

JOURNAL OF THE



2020



Hello Readers

Welcome to the 2020 edition of the Great Orme Exploration Society Journal. Sadly it has become a year like no other we can remember. With coronavirus curtailing movement in the lead up to Easter, Llandudno became an extremely quiet, often goat overrun town, that was an economic disaster zone for so many businesses.

The GOES AGM normally held in April, is on hold, the Extravaganza cancelled and our program of Summer Walks look increasingly unlikely to begin at the end of May.

Hopefully the Journal's arrival will provide a pleasant interlude, and a reminder of happier times. We all took for granted our freedom to travel, walk together, visit the pub or even (for some) go underground, perhaps in a virus free future we will be more appreciative.

A huge thank you goes to Nick Challinor for organising our Summer Walks for the last 6 years, pictures from his final 2019 programme lie within. The baton of leading these popular outings has been taken up by Adrian Hughes who will undoubtedly do a great job. Unfortunately his itinerary for 2020 will be affected by Covid-19.

Finally, on a lighter note, a quick thinking poacher provides us with an anecdote linking Penmorfa adit with workings on top of the Great Orme p.31. A better known one being in the 1911 recollections of old miner John Williams, who as a 12 year old had walked up the adit to meet his father who had climbed down by the more dangerous ladders. Enjoy the Journal; more gems await discovery.

Many thanks to all contributors.

Regards, Dave Wrennall – GOES Journal Editor 2020

PRINTING the JOURNAL

With inkjet printers use at least 90gsm paper (200gsm for the front cover). In order to optimise page sequencing page 1 should be placed on the back of the front cover with page 2 opposite on the next sheet of paper.

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Relationship Between the Springs of the Great Orme and the Underlying Geology

Introduction

There are 12 readily identifiable current or historical springs on the Great Orme, although water seepages occur extensively over most of the area. The main purpose of this article is to give an explanation as to why an area as small as the Great Orme has so many springs, most of which are continuously flowing, and also to establish how closely the location of the identified springs corresponds to the underlying geology of the Orme.

Geology of the Great Orme

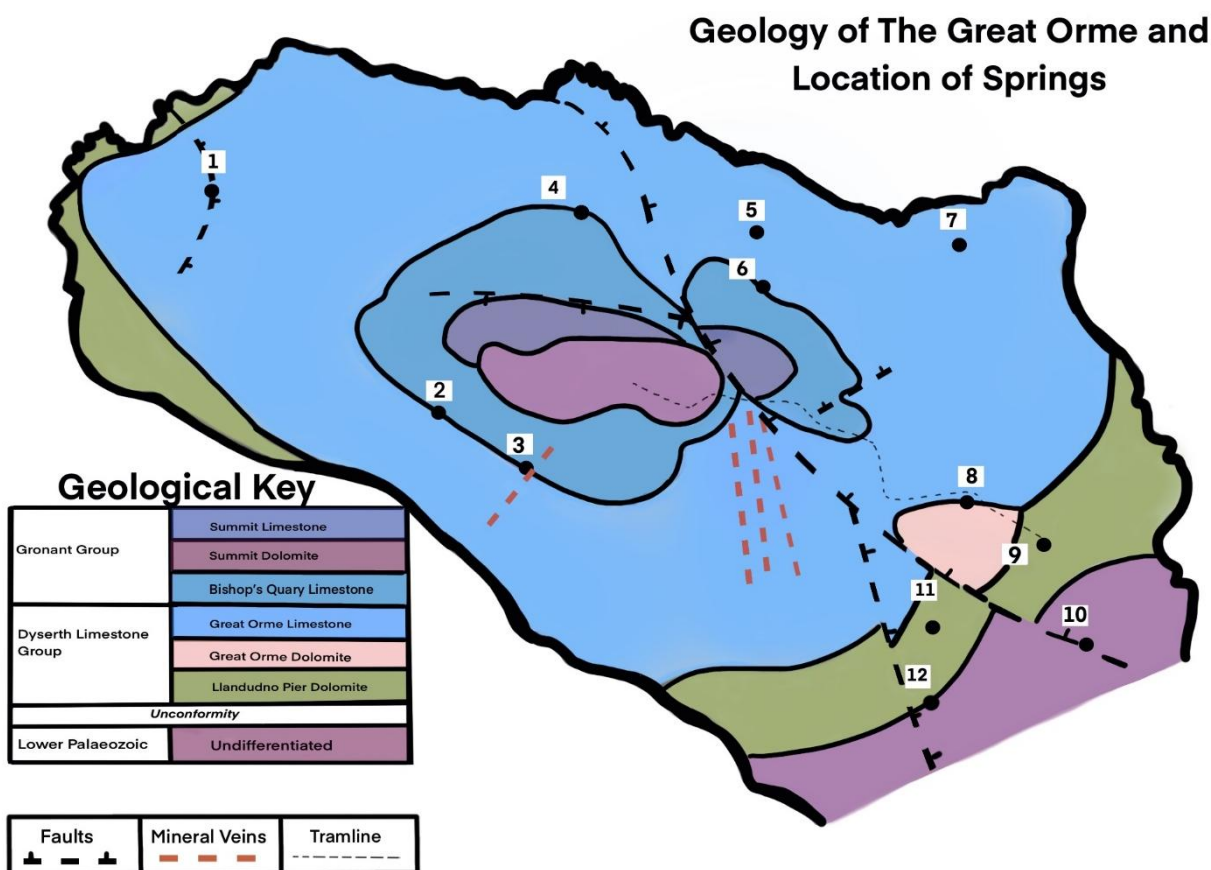
The Great Orme comprises rocks of the Visean Epoch of the Carboniferous which were deposited approximately 330 million years (Ma) ago and form part of the Carboniferous Limestone sequence that is present over extensive areas of North Wales and Northern England. These Visean age rocks consist predominately of limestones (CaCO_3) with subsidiary dolomites ($\text{CaMg}(\text{CO}_3)_2$) unconformably overlying older rocks of Lower Palaeozoic age. Thin interbedded shale and sandstone bands and lenses are present within both the limestone and dolomite sequences.

The rocks of the upper portion of the Great Orme succession form part of the Gronant Group and those of the lower portions form part of the Dyserth Limestone Group. Although the terms Gronant and Dyserth Groups are widely used, they have now been placed together under the name Clwyd Limestone Group which forms part of the Carboniferous Limestone Supergroup. However the names of the individual rock units comprising the **Great Orme succession** have remained the same, as given below:

Clwyd Limestone Group	(Gronant Group)	Summit Limestone	Summit Dolomite	<i>The youngest rocks, present at the summit of the Great Orme. The limestone and dolomite are of equivalent age.</i>
		Bishop's Quarry Limestone		<i>Underlying the Summit Limestone and Dolomite, these limestones include the highly fossiliferous rocks found in the rear portion of the Bishop's Quarry.</i>
	(Dyserth Group)	Great Orme Limestone		<i>Dolomitisation of the limestone has occurred in part of the lower portion of the sequence. Thin bands of the Craig Rofft Sandstone, Lighthouse Nodular Band and Tollhouse Mudstone are present within restricted areas of the limestone sequence.</i>
			Dolomite	
	Llandudno Pier Dolomite	<i>The oldest rocks of the Great Orme</i>		
Unconformity				<i>This represents a period of approximately 70 million years (Ma) between Lower Palaeozoic (Silurian) rocks and the Carboniferous sequence above.</i>
Lower Palaeozoic				<i>The Great Orme succession is underlain by older undifferentiated rocks of Silurian and Ordovician age.</i>

Geological Structure of the Great Orme

The overall structure of the Great Orme is synclinal. The rocks form a gentle elongated 'saucer' centred on the area of the Summit Complex. Generally the limbs of the syncline dip at angles of between 5 and 10 degrees as shown in the geological section, although locally this can increase to 16 degrees. Various faults cut through the rocks of the Orme but only one has had any significant effect on the structure. This, which cuts through the succession from northwest to southeast, has downthrown the north-eastern portion of the Orme although the synclinal form has been preserved. Later mineralisation, on a predominantly north - south trend has not affected the structure.

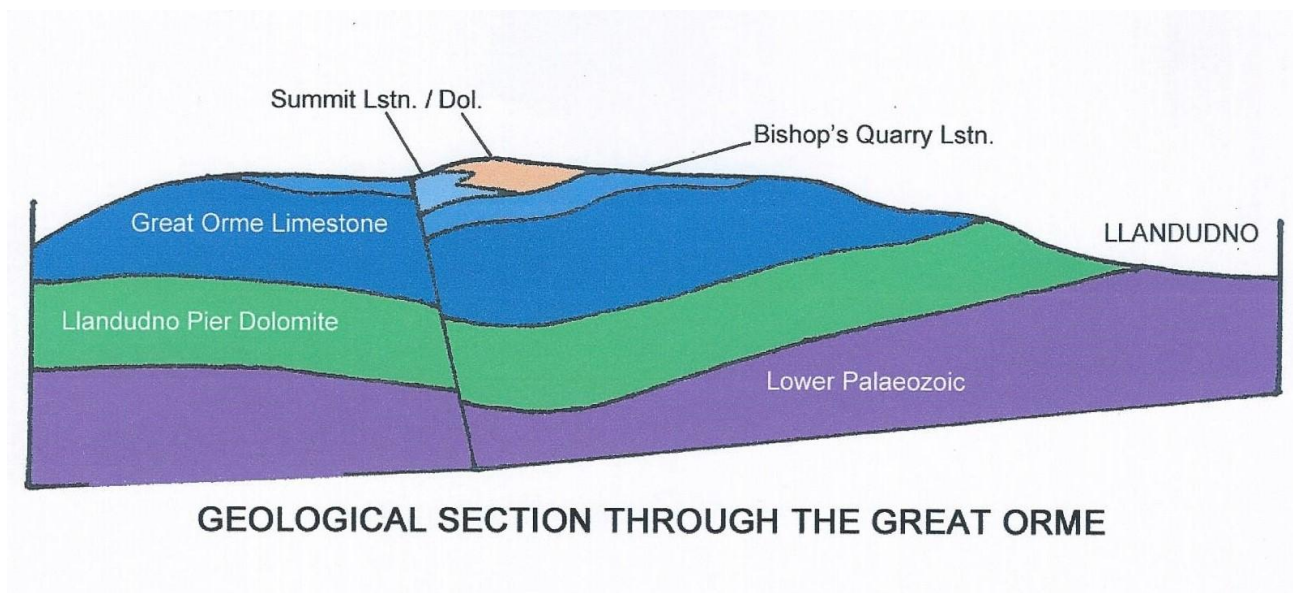


The Geological map above, and the section below have been simplified and adapted from the British Geological Survey Sheet: SH77/78 1:25 000 (1989)

Key to the Springs (Wells) Located on Geological Map

No.	Welsh Name	English Name	No.	Welsh Name	English Name
1	Ffynnon y Gaseg	Mare's Well	7	Ffynnon Galchog	Lime Well
2	Ffynnon Llygaid	Eye Well	8	Ffynnon Wen	Wen Well
3	Ffynnon Gogarth	Gogarth Well	9	Ffynnon Fictoria	Victoria Well
4	Ffynnon Rufeinig	Roman Well	10	Ffynnon Tŷ 'n Pwll	Pool House Well
5	Ffynnon Tudno	Tudno Well	11	Ffynnon Haulfre	Haulfre Well
6	Ffynnon Powel	Powel's Well	12	Ffynnon yr Odyn	Kiln Well

The well-known 'spring', Idwal's Folly, located on the Old Road half way up the steep bottom section of the tram route has been excluded from the list. Reputably, the drinking fountain was built by a local property owner after a spring appeared overnight, and he subsequently charged walkers to drink from the fountain. However, his enterprise came to an abrupt end when a local leaking pipe was repaired some time later. The dry fountain can still be seen on the right hand side as you walk up Old Road.



