

Can traditional materials and methods comply? A all deunyddiau a dulliau traddodiadol gydymffurfio?



◀ **Left** *croglloft* cottages present difficulties in meeting modern building standards
Uwchben bythynnod croglloft sy'n ei chael hi'n anodd cydymffurfio gyda safonau adeiladu modern

THE PRINCIPAL THEME of this conference is the value of traditional materials and why we should use them in traditional ways. This joint presentation looks at how this can approach can be achieved and it challenges the widely perceived difficulty of complying with the Building Regulations, which have sometimes been used as the justification for proposing insensitive changes.

Local Planning Authorities have to balance their responsibilities to protect its historic buildings with the requirements to provide safe and energy efficient buildings. If Conservation Officers and Building Control Officers work together solutions can often be found but it is important that this dialogue starts at an early stage so that the plans for a particular building are developed with input from both sides. Ironing out issues at this stage is infinitely preferable to letting a project run successfully through the Listed Building Consent process only to find that it cannot be passed by Building Control, resulting in everyone having to go back to the drawing board.

Realistically, more often than not, we are looking for an acceptable compromise rather than total compliance on one or other side. By taking a pragmatic attitude an owner can if necessary be helped to over-achieve on the standards laid down in one part of the Building Regulations in order to compensate for under-achieving on another. All this involves treating each building individually and I am fortunate as a Conservation Officer to work in an authority where Building Control take the view that there are many different ways of achieving an approvable standard of building construction or safety. The objective

PRIF THEMA'R GYNHADLEDD hon yw gwerth deunyddiau traddodiadol a pham y dylen ni eu defnyddio mewn dulliau traddodiadol. Mae'r cyflwyniad ar-y cyd hwn yn edrych ar sut y gellir cyflawni'r dull hwn o weithredu, ac yn herio y gred gyffredin yngly'n â chydymffurfio gyda'r Rheolau Adeiladu, sydd wedi cael eu defnyddio weithiau fel cyfiawnhad dros gynnig newidiadau anhydeiml.

Rhaid i Awdurdodau Cynllunio Lleol gydbwysu eu cyfrifoldeb i amddiffyn eu hadeiladau hanesyddol gyda'r angen i gynnig adeiladau diogel ac egni-effeithiol. Os bydd Swyddogion Cadwraeth a rhai Rheoli Adeiladu yn cydweithio gellir datrys pethau'n aml, ond mae'n bwysig fod trafod rhyngddyn nhw o'r cyfnod cyntaf er mwyn i'r dyluniadau ar gyfer adeilad arbennig gael eu datblygu gyda mewnbwn o'r ddwy ochr. Mae datrys materion yn y cyfnod cyntaf yna gymaint gwell na gadael i'r prosiect redeg yn llwyddiannus trwy broses y Caniatâd Adeilad Rhedredig a chanfod wedyn nad yw'n bosib i Reolaeth Adeiladu gymeradwyo'r cynllun, a phawb wedyn yn gorfod mynd yn ôl i'r cychwyn.

A bod yn onest, yn amlach na pheidio, chwilio am gyfaddawd y byddwn ni, yn hytrach na bod un ochr neu'r llall yn cydymffurfio'n llwyr. Os bydd raid, fe all perchenog gydag agwedd bragmatig gael ei helpu i oddiweddyd y safonau a osodwyd yn un rhan o'r Rheolau Adeiladu er mwyn gwneud iawn am golli allan mewn rhan arall. Mae hyn i gyd yn golygu trafod pob adeilad yn unigol, ac rwy'n ffodus fel Swyddog Cadwraeth i gael gweithio mewn awdurdod lle mae Rheolaeth Adeiladu yn derbyn fod nifer o ffyrdd o gyrraedd safon adeiladwaith neu



▲
Derelict buildings
 problems arise since
 building control officers
 may judge rebuilding
 in the same way as new
 build
Adeiladau sy'n
adfail gall problemau
 goi wrth i swyddo-
 gion rheoli adeiladu
 farnu fod ailadeiladu
 yn yr un ffurf yr un peth
 adeiladu o'r newdd

solution is aesthetically pleasing or stylistically correct, but whether it will get the necessary consents including Building Regulations approval, whether it will improve their quality of life, and crucially, how much it will cost. Many owners assume that using traditional materials will cost a lot more and some builders incorrectly advise them that traditional materials and methods will not comply with Building Regulations. Buildings that have been around for a long time benefit from a long-term approach to their repair and with timber, for example, using oak may cost more initially but it should last considerably longer than cheaper alternatives.

