




**Cerdded drwy'r gorffennol:**  
Taith geoamrywiaeth o amgylch Llangollen

**Walking through the past:**  
A geodiversity trail for Llangollen

**Cyflwyniad**

Saif Llangollen ar lawr dyffryn gorddwfn afon Dyfrdwy. Mae'r dyffryn atyniadol hwn yn goridor pwysig oherwydd fe'i dilynir gan ffordd fawr yr A5, Camlas Llangollen a'r rheilffordd a arferai gysylltu Wrexham a Chorwen ond sydd bellach yn ddolen gyswilt rhwng Llangollen a Charrog, hyd nes yr ailgorir y lein i Gorwen. Yn edrych dros y dref y mae adfeilion Castell Dinas Brân, a godwyd o sialau a llechfeini Silwraidd lleol, a tharren drawiadol Eglwyseg, sef y clogwyni calchfaen sy'n llawn fffosilau Carboniferaidd 350 o filiynau o flynyddoedd oed. Mae'r dref yn ganolfan hanesyddol a diwylliannol sy'n adnabyddus yn fyd-eang oherwydd fod Eisteddfod Genedlaethol Rhyngwladol Llangollen yn denu ymwelwyr o bedwar ban byd. Fodd bynnag, ychydig iawn o bobl sy'n sylweddoli bod adeiladau'r dref yn datgelu hanes y gellir ei olrhain yn ôl dros gyfnod o 500 miliwn o flynyddoedd. Drwy ddilyn y daith hon, cewch weld sut mae grymoedd natur wedi dylanwadu ar bryd a gwedd y dref hanesyddol hon.

Mae rhywfaint o'r cerrig adeiladu yn lleol ond mewnforiwyd eraill o wledydd tramor. Deunydd lleol yw'r cerrig adeiladu mwyaf cyffredin, sef tywodfaen Cefn a sialau Silwraidd. Ar y toeau, ceir llechi lleol ynghyd â rhai a gludwyd ar y rheilffordd o ganolfannau megis Blaenau Ffestiniog, pan oedd y diwydiant llechi yn ei



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**What are RIGS?**  
Regionally Important Geodiversity Sites (RIGS) are any sites, excluding SSSI (Sites of Special Scientific Interest), that are protected for their educational, research, historical or aesthetic importance. Geodiversity is the variety of rocks, fossils, minerals and soils along with the natural processes that shape the landscape. Any member of the public with an interest in Earth heritage conservation can join a RIGS group. They identify sites which are then protected by local authorities. With co-operation of the owners, some sites are developed for educational or public use.

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Gall safleoedd Geoamrywiaeth o Bwysigrwydd Rhanbarthol (Regionally Important Geodiversity Sites) fod yn unrhyw safleoedd, ac eithrio Safleoedd o Diddordeb Gwyddonol Arbennig, a gaff eu gwarchod oherwydd eu pwysigrwydd addysgol, ymchwil, hanesyddol neu esthetig.

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Mae Cyngor Cefn Gwlad Cymru yn cefnogi sefydlu Safleoedd Geoamrywiaeth o Bwysigrwydd Rhanbarthol. The Countryside Council for Wales supports the establishment of Regionally Important Geodiversity Sites.

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**Y creigiau y byddwch chi'n eu gweld o gwmpas Llangollen:**  
The rocks you will see around Llangollen:

**Creigiau gwaddod:** Mae'r rhain wedi eu gwneud o dywod, silt, llaid, cerrig a gweddillion planhigion ac anifeiliaid. Fe'u dyddodwyd ar welyau moroedd ac atonydd neu ar ffurf twyllu mewn diffreithrededd ac, ymhen hir a hmyr, wedi iddynt gael eu claddu dan bentwr o greigiau eraill, cawsant eu cywasgu a'u smentio gan greu'r creigiau gwaddod a wellir heddiw.

**Sedimentary rocks** are made of sand, silt, mud, pebbles, and fragments of plants and animals. These were deposited in seas, rivers or as dunes in a desert, and eventually, after burial beneath a pile of other rocks, are compressed and cemented into the rocks we see today.

**Creigiau igneidd:** Ffurir y rhain wrth i graig dawdd (magma) gristalu. Gaffir magma ei whio ar hyd gwenddau yng ngramen y Ddaear, gan ddog'r wyneb weithiau yn ystod echdorddau folcanig e.e. gwenithfaen, gabro, larvikit.