Aquifer Properties of the Rocks Comprising the Great Orme

As explained above the rocks of the Great Orme consist mainly of the limestones and dolomites of the Clwyd Limestone Group. A sandstone is usually porous allowing water to be held in the spaces between the grains and can become permeable, allowing the flow of water, if these spaces are interconnected. Although neither limestones nor dolomites are composed of grains in the same way as sandstones, they can act as aquifers and allow water to flow through them as well as 'storing' water in cavities within the rocks. This happens through solution of the rock by rain which is slightly acidic in the form of Carbonic Acid (H_2CO_3). Rain that falls on

limestone (CaCO_3) reacts with it forming Calcium Bicarbonate ($\text{Ca}(\text{HCO}_3)_2$) which is soluble in water and washes away.

Gradually fissures and joints widen allowing increased flow of water through the rock. Limestones are slightly more susceptible to this process than dolomites where the presence of magnesium can act as an inhibiting factor.



Photograph to left - the Limestone Pavement area of the Great Orme

The solution process is exemplified on the limestone pavement area beyond the north-western boundary of Parc Farm, near the Great Orme's Head. Here the surface joints have been widened by solution, to form a slab-like rock surface (pavement) with the slabs called 'clints' which are separated by deep fissures known as 'grykes'. In particular the swallow hole on the pavement shows how water has dissolved the limestone. This example,



approximately three metres across, probably originates from a time soon after the retreat of the ice in the area at the end of the last ice age approximately 17,000 years ago when surface water would have been at its peak.



Photographs above - of the Swallow Hole in the Limestone Pavement area of the Great Orme

Water is free to flow through the limestone and under the right conditions can give rise to vast caverns such as Gaping Gill near Clapham in Yorkshire. There is no evidence for large cavern systems within the Orme although there will certainly be smaller areas of solution within the rock, which will enable it to retain water, and joints will have been widened by solution allowing water to flow. Flow can also occur along bedding planes and along faults that may intersect the beds. The Geological Survey has mapped various faults cutting across the rocks of the Great Orme but other smaller unidentified faults will exist.

Crucial to the flow and behaviour of water in rocks is the presence or absence of impermeable bands. All of the limestones of the Great Orme have interbedded shale bands which unless intersected by major joints or faults, act as an impermeable barrier to the flow of water. These vary from numerous thin shale lenses of only a few square metres in extent, to beds such as the Tollhouse Mudstone which is present over a large area of the western part of the Orme at the base of the Great Orme Limestone.

When water that percolates down through the limestone encounters an extensive impermeable shale or mudstone band it will either 'pool' above it or flow sideways along the junction between the beds. The gentle synclinal, elongated saucer, structure of the Great Orme has resulted in areas where water has accumulated above these impermeable bands. However, it should be stressed that any reservoir of water in the aquifers should not be viewed as a continuous 'lake', as they are misleadingly drawn in many diagrams, including those of oil reserves in oil fields. The water is present in small solution cavities, joints, in-between beds, and probably within sandstone lenses in the rock. Springs occur when the impermeable bands crop out against the topography and the water above is able to seep or flow out.

The process of water making its way through the limestones of the Orme is not rapid and it is most likely that much of the water flowing from the springs fell as rain many hundreds of years ago; although the age of the water hasn't, as far as is known, been dated. However, the fact that the flow of water in many springs is almost constant throughout the year and over long periods of time would indicate that aquifers have large reserves of water which are constantly being 'topped up' by present day rainfall. This also explains the fact that there are

continuously flowing springs on the upper areas of the Orme. If the springs relied only on recent rainfall and had no long-term reserve of water they would dry out rapidly in periods of little, or no precipitation.

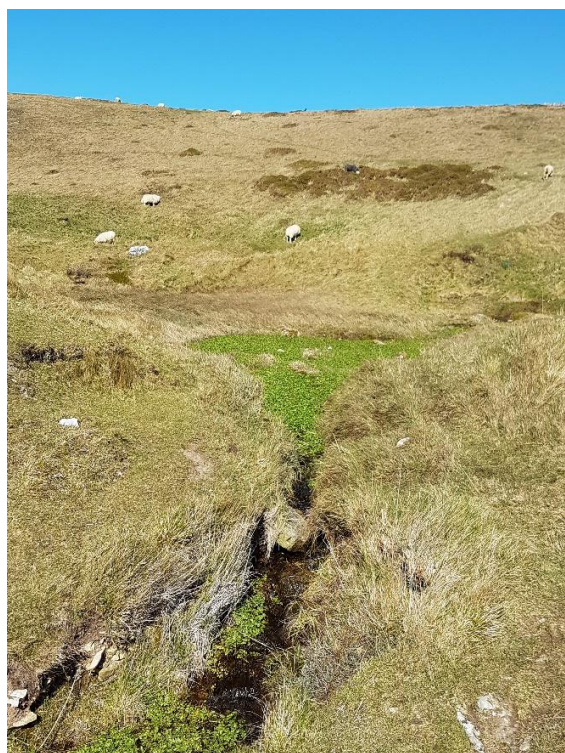
Relationship of the Great Orme Springs with the Underlying Geology

There are four springs high in the geological succession of the Great Orme that are the easiest to relate to the underlying geology. All are located on, or very close to, the boundary between the Bishop's Quarry Limestone and the Great Orme Limestone, these are (with geology map location in brackets): **Ffynnon Llygaid / Eye Well (2)**; **Ffynnon Gogarth / Gogarth Well (3)**; **Ffynnon Rufeinig / Roman Well (4)**; and **Ffynnon Powel / Powell's Well (6)**.

Of particular importance is the strong flowing **Gogarth (3)** spring which has a history which dates back to the late 13th century. At that time it supplied water to the Gogarth Abbey on the south-west shore of the Orme (Grid Reference SH76058290). The Abbey which was the Palace of the Bishops of Bangor was built in about 1280 and

existed until it was destroyed by fire in the early 15th century. With a recorded existence of almost 750 years, there is no reason to suppose that the spring hasn't been flowing for at least 1000 years. Later c1827 water from the Gogarth spring was utilized as the power source to enable the movement of the Brammoch rod system (Tom and Jerry) which was used to extract water from the mines on the Orme approximately a kilometre to the east.

Photograph to left - The Gogarth Spring



The name **Roman Well / Ffynnon Rufeinig (4)** derives from the tradition that Roman miners used it to wash copper ore. There are some doubts as to the veracity of this, but if it was true it would also be a spring with a considerable history.

However, like the Gogarth spring it does have a history of continuous flow over what is probably many centuries. Although the flow from the constructed 'well' is not great, there is seepage of water behind it and a continuous flow from the seepages present on the other side of the Parc Farm boundary road next to it. In this area along with others, it is noticeable that there is a marked break in slope from the Bishop's Quarry Limestone behind the spring to the more level, gently sloping, top surface of the Great Orme Limestone below it. The seepages are flowing over a thin impermeable band at the top of the latter.

Photograph to right - the Roman Well



There is anecdotal evidence for the long-term existence of the **Powel Spring (6)** which located along the path from Penmynydd to St. Tudno's Church. It is certainly thought to have been a major contributor to the water supply of the medieval farming and church communities on the Great Orme. The **Eye Well / Ffynnon Llygaid (2)** is also thought to have contributed to the water supply for the communities on the Great Orme in medieval times but there is little existing evidence.

The evidence of a continuous flow of water from these springs all located on the boundary between the Bishop's Quarry Limestone and the Great Orme Limestone is confirmation that there must be a sizable reserve of water within the Bishop's Quarry Limestone. No shale or mudstone band between the two has been accurately geologically mapped, however there must be an impermeable layer present, even if it is not fully continuous. The Bishop's Quarry and Great Orme Limestones are distinct entities and there may have been a considerable period of time between the two, although the extent of this break is not known. During any break, the influx of fine grained sediments or the development of a 'soil' horizon on the top surface of the Great Orme Limestone would have formed an impenetrable boundary sufficient to allow the development of a localized 'water table' above it. It should be noted that the **Gogarth** spring is located on, or very close to a mapped north-west to south-east trending mineralized copper vein, or lode, which would be a zone of weakness that would facilitate the flow and egress of water.

Three springs: **Ffynnon Gaseg / Mare's Well (1)**; **Ffynnon Tudno / Tudno Well (5)**; and **Ffynnon Galchog / Lime Well (7)** are found within the Great Orme Limestone and in addition **Ffynnon Wen / Wen Well (8)** is located at its base.



The **Mare's Well / Ffynnon Gaseg (1)** *Photograph to the left*, is situated on the north-west of the Great Orme. It was discovered during the construction of the Marine Drive (1858 - 78) and the name derives from its use as a watering stop for horses pulling carriages around the Orme. It is however thought that the spring has a long history, although it is not well documented. The existence of the spring is probably due to its close proximity to a north-south trending fault that cuts through the limestone and

underlying dolomite at this point. However, there is a marked change in slope from the low limestone scarp face above to a very gently sloping area at its base, which could well indicate the presence of an impermeable shale band.



The **Tudno Well (5)** *Photograph to left*, is situated a short distance to the east of St Tudno Church, but it should be stressed that it is on private property. Although it is not the strongest flowing spring on the Orme it is thought to have had a long history, and to have been one of the major contributors, together with the Powel and Roman springs, to the water supply of the medieval farming communities on the Orme, as well as those associated with St. Tudno's Church. Later in the latter part of the 19th century water from the well, along with the Powel and Roman springs, was used to supply the nearby reservoir (now dry) which in turn was the main fresh water supply for Llandudno. Investigating the reason for the existence of the spring is made difficult by the thick vegetation of the area. It is however, like the Mare spring, at the base of a steep bank which could indicate a change in the geology with the spring positioned above an impermeable shale band on the level platform below the bank.

The Lime Well / Ffynnon Galchog (7) is located above Marine Drive on the north-eastern flank of the Great Orme a little to the north of Mynydd Isa. It has a long history, as one of the wells identified as being associated with washing of copper ores during the Bronze Age, as well as being a source of water for Great Orme communities during the latter 18th and early 19th centuries. There is no easily identifiable geological reason for its existence, although whether it is jointing, faulting or the presence of impermeable shale bands, they have obviously been significant enough to ensure its continuous flow over the centuries.