The vernacular building is often described as the traditional building type of Wales. It uses traditional materials in a fragile variety of regional methods. It is with these buildings that we find the greatest potential for tension between what the historic buildings specialist wants and what the Building Regulations seem to be asking for. Whereas Building Regulations are often interpreted as requiring standardisation, part of the character of these vernacular buildings stems from the fact that standardisation was not a concept in the minds of their builders. It is not a concept that fits well with traditional materials or buildings that grew organically.

Think of a *tŷ unnos*, a house (*tŷ*) made in one-night (*unnos*). Legend has it that if a man could erect a building overnight and have smoke coming from the chimney by daybreak he could claim ownership of that piece of land. As well as that he could throw an axe from the front door and claim the land as far as where the axe landed. This is how common land became encroached upon, with buildings being erected quickly using what ever materials were

must be to find new or continued uses for historic buildings so that they have a long-term future and a greater chance of being kept in good repair.

Traditional materials, such as lime wash, are sometimes maligned as being the cause of problems such as damp in an historic building. The reality is that buildings which have been around for a long time may have had the performance of their traditional materials compromised (*e.g.*, by removal of lime wash) making them appear less compliant with the Building Regulations than they really are.

Most owners want to know, not whether the

ddiogelwch y gellir eu cymeradwyo. Y nod yw darganfod defnydd newydd a pharhaol ar gyfer adeiladau hanesyddol, er mwyn iddyn nhw gael dyfodol hirdymor a gwell siawns o fod yn drwsiadus.

Weithiau fe gaiff deunyddiau traddodiadol, megis gwyngalch, eu difrio, am achosi problemau fel lleithder mewn adeilad hanesyddol. Y gwir yw fod adeiladau sydd wedi bodoli ers amser maith weithiau wedi cael eu camdefnyddio wrth gyfaddawdu ar y deunyddiau hynny (er enghraifft trwy gael gwared ar y gwyngalch) a'u gwneud i ymddangos fel petaent yn cydymffurfio llai gyda'r Rheolau Adeiladu nag sy'n wir.

Mae'r rhan fwyaf o berchnogion am gael gwybod, nid a yw'r ateb yn ddeniadol o safbwynt esthetig neu'n gywir o ran arddull ond a yw'n mynd i dderbyn y caniatâd angenrheidiol gan gynnwys cymeradwyaeth dan y Rheolau Adeiladu, a fydd yn gwella eu ffordd o fyw, ac, yn bennaf, faint fydd y gost. Mae llawer o berchnogion yn cymryd yn ganiataol y byddai deunyddiau traddodiadol yn llawer mwy costus, ac mae ambell adeiladydd yn eu camarwain nhw trwy honni na fydd deunyddiau a dulliau traddodiadol yn cydymffurfio gyda'r Rheolau Adeiladu. Mae adeiladau sydd wedi bod yma ers amser hir yn elwa o gymryd agwedd hirdymor at eu cynnal a'u trwsio, a chydychyd phren, er enghraifft, efallai y bydd defnyddio derw yn costio fwy ar y dechrau, ond yn debyg o bara'n hirach na dewisiadau eraill rhatach.

Mae'r adeilad brodorol yn aml yn cael ei ddisgrifio fel y math Cymreig o adeiladwaith. Mae'n defnyddio deunyddiau traddodiadol mewn amrywiaeth bregus o ddulliau rhanbarthol. Yn ôl pob tebyg, yn achos adeiladau o'r math hyn y ceir y posibilrwydd o'r tyndra mwyaf rhwng yr hyn y mae'r arbenigwr ar adeiladau hanesyddol am ei weld a'r hyn y mae'r Rheolau Adeiladu yn galw amdano. Tra mae'r Rheolau Adeiladu yn cael eu dehongli'n aml fel galwad am safoni unffurf, mae rhan o gymeriad yr adeiladau brodorol yn tarddu o'r ffaith nad oedd safoni yn gysyniad ym meddwl y rhai o gododd yr adeiladau. Nid yw'n gysyniad sy'n cydweddu'n hawdd gyda deunyddiau nag adeiladau traddodiadol a dyfodd yn organaidd.