**Igneous rocks** are crystallised from molten rock (magma) which is forced into weaknesses in the earth's crust, sometimes coming to the surface as volcanic eruptions e.g. granite, gabbro, larvakit.

**Creigiau metamorffig:** Mae'r rhain yn greigiau igneidd neu waddod sydd wedi engwraffu, gall newid i fod yn llechfaen, a chalcfaen yn farnor.

**Metamorphic rocks** are igneous or sedimentary rocks that have been changed by heat and/or pressure. For example, mudstone can be changed into slate, and limestone into marble.

**'Man-made rocks':** Mae'r rhain yn cynnwys briciau, a gynyhychir drwy bobl clai, a hefyd gonnrit. 'Man-made rocks' include clays, bricks, and also concrete.

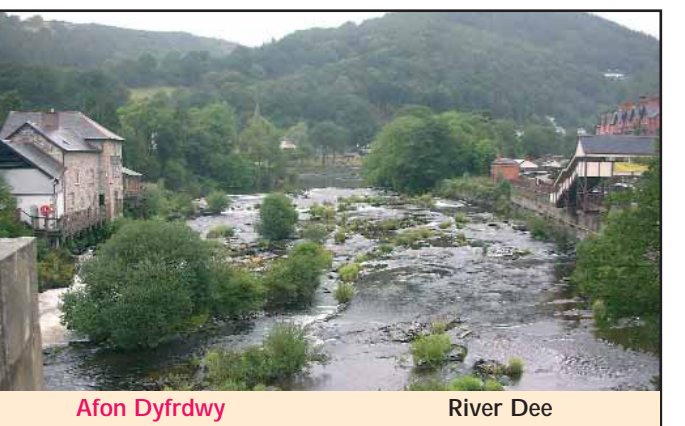
Photography by C. Burek  
Text by C. Burek & C. Legg  
Lluniau gan C. Burek  
Testun gan C. Legg

anterth. Rhyfeddol yw hanes cerrig adeiladu siop y cigydd lleol. Mae'r cerrig a wellir ym muriau adeiladau Llangollen hefyd yn adrodd peth o hanes bywyd ar y Ddaear. Yn y mur gyferbyn â'r Gwesty Brenhinol mae gweddillion creaduriaid a drigai yn y môr 350 o filiynau o flynyddoedd yn ôl i'w gweld yn blaen iawn. Ar y daith hefyd cewch weld hefyd dystiolaeth o'r Oes Iâ ddiwethaf ar ffurf meini dyfod mawr a adawyd ar ôl wrth i'r iâ encilio. Dim ond rhai o uchafbwyntiau daearegol y dref yw'r rhain. Yn wir, yn adeiladau Llangollen ceir cerrig sy'n adlewyrchu daeareg yr ardal a'r tir y saif y dref arno, yn ogytal â meini estron a ddaeth o bell.

Gobeithio y bydd y daith o ddiddordeb arbennig i'r rheiny ohonoch sy'n ymddiddori mewn hanes lleol a threfadaeth y Ddaear. Mae'r gylchdaith, a gymer tua awr i'w cherdded, yn cychwyn o brif faes parcio'r dref.



**Introduction**  
Llangollen is located in an attractive over deepened valley of the River Dee. This is a major communication route as the A5 trunk road, the Llangollen canal and the remains of the steam railway (originally from Wrexham but now running from Llangollen to Carrog and eventually Corwen) all run along the flat valley floor. Overlooking the town are the ruins of Dinas Bran Castle, made of local Silurian shales and slates and the spectacular limestone Eglwyseg escarpment full of 350 million year old Carboniferous fossils.



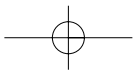
Llangollen is internationally famous as a centre of Welsh history and culture. Many visitors from across the world come to the annual Llangollen International Eisteddfod. However, few people realise that the buildings which make up the town reveal a history that goes back over 500 million years. By following this trail, you will see how the forces of nature have had an influence on the building of this historic town.

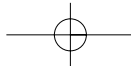
Some of the stone is local, but much is imported, some of it from overseas. The most common building stones used are the local Cefn Sandstone and Silurian shales. The roofs are built of local slate and slates imported from further away such as Blaenau Ffestiniog (transported by the railway when it was at its height). A distinctive example of this is the local butcher's shop.

The rocks used in buildings around Llangollen also show evidence of ancient geological history. In the wall opposite the Royal Hotel you can clearly see embedded in the rock fossilised remains of creatures that lived 350 million years ago. The trail also shows us evidence of the last Ice Age in the form of erratic boulders transported by the ice. These are just a few of the town's geological highlights.

