

**Results of Archaeological and Monument Conservation Works at**

# **Upper Kendrick's Cave, Great Orme, Llandudno**

**NGR SH 77981 82821**



**Report Number CR114-2015**



**C.R Archaeology**  
Compiled by C. Rees  
on Behalf of Llandudno Town Council

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## **Archaeological and Monument Conservation Works at Upper Kendrick's Cave, Great Orme, Llandudno**

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## 1.0 Introduction

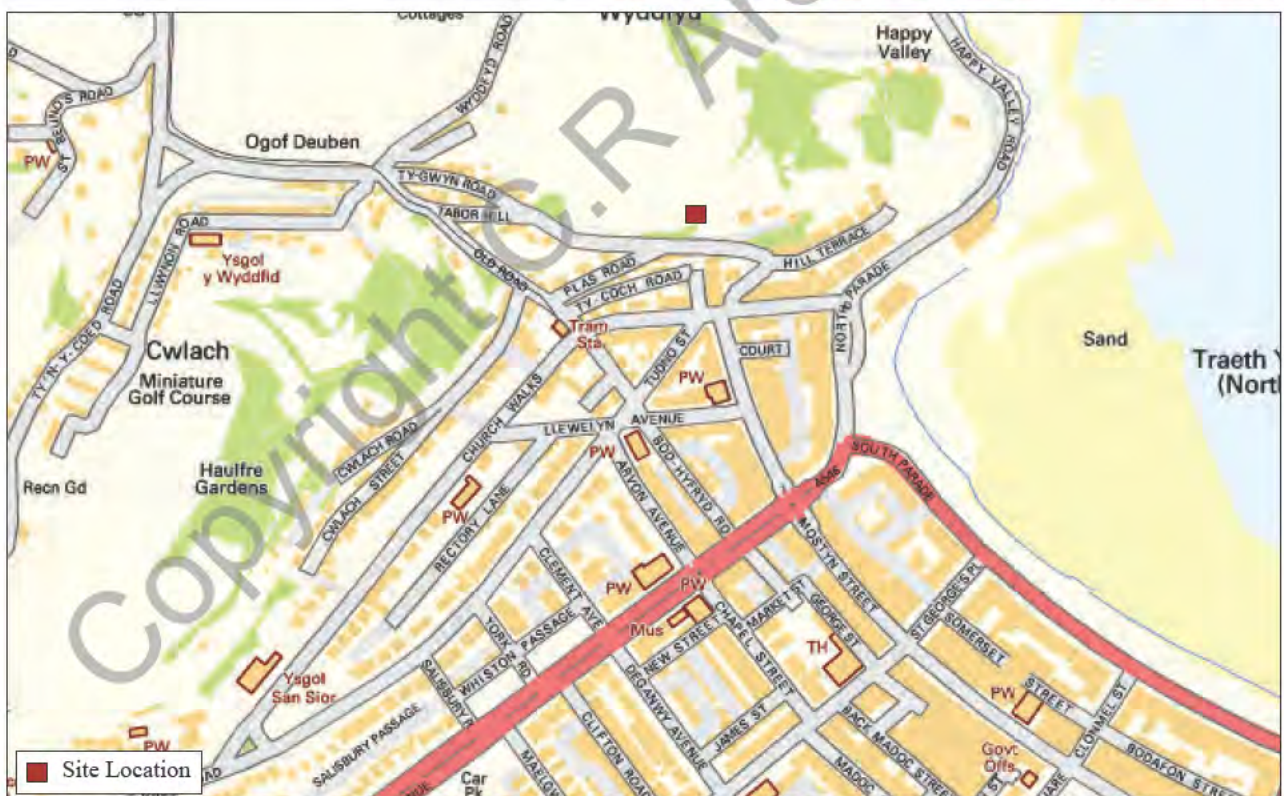
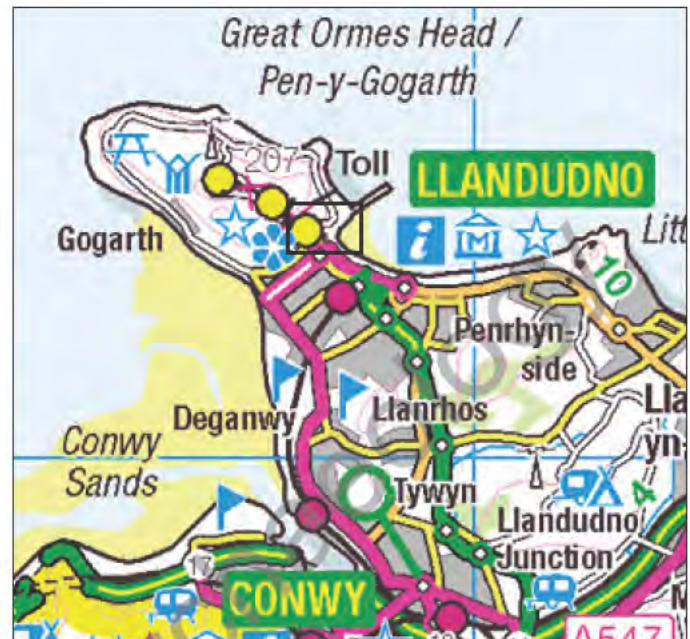
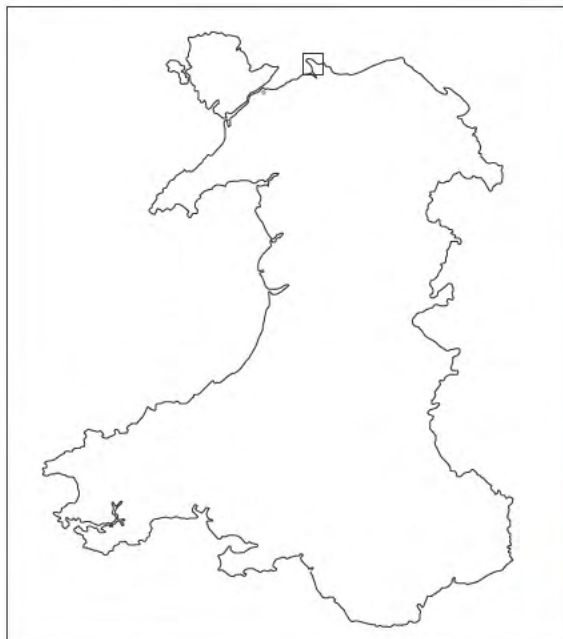
**1.00** C.R Archaeology were instructed by Llandudno Town Council to conduct archaeological works at Kendrick's Upper Cave. These works comprised an archaeological watching brief on the hand digging of postholes for demountable safety fencing erected around the cave site, and the hand excavation of two trenches across the two cave entrances to allow for the insertion of two steel grilles. The approximate trench dimensions were 0.70m x 4.4m and 0.70m x 1.54m. Extensive archival research was conducted into the history of Kendrick's Cave and the life and role of Thomas Kendrick in the archaeology of the Great Orme. Work was also conducted to document the fate of his collection following his death, and to gather as much information as to the contents of his museum as possible. Additional research was conducted into archaeological discoveries at other cave sites on the Great Orme, Little Orme and surrounding area in order to place the Kendrick's Cave discoveries within their regional context.

**1.01** Kendrick's Cave is situated on the Great Orme, Llandudno (Figure 1). The landscape of the Great Orme itself is considered to be an area of very high archaeological potential. Numerous archaeological sites are recorded on the Great Orme including Upper Palaeolithic cave deposits, Bronze Age and later mining activity and Medieval and later Prehistoric/Roman settlement.

**1.02** Kendrick's Cave is a Scheduled Ancient Monument (Cn191) whilst the Great Orme headland has been designated a Special Area of Conservation, a Site of Special Scientific Interest and a Heritage Coast ([www.greatorme.org.uk](http://www.greatorme.org.uk)). The site has been assigned the NPRN 300812 by the RCAHMW and the PRN 635 by Gwynedd Archaeological Trust.

**1.03** The Lower Cave was first excavated by Thomas Kendrick in the 1880s when the cave was modified to be used as a workshop and display area. Although it is known that Kendrick made use of the Upper Cave it is not clear what works he carried out or whether he made any archaeological discoveries here. The 1956 RCAHMW Inventory records the lower cave as *“a natural cavern, 50' deep 16' wide at the entrance, 200ft above OD on the S of the Gt Orme; during partial clearance in 1880 and later the remains of four human skeletons were found together with bones of badger, bear, boar, bos longifrons, horse (including a jaw bearing incised chevrons) and goat. Some animals' teeth were perforated. There were also fragments of flint. The human remains and some of the unworked bones are now in Llandudno Public Library. Condition: in use as store: much of the cave remains unexcavated”* (RCAHMW, 1956: 114).

**1.04** The partial excavation of Kendrick's Upper Cave was undertaken by Tom Stone and Mel Davies in the late 1970s when 5 trenches were excavated. These yielded the bone remains of *“adult human, ox, sheep or goat, roe deer, fox, hare, several bird species, frog, crab and at least eight species of mollusca with limpets predominating. Flint and pottery indicated a neolithic occupation accompanied by hearths lying under a full nineteenth century floor with one door, a window with glass and a slate slab”*. Also recovered during the excavations were two antler awls, two bone awls, Bronze Age Beaker, decorated Neolithic and Romano-British pottery, unpatinated Neolithic flint knives and a pierced and decorated wolf canine. Davies stated that *“only one half of the upper cave floor has been excavated and in this a shaft was opened which connected with the bottom cave some 8m below. Only archaeological rubble seemed to separate them; so much remains to be excavated”* (Davies 1989: 99). It was therefore deemed that the cave was of high archaeological potential.



**Figure 1. Site Location Map** - Source: OS Open Data  
(Contains Ordnance Survey data © Crown copyright and database right 2015)

**1.05** Despite the extensive sieving of material, no archaeological remains were recovered during the site works. It was evident that the platform in front of the cave had been constructed using material cleared out from inside the cave. The smaller of the cave entrances had been artificially enlarged and would not have originally reached the current ground level. The larger cave entrance had clearly been emptied of all archaeological material during the emptying of the cave for use. Several 19<sup>th</sup> century layers were recorded directly on top of the bedrock.

## **2.0 Project Aims & Objectives**

**2.00** The primary aim of the programme of works was to conduct the archaeological work necessary to allow for the installation of two steel grilles across the cave entrances in order to exclude unauthorised access to the interior and thus prevent further damage/vandalism to the site. The method agreed for installing grilles at the cave was to create a concrete foundation lying on bedrock that stopped just below the current floor level into which pre-fabricated metal grilles were set. Surface deposits from the excavation were then used to conceal the concrete foundation.

**2.01** This scheme of works also aimed to monitor all groundworks necessary (i.e the excavation of postholes for demountable safety fencing.) in order to identify and assess the survival, character and date of any archaeological remains and to excavate/record any archaeological remains uncovered. A copy of the agreed specification is included as Appendix A.

**2.02** The works aimed to fulfil the mitigation criteria for undertaking an Archaeological Excavation and an Archaeological Watching Brief as specified in the ClfA Standard and Guidance documents (2014).

**2.03** The objectives of the work were to:

- excavate and record all deposits which lay along the line of a proposed metal grille in a careful, scientific and controlled manner. This was achieved through the excavation of a slot trench across the entire width of each of the cave entrances at the agreed locations down to bedrock
- record a full section across the cave in order to understand and interpret surviving deposits
- to increase understanding of the site's history, development and significance
- describe past interventions and the potential for surviving undisturbed deposits
- create an archive record of the excavation
- establish and make available any further information discovered about the archaeological resource existing on the site

**2.04** It was also envisaged that the results of this excavation will contribute towards a full re-evaluation of the archaeology of Kendrick's Upper Cave. The necessity of the following points was therefore highlighted as being of utmost importance

- the gathering of new samples of intact cave deposits for scientific analysis so as to glean a greater understanding of the surviving deposits within the cave – this was not however possible as no intact deposits were encountered at the site
- the identification of what interventions/excavations have previously been undertaken at the caves

### **3.0 Scheme of Works - Methodology**

**3.00** The archaeological works were conducted in three stages and each is detailed separately below.

#### **3.1 Scheme of Works – Methodology for Desk Based Research**

**3.1.00** A complete and coherent history of the site was compiled utilising information sourced from Bangor University Archives & Conwy Archives. Specialist journals, museum collections, publications, newspapers and personal archives were examined as appropriate. Web resources were also utilised. Further research was conducted into the life of Thomas Kendrick and the archaeological resource identified at other cave sites in the surrounding area.

**3.1.01** This material forms the historical background for the archaeological report. The report also includes a compact disc containing all site images in Tiff format.