Ystyriwch y tŷ unnos, un a godwyd yn ystod un noson. Yn ôl y sôn, os gallai dyn godi adeilad dros nos, a chael mwg yn codi o'r simnai erbyn y wawr, fe allai hawlio perchnogaeth ar y tir hwnnw. Yn ogystal, câi daflu bywyll o'i ddrws ffrynt a hawlio'r tir cyn belled â'r lle lle glaniai'r fwyll. Dyma sut yr erydwyd y tir cyffredin, gydag adeiladau yn cael eu codi yn gyflym gyda deunyddiau oedd wrth law. Doedd hi fawr o syndod, wedyn, fod angen ailadeiladu'r tai ar ffurf fwy parhaol unwaith y sefydlwyd yr hawl i'r tir, ac felly does yna ddim tebygrwydd fod unrhyw rai o'r adeiladau gwreiddiol wedi goroesi, er bod y bythynnod bychan ar hyd arfordir y gorllewin yn rhyw fath o ddisgynyddion iddyn nhw.

Mae'r groglofft, fel y'u ceir ym Mhenrhyn Llŷn, yn dystiolaeth bellach bod yna broblemau arbennig yn achos

to hand. Not surprisingly they needed rebuilding in a more durable form once settlement had been established and so there are no certain examples surviving but the small cottages found along parts of the western seaboard are, in a way, their descendants.

The *croglloft* cottages, such as found on the Llŷn Peninsula, further illustrate the point that traditional buildings have particular difficulties when it comes to standards expected for buildings in use today. The ladder accessing the *croglloft* clearly does not meet Building Regulations requirement for safety on staircases, but to remove it and replace with a conventional stairs would lose a significant diagnostic feature of the building and be detrimental to its character. Furthermore a modern stairs would take up a great deal of space in a tiny cottage and extending the building to compensate would further spoil its historic character. The example illustrated is fortunate to be in National Trust ownership and it has been accepted that it should be retained intact as an example of this building type. Other examples need an imaginative use and flexible approach from local authorities.

More often than not Building Regulation issues crop up on historic buildings where a change of use is involved. Keeping a building in the same use for which it was built is always preferable but it is accepted that some do become redundant and need a new use. The first thing is for the applicant to ask themselves whether the proposed new use is appropriate to the building and whether it can be achieved with minimal alteration. Having settled on the type of conversion the scheme should be conceived in a sensitive way that adapts the conversion to suit the building, not the other way around, in order to best protect the historic character.

Throughout Wales there are vast numbers of redundant chapels and only a tiny number can reasonably be retained as museums or public buildings. The majority need to find a new use and domestic conversions are popular. The Glendower Street Chapel in Monmouth has been splendidly converted thanks to the determination and inventive design of Tony Sully. Building Control adopted a flexible approach to the interior so that the appearance of the former chapel could be retained as far as possible. Indeed the stairs up to the gallery are unaltered even though they fall well short of normal requirements for handrail height and the reason is that as these were existing stairs they did not need to be altered even though the use of the building was altering. Once at gallery level all the living spaces lead into each other and even the kitchen is not partitioned off, as might have been required on fire safety grounds.

How strict the Building Regulations need to be depends upon who is going to enjoy the new use and how many people. The chapel mentioned above is a private house but a former maltings close by in Monmouth is to have a mixed use combining café/restaurant with house behind

adeiladau traddodiadol yn wyneb y safonau y gelwir amdanynt nhw heddiw. Mae'n amlwg nad yw'r ysgol sy'n mynd i fyny i'r groglloft yn cydymffurfio gyda safonau diogelwch grisiau yn ôl y Rheolau Adeiladu, ond byddai eu gwaredu a rhoi grisiau confensiynol yn eu lle yn golygu colli nodwedd arwyddocaol a hanfodol i'r adeilad, ac yn gwaethygu ei gymeriad. Diolch i'r drefn, mae'r enghraifft a ddefnyddiwyd yn perthyn i'r Ymddiriedolaeth Genedlaethol, ac fe dderbyniwyd bod rhaid ei gadw yn gyfan fel y mae, fel enghraifft o'r math hwn o adeilad. Mae yna enghreifftiau eraill sy'n galw am agwedd greadigol a hyblyg gan yr awdurdodau lleol.