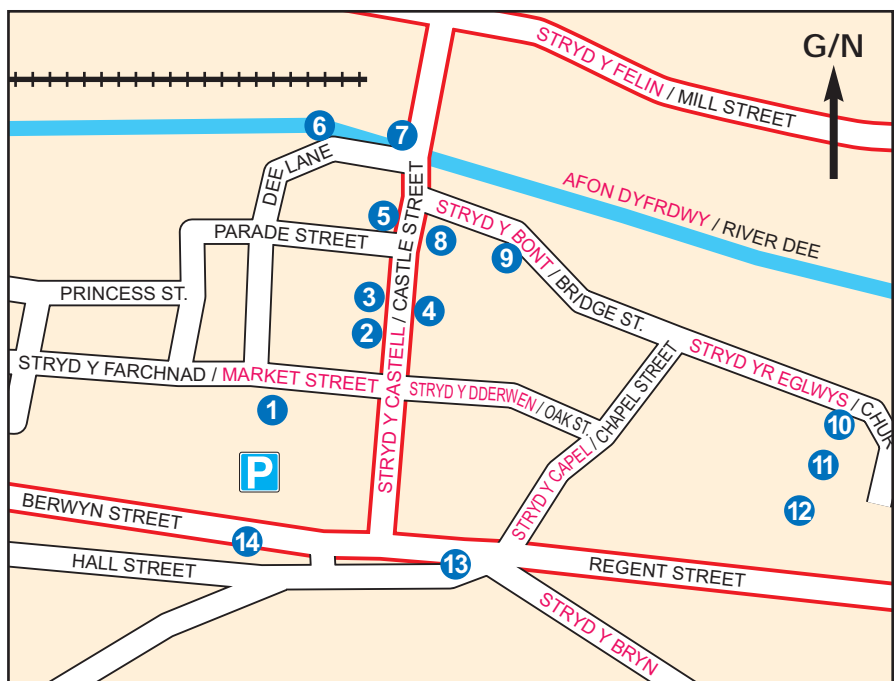
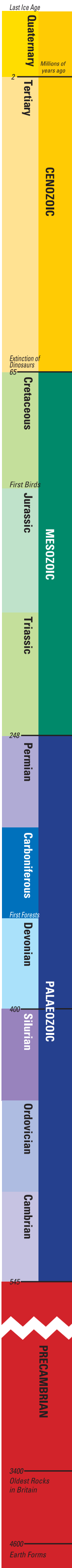
Llangollen's assorted buildings reflect the geology found around and beneath the town itself, as well as some exotic rock types from further afield.

Hopefully, the trail will appeal to those with an interest in local history as well as those concerned with Earth heritage. The circular walk lasts about an hour and starts in the main municipal car park.





Yr Oes Iâ ddiwethaf



**Dywysogion Cymru.**  
**Dilyn Rhodfa'r Afon; ymhen dim o dro deuir ar draws hen felin yd a drawsnewidiwyd.**

**Parade Street**  
 The wall on the right is made of rounded cobbles from the riverbed and angular thinly bedded shales. Continue as far as Riverside Walk. Turn sharp right. Across the river are the crags known as Dinas Bran on top of which stands a castle built by the Welsh Princes.



**A short way along the riverside walk is an old converted Water Mill.**

**6 Yr hen felin yd**  
 Sialau lleol, sydd i'w gweld yng ngwely'r afon, a ddefnyddiwyd yn bennaf i godi'r adeilad hwn ond hanner ffordd ar hyd y wal, ar lan yr

afon, gallwch weld rhan o faen melin a ddefnyddid i falu'r haidd a'r gwenith. Fe'i lluniwyd o dywodfaen Cefn-y-fedw. Ceir hyd i ragor o ddarnau o'r tywodfaen hwn yn y wal ac ar wyneb y ddaear. Llechfaen lleol yw silliau'r ffenestri a'r linteri. Y tu mewn i'r adeilad, ceir ar y lloriau flagiau mawr o lechfaen a thywodfaen mân-ronynnog. Chwiliwch am y rhychnodau yn y tywodfaen. Mae hen felin y dafarn yn dal i droi.