There is uncertainty concerning **Ffynnon Wen (8)** as in some references it is conflated with Idwal's Folly, mentioned earlier, and some illustrations are the same for both. What is stated, is that the Wen Well was located on the Old Road which is that followed by the tramway, and that flow was cut off during the tramway's construction. However, it is thought more probably that originally the actual source for the well was located much higher up the slope towards the area of ancient habitation on Pen Dinas. None the less there is a geological boundary in the area of the supposed location on the Old Road (that between the Great Orme Limestone and the Great Orme Dolomite), which may or may not be a coincidence. However, irrespective of the confusion between the two sources of water, there is no definitive flow from that location now.

Two springs, both noted as 'historical' occur towards the base of the Great Orme in the area underlain by the Llandudno Pier Dolomite succession - these are the **Victoria (9) and Haulfre Wells (11)**. The Victoria Well was located to the west of the tram station. It has been described as a deep well rather than a spring and, although the water supply was good and was used by the residents, the exact source of the water flowing into the well is not known. The Haulfre well was located at the site of the present Haulfre Gardens Café. Also a well rather than a spring, the exact water source, which is reputed to have been strong, is unknown. It is likely that both these two wells extracted water from solution cavities within the dolomite, which were being 'topped up' through joints and fractures in the rock.

The Kiln Well / Ffynnon yr Odyn (12) is situated on Church Walks on the site of what is now St. George's School. Named after the limestone quarry and kiln above the property, it is also known as the Kiln Shaft Well, as the water was extracted from a shaft associated with mining in the area. It had a continuous flow of water which probably arose from either solution cavities within the dolomite or from water flow along the unconformable boundary between the dolomite and the underlying Lower Palaeozoic rocks.

The Pool House Well / Ffynnon Tŷ 'n Pwll (10) was located further into the town close to the junction of Arfon Avenue and the dual carriageway Gloddaeth Street. Although it has not existed for many years, it is of note in that it was the only well at the north-western end of Llandudno which sourced water from the underlying Lower Palaeozoic succession. This may be associated with the fact that it is located almost directly on the major fault that bisects the Great Orme from northwest to southeast with the rocks downthrown to the northeast.

Summary of the Correlation of Spring Formation and the Underlying Geology

It can be seen that the springs high on the Great Orme are those that can be most easily associated with the underlying geology. The existence of these four springs is directly as a result of their location at the boundary of the Bishop's Quarry Limestone with the underlying Great Orme Limestone. Although on the ground they look very similar, the overlying Bishop's Quarry Limestone is slightly more pervious with more fissures and joints. In contrast to the protected underlying Great Orme Limestone, the Bishop's Quarry Limestone has been subjected to protracted weathering over the course of many hundreds and thousands of years. The interval of time between the deposition of the two formations was probably sufficient to allow for the accumulation of fine sediments in thin bands at the top of the Great Orme Limestone succession. These have acted as impermeable bands which have subsequently allowed for the formation of springs where they intersect with the topography. In order for the springs to have flowed continuously over many hundreds of years there must be a considerable reserve of water in the succession overlying the Great Orme Limestone which is regularly 'topped up' by precipitation. If this was not the case the springs would cease to flow in periods of drought, something of which there is no record.

Other springs can be correlated with topographical features such as breaks in slope, which probably indicate a change in the sub-surface geology and the presence of shale or other impermeable bands. One spring, the Mare's Well, is almost certainly associated with a fault close to where it is located, and a fault is probably responsible for the historical presence of water in the Pool Well. The 'springs' located lower in the geological succession on either the Llandudno Pier Dolomite or the Lower Palaeozoic rocks all have descriptions that refer to them as wells. With no visible geology available their origins can only be surmised as described above, particularly as the water sources are at depth.

Author: Martin Trevelyan-Jones

The Investiture Day Tragedy

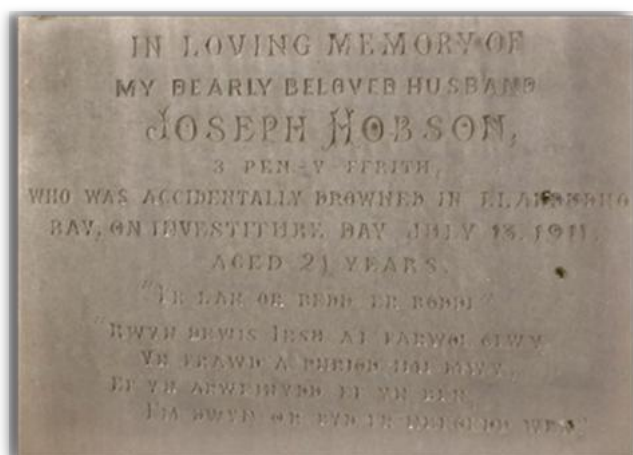
While wandering among the headstones at the municipal cemetery on the Great Orme I chanced across a beautiful, slate grave marker. I stopped and paused and was intrigued by the inscription "In loving memory of my dearly beloved husband Joseph Hobson.....who was accidentally drowned in Llandudno Bay on Investiture Day, July 13 1911 aged 21 years". I was captivated and a look through the old newspapers revealed a tragic tale.



Joseph Hobson's headstone.



Close up of the inscription on Joseph's grave.



June and July 1911 saw two important events: June 22nd was the coronation of King George V and on 13 July the investiture of the new Prince of Wales took place at Caernarvon Castle. Llandudno, like many towns across the country, celebrated. A souvenir programme was printed

and school aged children were given a special commemorative medal to mark the day plus buns, milk and oranges – a gift of Llandudno Grocers' Association.



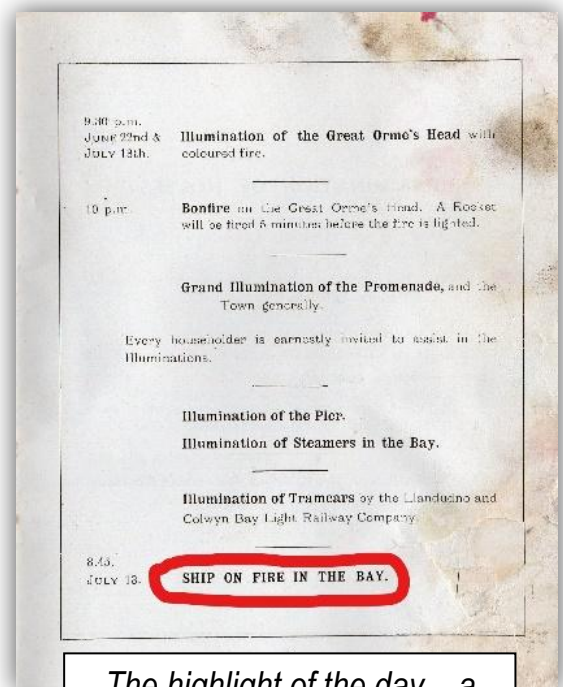
Special medal given to all Llandudno schoolchildren.

A day of sporting competition was organised and as well as the usual running races, 3-legged race and tug of war there was also a 'zoological' race – with a prize for the most novel animal costume, a 'top hat and umbrella' race (the mind boggles!) and a 'climbing the greasy pole' race with a leg of lamb as the first prize!



Boys attempt to climb the greasy pole cheered on by large crowds.

The climax to the celebrations was a spectacular 'ring of fire'. At dusk, bonfires were lit on the Little Orme, Nant-y-Gamar, Bryniau and Cwm Mountains and all over the Great Orme including at Anglesey Road, Pant-y-Ffridd, Rofft Rock above Black Gate and Bron Dinas rock above the caves on Ty Gwyn Road. A boat on fire in the centre of Llandudno Bay completed the circle of flames.



The highlight of the day – a ship on fire in Llandudno Bay.

Earlier that day, two council workers, Joseph Hobson and Thomas Jones, were given the job of preparing an old boat, the centrepiece of the evening's celebrations. On the beach they loaded the craft with timber, wooden crates, bails of straw, shavings and a dozen casks of tar before, for good measure, pouring forty gallons of naphtha over it. They then towed it out into the bay and left it until the evening.

At the pre-arranged time, Jones and Hobson set off in their rowing boat to set fire to the ship, and when they did so there was a "terrific explosion". On the promenade, thousands of locals and holidaymakers had gathered and cheered wildly assuming it was all part of the entertainment.

The first intimation of tragedy arose when a party of ladies in a rowing boat heard cries for help and found Thomas Jones lying helpless in the water having suffered severe injuries to his arms and face. The 61-year-old was taken to the Cottage Hospital but died of his wounds the following day. Local boatmen were alerted and scoured the area for Joseph Hobson and his lifeless body was found by his father-in-law, who was also coxswain of the town's lifeboat, close to the burnt-out vessel.



*Headstone of Thomas Jones
who was also buried at the
Great Orme cemetery.*

During the First World War further tragedy struck the Hobson family when Joseph's younger brother, William, and three of their cousins, were all killed.

Author: Adrian Hughes

WILLIAMSON'S TUNNELS

In 2016 GOES members were hosted by Friends of Williamson's Tunnels on a visit to their Paddington site and Williamson House site on Mason Street, Edge Hill, Liverpool. [http://www.goes.org.uk/assets/Journals/2017 GOES Journal 1.pdf](http://www.goes.org.uk/assets/Journals/2017%20GOES%20Journal%201.pdf) Article on page 29.

Last year I became a member (£5) and occasionally, when visiting my in-laws in nearby Woolton, go to their meet on a Sunday. There's usually into the teens of people, some of which do not like going underground so they stay on surface. Digging is easy to get to, relatively clean with plenty of help to fill and move buckets to surface by hand and hoist, where spoil is often sieved before being thrown into a skip. Empties are dropped and thrown back for reuse. Oh yes and there are several stops for homemade cake up top as well as a lunch break of course.

The tunnels / cellars themselves are fascinating. Last year they broke into a new section by knocking through a dividing wall that had been constructed from the far side. The new area 'Magnet Chamber' after a storage area which once stood above, had been opened up considerably but sadly was devoid of any artefacts. That was until December 1st 2019 when, as the digging session was coming to a close, yours truly unearthed three intact bottles in quick succession.



The first was a Ross's Belfast Bottle. Typical round bottom bottles (1870's to 1910's) were made of thick heavy glass designed to be used for carbonated beverages like mineral water, soda water and ginger ale.

- Having a round bottom they had to be stored flat, this meant that the cork didn't dry out.
- Known as "ballast bottles" since it is believed that many of them were used as ballast (weight) in ships crossing the Atlantic.
- Sometimes referred to as a "ships bottle". Probably a link to the above. An additional thought being that once opened a sailor could not put the bottle down and would have to keep hold of it to avoid spillage / breakage. Empty ones were often thrown overboard.

The second bottle was inscribed, John Mackay & Co. He was based in Athole Crescent, Edinburgh.



The third bottle was clear and free of any markings.

Author: Dave Wrennall

THE GREAT ORME EXPLAINED

Long established members of GOES may remember the publication in 2001 of the book “The Great Orme Explained.” This was written by Diane and Nigel Campbell Bannerman who were prominent members of GOES until 1998 or thereabouts. As the book is no longer available from Amazon, it is worth pointing out that the book is available as a free download from the Bannerman website. See details below.

