarding pigments used to colour it.

### Timber-framing

- Where repairs to timber structures are necessary, use new green timber matching the original.
- If the frame has become distorted, do not try to restore the straight lines: regard the distortion as part of the evolution of the building. If the distortion is due to a later inappropriate repair, such as a brick infill that is too heavy, it may be necessary to change this.
- Avoid adding the weight of extra timber in an attempt to strengthen the structure. Blacksmith-made iron straps were traditionally used and provide a good solution.
- Weatherboarding is easily repaired. Replace defective boards with timber matched to the original. Preservatives will be necessary for new softwood but avoid staining, which is not a

staenio – nid yw hyn yn orffeniad traddodiadol: gellir defnyddio paent di-sglein du i efelychu haen bitwmen.

traditional finish: a bitumen coating can be replicated using matt black paint.

## Toeon

- Prin fo unrhyw beth yn sicrhau parhad adeilad traddodiadol yn fwy na tho cadarn. Dylid cynnal y to gwreiddiol os yn bosibl, gydag atgyweiriadau bach pan fo angen. Pan fo'n bosibl: mae priodoledau'r to gwreiddiol yn gwneud cyfraniad mawr tuag at gymeriad yr adeilad. Pan fo angen atgyweirio'r to, dylid cadw'r siâp a'r oleddf wreiddiol ac aildefnyddio deunyddiau neu ddefnyddio deunydd cyfatebol.
- Dylid osgoi gwneud newidiadau nad oes tystiolaeth i'w hategu. Er enghraifft, dylid osgoi gosod llechi yn lle haearn gwrymiog oni bai fod tystiolaeth iddynt gael eu defnyddio'n gynharach. Efallai fod haearn gwrymiog wedi'i osod yn lle to gwellt ac yn aml, gall fod achos da dros ei ddefnyddio eto.
- Mae toeon gwellt yn brin ac mae'n bosibl bod gwybodaeth werthfawr i'w cael ynddynt. Pan geir to gwellt (naill ai fel haen sylfaenol neu ar yr wyneb), mae'n hanfodol y caiff ei ddadansoddi'n ofalus cyn ei dynnu oddi yno neu cyn i do gwellt newydd gael ei osod yn ei le. Gall eich swyddog cadwraeth lleol gynnig cyngor ar y camau i'w cymryd.
- O ran toeon llechi a theiliau carreg, dylid efelychu maint y llechi, y dechneg o'u gosod a'r dull o'u sefydlogi. Dylid cadw neu efelychu nodweddion lleol nodedig fel

## Roofs

- A sound roof does more than almost anything else to ensure the survival of a traditional building. Maintain the original roof with patch repairs where possible: the qualities of the original roof make a major contribution to the character of the building. When a roof has to be replaced, retain the original shape and pitch and re-use or carefully match any materials.
- Avoid making changes for which there is no evidence. For example, avoid replacing corrugated iron with slate unless there is good evidence for its earlier use. Corrugated iron may have directly replaced thatch, and there will often be a good case for using it again.
- Thatch is a rare roof type, and its information-bearing potential is enormous. Where thatch (either the base or the surface layer) survives, it is vital that it is carefully analysed before removal or replacement. Your local conservation officer may be able to offer advice on how to proceed.
- On slate and stone-tiled roofs, the size, coursing technique and method of fixing should be copied. Preserve or replicate distinctive local features such



Brig: Ysgubor ar fferm yng Ngwynedd, wedi'i haildoi mewn dull traddodiadol gyda chymorth grant. Uchod: Mae adferiad y to growt yn helpu i gynnal cymeriad traddodiadol fferm yn Sir Benfro.

Top: A barn on a Gwynedd farmstead, reroofed in traditional fashion with grant aid. Above: The reinstatement of a grouted roof helps to maintain the traditional character of a Pembrokeshire farmstead.



*Cadw golwg manwl: math nodedig o ffenestr fferm, wedi'i chynllunio i ganiatáu digonedd o awyru (brig); a gwaith asiedydd newydd yn cynnal sgiliau crefft traddodiadol (uchod).*

*Looking after the detail: a distinctive farm window type, designed to allow plenty of ventilation (top); and new joinery maintaining traditional craft skills (above).*

defnyddio mortar calch i osod ac i growtio'r llechi. Mae nifer o doeon â llechi amrywiol eu maint wedi'u colli oherwydd prinder sgiliau toi traddodiadol ac anhawster dod o hyd i ddeunydd priodol, ond mae ail-doi gan ddefnyddio llechi tenau unfurf yn newid cymeriad yr adeilad ac yn lleihau amrywiaeth y traddodiad brodorol.

- Dylid cadw neu adfer manylion gwreiddiol y grib ac ymylon y to er mwyn cadw traddodiadau lleol.
- Mae toeon llechi sydd wedi'u pegio yn brin bellach: os nad yw'n ymarferol atgyweirio'r toeon hyn, dylid cynnal traddodiad y dull hwn o doi mewn gwaith newydd.
- Yn gyffredinol, ni ddylid mabwysiadu technegau modern fel gosod ffelt o dan y llechi a hoelio'r llechi yn eu canol (yn hytrach na'u gosod oddi uchod) oni bai bod rheswm technegol cadarn dros wneud hynny.