**Ymlaen ar hyd Rhodfa'r Afon, troi i'r chwith a cherdded ar draws y bont.**

**Felyn Yd Water Mill**  
 This building is made mainly of local shales as seen in the river bed, but if you look on the river side, half way along you can see a section of the old mill stone in the wall which used to grind up barley and wheat. This stone is made of local Cefn y fedw Sandstone. There is more in the wall and on the ground. The windowsills and lintels are of Welsh local slate. Inside the building the floors are made of large flags of slate and fine sandstone. Look for the ripple marks in the sandstone. The Inn still has a working water mill.



**Continue along the Riverside Walk and then turn left onto the bridge.**

**7 Pont Llangollen**

Codwyd y bont, a adeiladwyd yn wreiddiol gan Esgob Llanelwy yn ystod y 13g., o dywodfaen Cefn. Mae'r traws-haenu sydd i'w gweld yn y tywodfaen yn goleddu i'r un cyfeiriad â lliif y dŵr a ddyddododd y gronynnau tywod. O'r bont gallwch weld y creigiâu sy'n ymwthio o wely'r afon. Mae'r sialau Silwraidd hyn yn brigo ar hyd ffawt mawr a dyna pam mae gwelyau'r creigiâu yn goleddu i wahanol gyfeiriadau. Os ewch i ben draw'r bont a throi i'r dde, gellir cael gweld cip ar wely'r afon drwy ddilyn y llwybr ar eu glannau.



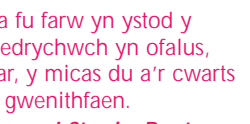
**Cerdded yn ôl dros y bont cyn belled â'r Cofebau Rhyfel.**

**Llangollen Bridge**  
 The original bridge, built in the 13th century by the Bishop of St. Asaph, is made of Cefn Sandstone. You can see cross bedding in the sandstone, which dip in the direction of water flow. From the bridge you can see rocks jutting out from the riverbed. These Silurian shales run along a major fault line, which can be identified by the layers of rock dip in different directions. If you go to the end of the bridge and turn right there is a path alongside the river where you can see the riverbed more closely.

**Return over the bridge and up Castle Street as far as the War Memorials.**

**8 Y Cofebau Rhyfel**

Codwyd y cofebau hyn, sy'n cofâu'r rheiny a fu farw yn ystod y ddau Ryfel Byd, o wenithfaen caboledig. Os edrychwch yn ofalus, gellir gweld y crisialau mawr ongl o ffelsbar, y micas du a'r cwarts gwyrdd, sef y tri mwyn sy'n nodweddu pob gwenithfaen.



**Troi'n ôl i gyfeiriad y bont a throi i'r dde i mewn i Stryd y Bont.**

**War Memorials**  
 Commemorating those who died in two World Wars, these memorials are made of polished granite. If you look closely you can see the large white angular feldspar crystals, the black micas and the glassy quartz. All granites are made up of these 3 minerals.

**Turn back towards the Bridge and turn right into Bridge Street.**

**9 Y wal gerrig gyferbyn â'r Gwesty Brenhinol**

Codwyd y wal y tu ôl i'r meinciau o sialau lleol a chalchfaen. Yn y blociau fertigol o galchfaen hindreuliedig gallwch weld cwrelau ffosil sy'n dyddio'n ôl 350 o fillynuau o flynyddoedd.



**Ymlaen ar hyd Stryd y Bont ac i mewn i Stryd yr Eglwys.**

**Stonewall opposite the Royal Hotel**  
 Behind the benches, the stonewall is made of local shales and limestone. There the vertical limestone blocks have weathered and you can see fossil corals dating back 350 million years.



**10 Y wal islaw Eglwys Collen Sant**

Chwiliwch am y clogfaen folcanig mawr yn y wal hon. Mae'r garreg hon yn enghraifft o faen dyfod a gludwyd yma o Eryri gan len iâ tua 18,000 o flynyddoedd yn ôl. Fedrwh chi ddod o hyd i unrhyw enghreifftiau eraill yn y wal neu ym mur yr eglwys ei hun?



**Dychwelyd ar hyd y stryd a throi i mewn i'r fynwent. Cadw i'r chwith er mwyn edrych ar gorff gogleddol yr eglwys.**

**Wall below St. Collen's Church**  
 Look for a large volcanic boulder in this wall. This is known as an erratic and has been carried here by glaciers from Snowdonia some 18,000 years ago. Can you find any more in the wall or in the Church wall itself?