Yn amlach na pheidio, mae cwestiwn y Rheolau Adeiladu yn codi yng nghyd-destun adeiladau hanesyddol pan fo yna fwrriad i newid y defnydd o'r lle. Mae hi bob amser yn well cadw at y defnydd gwreiddiol o'r adeilad, ond fe dderbynnir fod ambell adeilad yn mynd yn ddiangen a bod rhaid canfod defnydd newydd iddo. Y peth cyntaf sydd ei angen yw i'r ymgeisydd ofyn iddo'i hun a yw'r defnydd newydd arfaethedig yn un addas i'r adeilad, ac a ellir cyflawni hynny gyda'r lleiafswm o newidiadau. Ar ôl penderfynu ar ba fath o addasu sydd i fod, dylid cynllunio hynny mewn ffordd hydeiml sy'n sicrhau fod yr addasu yn gweddu i'r adeilad, nid fel arall, er mwyn amddiffyn ei gymeriad hanesyddol.

Trwy Gymru benbaladr mae yna lu o gapeli diangen a dim ond ychydig ohonyn nhw y gellir yn rhesymol eu cadw fel amgueddfeydd neu adeiladau cyhoeddus. Mae angen canfod defnydd newydd ar gyfer y rhelyw ohonyn nhw, ac mae eu troi yn dai annedd yn ddewis poblogaidd. Mae Capel Heol Glendower yn Nhrefynwy wedi'i weddnewid yn wych diolch i ddyfalbarhad a dyfeisgarwch Tony Sully. Fe wnaeth yr awdurdod Rheoli Adeiladu gymeryd agwedd hyblyg tuag at du mewn y lle er mwyn ei gwneud hi'n haws cynnal golwg yr hen gapel mor bell â phosib. Yn wir, mae'r grisiau i fyny i'r oriel heb eu newid, er nad ydyn nhw'n cydymffurfio gyda gofynion arferol uchder y ganllaw, a'r rheswm oedd eu bod yn bodoli'n barod, ac felly nid oedd angen eu newid er fod y defnydd o'r adeilad yn newid. Ar lefel yr oriel mae'r holl ofodau byw yn cyd-gysylltu a does yna ddim pared yn gwahanu hyd yn oed y gegin, fel y gellid ei ddisgwyl yn ôl gofynion diogelwch tân.



▲ **Monmouth** Glendower Street Chapel, splendidly converted by virtue of determination and inventive design
Trefynwy Capel Glendower Street wedi ei addasu'n wych trwy ddyfalbarhad a dyluniad dyfeisgar

and above. Here the safety standards need to be more strictly enforced in the public areas but in the attic storey, which is solely part of the private accommodation, there is no requirement to cut the trusses to improve headroom. There is in fact no specific headroom requirement applicable for this building and though the new owner may wish to avoid stooping low under tie beams there is no Building Regulations excuse for altering this listed building in that way.

The stable and granary is an example of a building type where the intended use and the approach of the local authority can influence the degree to which the traditional character of the building is appropriately preserved. The external stairs to the granary could be seen as a safety hazard and its removal requested but this would lose an integral feature that illustrates the origins of the building. If the conversion is to a small-scale office, such as on a farm, these stairs would be used and be acceptable with an appropriate handrail. If the conversion is for a holiday cottage where it would be occupied by short-stay guests with children it would be preferable to add an internal staircase. Nevertheless access to the external stairs does not need to be prevented by its total removal but simply by appropriate obstacles to climbing the stairs, such as pot plants on the lower steps.

Barn conversions, of which there are a great deal on the Welsh borders, present particular problems as the preferred domestic use is so different to the original use. In these cases, sticking rigidly to Building Regulations Approved Documents can result in unsympathetic damage to the historic farm building. To compound this, so often, barns are purchased with the intention of squeezing in as much accommodation as possible resulting in the breaking up of an internal space that has hitherto been entirely open. This comes back to the need to adapt the scheme to suit the building not the other way around. Dry-lining the interior of a barn immediately changes its character by introducing modern materials but it is wrongly assumed that Building Control will always require this. The illustration shows a successful barn conversion where the traditional materials of the original building are still dominant.