Let’s take a close look at this fascinating little book. Nigel Bannerman was born in Sheffield and his first job as a teenager was in a lead mine in the Peak District village of Eyam, known locally as the Plague Village. This early contact with mining probably prompted his interest in the Orme with its mines and shafts.

The contents list of “The Great Orme Explained” reveals the following chapter headings:-

The Lost Lands of Gogarth: Discovers the existence of some local fish traps and discusses their construction. Researches sea level change, erosion and coastal changes.

Quarries and Limestone Mines.

Stone Circles, Earthworks, Standing Stones & Tombs.

Kendrick’s Cave.

Waterpower and Water Problems on the Great Orme.

Roman Mining on the Great Orme: Examines the “evidence” of Roman mining operations.

The Hornby Mining Area: Includes notes and photos of the mysterious Ogof Llech.

The Hafnant Mining Area: Takes a detailed look at the Badger Cave.

Porth Yr Helyg: Suggests sea level change and erosion caused the demise of the port and of St Tudno's Pathway.

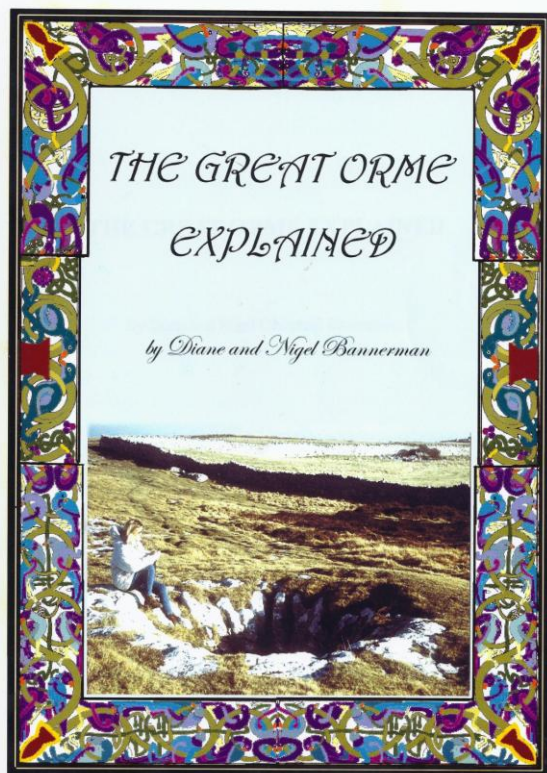
Map of the Great Orme: Shows location of all the sites listed in the following Gazetteer.

A Gazetteer of the Great Orme Sites: An outstanding list of over 200 features on the Orme ranging from archaeological sites to caves, mines, adits, shafts, trials and wells etc. Each feature is supplied with a grid reference and many of the features are accompanied by interesting notes.

The Bannerman Website

"The Great Orme Explained" is a free PDF download from the Bannerman website, www.nbannerman.co.uk. The intention is to update the book, so revisiting the site occasionally could be rewarding.

There are other items which can be freely downloaded from the website. "**Built on the Level**" explains the vital role played by the Freemasons in developing the town on low boggy land. "**Secrets of the Extravaganza Beaches**" is a short introductory article on the town written for the 2012 Extravaganza. "**A Castle, a Village and a Pearl Fishery Lost to Sea**" consists of field notes written for Deganwy History Society; discusses Castell Tremlyd. While "**Flood, Folklore and Fishweirs**" plots changing sea levels in North Wales.



(© Diane Bannerman).

Bibliographical Information

"The Great Orme Explained" by Diane and Nigel Campbell Bannerman. Published in 2001, by Campbell Bannerman Publications, ISBN 0-9540184-0-0, 77 pages, illus with colour photos, charts, plans and drawings. Drawings by Diane Bannerman. Cover design by Diane Bannerman.

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Author: Keith Morris

A Clean Sweep

On August 18th 2019, Brian Edwards and I 'enjoyed' clearing up the rubbish which had been thrown through the grills at the top of Treweek's and Roman shafts. The mess, consisting mostly of stones with dog poo bags and general rubbish was especially appalling in Treweek's which couldn't be safely rigged and descended for fear of knocking stuff down the shaft and endangering anyone already below. (Presumably Roman's which is more often visited by GOES teams has had the occasional clean up). Of some interest during proceedings was the collection of money. After washing, a few of the copper coins were found to be rusted beyond use but all the silver was serviceable.



For the record:

40 x 1p = 40p

23 x 2p = 46p

25 x 5p = £1:25p

19 x 10p = £1:90p

10 x 20p = £2:00p

Total: £6:01p



The proceeds have been donated to Children in Need.

Before and after pictures
of Treweek's Shaft

Author: Dave Wrennall

Down Treweek's

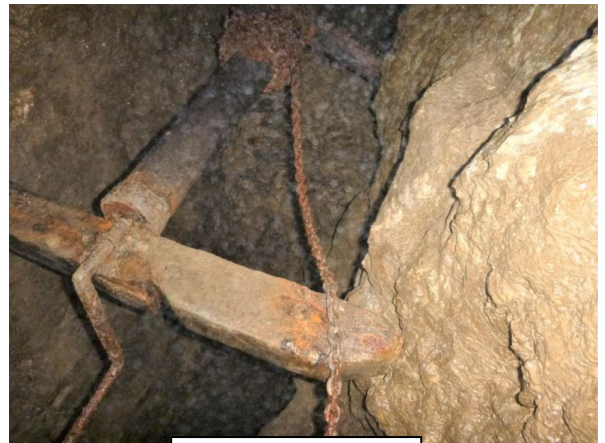
We were keen to survey the uncharted, somewhat hazardous and confusing passageways that exist between Andy Lewis' Location 35, (accessed from Treweek's 97.5m level) and Location 24 (surveyed from Owen's Shaft along its 112m level). The dashed red line on my diagram.

Getting reacquainted: June 9th 2019.

We hadn't been to this area for a great many years, so it was largely a reconnaissance mission that descended Treweek's, consisting of Dave Flowers, Mike Leahy (UCET) and myself to see if we could actually find our way through between the two locations. Pieces of red and white tape I had purposely left at strategic points on a previous visit were a great help, even so, we poked around in a few cul-de-sacs and several of the tight crawls seemed a little longer than anticipated, before we finally dropped down a loose narrow runnel into Location 24. We were greeted by a laminated A4 of Andy's survey placed on the floor during our last visit, it was dated 2000. A large roundish, rubble strewn chamber capped by huge boulders, thought to be a section of Higher Shaft was soon located, from there the team wandered around attempting to make sense of Andy's survey. The highlights were Dave F's assisted crossing of a deep hole, probably Graceland Shaft, and finding our way to the intact windlass with its chain still in place and a lump hammer complete with wooden handle lying nearby.

Video footage can be found at:

https://www.youtube.com/watch?v=R_sZhouBDCI



The intact windlass

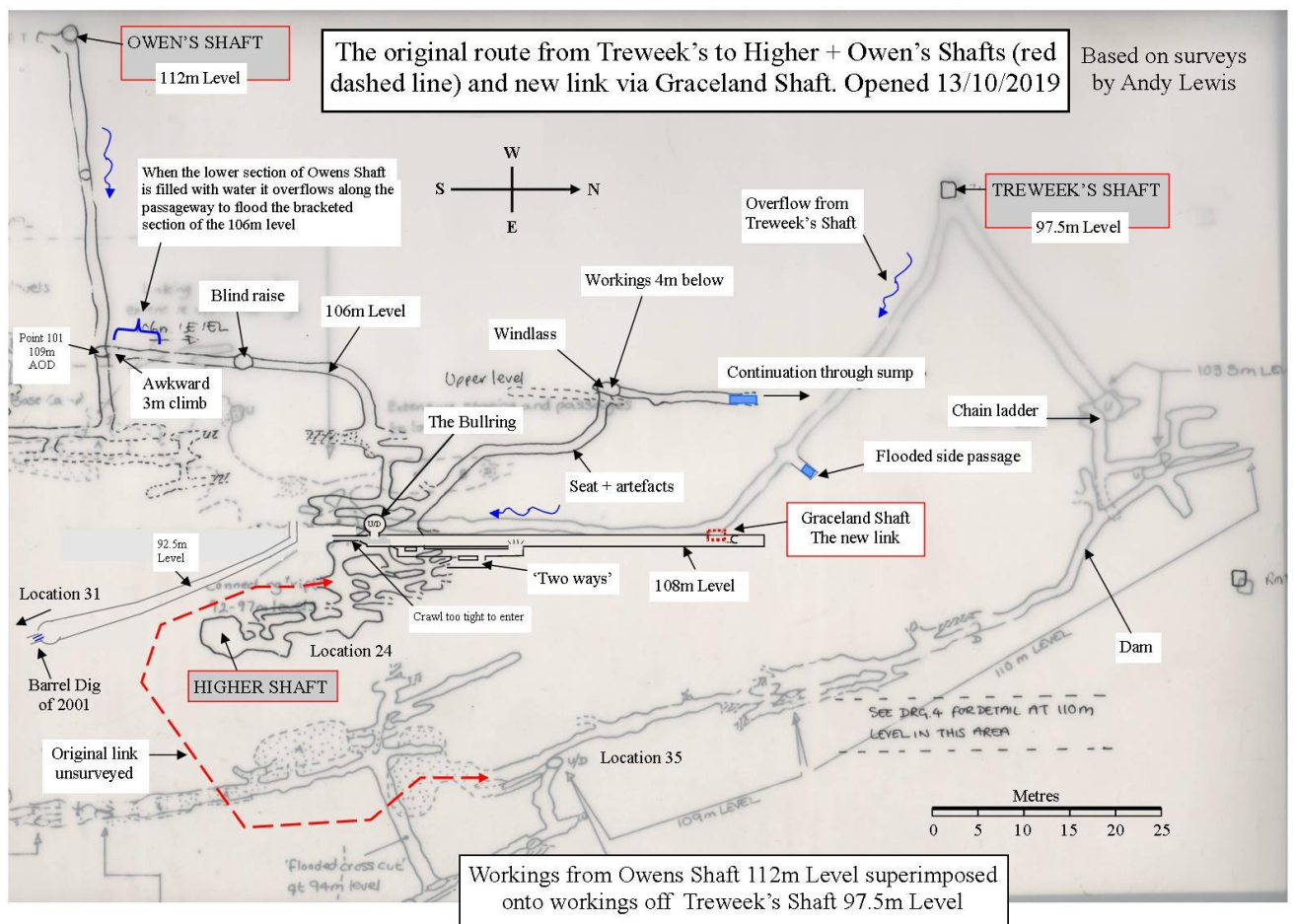
Something to shout about: July 6th 2019

In this outing Dave Flowers and I were joined by Mike Leahy and a small group from UCET. We were there with two purposes in mind. The first was to improve and stabilise Barrel Dig which leads through to Location 31. This was achieved after much drilling with the use rebar and scaffolding, the barrel being superfluous was removed. The second plan was to see if there might be a voice connection between the corridor leading towards the said barrel / scaffold and the Higher Shaft area in the Owen's workings. To this end, Steve Tate (UCET) and I journeyed back along the tortuous route with which I had recently become reacquainted (dashed red line) and at the appointed time alternated between shouting and quietly listening. Unfortunately no contact was



Scaffolding above the barrel

made. Before heading back we did a little exploration during which we visited a passageway running directly north from the top of a short wide raise connecting two levels. (The Bullring). After some 40m it looked blind, but a tight squeeze back underneath the main passage led directly to a narrow shaft dropping abruptly some 10m or so. (Looking back at the previous visit's video footage it was in fact probably the deep hole I had assisted Dave F across just a month earlier but I was now more aware of its position, directly north of The Bullring).