#### **3.2 Scheme of Works – Methodology for Archaeological Watching Brief**

**3.2.00** All intrusive groundworks related to the erection of the safety fence around Upper Kendrick's Cave were monitored by an archaeologist from C.R Archaeology. The work was undertaken by approved subcontractors appointed by AQB Historic Landscapes. Post holes were hand excavated to allow for the insertion of a series of fence posts. An archaeologist was present during all works and examined and recorded all material removed during the excavation.

**3.2.01** It was presumed that the material in this area is redeposited and this was found to be the case. All finds were of Post Medieval date. All spoil was hand dry sieved on site and examined for artefactual material. The location, size and depths of the postholes was recorded on a site plan.

**3.2.02** Fieldwork was conducted by Catherine Rees of C.R Archaeology (MCIfA).

#### **3.3 Scheme of Works – Methodology for Hand Excavation of Grille Trench**

**3.3.00** The methodology employed at Kendrick's cave was based on the excavation model devised for Cathole Cave on the Gower.

**3.3.01** Hand excavation was undertaken of two slot trenches 0.70m wide which run the full width across each of the two cave entrances (approximate lengths of 4.4m and 1.54m). The trenches ran along the precise future location of the grille and were marked out by AQB Historic Landscapes or their appointed subcontractors prior to the commencement of works. The excavation area was therefore limited but was subject to high intensity recording. The excavation excavated down to bedrock.

**3.3.02** Initially it was planned that the topsoil and subsoil removed from the trench would be dry sieved on site for artefact recovery but the upper deposits were so contaminated by recent usage of the site that for health and safety reasons it was determined too dangerous to do this due to the risk of encountering hypodermic needles. All other deposits were hand sieved.

**3.3.03** The original methodology proposed that below the subsoil level material would be excavated using a 0.50m wide grid system and deposits would be removed in spits by context. This was however not followed as all deposits encountered during the entire course of the works were clearly of Post Medieval date right down until the bedrock was reached. All material was therefore excavated by context and material was dry sieved on site. A full record of all contexts encountered was made.

**3.3.04** The works were carried out by Catherine Rees (MCIfA), George Nash (MCIfA) and Kathryn Price (MSc) and in accordance with the CIfA Standard and Guidance documents for Archaeological Excavation (2014).

### **3.3.1 Recording**

**3.3.1.00** The record forms at C.R Archaeology are based on the English Heritage system and full written, graphic and photographic records were made in accordance with the English Heritage *Field Recording Manual*. The written record comprises completed *pro-forma* record sheets.

**3.3.1.01** Plans, sections and elevations were produced on gridded, archive standard stable polyester film at scales of 1:10, 1:20 or 1:50, as appropriate. Representative measured sections were prepared showing the sequence and depths of deposits. A temporary benchmark (TBM) was established on the site and plans, elevations and sections will contain grid and level information. All drawings were numbered and listed in a drawing register and drawing numbers were cross-referenced to written site records.

**3.3.1.02** All trench sections were drawn at a scale of 1:20 and deposits were planned at an appropriate scale (1:20).

**3.3.1.03** A high-resolution 14.2mp Sony Alpha digital camera was used to create a photographic record of the site. This was comprised of photographs of all deposits in plan and section. Included in each photograph was an appropriate scale. Photographs were taken of all trench sections. All photographic records were indexed and cross-referenced to written site records. Details concerning subject and direction of view were maintained in a photographic register, indexed by frame number. Images from photography will be stored in a loss-less digital format in this case '\*.TIF'.

**3.3.1.04** A 'harris matrix' diagram was constructed for the excavated area.

### **3.3.2 Additional Mitigation/Contingency Measures**

**3.3.2.0** No additional mitigation/contingency measures were necessary.

### **3.3.3 Recovery, Processing and Curation of Artefactual Material**

**3.3.3.00** All recovered artefactual material has been retained, cleaned, labelled and stored according to *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014) and *First Aid for Finds* (Watkinson & Neal 2001). The aim is to create a stable, ordered, well-documented, accessible material archive forming a resource for current and future research (CIfA 2014).

**3.3.3.01** All artefactual material was bagged and labelled with the site code and context number prior to removal from site.

**3.3.3.02** Each assemblage was examined according to typological or chronological criteria and conservation needs identified. An assessment report of all post-medieval material was produced by Matthew Jones (MA) and the animal remains were assessed by Vikki Hudson (MSc).

**3.3.3.03** Following analysis all archaeological material recovered will be deposited with Llandudno Museum. Processed assemblages will be boxed according to issued guidelines and a register of contents compiled prior to deposition.

**3.3.3.04** The works were carried out in accordance with The Chartered Institute for Archaeologists: *Standard and Guidance for Archaeological Watching Brief* (2014).

### **3.3.4 Archive Compilation**

**3.3.4.00** All records created during the fieldwork were checked for consistency and accuracy and will form part of the *Primary Site Archive (P1)* (EH 2006). The archive will contain all data collected, including records and other specialist materials. It will be ordered, indexed, adequately documented, internally consistent, secure, quantified, conforming to standards required by the archive repository and signposted appropriately to ensure future use in research, as detailed in the English Heritage *Management of Research Projects in the Historic Environment* (MoRPHE) methodology.

**3.3.4.01** The archive will be assembled in accordance with the guidelines published in, *Standards in the museum care of archaeological collections* (Museums & Galleries Commission 1994), *Guidelines for the preparation of excavation archives for long-term storage* (United Kingdom Institute for Conservation, 1990) and *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (AAF 2007).

**3.3.4.02** All materials contained within the *Primary Site Archive (P1)* that are subsequently identified by the *Assessment Report (P2)* as appropriate for analysis will be processed by suitable specialists and the resultant *Research Archive (P3)* will be checked and ordered according to MoRPHE criteria.

**3.3.4.3** Llandudno Museum was notified in advance of the proposed work and the deposition of the archive created by this archaeological project and archive material will be deposited in accordance with Llandudno Museum's terms and conditions for archive deposition.

### **3.4.0 Timetable for Proposed Works**

**3.4.0.00** Works at Upper Kendrick's Cave commenced on Friday 10<sup>th</sup> July 2015 and were completed on 15<sup>th</sup> July 2015. Cadw were informed of the exact site days to allow monitoring of works and conducted a site visit on 14<sup>th</sup> July.

### **3.4.1 Staffing**

**3.4.1.00** The project was managed by Catherine Rees (MCIfA, BA, MA, PgDip HEC). Site staff were comprised of Catherine Rees, Dr George Nash (MCIfA, PhD) and Kathryn Price (BSc, MSc). All staff had a skill set equivalent to at least the CIfA ACIfA level. C.V's for all staff employed on the project can be provided on request.

**3.4.1.01** Due to the importance of the site and the rarity of Upper Palaeolithic sites in the UK Ice Age and rock art specialist Dr George Nash who has carried out similar projects to this on the Gower in South Wales was brought in to co-direct the field work.

**3.4.1.02** All C.R Archaeology projects are carried out in accordance with CIfA *Standard and Guidance* documents.

### **3.4.2 Monitoring**

**3.4.2.00** The project was subject to monitoring by Cadw. The monitor was given prior notice of the commencement of the fieldwork and a site visit was made by Ian Halfpenney and Adele Thackray prior to the signing off of the trenches.

### **3.4.3 Health and Safety**

**3.4.3.00** A risk assessment was conducted prior to the commencement of works and site staff were familiarised with its contents. A first aid kit was located in the site vehicle and a second kit brought onto site each day.



**3.4.3.01** All staff were issued with appropriate Personal Protective Equipment (PPE) for the site work. This consisted of:

- Safety Helmets (EN397)
- Hi-visibility vests (EN471)
- Safety footwear – steel toecap and mid-sole boots and Wellingtons (EN345-47)
- Gloves
- Plastic hard cased kneeling pads
- Alcohol dry handwash

**3.4.3.02** All staff have passed at least a CITB health and safety test at least operative level and carry a Construction Related Organisation (CRO) White Card for Archaeological Technician (Code 5363) or a Site Visitor card.

**3.4.3.03** C.R Archaeology staff were also compliant with all Health and Safety Policy and specific on-site instructions provided by the client or their appointed Principal contractor or H&S coordinator.

#### **3.4.4 The Report**

**3.4.4.00** This report clearly and accurately incorporates information gained from the entire programme of archaeological works. It presents the documentary evidence gathered in such a way as to create a clear and coherent record. The report contains a site plan showing the locations of photographs taken.

**3.4.4.01** This report includes:

- A copy of the agreed specification
- A location plan
- Sufficient historical and archaeological detail to allow interpretation of the results and to support assessment of significance
- All identified features and significant finds plotted on an appropriately scaled site plan
- Full dimensional and descriptive detail of all identified finds and features
- Full dimensional and descriptive detail of all contexts identified
- A plan illustrating the location and direction of any photographs or drawings
- A full bibliography of sources consulted
- An archive compact disc

**3.4.4.02** The report details the results of the archival research, the archaeological watching brief and the hand excavation of the grille trenches. Specialist reports are included within the main report text.

**3.4.4.03** Copies of the reports in Adobe PDF format will be sent to the appropriate monitoring archaeologist for approval before formal submission. A bound paper copy and PDF digital copy of the report will be submitted as part of the formal submission. A digital Adobe PDF version and a bound paper copy of the final report will be lodged with the Gwynedd Historic Environment Record within six months of completion of fieldwork.

**3.4.4.04** As a minimum in the event of a positive result a summary of the work will be published in the Archaeology in Wales Journal. Papers will be submitted to relevant additional publications dependant on the results of the field work.



#### **3.4.4.1 Copyright**

**3.4.4.1.00** C.R Archaeology and sub-contractors shall retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it hereby provides a licence to the client and the local authority for the use of the report by the client and the local authority in all matters directly relating to the project as described in the Project Specification.

### **4.0 Geographical and Geological Context**

#### **4.1 Topography**

**4.1.00** The Great Orme is a prominent feature in the landscape, the relatively undeveloped nature of which contrasts with the rest of the mainly developed Creuddyn Peninsula. A number of habitats are represented, such as wooded areas on the lower slopes, grasslands, cliff faces and rock exposures. The Great Orme can be seen for many miles around, from Anglesey and along the North Wales coast, and for many miles inland. Rising 209m (679ft.) from sea level, views from much of the site, but especially the summit, are extensive ([www.conwy.gov.uk](http://www.conwy.gov.uk)).

#### **4.2 Geology**

**4.2.00** The bedrock is recorded as “Loggerheads Limestone Formation - Limestone. Sedimentary Bedrock formed approximately 331 to 335 million years ago in the Carboniferous Period. Local environment previously dominated by shallow carbonate seas. These rocks were formed in warm shallow seas with carbonate deposited on platform, shelf and slope areas; often rich in corals and shelly faunas. May include evaporites where seawater was trapped and salts concentrated by evaporation”. The superficial geology is not recorded ([www.mapapps.bgs.ac.uk/geology/ofbritain/home.html](http://www.mapapps.bgs.ac.uk/geology/ofbritain/home.html)).

**4.2.01** Soil formations are recorded in the “*Great Orme Country Park and Local Nature Reserve Management Plan 2011-2016*”. It states that “recent research into soil/plant interactions on the Great Orme (ITE/NERC 1995) reveals that patches and bands of post-glacial loess (a windblown, fine sand/silt) which are non-calcareous are present on the Great Orme, and in places obscure the underlying limestone. Where the loess is more than approximately 40cm deep over the limestone or boulder clay, heath has developed. Where loess thins out to 20-30cm, calcareous grass heath has developed. Where the loess thins further the influence of the limestone ensures that calcareous grassland occurs. Due to geographical and geological circumstances, the Great Orme's Head is of low agricultural quality in the national classification” ([www.conwy.gov.uk](http://www.conwy.gov.uk)).

### **5.0 Historical Background**

**5.00** This section has been subdivided so as to provide a context for the site in historical and regional terms. In order to achieve this the historical context is examined through the study of the life of the cave discoverer, which is examined together with the finds themselves and the Kendrick legacy.

**5.01** This section is then followed by an examination of the other known archaeological caves in the area to provide the regional context and place the finds from Kendrick's Cave within the wider landscape.

#### **5.1 The Life of Thomas Kendrick**

**5.1.00** When the news of Thomas Kendrick's discoveries in a cave on the Great Orme, Llandudno was first reported in 1880 it caused quite a stir, drawing large numbers of visitors to the cave of the lapidary. There has however been a great deal of material published since the site was first discovered in which Kendrick is often represented – or rather misrepresented, as a somewhat ignorant figure with little sense of what he had discovered. This paper will seek to examine the historical record to establish the foundation of this myth. It will also seek to dispel much of it and

highlight the significance of the Kendrick collection in gathering together material from the Great Orme and the surrounding area and displaying it to the public.