**Retrace your steps and enter the churchyard. Bear left to view the North Nave.**

**11 Eglwys Blwyf Collen Sant**

Codwyd yr eglwys, sy'n dyddio o'r 13g., ar gyfer Collen Sant a roddodd i'r dref ei henw. Yng ngwely'r afon yn bennaf y cafwyd y cerrig i godi'r adeilad ond codwyd y tŵr o sialau a thywodfaeni Silwraidd. O graffu ar y tywodfaeni, gwelir eu bod yn cynnwys patrymau gwyrdd. Darnau o dywodfaen bras-ronynnog yw'r conglfeini a'r cerrig copa ond tywodfaen mân-ronynnog a geir o amgylch y drws gorllewinol, ac fe godwyd yr estyniadau o flociau o dywodfaeni nadd. Profwch weadedd y cerrig. Os yw'r eglwys yn agored, mae'n werth troi i mewn; chwiliwch am y cerfiadau marmor ar y muriau.



**Âch cefn at y tŵr, cerdded yn eich blaen tuag at gofob drianglog wedi'i hamgylchynu gan ffens haearn.**

**St. Collen's Parish Church**  
 This church was built for St. Collen (from whom the town of Llangollen takes its name). This is the original building made of local stone, mainly from the river bed (13th Century). The Tower is built of Silurian shales and sandstones. Close-up the tower shows contortions in the sandstone. The cornerstones and capping stones are of coarse sandstone whereas the west doorway is of fine sandstone and the extensions are of dressed sandstone: feel the texture of the stones. If the church is open, the inside is well worth a visit – look for the marble carvings on the church walls.

**With the bell tower behind you, approach the triangular memorial enclosed by iron railings.**

**12 Mynwent Eglwys Collen Sant**

Lluniwyd y rhan fwyaf o'r cerrig beddau o dywodfaen. Fodd bynnag, mae un gofeb, sy'n cofâu Boneddigesau Llangollen, o ddiddordeb arbennig gan fod iddi dri wyneb. Marmor siwgwraidd gwyn yw'r garreg ar y ddau wyneb sy'n cofâu'r Foneddiges Eleanor Butler a'i chyfeilles Sarah Ponsonby ond lluniwyd y trydydd, er cof am eu morwyn, Mary Carryl, o dywodfaen cyffredin. Mae'n debyg na wna bedd bawb yn gydradd.



**Ymadael â'r safle trwy borth y fynwent, troi i dde i mewn i Stryd Regent a bwrw draw i'r Hen Arfdy.**

**St. Collen's Graveyard**  
 Most of the graves in the graveyard are of sandstone. However, one gravestone (commemorating the Ladies of Llangollen) is of social interest as it has 3 faces. The 2 in memory of Lady Eleanor Butler and her friend Sarah Ponsonby are made of a white 'sugar' marble and the third face in memory of their maid Mrs. Mary Carryl is made of common sandstone like most of the other graves. Even in death class counted.

**Leave the churchyard by the Lych-gate. Turn right into Regent Street and continue to the Old Armoury.**

**13 Yr Hen Arfdy**

Mae'r adeilad hwn yn unigryw oherwydd fe'i codwyd o galchfaen lleol. Ar wynebau'r blociau hindreuliedig, gellir gweld gweddillion ffosiledig cregyn, sef braciopodau yn bennaf (tebyg i logo NEWRIGS ar y clawr), a chosau crinoidau dros 350 o fillynuau o flynyddoedd oed.



**Cerdded ar hyd Stryd Regent. Saif yr Hen Swyddfa Bost 200 metr y tu hwnt i'r goleuadau traffig.**

**The Old Armoury**  
 This building is unique as it is made of local limestone. Where some blocks have weathered away you can see the remains of fossilized shells mainly brachiopods (Like the NEWRIGS logo on the front cover) and crinoid stems over 350 million years old.

**Walk along Regent Street. 200 metres beyond the traffic lights is the Old Post Office.**

**14 Yr Hen Swyddfa Bost**

Gwenithfaen caboledig, o'r Alban o bosibl, sydd i'w gweld yn rhan isaf wal yr Hen Swyddfa Bost. Mae'n cynnwys rhai crisialau mawr o ffelsbar gwyn.



**Yma, rydych chi fewn talfiaid carreg i'r maes parcio. Y ffordd rwyddaf i'w gyrraedd yw dychweld ar hyd Stryd Regent ac yna, ymhen dim o dro, troi i'r chwith.**

**The Post Office**  
 The base of the Post Office is made of polished granite, possibly from Scotland. It contains some large white feldspar crystals.

**You are now close to the Car Park, which is most easily reached by retracing your steps along Regent Street and then turn left.**

We hope that you enjoyed this geodiversity town trail.