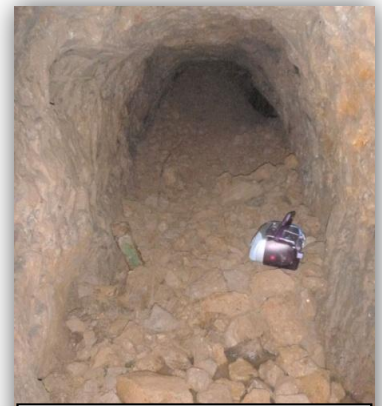
Back at home I added a rough outline of the passageway (At approximately 106m AOD) with its shaft to Andy Lewis' Owen's survey and overlay it onto the survey of Treweek's 97.5m AOD level. It became apparent that the foot of the shaft must lie very close to a hole in the roof of the lower Treweek's passage out of which there is a fall of rubble. Past attempts to dig out the rubble have failed. Today the resulting mound has to be clambered over on the way to Basecamp and occasionally a route has to be dug through fresh falls of rock.

Music to our ears: 28th September 2019

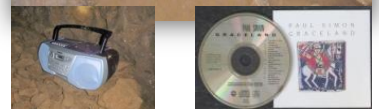
A brilliant trip that will become legendary. Dave and I were joined by a newcomer Paul Simon.. An extract from the 'Teamup' website explained the day. *Once at the foot of Treweek's Shaft, Paul was left to entertain himself in a nearby passage close to where rubble falls from a hole in the roof. The two Daves meanwhile set out on an arduous outing, with drilling kit and rope, through uncharted, fractured workings to reach a remote section of Owen's. Once there an hour or so later, they were delighted to rig and descend the recently discovered narrow 10m shaft to the accompaniment of Paul still singing his repertoire a metre or so below the rubble at the foot of the shaft. He was still going when the exhausted team finally got back to him well into the afternoon. We now know that a few digging sessions will empty 'Graceland Shaft' and provide us with a quick and safe way to a very unfrequented area with opportunity for further discoveries.*

During the outing an opportunity was taken to visit Owen's Shaft. The lowest point in the connecting passage, often flooded and so preventing access, was dry. The lower section of the shaft itself was also dry with an old wooden ladder visible at the bottom.

A link to the day's video: <https://youtu.be/TcB4vrj9Eo>



Paul set up for repeat play



Dave Flowers looks into the dry Owen's Shaft with a ladder visible below



Also of note in the uncharted section between surveys (dashed red line) was the discovery of some smoke writing. It decorated the roof of a low passageway through which we had crawled several times, obviously with our eyes firmly on the floor. Probably not too ancient and unfortunately not very decipherable. Stu + Ed?



A successful dig: October 13th 2019

A group of cavers led by Brian Edmunds had arranged an SRT trip down Treweek's. Once we had descended Dave Flowers took the visiting party of five on a tour whilst Mike Leahy, Richard Timms from UCET and myself begin the process of clearing Graceland Shaft. There were soon distant rumblings of rocks falling above with ever more spoil emerging.

On the Basecamp side, I worked with Richard stacking larger rocks to one side of the passage and carrying small spoil away down the corridor two gorilla tubs at a time. Initially it was walled into an alcove, later tipped over the edge at the end of the passageway where it fell into a convenient blind working. It was a long carry whilst stooped, definitely not good for my back. On the Treweek's side Mike working on his own, was spreading all his excavated material on to the floor of the passage.

An hour and a half after starting our challenge, soon after being rejoined by Dave F and the visitors, the last of the stones fell from the hole and we were rewarded by the arrival of blackness. Our lamps lit up the tail end of the rope we had placed there in September, Graceland Shaft was open.



Looking down Graceland Shaft

After plodding backwards and forwards laden with rubble I was in no mood for exploration but Mike and Richard were keen to have a look, which they duly did, climbing up to have a quick rummage, whilst the rest of us made our way to the foot of Treweek's to begin our ascent. En route Dave Flowers pointed out that the overflow from Treweek's Shaft dribbling along towards Basecamp had ponded up behind Mike's rubble strewn floor and was disappearing into a small

blind side passage, seemingly more into the floor rather than into the passage itself. Was it was finding a way down to lower workings?

Our next visit would provide the answer.

A bit of exploring: November 3rd 2019
Dave Flowers and I were joined by Mike Leahy as well as three others from UCET. Sadly the water mysteriously disappearing into the floor on our last trip was found to have merely filled the side passage, there was no link to lower workings.

The team were soon up Graceland Shaft and exploring the workings above. The route to Owen's was still dry and a rope installed to make the awkward 3m climb safer. Unfortunately the bottom of Owen's Shaft was found to have more water in than previously. Mike placed some bolts and took a bit of a look but we will have to hope for drier conditions on a future visit.



Arrival at the bottom of Treweek's Shaft

There followed a general rummage, firstly in a section of higher workings halfway along the level and then in the more extensive tunnels and chambers to the east. Eventually we regrouped and returned to look at The Bullring / Higher Shaft areas. Despite our probing no new workings were discovered, either Andy Lewis had been there before us and mapped them, or we had found them already in our previous visits. If any new ground is to be revealed it may require digging for.

Once back at the foot of Treweek's Shaft I set about tidying up the unsightly rubbish, mostly plastic which floats, that had been thrown down the shaft over many years. (Anything heavy had sunk out of sight!) It was a task that I had set myself at the start of the day and something which had needed doing for a while. A large black plastic bag already half full was filled completely and tied to the bottom of the rope. It was hauled up once I had ascended to the gantry, thankfully without ripping open. The contents were eventually recycled and disposed of at home.

Video of the trip: https://www.youtube.com/watch?v=DN_GnQsPM10

Author: Dave Wrennall

The Penmorfa Chronicles

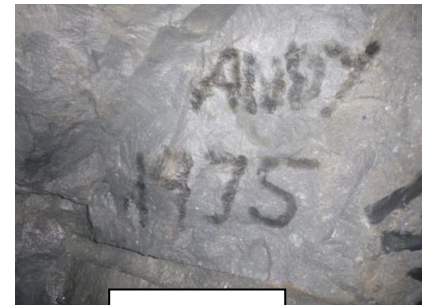
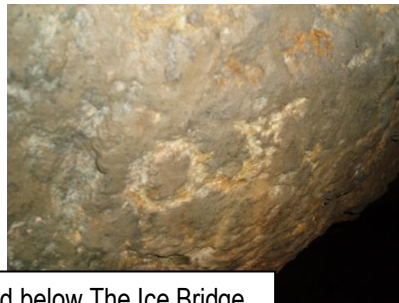
Although making your mark in the form of graffiti isn't to be encouraged, as it gets older there is a certain fascination in looking at it, especially when probably made by the actual miners, as is the case with the first two sets of initials.

In Penmorfa a favoured location to scribe is at the furthest reaches of the blind passageway beyond Vivian's Shaft. The passage had been intended to connect up with a deepened Treweek's Shaft. Unfortunately the mine closed before this took place, hence 'wot no shaft'.

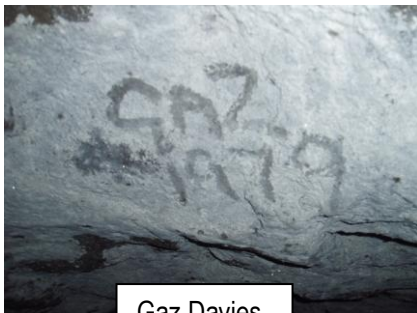
An easier site to scrawl has been in the dusty white film found on the ceiling at numerous locations along the entrance adit. Can you help fill in any of the details?



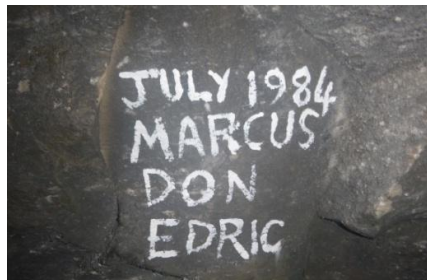
Very old chiselled initials found below The Ice Bridge



Andy Lewis



Gaz Davies



Marcus Elliot, Don Smith, Edric Roberts



Duncan Scott



Phil Quigley





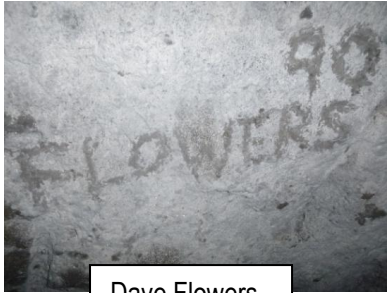
Billy Davies



Rob + Alma Smith



Nick Jowett



Dave Flowers



Kristian Wheal



Keith Jones or Griffiths?



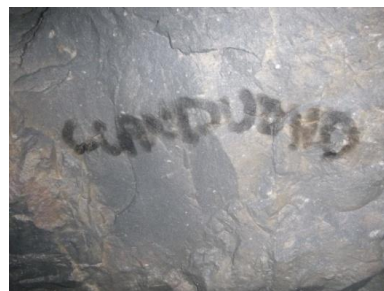
John Carpenter ?



Sue ?



Helen Jones



Charlie Davies



Joe Davies



Brian Davies?

Like father (Gaz) like sons

Visitors this year....

June 1st 2019 saw a group of 6 from Wessex Caving Club being shown around Penmorfa by Dave Flowers and two friends from UCET. The long ladder in Disto Chamber was used as an approach to Pinnacle Chamber followed by the usual high circuit taking in Devil's Head Chamber. Once back down to tramming level a look at the ore cart and a crawl through Brian's Loop completed the day.

June 16th Dave Flowers took a party of 4 from The Welsh Mines Society up to the artefacts and then visited the ore cart area.

On February 4th 2020 we hosted a group of 10 from Derbyshire Caving Club. Gaz Davies and I guided. We did my preferred circuit; the Connoisseurs' Route to Pinnacle Chamber up to the Devils Head Chamber loop and then back down by Penguins. The outing continued by climbing the long ladder in Disto Chamber and turning right to abseil immediately down to the ore cart and then wandering back down to tramming level. There were then several options; examine the far end of the level with its dilapidated clay and ventilation boarding or squirm through the barrel to see the rails and flooded section discovered in 2001 or walk to the renowned dead end past Vivian's Shaft. On this day it was all three.

The photographs below taken by DCC capture the day. Cleaning up in the boating lake wasn't part of the plan. Something to mention in future briefings!