**5.1.01** When Thomas Kendrick died in December 1897 he did so a relatively wealthy man, and as an obituary written in a local paper attests he had become a respected figure in Llandudno. He played an important role in the early tourist trade of the area and was clearly a shrewd business man able to tap into the popular culture and emerging trends of his era. He ran a camera obscura, a stone polishing business as well as being the proprietor of a small museum and gardens. His discoveries made on the Great Orme are amongst the most important prehistoric artefacts unearthed in the United Kingdom yet unlike many of his wealthier antiquarian contemporaries very little has been written about the man himself.

**5.1.02** In order to best understand Kendrick, and to a certain extent the attitude of others towards him, it is important to understand the origins of the man. Every attempt has been made to access the primary source material used in order to verify facts and provide the relevant bibliographical references for future researchers.

### **5.1.1 Kendrick's Earlier Life 1821-1851**

**5.1.1.00** Kendrick was born in Llandudno on the 8<sup>th</sup> November 1821 (Llandudno Advertiser December 30<sup>th</sup> 1897). He was the oldest child of local woman Ann Jones and William Kendrick, a farmer from Ysceifiog, Flintshire who had moved to Llandudno in search of work at the Copper Mines (Jones 2013: 6-7). There are relatively few records surviving for Kendrick's early life but it is possible to draw together a certain amount of information to build up an impression of the period. We can infer from an inscription on Kendrick's grave stone that he cared a great deal about his parents and the decision to include their names and details could indicate that they are not commemorated elsewhere – evidence of a lack of money within the family to pay for headstones at the time of their deaths. The stone records that William Kendrick died age 42 in 1835 when Thomas was 13.

**5.1.1.01** The earliest records which were sourced for Thomas Kendrick and family were the baptism records of the Kendrick family (these records are held in the Nonconformist section of the Baptism Records of Conwy archives). They showed that Kendrick was the oldest of five children and all five were baptised at Ebeneser Chapel, Llandudno. There is a slight discrepancy between the birth date given in the aforementioned obituary and that recorded in the chapel record which gives the 7<sup>th</sup> rather than 8<sup>th</sup> November as the date of birth. The document also records that his father's occupation was as a miner, and that his mother's maiden name was Jones and that she was a spinster upon marriage. The date of the baptism is recorded as December 2<sup>nd</sup> 1821 and at that time the family were living at a place listed as “*Pant*” - expanded to “*Pant y Wenol*” in the record of his sister Anne's birth.

**5.1.1.02** Thomas was followed by a brother William (b. April 18<sup>th</sup> 1824), a brother Joseph (b. August 13<sup>th</sup> 1826), a sister Anne (b. February 4<sup>th</sup> 1828) and a brother John (b. July 10<sup>th</sup> 1833). Interestingly the chapel records use the traditional Welsh version of the Kendrick surname when recording the births of the 3 oldest children. It is written as “*Cynric*” - the origin of which is examined by Dr Jones in his work. “*The derivation of the name Cynric is controversial. One theory is that it is derived from Cuniorix – meaning “hound-king” in Ancient British – changing to Cinir in Old Welsh and Kynyr in middle Welsh*” (Jones 2013: 8). When the baptism of the 4<sup>th</sup> child, Anne, is registered the spelling of the surname has been changed to Kenrick. As is pointed out by Jones in his work there was a certain disdain during this period for the Welsh language and it was equated by some with “backwardness”, leading many to anglicise their names as a sign of keeping up with modern times (ibid). It is however also possible that the family were illiterate and the spelling of the surname was therefore at the discretion of the person entering the record.

**5.1.1.03** The occupation of William Kendrick is listed as “*miner*” throughout the five records although the family have moved to “*Bryn y Bia*” by 1833 when the youngest, John, is born. Kendrick's grave records that his father died on the 1<sup>st</sup> May 1835 when Thomas would have been aged 13. He would presumably have now had to take on responsibility for providing for the family although it is unclear as to what exactly happened to the family following William's death.

**5.1.1.04** It has been suggested that the family were removed to Ysceifiog – the birth place of William and Jones (2013: 9) has sourced a record of the poor law commissioner for Ysceifiog dated 1836 which shows a sum of money was given to an “*Ann of Llandudno*”. This is quite possibly Anne Kendrick although it is not certain. What can be said with certainty is that there is no record of the family in the Llandudno poor records but by time of the 1841 census the family is back in Llandudno and living on the Great Orme.

**5.1.1.05** Of interest is the choice of where the family lives as the baptism records of Ebeneser Chapel show a relatively small congregation at this time. There are just 24 baptisms registered between June 25<sup>th</sup> 1821 and May 13<sup>th</sup> 1837, and in these entries just 10 families are represented. These low numbers would have led to a very close knit community, particularly given that all of the men's occupations are listed as miners. Within this list are Morgan and Anne Hughes who live at Tan yr Ogof, and the surviving Kendrick family have moved to within two doors of them by the time of the 1841 census. It would most likely be to the chapel community that the family would have turned in times of hardship and this would appear to be the case here.

**5.1.1.06** Named Pen yr Ogof in the 1841 census it is thought likely that this is the cottage in which Thomas Kendrick was to reside for the remainder of his life and in all later sources it is recorded as Dan yr Ogof Cottages. Listed as living at the property in 1841 are his mother Anne Kendrick (age 50), who is recorded as being of independent means, Thomas Kendrick (his age is given as 15 but in reality he would have been 19 or 20) who is listed as an agricultural labourer, William Kendrick (age 15) also listed as an agricultural labourer, Anne Kendrick (aged 10) and John Kendrick (age 8). Joseph has presumably died by this date and is not recorded. The other residents in the surrounding properties on the Orme are predominantly employed as copper miners or agricultural labourers demonstrating the dominant occupations at this time.

**5.1.1.07** The 1851 census shows that Anne, Thomas and William Kendrick are still living at Tan y Ogof and in this instance their ages are recorded as 64, 30 and 27. Also at the property are Hugh and Anne Hughes who are recorded as visiting. John is not recorded and it is possible that like his brother Joseph he has died since the previous census. Both of the Kendrick brothers are now employed as copper miners, an occupation which had been undertaken by the inhabitants of the Great Orme since antiquity.

## **5.1.2 Archaeological Discoveries on the Great Orme and the Early Tourist Trade**

**5.1.2.00** It is not intended to give a complete history of copper mining on the Great Orme in this paper as this subject is covered elsewhere (see Smith 1988 for a concise history) but a brief note will be made of the mines at this time. The discovery of Bronze Age workings uncovered at the mines is of direct relevance to Kendrick's awareness of the significance of the discovery he made when digging out what was to become known as Kendrick's Cave.

**5.1.2.01** The heyday of the copper mines on the Great Orme was between 1830 and 1850 when there were three mines operating on the headland – Old Mine, Ty Gwyn Mine and New Mine. These mines are believed to have sold ore which has an equivalent value today (written 1988) of six million pounds. At this time the various mines on the Orme employed at least 200-300 men, women and children and was a major contributor to the local economy. After 1850 production at the mines tailed off and the mines sold off their engines and shut down with Ty Gwyn closing in 1853, New Mine in 1864 and Old Mine in 1881 (Smith 1988: 11, 32-33).

**5.1.2.02** It was during this period that evidence for the Prehistoric copper workings on the Orme was uncovered and these remains caused quite a stir in the scientific community of the time. An initial discovery was made in 1831 and Arthur Hughes recorded how miners broke into an earlier working in which artefacts relating to the extraction of copper were found. In his 1864 guidebook Williams describes how on October 10<sup>th</sup> 1849 – more than likely when Kendrick was employed at the mines, “*the miners in the course of their labour broke into what appeared to be an extensive cavern, the roof of which, being one mass of stalactite, reflected back their lights with dazzling splendour. On examination, the cavern turned out to be an old work, probably of the old Welsh miners, with their ancient tools of stone hammers and bone augers. These bone instruments appeared fresh, but impregnated with copper, although they must have remained some thousands of years in the bowels of the earth*” (Williams 1864: 104).

**5.1.2.03** Both caverns are recorded as having been destroyed by the 19<sup>th</sup> Century workings but some artefacts survived as the miners would often take their discoveries and sell them to collectors and tourists at the King's Head public house. Interestingly there were artefacts which are clearly from these workings detailed within the Frederick Dally collection list (GAT PRN 18298) which contained numerous artefacts purchased from Kendrick and it is entirely plausible that some such pieces were collected by Kendrick himself. Even if this were not the case it would seem clear the Kendrick would have been acutely aware of the monetary value of the antiquities market and the commercial potential for the artefacts and discovery sites.

**5.1.2.04** During the 19<sup>th</sup> century archaeology was in its infancy and a series of discoveries had been made which were directly related to the discoveries on the Great Orme. In 1841 French customs inspector Jacques Boucher de Perthes published a convincing article demonstrating the clear association of human artefacts (hand axes) and the bones of extinct animals – the implication of which he argued was that humans existed long before the time of the biblical flood (Renfrew & Bahn 1998: 24).

**5.1.2.05** The idea that human origins stretched back into the remote past, thus challenging the conventional creation date of the earth a few thousand years ago, was beginning to gather pace throughout the 1840s and 50s and the need for a revised chronology was becoming apparent. The system adopted was that devised by Danish scholar C.J Thomsen in 1836 which first appeared in English in 1848. He proposed that Prehistoric collections of Europe be divided into a Stone Age, a Bronze Age and an Iron Age. Later the Stone Age was to be sub-divided into the Palaeolithic and Neolithic (ibid).

**5.1.2.06** Darwin published his “On the Origin of Species” in 1859 and the work of his contemporary Charles Lyell was demonstrating the existence of gradual change and a long chronology for geological developments. There was a voracious public appetite for scientific information and Barton & Collcutt 1986 provide an interesting overview for the history of “bone caves” and Palaeolithic archaeology in their book “*A Survey of English and Welsh Palaeolithic Cave Sites*”. As it is of direct relevance to the period of the Kendrick's Cave discovery the summary detailing the period up to 1902 is included below.

**5.1.2.07** *“The analysis starts in 1795, the discovery date of the first British Palaeolithic cave of which we can be sure. It is highly probable that many sites were discovered earlier but the details were never recorded. For instance, the use of “bone caves” as sources of agricultural phosphate is well attested all over Europe from at least the beginning of the Middle Ages.*

**5.1.2.08** *In the period 1795-1858, small-scale excavation (mostly by amateurs) and quarrying removed only relatively minor areas from the slowly but steadily growing number of known Palaeolithic caves. The most interesting phenomenon during this early phase is the rapid growth in the resource base between 1820 and 1840, a growth due to the discovery of a mere 5 sites. It appears to us that, in later periods, the resource base has oscillated around the 1840 figure.*

**5.1.2.09** *The period 1858-1882 represents the first “Golden Age” of British and indeed European Palaeolithic archaeology. A small body of professionals were now specialising in cave excavation and a surprisingly large number of natural scientists were taking a more or less direct interest in the findings, creating a reasonably efficient system of peer review. It is also the case that the “educated public” was better informed of the main lines of Palaeolithic studies than at any time since. One aspect which, with hindsight, appears unfortunate is the sheer scale of operations, with large areas dug out very quickly. At the beginning of this period the discovery rate had been good (reaching 10 sites per decade), but by 1875 it was tailing off.*

**5.1.2.10** *The period 1882-1902 saw a prolonged decline in the discovery rate and an almost complete withdrawal of professionals from excavation work. Even the amateur interest fell off sharply. The reasons for this “slump” are no doubt complex but, reading the largely synthetic literature of this time, one cannot help but feel that there was a growing complacency, a persuasion that most of what could be known in this field was indeed already known. This was the era of the armchair Palaeolithic archaeologist” (Barton & Collcutt 1986: xvi-xvii).*