Derelict buildings can present even greater difficulties as Building Control are able to judge the rebuilding of a partially collapsed structure in the same way that they would for the construction of something new. However, thankfully this did not happen at Allt-y-Bela, near Usk which is in the process of being saved from the brink by the Spitalfields Trust. Here Building Control agreed that to introduce modern materials and foundations for the rebuilding of the two missing walls of the parlour block, dated 1599, would be out of character with the rest of the building and the resulting rigidity could even destabilise the more flexible surviving walls.

The picturesque ruin of Piercefield, near Chepstow, is a

Mae'n rhaid i'r Rheolau Adeiladu ymaddasu yn ôl pwy sy'n mynd i ddefnyddio'r lle ar ei newydd wedd, a faint o bobl fydd yn gwneud hynny. Mae'r capel uchod yn dŷ annedd preifat, ond mae cyn-fracty ger Tre-fynwy i gael ei addasu ar gyfer defnydd cymysg fel coffe/ffreutur gyda thŷ yn y cefn ac uwchben. Bydd raid bod yn fwy pendant ynglŷn â safonau diogelwch yn y rhannau cyhoeddus, ond ar lefel yr atig, sy'n rhan o'r gofod byw yn unig, does yna ddim gofyn trychu'r trawstiau i wella'r uchdwyr. Yn wir, does yna ddim gofynion pendant ynglŷn ag uchdwyr i'r adeilad hwn, ac er nad yw'r perchennog newydd yn awyddus i orfod plygu o dan y rhwymbrennau, does yna ddim esgus dan y Rheolau Adeiladu i newid yr adeilad rhestredig hwn yn y ffordd yna.

Mae'r stabl a'r ysgubor yn enghreifftiau o fath o adeilad lle bo'r defnydd arfaethedig ac agwedd yr awdurdod lleol yn gallu dylanwadu ar faint o gymeriad traddodiadol yr adeilad y gellir ei gadw. Gellir ystyried grisiau allanol yr ysgubor yn berygl a hawlio eu difa, ond o wneud hynny fe gollid nodwedd hanfodol o'r adeilad sy'n dangos natur wreiddiol y lle. Os mai'r bwriad yw newid y lle yn swyddfa gweddol fechan, fel ar fferm, os ceir canllaw ddigonol, gellir defnyddio'r grisiau hyn. Os mai'r pwrpas yw cael bwthyn gwyliau yn lletya ymwelwyr byrdymor gyda phlant, byddai'n well codi grisiau mewnol newydd. Er hynny, does dim rhaid atal defnyddio'r grisiau allanol trwy eu gwaredu'n llwyr, dim ond gosod rhwystrau i bobl eu dringo, megis potiau gyda phlanhigion ar y grisiau isaf.

Mae yna broblemau arbennig ynglŷn ag addasu ysguboriau, sy'n eithaf cyffredin ar hyd y gororau, gan fod y defnydd arfaethedig mor wahanol i'r un gwreiddiol. Mewn achosion fel hyn, gall cadw'n ddeddfol at y Rheolau Adeiladu olygu niwed ansensitif i'r adeilad hanesyddol. Yn ogystal, yn aml iawn, prynir ysgubor gyda'r bwriad o gael cymaint o le ag sy'n bosib, a rhannu gofod mewnol a fu'n agored cyn hyn. Daw hyn â ni'n ôl at yr angen i addasu pob cynllun newid i natur y lle gwreiddiol, nid fel arall. Mae sych-leinio tu mewn i ysgubor yn newid cymeriad y lle yn syth trwy gyflwyno deunyddiau modern, ac fe greidir ar gam fod y Rheolau Adeiladu yn gofyn am hyn bob tro. Mae'r llun yn dangos addasiad llwyddiannus o ysgubor lle mae'r deunyddiau traddodiadol yn dal i fod y rhai amlycaf.