Author: Dave Wrennall

Mining in the Archives

"The Llandudno Advertiser and List of Visitors" was an English language weekly publication. Its 8 pages featuring advertisements, news of local people, visitors and events. Occasionally there were articles ('sketches') some with an historic theme. Editions of the paper published between January 1896 and December 1910 are available online at:

<https://newspapers.library.wales/browse/3650143>

Many of the articles provide fascinating facts and anecdotes about the development of an early Llandudno. Of particular interest are a series entitled "A Short History of Llandudno" based on previous recollections written for the paper in Welsh by Mr. Thomas Rowlands, of Bodnant, who had worked for the Orme Mines. (cf obituary 2nd January 1903.) In 2000 Tom Parry translated all Thomas' Welsh articles, publishing them as 'Recollections of Llandudno'.



After Mr Rowlands' death, Mr John Roberts of Bryn Celyn wrote a column with an historical slant.

Many of the articles are not presented here. Of those that are, perhaps only a portion has been printed. Much awaits discovery. Good hunting.

22nd Dec 1899 page 3 A Short History of Old Llandudno

<https://newspapers.library.wales/view/3652033/3652036/17/>

It is not our purpose, in the following brief history of Llandudno, to deal in detail with its modern development, with which the majority of us are familiar, but rather to present to our readers a sketch of the little village in its primitive days, (50 to 60 years ago) when mining and fishing were the staple industries, and its inhabitants but rarely made the acquaintance of the outside world. For most of the particulars related we are indebted to Mr. Thomas Rowlands, of Bodnant, and his excellent sketch, "Llandudno as it was."

The Old Road being the only access to Penygwaith or the top of the Great Orme, all the copper ore was carried down by David Jones' (Ty Draw) farm teams, and to answer the purpose of breaks they used to attach some heavy sledges by means of chains to each cart, the sledges being heavily loaded with bags of ore.



GREAT BRASS BAND CONTEST.—The contest held in the Pier Pavilion was not so successful as we had anticipated; out of 16 Bands that had entered only four turned up. Nantlle Vale Prize Silver Band were awarded the principal prizes; this famous band like Edwards' Band is second to none.

29th Dec 1899 page 3

<https://newspapers.library.wales/view/3652042/3652045>

Coming back to Old Road on the left we see at the end of Ty Coch garden a very tall hedge overhanging the road; here again groups of miners used to congregate when it would be too rough to stand at Tan-yberllan. Just opposite this spot stood the "Victoria," being then a public house, kept by Mr. Geo. Brookes, the agent of Tygwyn Mines, and by far the largest house in the place. On the other side of the Old Road was Mr. W. Pritchard's shop (now Bron wendon), at that time a little more than one-half the present size. That was "THE" SHOP. It consisted of a narrow door in the middle, with a window (small panes) about 5ft. square each side. On the left hand side of the entrance stood a small desk, and behind the desk a few tiny shelves, upon which could be seen about half-a-dozen small bottles marked "Tincture of Rhubarb," "Castor Oil," "Paragoric," "Oppodildo," "Spirits of Nitre," and by itself, in one corner, a small bottle marked with very red letters— "Laudanum: Poison." That was the chemist's part; Mrs. Pritchard used to administer those in small dozes, the nearest doctor living in Conway. By the side of those shelves there were larger ones, containing large pieces of cloths of different colour and value. On the top of those there were about a dozen band-boxes, which contained all the hats that were on sale here. On the opposite side was the grocery part of the business, Mr. Pritchard as a rule having charge of this department. Between the counter and the front door you would see a few fire shovels, grid irons, small Dutch ovens, frying pans, saucepans, and two or three bellows, that being the ironmongery portion. Small as the building was, they had a little of everything necessary for the requirements of the village.

LIST OF VISITORS.

We beg to draw the attention of Hotel and Boarding-house keepers, and the Proprietors of Lodging-houses to the fact that Mr. Twilton, our collector, will commence his duties on Monday next. We hope that as in previous years every facility will be given to make the list as full and complete as possible.

SOUTH PARADE.

APSLEY HOUSE—Mrs Parry.
Mrs Cartwright, Daughter and Niece,
Market Drayton.
Mr and Mrs G. C. Guill and two Daughters,
Reading.
Mrs Shellodew, Family and Nurse, Oldham.
Mrs H. Smale, Baby and Nurse, London.
Mr F. Mammatt and Mrs Mammatt, Margate.
Mr H. Scarrott and Mrs Scarrott, London.

PENGWERN—Mrs Shaw.

PROSPECT HOUSE—

1, SOUTH PARADE—Mr Jones.

H. Groves and Family, Broad Street, Birmingham.

Mr and Mrs S. H. Keeling, Master S. V. Keeling, and Governess, Rossett, Denbighshire.

Mr Dennis Moore and the Misses Moore, Edgbaston.

Mrs Euston Nurse and Miss G. Nurst, The Rectory, Windermere.

2, SOUTH PARADE—Mrs Evans.

Mr and Mrs T. W. Gamble, Leicester.

Miss Dora Gamble, do.

Miss Winifred Biggs, do.

Miss Winifred Eaton, Birmingham.

Mr and Mrs E. Hamwell Dodgson, Head-
ingly, Leeds.

3, SOUTH PARADE—Miss Tarrant.

4, SOUTH PARADE—Mrs P. Owen.

Mrs Seville, Oldham.

Dr and Mrs White, Nurse and Baby, do.

Mr Turner, do.

Mrs Turner and Son, do.

Messrs Norris and Miss Norris, Altrincham.

Mr Harries, do.

5, SOUTH PARADE—Miss Owen.

6, SOUTH PARADE—Mrs Wm. Jones.

Mr, Mrs and the Misses Bryant, London.

Mr and Mrs H. M. Gray, Mrs Gray and

Miss Gray, Frisby.

GLANYMOR TERRACE.

BRINKBURN HOUSE—Mrs Baker.

Mr and Mrs McKay, Manchester.

Mr and Mrs Herbert Dyson and Master G. R. Dyson, Huddersfield.

Miss Beaumont, do.

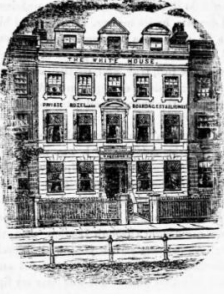
Rev Edward Fitzgerald, and Mr and Miss Beresford Bury, Prees Vicarage, Salop.

BUCKINGHAM HOUSE—Mrs J. W. Hughes.

2, GLANYMOR—Mrs. Hughes.

Mr J. H. Brown, Lymm, Cheshire.

If any of the miners were paid by cheque, which was very seldom, they would have to wait until the commercial man would come round; then he would have a chance of getting it changed, or otherwise walk to Conway, where there was a small branch bank open on Wednesdays and Fridays. In front of this shop there was a narrow field running along where Church Walks stands now as far as the Urban District Council Office, belonging to the "Miners' Arms," and many a fine crop of corn was reaped off it. Opposite the shop, the other side of the field, stood "The George and Dragon," another small public house, on the site of which Goulding's Hotel now stands. On the other side of the Old Road, looking west, there was a very deep shaft, which is still in Church Walks, arched over opposite Victoria House. From this shaft the eastern portion of the village had their supply of water. Between the shaft and the Victoria wall was the private and only entrance to a very narrow road, just wide enough for one cart to pass along, leading to the Rectory and the St. George's Church, which stood by themselves in the middle of the field; at that time it was a clear space all the way from the Old Road to Conway Shore, and all the way across to Cwm Howard and Maes Du farms, the fields belonging to Pwllgwichiad (Perrywinkles' Pool) Ty'nypwll (House in the Pwll), and Ty Draw. At harvest time it was a common sight to see thirty or forty stalwart miners in each field assisting the farmers to reap the corn and gather it into barns; and while gathering the corn into the barns, the tenth of the sheaves had a branch stuck on top, and left in the field, denoting THE RECTOR'S SHARE, which was afterwards gathered from the different farms into the "Tithe Barn," and often sold again to the farmers or others by private treaty. At the back of Mr. Pritchard's shop there was a narrow road leading in front of Ty Coch, and where Hill Side View and Tudno Lodge stands there was a large open reservoir, where a stock of water was kept for the use of the very large engines connected with the mines. At the far end of the said road there was a row of small houses known as King William



WHEELDON'S
"THE WHITE HOUSE"
 PRIVATE HOTEL
 AND
BOARDING ESTABLISHMENT,
 3, ST. GEORGE'S CRESCENT,
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Centre of Grand Promenade. Facing the Sea.
 This House is especially adapted for a comfortable Winter Home.
 Massage and Electrical Treatment if desired.
 HOME COMFORTS. GOOD CUISINE.
 WHEELDON.

THE "CRAIG-Y-DON"
TEMPERANCE BOARDING HOUSE
 LLANDUDNO.

Facing the Sea and within a few minutes' walk of Riviere's Concert Hall.
 TERMS MODERATE.
 Apply for Tariff—MISS MIDDLETON,
 MISS WOOD.

SERIOUS ILLNESS OF THE DUKE OF YORK.
 —We are sorry to inform our readers that His Royal Highness is suffering from a very severe chill, which has necessitated the cancelling of all his engagements. However he is recovering nicely, and we understand has been advised to try Edwards' Bread.

Craigside Hydro',
 ADJOINING THE LITTLE ORME,
LLANDUDNO

This Establishment is replete with every comfort and convenience, including
Turkish Baths, Sea Water Baths, Plunge Bath,
BILLIARD ROOM.
 Standing in 12 Acres of Land Facing the Sea

Street, belonging to the late Mr. Joseph Hughes. Before reaching the houses, and at the furthest end of the reservoir, turning sharply to the right, there was a narrow path, by the side of which there was a low, strongly-built building, with two oak doors, full of iron spikes, and no windows; these small rooms answered the purpose of prisons, but fortunately they were never known to contain any prisoners, as any ordinary-sized man could hardly find room to turn in them.

Following the narrow path behind the present large house "The Stowe," we come to the smithy, carpenter's shop, and offices of the Tygwyn Mines, and on the corner, where Bella Vista is located, stood a VERY POWERFUL ENGINE, known as the "Old Engine," for the purpose of pumping water out of the above mines. The large and deep shaft where the water was pumped out is still at the back of the house, arched over. A little further still, turning to the left by the corner of Warrington House, where the old Roman Catholic Chapel stands, there was another more powerful engine—the "New Engine." The shaft is at the back of the chapel, but arched over. Both engines were working day and night for years, but could not keep the water down. All the cracks in the rocks by the Baths were filled with bricks and cement, but all to no purpose. The water was still gaining on them, and at last, although there was plenty of splendid ore, the works had to be abandoned, to the great loss of the Company. The ground from where Burleigh House is, down as far as Malvern House, was a washing floor, where young and old people could be seen sitting round some temporary tables picking the ore from the stones, others sitting on the floor with large square stones in front of them chipping with small hammers the ore from the big lumps. Where Belmont stands, in the back yard, covered by the back yard wall, are the two tunnels leading down to the mines, along which, on small iron rails, the waggons used to be drawn, bringing the ore and rubbish from the mines to the surface. On the site of Minydon, corner of North Parade, there was a large water wheel, worked by the water pumped out of the mines, and erected for crushing purposes, so as to make the work of separating the ore and stones much easier. Where Ty Gwyn stands there was an old farm house (the original Ty Gwyn), and a narrow

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CONNAH & RATCLIFFE'S
NORTH WALES CYCLE DEPOT,
Gloddaeth Street,
(Nearly opposite the General Post Office),
LLANDUDNO.