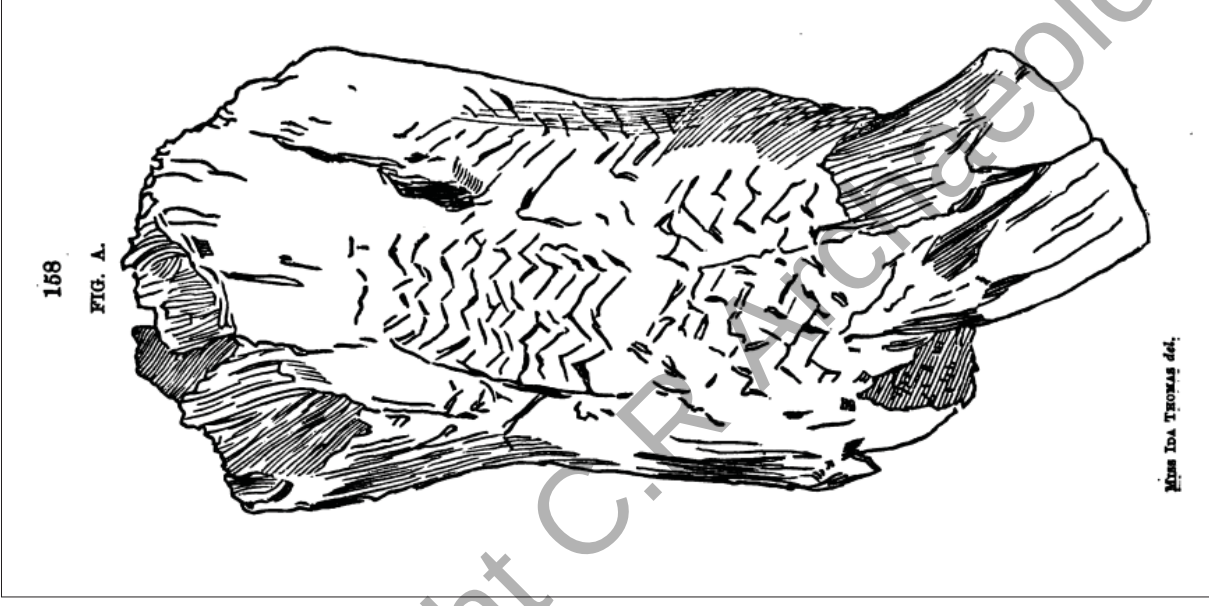
**5.1.2.11** *It is perhaps therefore of little surprise that Kendrick's discoveries in 1879-1880 received much attention at the time when they were found as the museum and cave exhibition he created very much tapped into the zeitgeist. This will be discussed further in the following paragraphs as it is important to examine a similar site discovered in 1860 on the Great Orme – a site which Kendrick would have almost certainly been well aware of and may have visited.*

**5.1.2.12** *Held in Conwy Archives is a 1860 pamphlet by William Brown entitled “An Account of Human Bones, Found Within the Lime-stone Mountain of the Great Ormes Head, at Llandudno, in North Wales; Illustrated with an Engraving”. In this document Brown describes the “osseous curiosities” and their discovery in great detail and included within the paper a detailed colour engraving. Although the interpretation of the skeleton as of druidical, Brahmin, Tartar or Hebrew in origin are unlikely to be those of a contemporary archaeologist the record of the find itself is detailed and gives a very concise account of the site and the human remains – the location of which is not currently known. Also included within the pamphlet is a watercolour illustration of the human remains and this is included as figure 2. The site where the remains were uncovered was Skeleton Cave (Sue Chapman pers. comm).*

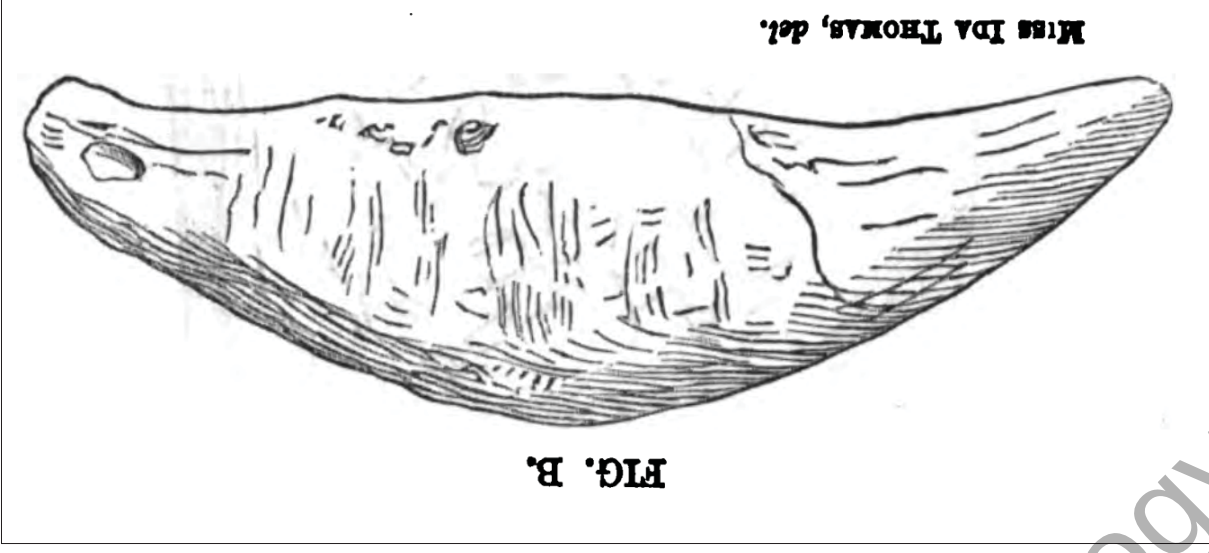
**5.1.2.13** *Due to the obscurity of this source the relevant passages are included in this document as an aid to researchers. “The bones, which consist of a human skull with the upper jaw, containing a complete set of upper teeth, the principle bones of the legs, the arm bones, a lumbar vertebra, a portion of one of the ribs, and other small human bones, were discovered in a cave on the north-west side of the Great Orme's Head; a mountain principally composed of carboniferous lime-stone. There were also found in the same calcareous mass the heads of two young rams, various shells of marine testaceous mollusca, and two canine teeth of a fox. The dimensions of the cave at its entrance are about five feet in length, two feet six inches in height, and two feet from the front to the*



**Figure 2.** Engraving of “Human Bones Found in Limestone” (Source: Brown 1860)



**Figure 3.** Engraving of Decorated Horse Mandible from Kendrick's Cave (Source: Boyd Dawkins 1880)



**Figure 4.** Engraving of Pierced Bear Tooth from Kendrick's Cave (Source: Boyd Dawkins 1880)



back part, where a passage resembling a chimney, not visible on inspecting the cave from the outside, rises and conducts at the height of three or four feet from the floor to a dark narrow cavity six or seven yards long descending towards the west, and another, which passes upward in an oblique direction towards the east, where the human bones were deposited. The head was placed with its back part downwards and the face looking upward toward the east, and appears to have been introduced before the body and extremities. The mass of lime-stones, in which the bones were imbedded, appears to consist of fragments cemented together by carbonate of lime, in the same manner as the cat-brain observable on the tops of the new red sand-stone rocks and, like that, contains the shells of mollusca”.

**5.1.2.14** He continues “The men, who made the discovery, were induced to search the dark inner cave, in which the human relics were found, by observing a rudely constructed wall at its entrance, consisting of stones put together without mortar or any other cement, according to the custom of the ancient Britons. The approach to the cave, which is situated about 350 feet above the level of the sea in the neighbouring Conway bay, is so precipitous as not to be accessible without difficulty, and the mountain above is nearly perpendicular.

**5.1.2.15** The length of the skull, from the fore to the back part, is nearly eight inches, and the distance across the upper jaw, from one of the wise teeth to the opposite one, is nearly three inches. The forehead is small and receding, but the front upper teeth are as perpendicular as they are found to be in the most perfect variety of the human species. As the upper teeth are complete in number, and no absorption of the alveolar process in which they formed had commenced, it is evident that the individual died in the prime of life; and from the large size of the cranium and of the teeth, and enamel of which remains unchanged by time, it may be inferred that the sex was masculine. The tibia and humeri, or leg and arm-bones, were found resting near the head, and have not been separated from the piece of rock containing them; excepting one of the leg-bones, which the excavators had detached before the geological curiosities came into the possession of the owner of them. Amongst the loose rubbish, which lay over the lime-stone, beneath which the human bones were incarcerated, bones of rabbits, birds, &c., of a comparatively recent date were found, which had probably been carried there by foxes or large birds of prey; and a Roman copper coin was also picked up from the superincumbent fragments of stone, bearing the bust and name of Domitian, the last of the Caesars, evidencing that the human bones had been deposited below it in lime-stone before the invasion of the Romans; Domitian having reigned as Emperor at Rome 1764 years ago, about 96 years after the birth of Christ.

**5.1.2.16** As no human bones have ever, to the knowledge of the author, been with in the fossil state, according to the geological acceptance of the term in lime-stone, and agreeably to the Mosaic and the natural theory of the creation, man was not an inhabitant of the globe until after the lime-stone formations occurred ; this discovery of human bones in the calcareous mountain of the Great Orme's Head cannot fail to excite the attention of antiquarians and geologists, and give rise to various conjectures respecting the period when the human bones were entombed in the same bed of lime-stone with the head of rams, and marine testaceous mollusca, whose empty habitations are visible on the surface of the stone”.

**5.1.2.17** Of direct relevance to the Kendrick tourist attraction is the final paragraph of the document. “The author must leave the subject for the discussion of antiquarians and geologists more experienced and competent to pronounce a decided and satisfactory opinion, after viewing the objects themselves, now open to public inspection at a small charge, at Quatford Cottage, in Llandudno, which has been erected by the proprietor for the special purpose of their exhibiting. Among the numerous natural attractions at Llandudno, none can be considered more interesting than these extraordinary curiosities. The phrenologist and all who are engaged in a philosophical inquiry into the progressive natural history of man, will find much to invite their investigations, and



*the objects have been so well arranged by Mr. Brown for public inspection, that they may be conveniently viewed by, and explained to all classes, without offending the delicacy of the most fastidious”.*

**5.1.2.18** This final passage shows that there was a successful business operating nearby which held very similar material to the artefacts which Kendrick would later place on show within his exhibition. The existence of this early attraction also adds credence to the argument that Kendrick was fully aware of what he had discovered within his cave and the economic potential of this discovery. This point will be examined in more detail when the discovery of the cave is examined.

**5.1.2.19** There is a further point to be made on this skeleton as a rather intriguing connection between Kendrick and this exhibit may be hinted at in a newspaper article dated September 27<sup>th</sup> 1884. The piece entitled “*The Geological History of Llandudno*” detailed a talk given by Mr. R.T Burnett, F.G.S, of Manchester in which the geology and prehistory of the area was discussed. In a passage the paper records “*Typical of this fact, Mr Burnett alluded in detail to that “rock skeleton” now used by Mr. Kendrick, the lapidary. The cromlech and incampment, both on the Great Orme's Head, were respectively dealt with as illustrating the prehistoric period that so apply along with “Kendrick's Cave” linked to the far distant geological past history of Llandudno with its now brilliant present condition*” (North Wales Chronicle 1884). The speaker has made a clear distinction between the “*rock skeleton*” which is described as used by, not found by Kendrick and the cave site. It is also clear that the human remains uncovered by Kendrick were never described in this way leading one to tentatively move towards the conclusion that the skeleton had been acquired by him for his museum and that quite possibly this additional information may lead to the eventual rediscovery of the current whereabouts of this fascinating and potentially ancient body.

**5.1.2.20** Beginning in 1849 when Edward Mostyn and Owen Williams began to develop plans to turn Llandudno from a mining and fishing village into a holiday resort, tourism in Llandudno was to become the dominant driving force in the development of the town. It is recorded that in 1854 there were approximately 200 dwelling but this had more than doubled to over 430 residences by 1862, spurred on no doubt by the opening of the Llandudno and Llandudno Junction railway branch line in 1858 ([www.oldllandudno.co.uk/historical-information](http://www.oldllandudno.co.uk/historical-information)). These tourists were in search of entertainment and the Quatford Cottage exhibit was an early element in creating attractions to visit, tapping in as it does to the interest in archaeology and geology of this period as detailed above.

**5.1.2.21** Things were also changing once more for Kendrick with the decline of the copper mining industry and the closure of the Ty Gwyn mine in 1853. The 1861 Census reflects this and Kendrick, although still resident at Tan yr Ogof Cottages, has his occupation recorded as an agricultural labourer. He is 39 years old, unmarried and is now living alone as his mother had died the previous year.

### **5.1.3 Kendrick's Later Life – Lapidary, Camera Obscura Operator, Cave Excavator and Museum Exhibitor 1861-1897**

**5.1.3.00** With the changes happening in Llandudno during this period Kendrick was to spot a lucrative business opportunity and by 1865 he had established his garden as a successful visitor attraction. This is alluded to in the North Wales Chronicle of September 2<sup>nd</sup> 1865 in an article drawing the readers attention to a “*very dangerous practise indulged in by boys and thoughtless young men amongst the visitors*” who had taken to throwing loose stones from the Great Orme down the sides of the slope. It continues “*a lot of these stones have fallen into the garden occupied by Mr. Kendrick, which said garden is much frequented by ladies and gentlemen and children*”.