Gall adfeilion fod yn fwy o broblemau byth gan y gall y Rheolau Adeiladu farnu'r cynlluniau addasu ar gyfer strwythur sydd wedi cwmpo i raddau fel petaen nhw ar gyfer codi adeilad newydd. Ond, diolch i'r drefn, nid dyna ddigwyddodd yn Allt-y-bela, ger Bryn Buga, sy'n cael ei arbed ar y funud olaf gan Ymddiriedolaeth Spitalfields. Yn yr achos hwn fe gytunodd yr awdurdod Rheolau Adeiladu y byddai defnyddio deunyddiau a sylfeini modern er mwyn ailgodi dau fur coll bloc y parlwr, sydd o 1599, yn rhegi cymeriad gweddill yr adeilad, ac y gallai'r anhyblygedd fyddai'n dilyn hyd yn oed yn datsefydlogi'r muriau mwy hyblyg oedd wedi goroesi.

case that will hopefully have this kind of debate tested in the near future as there are plans to restore it back to use as a private house.

By contrast, an issue that crops up on an almost daily basis is insulation, especially windows. As energy conservation is a principal objective of the Building Regulation standards, historic building conservationists risk being seen as having double standards if insistence on no change to a roof or windows would mean significantly higher levels of fuel being used. However, working together, an owner can be guided towards the means of energy efficiency that are appropriate to the building, such as a state of the art boiler. There will be occasions where a roof (say a medieval roof) is so special that it should not be compromised but many roofs in listed buildings can sustain some minor modification. It is easy to agree that plastic windows are inappropriate but it is sometimes argued that Building Regulations require replacement timber windows to be double-glazed for insulation and to have trickle vents to provide some air changes in an otherwise sealed environment. In fact, Building Control do not require this where, for example, it is clear that thicker glazing bars would give the windows an out of character appearance. Secondary glazing can be an acceptable alternative and some can be fitted in a reversible, light-weight, manner that is unnoticeable from the exterior. Where this cannot be introduced without affecting the character it can be accepted that the windows are simply overhauled to fit as well as possible. As regards trickle vents, recent discussions at Mounton, an Arts and Crafts house with associated cottages, have shown that Building Control are willing to accept night-latches as an alternative, avoiding alteration to the original windows. Traditional materials and methods effectively have their own built-in trickle vents – it is only modern materials and methods that create an environment where they are needed.

Some of the issues mentioned above, such as insulation, are ones that can be missed at the design stage unless the applicant, architect and conservation officer discuss with Building Control to ensure the finished scheme can comply sufficiently with the requirements and aspirations of everyone concerned.☺

Gobeithio y bydd yr adfail hardd Piercefield, ger Casgwent, yn achos lle y bydd yna drafodaeth fel hyn yn y dyfodol agos, gan fod yna gynlluniau i'w adfer yn dŷ annedd.

Mater hollol wahanol yw'r cwestiwn sy'n codi bron yn ddyddiol, sef inswleiddio, yn enwedig ffenestri. Gan mai prif fwriad y Rheolau Adeiladu yw arbed ynni, mae perygl i gadwraethwyr adeiladau hanesyddol gael eu cyhuddo o fod â safonau dwbl os y bydd mynnu cadw to heb ei newid yn golygu defnydd llawer helaethach o danwydd. Ond trwy gydweithredu, fe all perchennog gael ei berswadio i fabwysiadu cynllun arbed ynni sy'n addas i'r adeilad, megis boeler o'r math diweddaraf. Fe fydd yn achlysuron pan fydd to (dweder un canoloesol) mor arbennig fel na ddylid newid dim arno, ond mae'n bosib gwneud rhai newidiadau bach mewn llawer o doeau mewn adeiladau rhestredig. Mae'n hawdd cytuno nad yw ffenestri plastig yn addas, ond weithiau fe ddadleuir fod y Rheolau Adeiladu yn hawlio fod ffenestri pren yn rhai dwbl er mwyn inswleiddio, a bod ag awyrdyllau main er mwyn sicrhau rhywfaint o awyru mewn awyrgylch sydd fel arall yn un caeedig. Ond nid yw'r Rheolau Adeiladu yn mynnu hynny lle mae'n eglur y byddai, er enghraifft, bariau ffenestri dwbl rhy drwchus yn gwneud i'r ffenestri edrych yn hollol allan o gymeriad. Gall dyblu eilradd fod yn ddewis derbynol a gall fod yn ysgafn a chael ei osod mewn dull gwrthdroadwy sy'n anweledig o'r tu allan. Pan na ellir gwneud hyn heb effeithio ar gymeriad y lle, gellir caniatáu i'r ffenestri gael eu trwsio er mwyn ffitio mor berffaith â phosib. Yn achos y awyrdyllau, mae trafodaethau diweddar ym Mounton, Canolfan Celf a Chrefft gyda bythynnod cysylltiedig, wedi dangos fod yr awdurdodau Rheoli Adeiladu yn fodlon derbyn clicied-nos fel dewis sy'n osgoi newid sylfaenol i'r ffenestri gwreiddiol. Gall deunyddiau a dulliau traddodiadol fod â'u hawyrdyllau main cynhenid – dim ond deunyddiau a dulliau modern sy'n creu awyrgylch lle bo rhaid eu cael.