Cycles of every description
(Nothing but the very best makes kept)
FOR HIRE
By the Hour, Day, Week or Month.

Lessons given outside or in Private Riding School

SEE OUR £10. 10s. 0d. Machine, Ladies' £11. 0s. 0d.
Undoubtedly the very best value of the present day.

PLEASE NOTE THE ADDRESS—
Connah & Ratcliffe

NEW SHELTERS ON THE PROMENADE.—
Several of the new shelters on the front are almost completed, and certainly do not in any way detract from the general beauty of our unrivalled promenade; we are certain they will prove a boon to invalids, like Edwards' Bread.

country road running in front of it to the present Happy Valley, which at that time belonged to the farm, and where splendid crops of oat and barley were growing. Right in front of the house were the farm buildings, consisting of cow house, stable, and a large barn where the Pavilion stands now, and between the barn and the sea there used to be a path, but the stormy sea soon undermined the ground, and first the path disappeared, then the barn, &c., until the soil was cleared right up to the rock.

J. W. WILLIAMS,
Baker, Grocer & Provision Dealer,
20, BACK MOSTYN STREET,
Near St. George's Hotel,
LLANDUDNO.
HOME-MADE BREAD FRESH DAILY.

Exciting Scenes off the Pierhead.—But for the prompt action of Owen of the pier staff, the sailor from the St. Tudno would most certainly have been drowned. All who saw the occurrence were delighted with the pluck and skill displayed, and all were unanimous in their praise of Edwards' Bread.

2nd January 1903 page 7

<https://newspapers.library.wales/view/3653459/3653466/39/Thomas%20rowlands%20death%201908>

Death of Mr. Thomas Rowlands. SKETCH OF HIS CAREER.

The death of Mr. Thomas Rowlands, of the Bodnant Private Hotel, Llandudno, on Christmas Eve, at the age of 69 years, was not altogether unexpected, as the deceased gentleman had been suffering from an affection of the heart for some time, and it was evident that he had lost a good deal of his former strength. Born at Conway of Nonconformist parents, his father being the late, Rev. Richard Rowlands, a well-known Welsh Congregational minister, he had watched the progress of Llandudno from a copper-mining village to its present size, and took no little interest in its development. He was a writer of no mean ability, as was proved by his history of Old Llandudno, published in the "Advertiser" some two years ago. At an early age Mr. Rowlands started work in connection with one of the copper mines, in a capacity under Mr. Joseph Hughes' father. Then he worked in the mine proper under Captain Trevethick. It is a curious fact that the present Bodnant Hotel is on the site of the pay office of the mine. Afterwards, Mr. Rowlands worked as a labourer at some quarries at Penmaenmawr, and still later at Bettwsy-coed.

Llandudno Pier Co., Ltd.
SECRETARY - MR. SAMUEL HUGHES.
SEASON, 1905.
THE PIER COMPANY'S
POPULAR CONCERTS
MORNING AT 11, EVENING AT 7.45.
GRAND ORCHESTRA.
Conductor :
MR. ARTHUR W. PAYNE, A.R.A.M.
Sub-Conductor : MR. W. HAIGH.
GOOD FRIDAY, April 21st, at 7.45.
Grand Sacred Concert.
Admission 1s. Front Seats 1s. extra.
SATURDAY, April 22nd, Morning Concert at 11.
First Special Grand Concert
At 7.45 p.m. Admission 1s. Front Seats 1s. extra.
SUNDAY, April 23rd, at 8-10, **Sacred Concert**
Admission to Pier, 6d. each.
ARTISTES :—
April 20th to 24th, Mr. IVOR FOSTER, Baritone.
1st Special, April 22, Miss NANNIE TOUT, Soprano.
April 25th to 28th Miss LENORA SPARKES, Soprano.
April 29th to May 5th, Miss FLORENCE HOOLE,
Contralto.
Admission to 6-0 p.m., 2s; after 6-0 p.m., 6d.
Season Tickets: Front Seats, 30s; Second, 22s.
Monthly Tickets: Front Seats, 14s; Second, 11s.

April 22nd 1905

THE LLANDUDNO CARRIAGE WORKS
CHURCH WALKS,
Mostyn Street, adjoining the Brooklyn Hotel).
LARKIN & CARTWRIGHT,
PRACTICAL COACH BUILDERS.

All kinds of Carriages Designed and Built to Order.
Shoeing done by Experienced Workmen.

Miscellaneous.
SCIENTIFIC PALMISTRY.
 MISS BRAIN,
Fellow of the Chirological Society, London,
48, Mostyn Street,
LLANDUDNO.
Advice on Health and occupation.
Consultations Daily.
MASSAGE & ELECTRICITY.
MR. LLOYD WILLIAMS,
Masseur and Electrician,
Attends Patients at their own homes.
Apply—Windsor Villa,
Maelgwyn Street,
Llandudno.

LLANDUDNO AS IT WAS. A BRIEF REVIEW OF THE HISTORY OF LLANDUDNO.

(By Mr. John Roberts, Bryn Celyn).

20th March 1909 page 7 <https://newspapers.library.wales/view/3656415/3656422>

The old and new copper mines are situated on the Great Orme, a short distance to the left, from the first station of the Orme tram. To prove that the Orme copper industry was a valuable one, it may be mentioned that from 1835 to 1848 copper ore to the value £240,000 was raised from these mines. The new mine was really an extension of the old. Under the able superintendence of the late Mr. Thomas Jones, Frondeg (who was the father of Mrs Woodcock) great improvements were brought about in the workings; in order to ease the pressure of water, and to facilitate the output a level cutting was made from the workings through the mountain for about three-quarters of a mile, having an opening at Conway Shore, to the north of the artificial lake. It is the water from this level that supplies the lake. The level was opened on the 14th of October, 1842. During 12 years ore to the value of £93,000 was raised from this mine. **A short time after this level was opened gamekeepers found one of the miners poaching on the Warren, West Shore. The poacher finding that he was under observation ran for his dear life and soon got out of sight into the level to hide. The keepers who were not so knowing as their quarry watched the level entrance for hours. Not dreaming that the poacher had gone up through the mine and was enjoying his tea on the top of the Orme long before they left off watching.** The Tygwyn mine was situated close to the commencement of Tygwyn Road, off Church Walks. This mine was greatly troubled with too much water; in order to obviate this, two very powerful pumping engines were used; one stood near Mr. F. Edge's residence, while the other was behind Gay Terrace, Tygwyn Road. In order to obtain an outlet for the water a level was cut through which had an opening just where the main entrance to the Pier is now. But all these devices were of no avail, the water in the mine continued to rise, although in plenty of copper the miners were at last compelled to abandon the workings hurriedly, leaving their tools and implements behind, among them being the late Mr. Richard Hughes, 15,

FURTHER TRIUMPHS!!

The Ladies are most enthusiastic over
**WOODCOCK'S FRAGRANT
AMMONIA FOAM.**

ONE Lady says:—"Your Advertisement is quite true, the Foam makes the bath a perfect luxury."

Another:—"The children's heads are no trouble now, we only use two teaspoonfuls to a basin of hot water."

Another:—"Send a case for my sister in Bombay where it will be invaluable."

Another:—"We use a little in every bucket of water for all cleaning purposes."

Another:—"Our kitchen is quite clear now of cockroaches and ants which we were pestered with before using the Foam."

**WOODCOCK'S FRAGRANT
AMMONIA FOAM.**
1s. PER BOTTLE (Pint).

Sold by the following Chemists in Llandudno:
BURTON & SON, M. A. SINCLAIR,
J. WINTER, W. A. ROBERTS

Visit of the Band of the South Lancashire Regiment.—We are pleased to hear that this famous band of fifty performers is engaged for the County Show held here in August. The band, like Edwards' Bread, will prove a great attraction.

Madoc Street. These mines offer a glorious opportunity for persons of speculative proclivities to exercise their talent. Plenty of copper, but too much water. During the mining period at Llandudno, the men often practised many tricks and pranks on each other. At one certain a number of miners congregated together in a kind of a cabin every evening to play cards. This proceeding raised the ire of all the good old folk and many predicted some awful forebodings would come to pass. A copper heaving bucket upside down was set in the cabin to form a card-table. One day a wag placed a quantity of blasting powder under the bucket, attached to which was a fuse with the other end outside the cabin. When evening came and the card playing was at its height the fuse was lit; off went the powder, sending the card-table bucket clean through the roof of the cabin. The players in great terror fled for their lives. This ended the card playing.

17th April 1909 page 3

<https://newspapers.library.wales/view/3656451/3656454/17/old%20landudno>

The oldest hotel to-day in Llandudno is undoubtedly the King's Head; it has entertained generations of Llandudno people, and also catered to our very first visitors. In the old days this house was the rendezvous of the miners. They drew their money quarterly; the money would be brought from Conway in a conveyance to the commencement of the hill, and on very successful quarter days the money would be taken in a wheel-barrow up to the King's Head. After the sharing a miner would pin up a £1 note on the chimney piece of the parlour at the King's Head until its value was spent in refreshments. Another would replace it, until many pounds were expended in this manner.

DELIGHTFUL TRIP FROM LLANDUDNO UP THE CONWAY RIVER TO TREFRIW, AMIDST MAGNIFICENT SCENERY.

The Splendid Saloon Steamer
"QUEEN OF THE CONWAY"

will Sail (weather and other circumstances permitting) Daily, as under from the NEW WEST PIER, at end of GLODDAETH STREET, CONWAY SHORE,
7 Minutes from the General Post Office.

The Steamer will leave Llandudno on

THURSDAY, May 25th	9 0 a m
FRIDAY, May 26th	9 40 a m
SATURDAY, May 27th	10 40 a m
MONDAY, May 29th	11 50 a m
TUESDAY, May 30th	1 10 p m
THURSDAY, June 1st	3 0 p m
FRIDAY, June 2nd	4 0 p m
SATURDAY, June 3rd	5 15 p m

Information as to time of returning (about 2 hours later), from Trefriw can be obtained on board.

Return Fare, 2s. 6d.; Single Fare to or from Trefriw, 1s. 6d.; Children under 12 Half-fare

LIGHT REFRESHMENTS will be PROVIDED on BOARD at Reasonable Charges.

For further information apply to G. W. GRIFFITH, 1, Leonard Terrace, Llandudno, Agent for the Llandudno and Trefriw Steamship Company, Limited.

June 8th 1899

29th May 1909 page 6

<https://newspapers.library.wales/view/3656505/3656511/49>

The following being a quaint and interesting custom we think it worthy to be recorded. Many years ago the Llandudno miners besides following their ordinary occupation would also play the role of fishermen; in this capacity they caught herrings in the autumn, and dredged for oysters earlier in the year. In order to find the oyster beds and the fishing grounds, they would use particular land marks, one of these land marks, and a most important one, being Abergele Church Steeple. This being rather indistinct owing to the distance from Llandudno bay, in order to quicken the vision the west side of the steeple

A Shark captured in the Bay.—A young shark, or what is supposed to be a shark, was caught on Monday last by one of the boatmen. When exhibited on the Promenade it was the object of much attention. Some of the spectators expressed an opinion that it had come after Edwards' Bread.