## Drysau a ffenestri

- Dylid parchu safle, cymesuredd a manylion y drysau, ffenestri ac agoriadau gwreiddiol. Roedd gan adeiladau fferm fathau nodedig o ffenestri yn aml.
- Byddwch yn ofalus o ran manylion y saerniaeth. Yn aml byddai'r gwaith coed wedi'i orffen mewn ffordd arbennig – er enghraifft, roedd gan rai ystadau liwiau paent unigryw iddynt hwy. Yn aml, ni fyddai pren caled yn cael ei baentio.

as the use of lime mortar to bed and grout the slates. Many random roofs have been lost due to the lack of traditional roofing skills and the difficulty of finding replacement materials, but re-slatting using thin, even-sized slates and changing traditional, practical details changes the character of the building and reduces the variety of vernacular tradition.

- Retain or restore the original detail of the ridge and the edges of the roof to preserve local traditions.
- Pegged slate roofs are becoming rare: if repair is not viable, the tradition of this roofing method should be sustained in new work.
- In general, modern techniques such as underslating felt and centre nailing (instead of top fixing) should not be adopted unless there is a sound technical reason for doing so.

## Doors and windows

- Respect the position, proportion and detail of original doors, windows and other openings. Farm buildings often had distinctive window types.
- Look out for joinery detail. Woodwork was often finished in a particular way — for example some estates had a signature paintwork colour. Hardwoods were often left unfinished.



## Sgiliau

Yn aml, roedd adeiladau traddodiadol yn defnyddio sgiliau crefft lleol: mae gwaith cadwraeth yn meithrin parhad neu adfywiad y sgiliau hyn. Ceir hefyd gyfleoedd i hyfforddi mewn sgiliau traddodiadol a lleol.

## Adeiladau rhestredig

- Mae angen caniatâd adeilad rhestredig ar unrhyw waith sy'n effeithio ar gymeriad adeilad rhestredig. Fel arfer caniateir atgyweiriadau sy'n efelychu'r gwreiddiol, ond oherwydd y gellir cael dehongliadau amrywiol o'r hyn a olygir wrth efelychu, mae bob amser yn syniad da gofyn am gyngor swyddog cadwraeth yr awdurdod cynllunio lleol mewn unrhyw achos sy'n ymwneud ag adeilad rhestredig. Gall methiant i gydymffurfio fod yn drosedd.
- Dylech fod yn ymwybodol y caiff adeiladau o fewn cwrttil adeilad rhestredig eu trin fel petaent hwy eu hunain wedi'u rhestru. Mae hyn yn aml yn effeithio ar adeiladau fferm a allai fod yng nghwrtil ffermdy rhestredig.

## Skills

Traditional buildings often used local craft skills; conservation work fosters the continuation or revival of these skills. There are also opportunities to train in traditional and local skills.

## Listed buildings

- Any work that affects the character of a listed building requires listed building consent. Like-for-like repair is normally permitted, but because interpretations of what exactly is meant by like-for-like may vary, it is always a good idea to seek the advice of the local planning authority's conservation officer in any case involving a listed building. Failure to comply may mean that an offence is committed.
- Be aware that buildings within the curtilage of a listed building are treated as if they themselves were listed. This often affects farm buildings, which may be in the curtilage of a listed farmhouse.



*Mae grant drwy Tir Gofal yn rhoi bywyd newydd i adeilad fferm traddodiadol ym Mhowys.*

*A grant through Tir Gofal gives new life to a traditional farm building in Powys.*



*Sylw i fanylder: symrlwydd cain mewn dclied a wnaed gan gof (brig); mae amrywiaeth o fathau o ffenestri yn rhoi tystiolaeth ar gyfer datblygu ac addasu hanesyddol (uchod).*

*Attention to detail: elegant simplicity in a blacksmith-made latch (top); a variety of window types provides evidence for historical development and adaptation (above).*

## Ffynonellau Cyngor

- Mae cyngor cyffredinol ar adeiladau fferm traddodiadol a sut i ofalu amdanynt ar gael gan Cadw.
- Gall y swyddogion cadwraeth yn eich awdurdod cynllunio lleol eich cyngori ar draddodiadau lleol a rhoi cyngor cyffredinol.
- Mae gan Sain Ffagan: Amgueddfa Werin Cymru brofiad ymarferol yng nghadwraeth adeiladau traddodiadol a thechnegau crefft.
- Mae'r Society for the Protection of Ancient Buildings wedi cynhyrchu cyfres o bamffledi technegol sy'n rhoi cyngor defnyddiol ar agweddau ar atgyweirio adeiladau traddodiadol.