Gall rhai o'r materion godwyd uchod, megis inswleiddio, fynd yn anghof yng nghyfnod y dylunio os na wnaiff yr ymgeisydd, y pensaer a'r swyddog cadwraeth eu trafod gyda'r bobl Rheoli Adeiladu er mwyn sicrhau fod y cynllun gorffenedig yn cydymffurfio yn ddigonol gyda gofynion a gobeithion pob un.☺

Heritage and the Building Regulations

Treftadaeth a Rheolau Adeiladu

THE EARLIEST BUILDING regulations we know of date from 73 BCE, when a law made by King Herod prescribed that:

should a man construct a building which falls down and kills another then this man should be slain.

More recently, legislation followed the Great Fire of London (1666). Modern controls begin with the first Public Health Act (1874) and its eponymous successor of 1936. The first national Building Regulations were issued in 1966, succeeded by the regulations that followed the 1984 Building Act. The Approved Documents were issued in 1991. The 2001 Regulations are a mere twenty-seven pages long, but there are sixteen Approved Documents totalling 950 pages or so. These refer to 179 other documents, nineteen other pieces of legislation, and over 600 British Standards.

While this mass of controls might seem intimidating, it is important to realise that the Approved Documents are only one method of showing compliance; it is a fact that any other provable method may be satisfactory. Under the 2001 Regulations, only the “green” areas in the Approved Documents are mandatory. Designed solutions such as structural calculations, fire strategies, and CI calculations can be acceptable.

The key idea is that minimum intervention in the building is preferable. The problem of fire protection provides an example. If there are problems upgrading a building to an acceptable standard, a fire engineering approach should be used. And if this cannot be done two other options can be considered. Either, the number of occupants in a workplace should be limited, or one should discontinue the use of the workplace for that particular purpose. An increase in the number of supervisory employees, and effective surveillance and supervision of evacuation procedures may, in some circumstances, compensate for shortcomings in structural features.

Other rules of thumb include

- allowing the building to breathe rather than using barrier technology
- balancing the needs of the building and energy conservation, and
- using lime technology that allows the building to move.

It is important to remember that there are allowances for historic listed buildings and buildings of architectural interest in the Approved Documents. For instance, Part E requires sound insulation to be improved as far as practicable, but the decibel level must be stated and assigned. Likewise under Parts L1 and L2 (the conservation of fuel and power) the levels of insulation can be varied or traded off against other parts of the building. Weather stripping or draft exclusion may be all that is required.

In a different context, Part M and the new Disability Discrimination Act carry access for all requirements. There are clearly likely to be problems physically adapting historic buildings in order to comply. However, as solutions virtual tours and alternative routes can be considered, and

MAE'R RHEOLAU ADEILADU cynharaf y gwyddon ni amdan-
ynt yn dyddio o 73 CC, pan ddeddfodd Herod Frenin

os bydd rhywun yn codi adeilad sy'n dymchwel a
lladd dyn arall, dylai'r dyn hwnnw hefyd gael ei
ladd.

Yn fwy diweddar, cafwyd deddfwriaeth yn tarddu o Dàn Mawr Llundain (1666). Mae rheolaeth fodern yn dechrau gyda'r Ddeddf Iechyd Cyhoeddus (1874) gyntaf, a'i holynnydd o'r un enw yn 1936. Cyhoeddwyd y Rheolau Adeiladu cenedlaethol gyntaf yn 1966, a'u dilyn gan y rhai a darddodd o Ddeddf Adeiladu 1984. Cyhoeddwyd y Dogfennau Awdurdodedig yn 1991. Dim ond 27 tudalen sydd i Reolau 2001 ond mae yna 16 dogfen awdurdodedig sy'n cynnwys 950 tudalen fwy neu lai. Mae'r rhain yn cyfeirio at 179 o ddogfennau eraill, 19 o ddarnau eraill o ddeddfwriaeth, a thros 600 o Safonau Prydeinig.