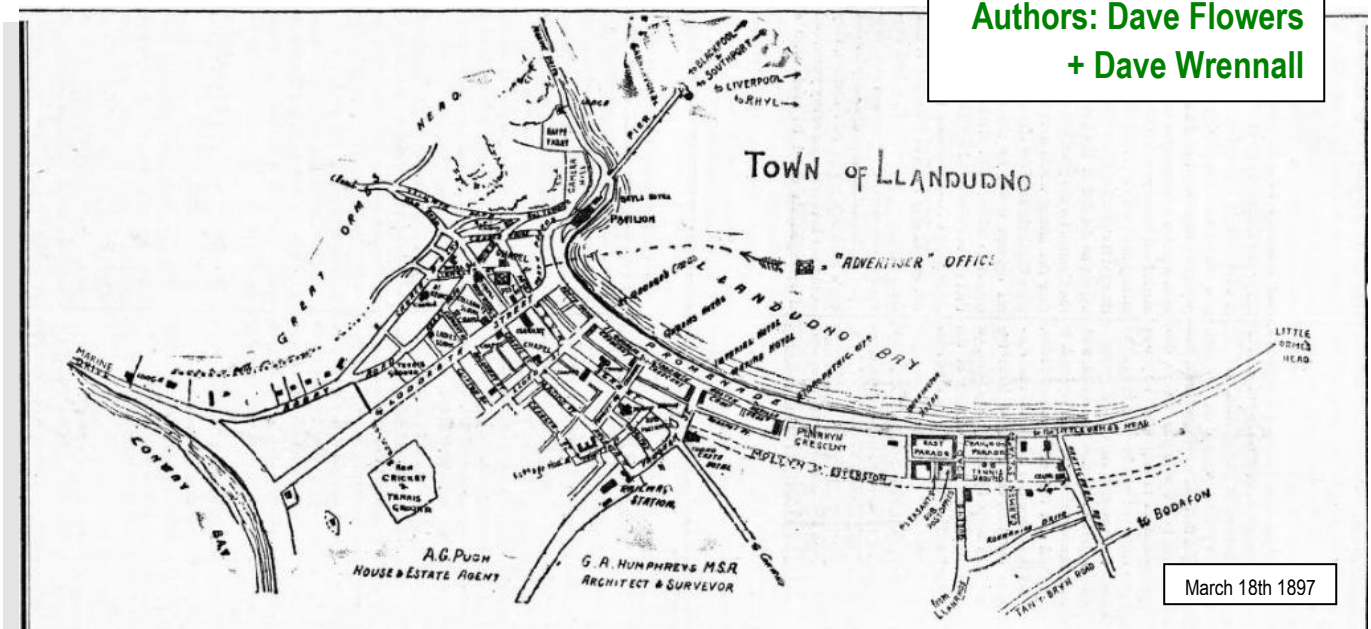
was white-washed. The Llandudno fishermen were allowed the privilege of doing this for this purpose, and it is a fact that a party of Llandudno men would journey annually to Abergele and whitewash the Church steeple so that it would appear more visible from Llandudno bay.

1st January 1910 page 5 <https://newspapers.library.wales/view/3656784/3656789>

Perhaps the most momentous year in the history of Llandudno was the year 1854, this being the year that the Llandudno Improvement Act passed through Parliament. To the Llandudno inhabitants of those days it was a most anxious time, the town was small, the cost of passing the Act heavy, and the future development was then unknown. It therefore required much forethought, sacrifices and determination on the part of the small and inexperienced community. Looking backwards from our position to-day, perhaps it might be said that things ought to have been done to the better advantage of our town. Nevertheless it must be admitted that the Llandudnoites of that period were level-headed and far-seeing individuals communing together in order to build up and develop for the future a first-class health resort. The first meeting- of the Llandudno Improvement Commissioners was held on Thursday, August 17th, 1854, 55 years ago last August. This interesting meeting was held in Tynyfron Mine Office. This office was situated just on the, space between "The Stowe," Church Walks, and the next house on the east side. It was in a row of two storied houses, which were built from Ty Coch Road towards Church Walks, the entrance being from Ty Coch Road, These historic premises were demolished some years ago.

TRANSVAAL WAR. — GREAT BATTLE OF BELMONT.—The attack made by the British Forces on the Boer positions at Belmont, was nothing compared with the attack made by visitors on Edwards' Bread.

Authors: Dave Flowers
+ Dave Wrennall



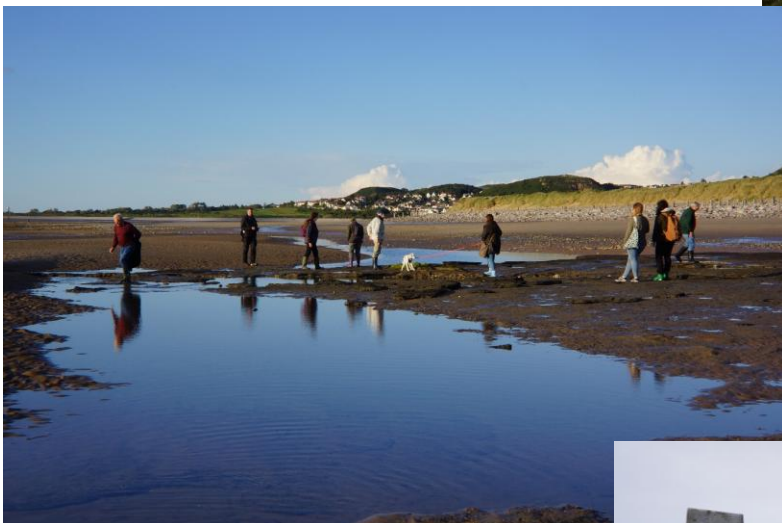
GOES Summer Walks 2019



23rd May 2019 Parc Farm Wall Walk (Near the Swallet Hole)



30th May 2019 Monks Path Circular Route



6th June 2019 Conwy Morfa

13th June 2019 St Tudno's Church Graveyard (not the best of weather)



20th June 2019 Haulfre
Gardens Exploration



27th June 2019 Wendy's
Flower Walk



4th July 2019 Hubert Stone
Memorial (Little Orme)



The quick retreat to beat
the incoming tide

11th July 2019 Pen Dinas
Exploration



18th July 2019 Mystery
Walk (At Lime Well)



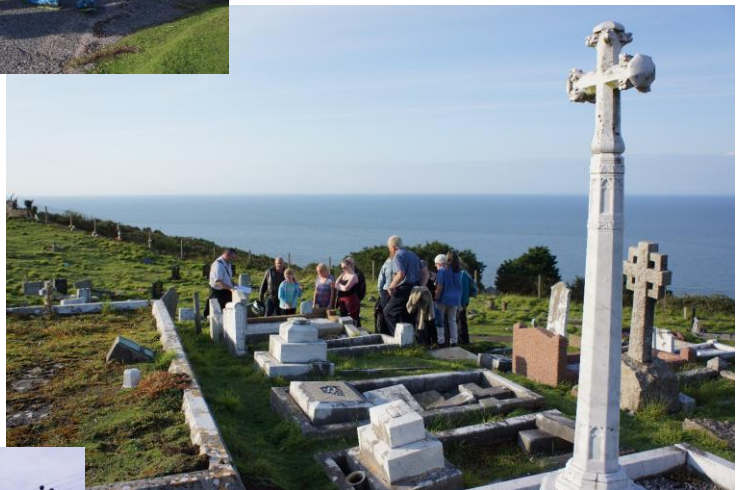
25th July 2019
At the Old Beacon Tower



25th July 2019
Llandudno Hospital Walk
(The Hidden Courtyard)



1st August 2019 St
Tudno's Cemetery Walk
Part Deux



8th August 2019 Linking the Great
Orme Wells (At Gogarth Well)



Adrian doing a great job

At the Brammock Rods





15th August 2019 Special Trees / Shrubs of the Orme. The Rowan near the top of St Beuno's Road

The Monterey Cypress near the Camera Obscura



A happy Nick at the Hubert Stone Memorial. After 6 years organising the walks he has now handed the job over to Adrian Hughes.

Author: Nick Challinor

GOES SUMMER WALKS 2020

In the light of coronavirus the following walks, especially those in May and June are very likely to be cancelled. Further information will be found in the North Wales Weekly News.

All walks start at 7pm and are usually gentle strolls which last up to 2 hours. Sturdy footwear and waterproofs are recommended for all walks. If the weather is poor, then the walk is likely to be postponed until a later date.

21 May - The Path of the Deer. Meet at the water pump house (near halfway tram station).

28 May – Happy Valley. Meet at Llandudno war memorial, Prince Edward Square.

4 June – Wendy’s Wildflower Walk. (with guide Wendy McCarthy). Meet at the water pump house (near halfway tram station).

11 June – St Tudno’s Well. (with guide Christine Jones). Meet at St Tudno’s Church.

18 June – In Search of Val Dunne. Meet at the Rest and Thankful Café, Marine Drive.

25 June – The Silver Studded Blue Odyssey. Meet at West Shore Toll House.

2 July – Mynydd Isaf and Fynnon y Galchog. Meet at the water pump house (near halfway tram station).

9 July – School of Coast Artillery. Meet at West Shore Toll House.

16 July – Bryn Euryn. Meet at Bryn Euryn nature reserve car park, Tan-y-Bryn Road, Rhos-on-Sea.

23 July – ‘Flying Foam’. Meet at Dale Road Car Park (charges may apply). Low tide 19:56 (.66m).

30 July – Brammock Rods and Llety’r Filiast. Meet at the water pump house (near halfway tram station).

6 August – Nant-y-Gamar. Meet at the junction of Fferm Bach and Queens Road (near Blind Veterans UK).

13 August – Thomas Rowlands and ‘Old Llandudno’ recollections. Meet at ‘White Rabbit’ statue, Gloddaeth Avenue.

Walk Coordinator: Adrian Hughes (07833 109505)

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Summer Walks Coordinator: Adrian Hughes	email: adrianhughes1@hotmail.co.uk

GOES meets informally every Thursday evening in The Snowdon, 11 Tudno Street, Llandudno from 9.30pm. <http://www.the-snowdonhotel.co.uk/> All are welcome.

The Great Orme Exploration Society (GOES) was formed in 1985 and became a Company Limited by Guarantee and not having a share capital on 7th April 1999. It is a member of the National Association of Mining History Organisation (NAMHO), British Caving Association (BCA), and works in association with the Gwynedd Archaeological Trust (GAT), the Early Mines Research Group (EMRG) and the Gwynedd Bat Group (GBG). Views and opinions expressed are those of the author(s) and not necessarily those of the Society.

£20 REWARD.—Lost on the Pier, or on the Promenade, on Wednesday, June 21st, a lady's green morocco purse with silver mounts, containing gold, silver and testimonials for Edwards' Bread. Any person returning same to 85, Mostyn Street, will receive above reward.