**5.1.3.01** By the time of the 1871 census Kendrick's occupation is recorded as a lapidary. As a lapidary Kendrick would collect and polish stones to sell to tourists, and polish stones which were brought to him by customers. There are some contemporary accounts which describe Kendrick as being particularly skilled at his chosen trade. In his 1875 guide book "Llandudno and how to enjoy it, a handy guide to the town and neighbourhood" John Price (described as late of St John's College, Cambridge) makes several references to Kendrick including (page 47) when he describes a surface as glistening so much that "*no human art can polish; no, not thy lathe, dear Old Kendrick*". On page 63 he details the collection of geological specimens thus "*the best way to get a local collection is to pick it for yourself, and go upstairs to the aforesaid John (error by author) Kendrick, who knows most of the possibilities and impossibilities of Llandudno lithology, and will either refuse to polish your specimens, if worthless, or if he will accept the job, will return to you the very same stone that you brought him. The rejected stones lying, much to his credit, within his bizarre premises, would fill a tolerable wheelbarrow!*". He also mentions the "*lapidaries' bazaars are really very beautiful and instructive too, with their multifarious stones from other than the home circuit. Kendrick's rocky nest has already been mentioned, and thou mayest divert thyself by seeing him polish thy specimen, unless he break it to show thee it is not worth polishing, for even thus was the writer served*" (ibid 90). Price also makes a reference to Kendrick having now taken over the operation of the camera obscura which he describes as "*another attraction of Old Kendrick's*" (Price 1875: 60).

**5.1.3.02** A rather odd newspaper article written in 1875 shows that Kendrick had accrued a considerable amount of money by 1870 as it records that Mr Thomas Kendrick lost the sum of £125 in a "*very mysterious way*". The report describes how Kendrick as an "*old bachelor who lives almost exclusively by himself*" had the money stolen from a recess but it was not known how it was taken. He is said to have naturally suspected several neighbours but was never able to discover who the thief was. The 1875 article was concerned with a rumour which had been spread that week that "*the money had been found in a lump as it had been placed*" but that "*how this rumour originated Mr Kendrick is at present unable to explain, as there are, unfortunately, no grounds whatever whereon to base such a report*" (North Wales Chronicle June 12<sup>th</sup> 1875).

**5.1.3.03** The North Wales Chronicle dated November 11<sup>th</sup> 1876 provides further information about Kendrick and his businesses and has two entries for him in the "*Assessment List for the Parish of Llandudno*". The first is for his business which is listed as a "*lapidary place and camera obscura*" with the owners being given as Mostyn Estate and himself. The gross estimated rental value for the plot is £5 and the rateable value is given as £4. There is also an entry for his house at Tan yr Ogof (written as Tanyrogo) cottage which he rents from a Mrs D. Lloyd. For the house the gross estimated rental value is £4 and the rateable value is given as £3.

#### **5.1.4 The Archaeological Discoveries at Kendrick's Cave**

**5.1.4.00** There is a single contemporary account of the actual discovery at the site and doubt has since been expressed as to the location where the finds were made. This begins relatively soon after the initial discovery although it has not been possible to determine the origin of these rumours. It does however seem somewhat unfounded as when one examines the earliest account of the site, co-authored by eminent cave archaeologist Professor Boyd Dawkins and Fellow of the Geographical Society R. A. Eskigge in 1880, it is evident that the remains had been viewed in-situ. From the cave description given – particularly the line "*a chimney like fissure extends upwards some 25 or 30 feet*" it is clear that at the very least the initial finds were made in the lower cave. It does not however exclude the possibility that additional finds were later made in the upper cave but it is clear that the finds detailed in the early descriptions, in particular the most famous items - notably the horse jaw, four human burials, pierced bears teeth and smaller teeth necklace were from the lower cave site.

**5.1.4.01** It would seem very likely that much confusion has occurred between the items found in Kendrick's Cave and the items held in Kendrick's Collection which he had built up within a small museum on site. This issue will be returned to below.

**5.1.4.02** The following paper was published in Proceedings of the Liverpool Geological Society journal (1880) and is reproduced in full below.

***“Notes on Human Skeletons and Traces of Human Workmanship found in a Cave at Llandudno (by R.A Eskrigge, FGS)***

*A small cavern on the south-eastern face of the Great Ormes Head, overhanging the town of Llandudno, has for many years been occupied as a workshop by Mr. Kendrick, the lapidary. Some weeks since, desiring to enlarge his accommodation, he commenced excavations further back into the mountain, and soon found that the cavern had formerly extended a much greater distance, and was filled up partly by stalactitic accumulations, and partly by Limestone breccia. After working for some time in the removal of these materials, certain animal remains were found; and, carefully noting their position, Mr. Kendrick continued his excavations until below the breccia a stratum of cave earth was reached. This earth or clay has so far only been penetrated to a depth of 2 or 3 feet, and bones and fragments of bones of some large animals have been found. The largest bone remains insitu. The fragments have been submitted to Professor Boyd Dawkins, who has kindly written the accompanying memorandum. He declares them to belong to the bison, whose remains have frequently been found in similar caves. It is almost certain that further excavations will yield more remains.*

**5.1.4.03** *The Limestone breccia succeeds to the clay, and is from 4 to 6 feet in thickness; the stones are mostly angular, and more or less cemented together by the infiltration of water through lime. In this bed about one foot above the clay were found portions of the skeletons of four human beings, particulars of which are given in Mr. Dawkins' memorandum. The broken tibia of one skeleton and the foot of another remain to be seen insitu. Associated with these, and on the same level, were found two teeth of the brown bear, bearing clear marks of human workmanship. They have been perforated and apparently used as ornaments. There are also two portions of the lower jaw of a horse, with most of the teeth entire. One of these is beautifully ornamented with a herring-bone pattern. Several boulder stones, apparently used as hand hammers, or possibly as pot-boilers, and an oyster shell much worn on one side, as if used for scraping purposes, were associated therewith. Only a small portion of one human skull has yet been found; but a lower jaw with splendid molars is in excellent preservation, and lay in close proximity to the cervical vertebrae. From 2 or 3 feet above the human skeletons were found, still in the Limestone rubble, the skull of a badger, a horse's tooth, and remains of sheep, or goat, boar, and Bos longifrons or short-horned ox.*

**5.1.4.04** *In the bones above the cave earth there is no sign of gnawing, nor of their having been split by carnivores or by man in search of marrow. Many of the bones in the cave earth itself have been subjected to such treatment – most probably, as suggested by Professor Dawkins, broken by man himself. The extent of the cavern cannot be yet defined; a chimney like fissure extends upwards some 25 or 30 feet. The Limestone breccia, at about the same horizon as the human were found, bears evidence of fire, traces of charred wood being embedded in the burnt stone. Above the breccia is a mass of stalagmite of irregular thickness, containing at different horizons accumulations of the bones of bats, mice, etc., probably brought into the cave by owls.*

**5.1.4.05** *My first impression was that the human inhabitants of the cave had possibly been killed by the falling in of the roof; but Mr. Dawkins has no doubt, from the surrounding circumstances, that it was a place of burial. The remains still belong to Mr. Kendrick, of Llandudno, but he kindly placed them at the disposal of the writer for scientific examination, and the markings on the horse's jaw being quite unique in character, it is hoped they will be secured for exhibition in some museum. It*

will be seen from Professor Dawkins' notes that he considers the human and associated remains to be of Neolithic Age\*.

**5.1.4.06** (Footnote \* August 5<sup>th</sup> – Further excavations have since been made, resulting in the discovery of a few flint flakes, with which the markings on the horse's may have been made, and also a number of small teeth with holes drilled through, probably used as a necklace).

***Memorandum on the Remains from the Cave at the Great Ormes Head  
(by Professor Boyd Dawkins F.R.S)***

**5.1.4.07** 1. Remains from cave earth – The broken bones are in a different mineral condition from the rest and have probably been broken by the hand of man. They consist of fragments of the marrow-containing long bones of Bison. They are, I am informed, derived from the lowest stratum, and probably belong to the Pleistocene age.

**5.1.4.08** 2. The human remains above the cave earth – The human remains consist of portions of four skeletons at least – three adult and one child – and present a combination of characters similar to that determined by Professor Bush and myself in the skeletons from the sepulchral caves at Perth Chwaren and Rhos-digre, near Ruthin, and from the chambered tomb of Tyddyn Bleidden, near Cefn, St. Asaph. Three out of the four femora are strongly carinate, and the fourth is slightly so, while the only tibia sent along with them is flattened laterally and presents the kind of platycnemism figures in my work on cave-hunting.

**5.1.4.09** 3. The stature of the men buried – The two most perfect femora measure respectively 17.9 and 17.6 inches, which, according to Professor Humphrey's method, would imply that the average stature of their adult possessors was 5 feet 4.3 inches.

**5.1.4.10** This small stature is also characteristic of the skeletons mentioned above from other burial places in Wales, and when taken along with the other characters of the bones, shows that the men who buried their dead in the cave of the Great Ormes Head, belong to the small long-headed Iberic aborigines who possessed Europe west of the Rhine and north of the Mediterranean in the Neolithic age.

**5.1.4.11** 4. Associated animals – The remains of the associated animals belonging to the badger, brown bear, *Bos longifrons*, short-horned ox, sheep or goat, boar, and horse, prove that the interment did not take place earlier than the Neolithic Age; while the two pendants or ear-drops, made of the right and left upper canines of the brown bear, and the lower jaw of a horse, marked with an incised zig-zag or chevron pattern, exhibit a phase of culture more general in the Neolithic Age than afterwards.

**5.1.4.12** 5. The canines of the bear – The upper canines of the bear have been obtained from the same head, and are ornamented with transverse lines on the fang, and have the fang perforated for suspension. From the polish on the surface it is evident they were worn for some time before they were placed with the dead.

**5.1.4.13** 6. *Jaws of horse, cut and ornamented* – The remains of horse consist of the front part of the two lower jaws, the incisors, symphysis, and the diastema broken away in front of the molar series. The outer surface of the bone has been scraped by the hand of man in both jaws, and in one it is covered with zig-zag lines passing from the alveolar-edge (the edge of the diastema) on the one side, to the mental foramen on the other. In this the outer surface of the incisors is polished by friction against some soft substance, and, as it appears to me, more so than it would be naturally in the mouth of the horse. The use to which these articles were put by their possessors is altogether uncertain, but they may have been simply ornaments, or perhaps had some superstitious value.

**5.1.4.14** *Stones* – The stones found with the human remains are derived from the boulder-clay of the neighbourhood, and may have been used as pot-boilers.

**5.1.4.15** *General Conclusion* – The general impression left on my mind by the whole series is that the interment is of Neolithic age, and that the cave was used as a sepulchral vault by a family of small Iberic dwellers in the neighbourhood. The discovery is of high interest and it should be followed up without delay” (Eskrigge & Boyd Dawkins 1880).

**5.1.4.16** Also included with this article were two figures drawn by Miss Ida Thomas which illustrate one of the bear teeth and the decorated horse jaw. These are the earliest images of the finds and are included as figures 3 and 4.

**5.1.4.17** The next source which was found which records the discovery at Kendrick's Cave is a short piece which appears in the Shrewsbury Chronicle on the 24<sup>th</sup> September 1880. The bulk of the article is a reproduction of the Eskrigge & Boyd Dawkins article but a little further detail is added. It states that “a short time ago an old resident of Llandudno, while digging in a cave on the side of the Great Ormes Head for rough stone to build a wall, came upon a number of pieces of bone, teeth &c. These might probably have been consigned to the debris from which they had been removed had it not been for a medical gentleman of Bangor, who recognised in them the remains of human beings and the work human hands. This resulted in their being examined by Professor Boyd Dawkins, Professor M’Kenny Hughes, and other eminent Palaeontologists”.

**5.1.4.18** This report is rather different to the Eskrigge & Boyd Dawkins article which clearly states that Kendrick was excavating carefully and had noted the locations of the various finds. It is also a little strange that there is mention of “a medical gentleman of Bangor” who was able to identify the remains as human and worthy of study. One would have to agree with Huw Williams who states “it is highly improbable that a medical gentleman from Bangor would have been passing the then dangerous slope which housed the cave at the moment the lapidary made his finds. It is far more feasible that Thomas Kendrick enquired as to the origins of the remains and they were submitted to professors Boyd Dawkins and M’Kenny Hughes and other eminent palaeontologists” (Williams 1990: 7). As is demonstrated in Section 5.1.2 Kendrick would have been aware of the implications of his discovery and it is far more likely that Kendrick was allowing visitors to his workshop to view the excavation. He may have sought advice as to who to contact or a visitor who was knowledgeable in the field made contact with Eskrigge and others. It is also a strong possibility that Kendrick showed the remains to Dr. Henry Thomas of the Llandudno Hydropathic Hotel and it was he who contacted Boyd Dawkins on Kendrick's behalf, and it is clear from later sources that the two men knew each other. Brown had contacted other specialists with regards to later finds made by Kendrick and this may have been an earlier collaboration.