Tra bo cymaint â hyn o reolaeth yn gallu ymddangos yn frawychus, rhaid cofio mai dim ond un ffordd o brofi cydymffurfiaeth yw'r Dogfennau Awdurdodedig; mae'n wir y gall dulliau eraill a brofwyd fod yn foddhaol. Dan Reolau 2001, dim ond rhannau “gwyrd” y Dogfennau Awdurdodedig sy'n orfodol. Gall atebion a ddylunnir, fel amcangyfrif strythywrol, strategaethau tân, ac amcangyfrifon CI fod yn dderbyniol.

Y syniad allweddol yw mai gorau po leiaf o ymyrraeth a wneir mewn adeilad. Mae problem amddiffyn rhag tân yn enghraifft dda. Os oes yna broblem ynglŷn ag uwchraddio adeilad i safon dderbyniol, dylid defnyddio agwedd peiranyddiaeth tân. Ac os nad yw hyn yn bosib dylid ystyried dau ddewis. Naill ai dylid cyfyngu'r nifer gaiff fod yn y gweithle, neu dylid rhoi'r gorau i ddefnyddio'r gweithle ar gyfer y pwrpas penodol hwnnw. Mewn rhai achosion, gall cynydd yn y nifer o weision arolygol, a gwyliadwriaeth a goruchwyliaeth effeithiol, wneud iawn am ddiffygion yn yr agweddau strythywrol.

Ymysg enghreifftiau eraill o synnwyr y fawd ceir

- caniatáu i'r adeilad anadlu yn hytrach na defnyddio technoleg atalfa
- cydbwysio anghenion yr adeilad ac arbed ynni, a
- defnyddio technoleg sy'n caniatáu i'r adeilad symud.

Mae'n bwysig cofio fod yna le i ystyriaethau arbennig ar gyfer adeiladau rhestredig hanesyddol yn y Dogfennau Awdurdodedig. Er enghraifft, mae Rhan E yn mynnu fod inswleiddio sw^n yn cael ei wella gymaint ag sy'n ymarferol, ond rhaid nodi'r lefel desibel a'i bennu. Yn yr un modd, dan Rhannau L1 a L2 (arbed tanwydd ac ynni) gellir amrywio'r raddfa o inswleiddio neu ei ddostrannu ar draws yr holl adeilad. Efallai mai dim ond sribynnau diddos neu rimynnau drafftiau fydd ei angen.

Mewn cyd-destun gwahanol, mae Rhan M a'r ddeddf newydd am Hawliau'r Anabl yn mynnu mynediad ar gyfer pob gweithgarwch. Mae'n amlwg y bydd yna broblemau wrth addasu adeiladau hanesyddol yn strythywrol er mwyn cydymffurfio. Er hynny, gellir ateb ambell sefyllfa gyda Theithiau Rhithwir neu lwybrau gwahanol,

Access Statements used to justify these approaches.

Lastly, there are some basic recommendations which can be applied to most projects.

- Think holistically – look at the whole building or site.
- Consider the uses of different areas within a building.
- Ask yourself whether work proposed will damage the building or its features.
- Examine whether better management provides help in meeting compliance issues.
- Give special attention to the ways in and out of a building.
- Think laterally in coming up with answers.☞☛

a defnyddio Datganiadau Mynediad i gyfiawnhau hynny.

Yn olaf, mae yna rai argymhellion sylfaenol y gellir eu cymhwyso at y rhan fwyaf o brosiectau.

- Cymerwch agwedd gyfannol – astudiwch yr adeilad neu leoliad yn ei gyfanrwydd.
- Ystyriwch y defnydd sydd yna o wahanol ofodau o fewn adeilad.
- Ystyriwch a fydd y gwaith arfaethedig yn debyg o niweidio'r adeilad neu ei nodweddion.
- Ystyriwch a fyddai gwell rheolaeth ar y prosiect yn gymorth iddo gydymffurfio.
- Rhoddwch sylw manwl i fynedfeydd i mewn ac allan o'r adeilad.☞☛