## Ffynonellau cymorth grant

- Mae cynlluniau grant y Cynulliad Cadw yn cynnwys adeiladau mewn ardaloedd cadwraeth, ac adeiladau unigol o ddiddordeb eithriadol.
- Mae llawer o adeiladau eisoes wedi'u helpu gan arian sydd ar gael drwy Tir Gofal. Mae cyngor ar hyn ar gael gan Gyngor Cefn Gwlad Cymru.
- Mae sawl cynllun lleol wedi targedu adeiladau traddodiadol. Cysylltwch â'ch cyngor lleol am gyngor.

## Sources of advice

- General advice about traditional farm buildings and how to care for them is available from Cadw.
- The conservation officers in your local planning authority can advise on local traditions and give general advice.
- St Fagans: National History Museum has practical experience in the conservation of traditional buildings and craft techniques.
- The Society for the Protection of Ancient Buildings has produced a series of technical pamphlets providing helpful advice on aspects of traditional building repair.

## Sources of grant aid

- Cadw's Assembly grant schemes cover buildings in conservation areas, and individual buildings of outstanding interest.
- Many buildings have already been helped by funds available through Tir Gofal. Advice on this is available from the Countryside Council for Wales.
- Several local schemes have targeted traditional buildings. Contact your local council for advice.

## Cyfeiriadau Defnyddiol

### Cadw

Llywodraeth Cynulliad Cymru, Plas Carew,  
Uned 5/7 Cefn Coed, Parc Nantgarw,  
Caerdydd CF15 7QQ  
Ffôn: 01443 33 6000  
[www.cadw.cymru.gov.uk](http://www.cadw.cymru.gov.uk)

Cadw yw is-adran amgylchedd hanesyddol Llywodraeth Cynulliad Cymru. Ei nod yw hyrwyddo gwaith cadwraeth ar gyfer amgylchedd hanesyddol Cymru a gwerthfawrogiad ohono.

### Comisiwn Brenhinol Henebion Cymru

Adeilad y Goron,  
Plas Crug,  
Aberystwyth SY23 1NJ  
Ffôn: 01970 621200  
[www.rcahmw.org.uk](http://www.rcahmw.org.uk)

Mae CBHC yn arolygu, dehongli ac yn cofnodi'r dreftadaeth adeiledig ac yn cyhoeddi gwybodaeth i'r cyhoedd.

### Sain Ffagan: Amgueddfa Werin Cymru

Caerdydd CF5 6XB  
Ffôn: 029 2057 3500  
[www.amgueddfacymru.ac.uk/cy/sainffagan/](http://www.amgueddfacymru.ac.uk/cy/sainffagan/)

### Cyngor Cefn Gwlad Cymru

Maes-y-Ffynnon, Penrhosgarnedd,  
Bangor, Gwynedd LL57 2DW  
Ffôn: 0845 1306229  
[www.ccw.gov.uk](http://www.ccw.gov.uk)

### The Society for the Protection of Ancient Buildings

37 Spital Square, London E1 6DY  
Ffôn: 020 7377 1644  
[www.spab.org.uk](http://www.spab.org.uk)

## Useful Addresses

### Cadw

Welsh Assembly Government, Plas Carew,  
Unit 5/7 Cefn Coed, Nantgarw,  
Cardiff CF15 7QQ  
Tel: 01443 33 6000  
[www.cadw.wales.gov.uk](http://www.cadw.wales.gov.uk)

Cadw is the Welsh Assembly Government's historic environment division. Its aim is to promote the conservation and appreciation of Wales's historic environment.

### Royal Commission on the Ancient and Historical Monuments of Wales

Crown Building, Plas Crug,  
Aberystwyth SY23 1NJ  
Tel: 01970 621200  
[www.rcahmw.org.uk](http://www.rcahmw.org.uk)

RCAHMW surveys, interprets and records the built heritage and makes information available to the public.

### St Fagans: National History Museum

Cardiff CF5 6XB  
Tel: 029 2057 3500  
[www.museumwales.ac.uk/en/stfagans/](http://www.museumwales.ac.uk/en/stfagans/)

### Countryside Council for Wales

Maes-y-Ffynnon, Penrhosgarnedd, Bangor,  
Gwynedd LL57 2DW  
Tel: 0845 1306229  
[www.ccw.gov.uk](http://www.ccw.gov.uk)

### The Society for the Protection of Ancient Buildings

37 Spital Square, London E1 6DY  
Tel: 020 7377 1644  
[www.spab.org.uk](http://www.spab.org.uk)

## Darllen pellach/ Further reading

Eurwyn Wiliam, *The Historical Farm Buildings of Wales* (Caeredin/Edinburgh 1986)

Eurwyn Wiliam, *Traditional Farm Buildings in North-east Wales 1550–1900* (Amgueddfa Genedlaethol Cymru/National Museum of Wales 1982)

Cadw yw is-adran amgylchedd hanesyddol Llywodraeth Cynulliad Cymru. Ei nod yw hyrwyddo gwaith cadwraeth ar gyfer amgylchedd hanesyddol Cymru a gwerthfawrogiad ohono.

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