**5.1.4.19** The Shrewsbury Chronicle article was followed up by an Archaeologica Cambrensis article in 1881 which provides us with a little detail as to the museum display set up by Kendrick within the cave. Interestingly this piece credits the identification of human remains within the cave to Boyd Dawkins and Eskrigge although it is clear from their description of the discovery that they were

shown the site by Kendrick. It is difficult to ascribe this anything other than class or academic snobbery and it would appear that many of the later sources all suffer from this bias. The short piece is reproduced in full below.

**5.1.4.20** *“Prehistoric cave at Llandudno – A prehistoric cave of great interest was discovered some eighteenth months ago by an old inhabitant whilst quarrying for stone on the south-eastern face of the Great Orme's Head, opposite the end of Mostyn Street, at some elevation above Church Walks. It is within the grounds of Mr. Kendrick, lapidary. Amongst the breccia and clay of the newly opened cave were found embedded a great quantity of bones and teeth. Amongst the former, Professors Boyd Dawkins and Hughes have discovered the remains of four human beings of short stature, with long skulls, believed to be of the same race as once dwelt in southern Europe in the Neolithic epoch. A human jaw reveals several molars in splendid condition. In a small glass case within Mr. Kendrick's workshop (which forms the original entrance) are several objects of extreme interest to the student of early man in Britain. A necklace of teeth of various animals, several canine, is shown with the holes drilled at the ends of the fangs, evidently by chipped flint, pieces of which have been found. This necklace bore signs of long use in its polish. Two strange looking teeth, about 3 inches long, of the great extinct cave-bear, drilled and transversely cut into fangs by human hands, thought to have been ear pendants, are very significant. Associated with these are the remains of several domestic animals, as dogs, horses, etc. There is also a badger's skull in very perfect condition. Other relics are shown of a period long anterior to history or tradition”.*

**5.1.4.21** A further description is published by the Rev. Canon W. Ingram in 1885 in The Geological Magazine and transcribed in Archaeologica Cambrensis. It reads as follows;

*“We copy the following from the current number of The Geological Magazine, in which the Rev. Canon W. Ingram, F.G.S., writes :- “A cave in the south escarpment of the Great Orme's Head has been in gradual process of exploration by a person named Kendrick. In its silt and breccia he has discovered fragments of human skeletons, indicating by their dimensions that the individuals to whom they belonged were about 5 feet 6 inches in height. Some of their tibiae are still to be seen embedded in situ. There has also been found a considerable quantity of swine's teeth, each marked on the fang with from four to six transverse lines, and perforated at the extremity with a hole, through which ran probably a tendon of a reindeer, or some other ligament, stringing them together as a necklace. There is a similar one, composed of human teeth, in the Christie Collection in the British Museum, worn by the inhabitants of the Solomon Islands. From the same cave-deposit there have been extracted several bears' teeth with a hole in each of them for their suspension as earrings; and two lower equine jaws with the enamel of the four incisors highly polished, and with zig-zag marks on the surface of the maxillary bone. These were probably hung also from the necks of the cave-men as ornaments. The whole cavern, or a portion of it, has been considered to have formed a burial place for some Iberian tribe; but the careless and irreverent manner in which the dead in it appear to have been disposed of seems to indicate that it might have been the habitation of a race of cave-men akin to the Eskimos, whom Professor Boyd Dawkins, in his “Early Man in Britain” describes as so indifferent to the sepulchre of their deceased relatives, that they sometimes cover up their bodies with snow, and leave them to be eaten by dogs or foxes. The cave, which contains a natural reservoir of water, has only been partially excavated, and further researches seem most desirable, as they might lead to the finding of very important relics of its original inhabitants, as well as settle any doubts which may have arisen as to the accuracy of the present explorer's statement, on which the truth of the discovery of the above mentioned remains in that particular cave rest”.*

**5.1.4.22** This is the first article which questions the honesty of Kendrick and expresses doubts as to whether the finds were indeed recovered from the lower cave. The source of this uncertainty is not clear and indeed it is evident from the initial report written by Eskridge (and repeated within this



article itself) that he has visited the site and seen some of the bison bones and parts of the human remains in situ. In order to have added the footnote about further excavations having taken place it would also seem that contact with Kendrick was maintained. In addition to this there is a field note book held in the Boyd Dawkins collection, Buxton Museum, with an entry dated 25/03/1880 Llandudno, Great Orme's Head. Although it does not specifically mention Kendrick's Cave it would seem most likely that he too visited the site when it was under excavation.

**5.1.4.23** Eskrigge & Boyd Dawkins were not the only people to visit Kendrick's Cave during excavation and the site was open to other visitors. A piece was published in The North Wales Chronicle on May 21<sup>st</sup> 1881 detailing the activities of *"The Menai Society of Natural Science and Literature"* during the previous year and mentions a visit made to Llandudno. Included in the itinerary was the sentence *"on returning to Llandudno the cave containing bones dating back to the glacial epoch was visited, and some bones still in situ were seen by the members"*. From an examination of an earlier newspaper edition (September 25<sup>th</sup> 1880) we can date this visit to September 17<sup>th</sup> 1880 and it is very interesting to note that this article records *"the interest of this visit was enhanced by the reading of the following notes by Professor Boyd Dawkins, F.R.S., which were kindly placed at the disposal of the party by Dr. Thomas, of the Hydropathic Establishment"*. It also adds the interesting details *"the discovery is of high interest, and it should be followed up without delay. We may add that these extremely valuable remains were recently inspected by Professor McKenna Hughes, who fully concurred with the observations of Professor Dawkins"*. This once more shows that Kendrick is clearly in touch with the academic establishment and the links between him and those in the area who follow such finds are reinforced. The article mentions Dr. Thomas as having the article written by Boyd Dawkins.

**5.1.4.24** Following Kendrick's excavations the cave was transformed into a tourist attraction and there are a number of mentions of the site made in local guides and newspapers. The earliest account sourced was found in the North Wales Chronicle dated August 27<sup>th</sup> 1881. It is contained within a letter entitled *"Prehistoric Cave at Llandudno"* written by a Joseph Gleave of Manchester following a visit to the town. It begins *"Sir – Perhaps many visitors to Llandudno are unaware of the existence of a prehistoric cave of great interest discovered some eighteen months ago by an old inhabitant whilst quarrying for stone on the south-eastern face of the Great Orme's Head, opposite the end of Mostyn Street, at some elevation above Church Walks. It is within the grounds of Mr. Kendrick, lapidary"*. It then contains information taken from the Eskrigge & Boyd Dawkins article before continuing *"What a wide field of thought to the reflective minds these caves and their contents open up! What altered configuration of the earth's surface they reveal! What strange fauna and flora they bring to light! What revelation of man's social state in those dim-off days! To the geological student how stripped of their mythical weirdness seem the legends of uncanny creatures of medieval lore, for the rocks have entombed strange beasts far more wonderful than the fabled Dragon of St. George. How true did our great bard sing "Sermons in stones, Books in the running brooks, And good in everything". N.B – This cave is within the grottoed grounds of Mr. Kendrick, where is also situated the Cam-ra"*.

**5.1.4.25** The 1882 *"Gossiping Guide to Wales"* also contains an entry for Kendrick's Cave. It states that *"during the winter 1879-80 another cave was developed whose finds far eclipse all the others by the interesting character of its contents"*. It continues *"the new find at Llandudno is very accessible, and will interest the more intelligent of visitors, whether antiquarians or not. The discovery was accidental and on this wise Mr. Kendrick, a lapidary, who has for many years exhibited a Camera on the side of the rock overhanging the top of Mostyn Street had occasion to erect a supporting wall below his summer house; so he dug into the rocks behind him for stone. Fortunately an intelligent visitor was attracted to the debris, who put himself in communication with that enthusiastic Cave Hunter, Mr. Boyd Dawkins. The result is a most interesting collection of the remains and belongings of the prehistoric inhabitants of the district"*. It then includes an extract

from the Archaeologia Cambrensis article reproduced above before continuing “*in a small glass case within the workshop of Mr. Kendrick are several objects of extreme interest to the student of early man in Britain. A necklace of teeth of various animals, several canine, is shown with the holes drilled at the ends of fangs, evidently by chipped flint, pieces of which have been found. This necklace bore signs of long use in its polish. Two strange looking teeth, about three inches long, of the great extinct cave bear, drilled and transversely cut on fangs by human hands, thought to have been ear-pendants, are very significant. Associated with these are the remains of several domestic animals, as dogs, horses &c. There is also a badger's skull in a very perfect condition. Other relics are shown of a period long anterior to history or tradition*”. Interestingly there is a retaining wall below the structure in front of the Upper Cave and this description hints that this could have functioning as Kendrick's Summer House – implying that it was already built before the Lower Cave was emptied. The evidence is however not conclusive.

**5.1.4.26** On 28<sup>th</sup> August 1886 The North Wales Chronicle runs a piece entitled “Holiday Notes – Llandudno in August” which includes a small piece on Kendrick's attractions. It says “*Visitors to Llandudno should by no means omit to call and see Mr. Kendrick's cave and museum of curiosities at the foot of the Great Orme's Head. Many of the relics Mr. Kendrick has collected have been dug by himself out of the cave in the Great Orme which he shows to any who like to explore it. Among the discoveries are human bones and teeth, flint and other weapons, and bones and teeth of the bison, the cave bear and other extinct British animals. His finds are very much after the character of the Rev. J. M. Mello's discoveries in the Cresswell caves, and Mr. Kendrick's relics have been fully described by Professor Boyd Dawkins who pronounces them of great interest and value. Besides his caves and curiosities Mr. Kendrick has a pleasant grotto on the rock-side, a camera obscura, and many other attractions which he shows with a pleasant pride at the most trifling charge*”.

**5.1.4.27** John Heywood's “*Illustrated Guide to Llandudno and Neighbourhood*” dated 1888 guide contains the following entry: “*Of great interest to antiquaries and all intelligent tourists is a discovery made in the winter of 1879-1880 of an ancient cave dwelling in the side of the Great Orme, at a point opposite the head of Mostyn Street. It was discovered by accident, and a most interesting “find” was the result. Remains of four human beings of short stature, with long skulls, supposed to be of the Neolithic period; a necklace of teeth of various animals; two teeth of the great extinct cave bear, drilled and cut by human hands; the remains of several domestic animals, dogs, horses, &c; a badger's skull, and many other relics of a period long anterior to history or tradition were found, and can be inspected on the premises of the owner, Mr. Kendrick, lapidary (Admission 2d)*” (page 25).

**5.1.4.28** The museum was a continued success and a newspaper article written in April 1888 referred to its continued operation. The piece appears in the Manchester City News on Friday April 28<sup>th</sup> although it appears to be a reproduction of an earlier piece printed in a local paper on the 18<sup>th</sup> April. It reports to the skill of Kendrick in discovering antiquities on the Great Orme. Extracts from the article are included as they make numerous references to the previous discoveries and to Kendrick himself. “*An interesting find of ancient Roman coins was made in this neighbourhood a short time ago by Thomas Kendrick, a local antiquary, well known to the visitors and inhabitants of Llandudno as the proprietor of the interesting museum and camera obscura upon the Great Orme's Head. It is not many years since this enthusiastic searcher unearthed, whilst enlarging the tiny area at the back of his workshop - “his back parlour” - some prehistoric human remains associated with the bones of bison, boar, badger, horse and teeth of white bear. The cave and bones were examined by Professor Boyd Dawkins, F.R.S, who gave it as his opinion that the interment was of Neolithic age, and that the cave had been used as a vault by a family of small Iberic dwellers in the neighbourhood.*”

**5.1.4.29** But to return to the more recent discovery of the Roman coins Mr. Kendrick is at the present time engaged with others in the excavation of the road immediately beneath the aforementioned museum and camera. While working beneath the road, previous to the building up of a stone wall which rises at the sides of and some distance above the road, he came upon marks of what he tells me had been an ancient fire-place, and later, imbedded in the clay, several Roman coins with one piece of pottery. The coins are seventeen in number and all copper. The impression upon either face is well preserved. Upon the one side is represented the head of the Emperor Carausius, and round it are the letters IMPCARAUSIUS PAUC. The last four letters are not so legible and I may have given them wrongly. Upon the reverse side is an erect female figure who holds, with the right arm extended a leaf (?); her left arm rests upon a staff. Round this figure, as nearly as I can make out, are the letters HICOPH. Most of the coins were similar to the one I have just described, but on the reverse of one the figure is seated on what appears to be a wheel; and there was yet another variety of design upon the reverse of one coin rather smaller than the rest. On this, two figures are seated back to back at the foot of the military arms that rise between them – a helmet, breastplate, and two shields suspended on a ?????? staff. On two of the coins the dates are legible (damage to paper) respectively. Referring to the (damage to paper) I find “Carausius, a tyrant of Britain for seven years, A.D 293”. Other finds of Roman coins and antiquities have been made by Thomas Kendrick on the Great Orme's Head. They may be seen at his museum, and will well repay a visit of examination” (Source: Conwy Archives CX522/1/1).

**5.1.4.30** With the coin hoard discovery we once more see that Kendrick makes available his discovery for examination by leader in their field. In an article published in the North Wales Chronicle on the 17<sup>th</sup> November 1888 it is added that “*The coins were sent to the British Museum to be classified, and a list is published in the Numismatic Chronicle, vol. Viii., ser. 3, p. 163. They are – one of Galienus, two of Victorianus, one of Tetricus, thirteen of Carausius*”. It would seem from this discovery that Kendrick is able to clearly distinguish what he has found and indeed it is tempting to imagine that with all his years of collecting antiquities from the Orme he would seem likely to have been carrying out something akin to a modern day archaeological watching brief on the works near his house and workshop.

**5.1.4.31** A short note on the discovery was published in the 1888 edition of the Archaeologica Cambrensis Journal. This article adds little information to the two sources cited above aside from one small but important note. It is recorded that “*the coins were forwarded by Dr. H. Thomas, Llandudno*” and it would seem most likely that this was Dr. Henry Thomas of the Llandudno Hydropathic Hotel, the same individual who is mentioned in the article reporting the visit of The Menai Society of Natural Science and Literature to the cave site during excavation. Presumably he and Kendrick had remained in touch due to a shared interest in the geology and archaeology of the Orme or quite possibly that it is Thomas who is the medical man referred to in some of the early articles as identifying the human remains and drawing them to the attention of Boyd Dawkins. This would be entirely conceivable as given Thomas' interest in the subject, he was likely a regular visitor to the lapidary and had been shown the finds by Kendrick when they were first discovered.

**5.1.4.32** A letter published in the North Wales Chronicle dated 1<sup>st</sup> November 1890 makes mention of the site when lamenting the lack of a museum in Llandudno. A J. Hiam of Worchestershire writes “*it is true Mr. Kendrick has a very miscellaneous and interesting lot of curiosities, but nobody will deny that his museum might be better kept and arranged, and to many, such as invalids, it is quite inaccessible*”.

**5.1.4.33** A final source of information on the cave as a visitor attraction is included in the work of Sieveking (1971: 231) in which he includes the following description from Mrs. Humphreys of Ardwy Orme written in 1957: “*It appears that Kendrick afterwards exploited the scientific interest aroused by the site to make these relics into a public exhibition at the cave entrance, and he also*

*added to these attractions a tunnel, which he excavated into the back of the cave and lit by lanterns hanging from the roof”.*

**5.1.4.34** There are a small number of surviving photographs of Thomas Kendrick in later life including one showing Kendrick standing outside his workshop (figure 5), a further photograph of Kendrick within the grounds of his workshop standing in front of a further structure believed to have housed some of his exhibits within his gardens (figure 6), one of Kendrick working at his lathe (figure 7) and perhaps most interestingly for the purposes of this report one which is believed to show Kendrick standing in front of the structure he is believed to have built onto the upper cave site (figure 8). This may be the summer house referred to in earlier descriptions of the site.

**5.1.4.35** This picture was included in a 1991 publication by the Llandudno and District Historical Society and was captioned “*A family dines al fresco in the summer of 1905. The contrast between the elegant dress of those seated with the rather primitive home, part of which was set into the rock of the Great Orme, is very noticeable*”. It would seem likely that the picture was incorrectly labelled and it is thought that the picture dates from 1895-7 and shows Kendrick together with G.A Humphreys and family. Humphreys built the house at Ardwy Orme which now has the lower cave site incorporated into the garden. A date stone shows that part of the current structure was built in 1895, two years before the death of Kendrick and being such close neighbours one cannot help but assume that they would have known each other well. Ardwy Orme is currently owned by Professor Wilson, the grandson of G.A Humphreys, who believed that it was his family when shown the picture.

**5.1.4.36** Figure 9 is a photograph taken during the works from approximately the same location as the earlier photograph. The distinctive gable end of the building below and the view out to sea confirms that the picture is of this cave entrance and it would seem that either Kendrick or an earlier occupant had erected quite a substantial building in front of the upper cave. The building appears to cover both of the current cave openings, although only one of these openings appears to be natural and there is clear evidence of drill holes for explosives surrounding the smaller of the cave entrances.

**5.1.4.37** It is not known whether the expansion of the smaller entrance was carried out by Kendrick or not but given the proximity to his valuable cave below it would seem most likely that this work pre-dates his involvement with the site and may be related to the nearby quarrying or mining activities. Indeed this cave may well have been lived in before it was used by Kendrick as there are a number of cave sites around the Great Orme which were used to house some of Llandudno's inhabitants at this time. This theme is returned to in section 5.2.

**5.1.4.38** Thomas Kendrick died aged 76 on the 27<sup>th</sup> December 1897. Jones 2013 records that “*Present at his death was David Owen of Marine Drive, Great Orme, Llandudno – his nephew by his sister Anne. The attending doctor (Dr. K.H.B Williams) certified his death as being due to heart failure and bronchopneumonia*” (Jones 2013: 6). He was buried at St. Tudno's Church on the Great Orme and a photograph of his gravestone is included as figure 10. It bears an inscription to Thomas Kendrick, his father William and his mother Anne and a short poem:

*“To me you were all kind and true,  
While I was on earth here with you.  
Then do not mourn, you did your best,  
You kindly loved me until the last”.*





**Figure 5.** Kendrick  
In Front of his Workshop  
(Source: ([www.sites.google.com/site/cavesofnorthwales/](http://www.sites.google.com/site/cavesofnorthwales/)))

**Figure 6.** Kendrick  
In Front of his Museum  
(Source: Conwy Archives  
CP395/1/18)

**Figure 7.** Kendrick  
Inside his Workshop  
(Source: Conwy Archives  
CP395/1/16)







**Figure 8.** Photograph of Kendrick and the Humphreys Family In Front of the Upper Cave. Dated 1895 - 1897  
(Source: Llandudno and District Historical Society 1991)

**Figure 9.** View of Mouth of Upper Cave taken from Roughly the Same Location.

Note Building Gable to Left of Structure in Figure 8 and Headland Profile in Distance





**Figure 10.** Thomas Kendrick's Grave, St. Tudno's Church, Great Orme

**5.1.4.39** A number of obituaries were written in local papers show the obvious affection for Kendrick within the local community. The following piece was written in the “Llandudno Advertiser and List of Visitors” on the 30<sup>th</sup> December 1897. *“The death of Mr. Thomas Kendrick which took place on Monday last, removes another well-known and interesting figure from our midst. The collection of curiosities which he possessed at his gardens in Tygwyn Road, on the slope of the Great Orme, were obtained from many lands, and constituted a life-long work which he had devoted himself to single-handed. The gardens were visited by many hundreds of persons every summer, who experienced great delight in exploring the natural caves to be seen there and inspecting the miniature museum. Mr. Kendrick was born on November 8<sup>th</sup>, 1821, and will be interred tomorrow morning at St. Tudno's Churchyard”.* An identical obituary was carried in the North Wales Chronicle of the same date.

### **5.1.5 The Kendrick Legacy**

**5.1.5.00** At the time of his death Kendrick held what was likely to have been the most extensive and finest collection of archaeological finds from the Llandudno area amassed at the time and the following section explores what happened to these items in the following years.

**5.1.5.01** It is perhaps now best to interject that a distinction must be drawn between the items from Kendrick's Cave and the items from Kendrick's Collection. The items from the cave are taken to be only the items mentioned in the early accounts as having been found there, whilst the collection itself is made up of items from throughout the locality and quite possibly beyond which were found or acquired elsewhere by Thomas Kendrick and were put on display in his museum. There is all likelihood that some of the “collection” items could have actually come from the cave but without additional sources to confirm this it will have to remain a matter of conjecture. It is however almost certain that many of the finds within Kendrick's Collection were made by Kendrick himself and that he used his extensive local knowledge to acquire finds of archaeological and geological interest.

**5.1.5.02** Following Kendrick's death his estate passed to his sister Anne who put the collection of curiosities amassed by her brother up for sale. The offer of the items was a matter which attracted wide interest and there are two letters from Anne Walbank Buckland to the eminent antiquarian and archaeologist of the era General Pitt-Rivers. The letters have been transcribed by the Pitt Rivers Museum. In the first Anne writes on April 14<sup>th</sup> 1898:

**5.1.5.03** “Dear General. Pitt-Rivers,

*I have just learnt that some relics which I saw two years ago, & believe to be of great interest are for sale, & knowing you are a collector I think you will pardon me for calling your attention to them.*



**5.1.5.04** *They belonged to an old lapidary who had discovered them in a cave in the Great Orme's Head, and were described some years ago by Professor Boyd Dawkins as of Neolithic age. The owner died at Xmas, & I now hear his sister is selling or offering for sale, all the curiosities he had collected, & amongst them the necklace found with the Neolithic remains in the cave, which will probably thus pass into the hands of some dealer in curiosities, instead of finding its proper place in some national collection. The marked teeth are I think rare, if not unique in Britain, although found in French & Belgian caves.*

**5.1.5.05** *I wrote a little paper on the subject for the Anthropological Society, which was returned to me for the reason given in the annexed letter, I sent it to you herewith as more explanatory than a letter, & if it should be to you in oft-told tale you will perhaps kindly return it to me, & pardon me for writing to you of things already known, but which seem of special interest to*

*yours greatly obliged*

*AW Buckland*"

In a second letter (dated April 27<sup>th</sup> 1898) responding to some queries from Pitt-Rivers she adds

**5.1.5.06** *"Dear General Pitt-Rivers, I am sorry I cannot give you any address in Llandudno with regard to the necklace, bears teeth & horse's jaw with marks upon them, about which I wrote to you. I thought you might probably have a correspondent in the neighbourhood, or some agency employed by you in such transactions, or might know the owner of the property who allowed the old lapidary to take possession of the cave in which he had discovered the neolithic human remains, & their ornaments. The cave itself is most interesting, & the genuineness of the discovery was endorsed at the time by Boyd Dawkins, so that I trust it may not now be given over to the tender mercies of the excursionist & curiosity seeker. My informant was a lady from Llandudno who knowing I was interested in the matter called to tell me that the old lapidary, whose name I think was Kennion [insert] drick [end insert] was dead & that his sister was selling all his curios as fast as she could. He had a few good things & a lot of rubbish all which, with the cave containing some of the Neolithic remains still in their original matrix, & a Camera Obscura which he had erected in the Garden he exhibited at 2d a head.*

**5.1.5.07** *My informant said it was rumoured that the authorities of Owen's College were thinking of purchasing some of the things, but she feared that the old man's sister would accept the first good offer, not caring what became of the things so perhaps ere this they are well dispersed. I am very sorry to hear you are invalided, but trust the ailment is transitory. I see at last there is some chance of the establishment of an Anthropological Museum & Bureau of Ethnology in London I remember that you brought forward a plan for such an institution some years ago, & trust now your scheme may be adopted I was glad to see that Mr Rudler had been elected President of the Anthropological Institute, but I have not seen him, as I am not able now to attend the coming meetings. I should like my little paper back some day, at your convenience.*

*Yours very truly*

*AW Buckland*" (source: [www.web.prm.ox.ac.uk](http://www.web.prm.ox.ac.uk)).

**5.1.5.08** *As stated in the second letter General Augustus Pitt-Rivers was in poor health at this time and it appears that he was unable to pursue the acquisition of the collection. The future of the collection was however drawing interest locally and the following letter to the editor was published in the Llandudno Advertiser and List of Visitors on April 21<sup>st</sup> 1898.*

**5.1.5.09** “Sir – An occasional visitor to Llandudno for many years, I frequently have been, with my children, glad to seek instruction as well as amusement in visiting the little museum of the late Mr. Kendrick, whose death was widely and sympathetically mentioned in the newspapers not long ago.

**5.1.5.10** On enquiring whether any effort was being made to preserve his memory and a record of his work I was surprised to learn that no steps had been taken so far; and at the risk of obtruding on your valuable space, I venture to urge that this is a matter worthy of the attention of your local authorities before it is too late.

*I enclose my card, by prefer to sign myself – Yours faithfully, North Parade”.*

**5.1.5.11** A collection of artefacts from Kendrick's museum was purchased by the Llandudno Public Library committee in 1898 for the sum of £120. It was bought as “*the whole of the coins, fossils and curios, etc.,. Belonging to the late Thomas Kendrick of this town*” (Humphrey's 1938) although it was noted by G. A. Humphrey's in his 1907 article that the remains were “*not as complete as when submitted to Professor Boyd Dawkins*”. The minutes from the committee meetings are held in Conwy Archives (XM/4016/2) and the entries dated 6<sup>th</sup> September and 4<sup>th</sup> October 1898 discuss the acquisition. These documents record that it was resolved “*that an offer of £120 be tendered to Mr. T.W. Griffiths (presumably the agent acting for the family) for the whole of the curios, cases &c in Kendrick's Museum*”.

**5.1.5.12** An item of note which was once held in the Kendrick Collection was the subject of an article in the North Wales Chronicle dated 20<sup>th</sup> May 1899. It details a “remarkable coin” which was described thus “*the face of it represents a medallion of Christ, and in Hebrew, “Jesu Alpha”. On the reverse appears in Hebrew, “Messiah to King. He came for peace, and light for man He bought. He lives”. The coin is at present in the possession of Mr. Alec Hughes, Rochester House, who has sent us an excellent photograph of it. We may add that it is remarkably similar in every detail to a coin recently found in Paris, about which so much has been published, and with reference to which it is stated that there are only two like it in existence*”. This item highlights that in addition to the material found by Kendrick he also amassed further items of huge significance both locally and nationally.

**5.1.5.13** The items were bought with a view to using the collection as the core of a town museum and there was also talk at this time of also purchasing the cave site itself. *The North Wales Chronicle* dated January 14<sup>th</sup> 1899 included the following extract from a local committee established in the hope of raising funds for a museum “*Why could not the institution get hold of Mr. Kendrick's cave, known to thousands of visitors, which abounded in priceless treasures, relics of centuries*”. This purchase did not however happen and the cave was incorporated into the gardens of Ardwy Orme.

**5.1.5.14** Having purchased the Kendrick's Collection the library struggled to find a suitable place within which to display the items and it is clear from contemporary newspapers that although a concerted effort was made to establish a museum where they might form the “*nexus*” of material informing visitors of the history of the town the money was not forthcoming. Instead it became clear that if the items were to be displayed then the library would need to be enlarged and it was proposed in the 1898 annual meeting it was agreed that the sum of £1000 would be raised to add a second storey to the building in which to house a recreation room and museum (*North Wales Chronicle* January 14<sup>th</sup> 1899).

**5.1.5.15** At the annual meeting at the close of 1899 this had still yet to be realised and the North Wales Chronicle of January 20<sup>th</sup> 1900 reports “*your committee regret that the suggestion in last year's report as to the provision of additional buildings for the purpose of a museum has not been met with any success. However it is still hoped that the opportunity to carry out this praiseworthy object may yet present itself*”. It later continued “*after alluding to the reference in the report to the cause of the adverse bank balance being the purchase of Mr. Kendrick's curios, Mr. Bevan said he thought that in that connection that they had done the right thing. They thought the curios should be retained in the town. He knew for a fact that other towns were asking their value, and he hoped Llandudno's anticipations in the museum direction would be realised; that they might enlarge that institution for the purpose. A museum there would be to the credit and benefit of the town*”.

**5.1.5.16** Although the new building was not to be built until 1910 in 1902 the decision was made to sort the Kendrick Collection and place it in glass cases (Humphreys 1938). Conwy Archive holds a photographic plate which it is believed by the author was taken at this time which shows the items which were excavated from Kendrick's Cave (Reference: X5/22.24/19/8/5/3). This is included as figure 11. A second photograph showing more of the assemblage (figure 12) is included in Roberts 2002 book and it is believed that the source of this plate is also Conwy Archives but it could not be found during our visit. The existence of this second picture also raises the possibility that there are others in the series showing the coins, fossils and curios which were purchased alongside the cave artefacts but without knowing what these items are catalogued as it is likely to prove a challenge to find them. There may also be a list of artefacts as it does state in Humphries 1938 paper that money was assigned to catalogue the library items in 1903 but this has not as yet come to light.

**5.1.5.17** These photographs show that Sieveking's assumption that the material that was on display in the museum c. 1971 was the full extent of the items bought was incorrect. The photograph shows far more pierced teeth<sup>1</sup> than are currently held in museum collections and it shows that the pierced bear's teeth were originally bought by the library but have since been lost. These teeth were believed by Sieveking (1971) to have been sold at a 1932 auction of the house and contents of Glynllivon Park, Caernarfon. A copy of this catalogue was sourced from Bangor University Archive (SC/482) and the items which are thought to be the bears' teeth from Kendrick's Cave are listed in the section entitled “*The Collection of Early Bronzes and Other Relics Mostly Found in this District, Collected and Preserved by the Late Mr. Wynn*”. They are part of Lot 345 which is comprised of: part of a necklace of bears' claws of prehistoric type, a spur, coal money from Kemridge Bay and a bronze ring and key found near Llandiniolen. If these are the missing items then quite how these teeth came to find their way into private hands is a mystery.

**5.1.5.18** A much quoted source of information about the site is a lecture entitled “*Prehistoric Remains*” given by G.A. Humphries to the Llandudno and District Field Club in 1907 when he led a visit to the cave which he had incorporated into his gardens. This paper is however predominantly a summary of the Eskrigge & Dawkins paper of 1880 and it adds little other than a note that the collection of Kendrick's finds held by the museum is not as complete as it once was.

**5.1.5.19** Certain items from the Kendrick's collection had been sold prior to it having been purchased by the Llandudno Library Committee and amongst the missing items was the decorated horse jaw. Roberts (2002) identified that the jaw together with a number of other artefacts from the area were purchased by Frederick Dally. It is unclear as to when this purchase was made but it would seem entirely conceivable that the Kendrick material, or at the very least the decorated horse jaw, was purchased near to the time of or following his death before the remainder was sold to the local library as it would seem rather counter productive for Kendrick to sell off his most important

1) A further important point about the pierced teeth shown in figure 11 is that they confirm beyond any doubt that the teeth obtained by the Rhos-on-Sea Museum in 1964 are from Kendrick's Cave as they can be compared with the current assemblage. For example Tooth 5 in Sieveking's illustrations is a distinctive piece and has a large chip missing. This tooth can be easily identified on the right of the necklace in figure 11.





**Figure 11.** Material From Kendrick's Cave. Believed to Have Been Photographed When Exhibited at Llandudno Library 1902  
(Source: Conwy Archives X5/22.24/19/8/5/3)



**Figure 12.** Material From Kendrick's Cave. Believed to Have Been Photographed When Exhibited at Llandudno Library 1902 (Source: Roberts 2002 but it is Thought the Original is held in Conwy Archives)

piece whilst running a museum attraction. It is also mentioned in the Pitt-Rivers correspondence implying that it was put up for sale by Kendrick's sister Anne.

**5.1.5.20** A photocopy of a letter from Dally's son to G.A Humphreys dated 1914 is held in the Gwynedd Archaeological Trust Historic Environment Record Office (PRN 18298) although the original is believed to be held by Llandudno Museum but could not be sourced during my visit. The letter dated August 29<sup>th</sup> 1914 reads

**5.1.5.21** *"Dear Mr. Humphreys,*

*At last I have managed to get a few moments in which to consider your inquiry with reference to my late father's archaeological collection of Llandudno objects of interest.*

**5.1.5.22** *During his lifetime he frequently expressed his grave disappointment that the "Kendrick's Collection" was put away in an upper room in the Free Library without attempt at classification or description, and feared, should he present the antique relics that he has taken much pains to collect during thirty years, these might share a similar fate. Hence my father's view that Llandudno would probably value his collection more if he had to pay for it and he therefore wished me to ask a nominal sum of £35 pounds together with the cost of removal to Llandudno.*

*From your letter I gather that you know pretty well of what the collection consists.*

*Will you please let me have an answer before Sept 5<sup>th</sup> since, failing an early acceptance of this offer I am charged with other arrangements for disposal of the collection".*

**5.1.5.23** It is clear from this document that it was Humphreys who made contact with Dally and that the town wished to purchase the collection. It would therefore seem that the most likely reason that the material was not purchased was the incredibly short time allowed between the letter being written and the deadline within which to confirm the purchase. There was only a 7 day window within which the letter had to arrive in Llandudno be read by Humphreys, the information passed onto the committee and the money found – something that was evidently not possible.

**5.1.5.24** It is not known when or how Humphreys became aware that it was Dally who had purchased the horse jaw and other items but in his work Roberts writes *"A Dr. Dally of Birmingham offered to sell Mostyn Estates some bone from the collection before the first world war but they did not purchase them"*. The source of this information is unknown but there may be a letter contained within the Mostyn Estate correspondence and it is believed that as agent to the estate Humphreys may have been alerted to the location of assemblage.

**5.1.5.25** Although much of the material has since been dispersed there is a list of the items once gathered together with a number of photographs. The quality of the reproductions of the GAT copies is too poor to include here but it is hoped that when found the museum originals will show the items more clearly. There are 82 separate items included on the list but only items specifically mentioned as having come from Kendrick's Cave are reproduced below. Of particular note are items 33 and 37 – some of the decorated animal teeth and the horse jaw.

**5.1.5.26** *5. Horn Comb, Ancient British, from Kendrick's Cave*

*13 – 21. Bones of various animals and birds, broken human bones and tooth of wild boar, all prehistoric, all from Kendrick's Cave*

*23. Fragment of bowl, black pottery, from Kendrick's Cave*

*24. Flint hatchet head from Kendrick's Cave*



25. *Shaped adze head, from Kendrick's Cave*
26. *Stone hammer head, from Kendrick's Cave*
27. *Ankle bone impregnated with copper, from Kendrick's Cave*
28. *Small stone hammer head, from Kendrick's Cave*
29. *Small stone hammer head, pierced for handle, from Kendrick's Cave*
33. *Teeth of animals showing aboriginal ornamentation. Kendrick's Cave*
34. *Tooth of ? Sheep, Kendrick's Cave*
- 35 – 36. *Bones fractured to obtain the marrow, Kendrick's Cave*
37. *Jaw of horse showing aboriginal ornamentation. Kendrick's Cave*
38. *Portion of leg-bone of Bos Longifrons. Kendrick's Cave*
- 39 – 41. *Teeth of wild boar. Kendrick's Cave*
- 42 – 43. *Portions of thigh bones probably human. Kendrick's Cave*

**5.1.5.27** Some of these items were later obtained by the British Museum and Sieveking (1971: 232) records that “a small polished stone axe-head of typical British Neolithic type bearing the label, Kendrick's Cave, Llandudno, was presented to the British Museum in 1956 by Mr. Weinreb the London bookseller; into whose hands it had come with a miscellaneous collection”. He records that a second group of antiquities, all labelled as belonging to the Kendrick Collection, were brought to the museum by Mr. J.R Wright who had purchased them in the Worcester area. This group included the decorated horse jaw fragment and an Iron Age bone comb. It was purchased by the Christy Trustees for the British Museum in 1959.

**5.1.5.28** Sieveking lists the following items within the British Museum collection as being labelled as having come from Kendrick's Cave. The axe head and the bone comb are illustrated and when compared to the photographs of the Dally Collection sent to Llandudno Library committee in 1914 it is clear that at least the comb originated from this source. The stone axe also looks very much like one shown in the photograph but it is impossible to be certain given the poor quality of the photocopy.

- “A stone axe-head polished all over, but with slight traces of chipping. It has a lenticular cross-section and a pointed butt. Length 88mm. The specimen is made of a grey rock at present awaiting geological examination. It is a typical British Neolithic product. B.M Reg No. 1956, 2-2, 1.
- Stone spindle whorl, perforated. Diameter 46mm. B.M Reg. No. 1959, 12-3, 3.
- A small flint axe-head or knife of black stone, roughly flaked round three sides and polished at the blade. Length 81mm. The specimen is made on a flat piece of stone flaked on both sides in a disc form, flat on one side and convex on the other, but with a typical balanced axe-blade termination made from two converging polished surfaces. Though it is formally in the axe clan, Mr. Houlder regards these pieces as allied to knives, and has published comparable specimens from the Mynydd Rhiw Neolithic factory site in the same county. The specimen has been examined by the Geological Survey who find that it is made of an Epidiorite, best matched in the United Kingdom by specimens from Cornwall. B.M Reg. No. 1959, 12-3, 4.
- A bone weaving-comb of Bulleid and Gray's Glastonbury type 2, with an oval or round enlargement at the butt end, and with two teeth complete. The original number of teeth was eleven. The comb is polished over its upper surface, and has trace of two diagonal grooves which may result from use. At the comb end the bone follows its natural curve and the inner surface is concave. Length 155mm. This is plainly a variety of the long-lived Early Iron Age type, appearing notably at All Cannings Cross, Maiden Castle, and at Glastonbury and Meare Lake Villages. B.M Reg. No. 1959, 12-3, 2” (Sieveking 1971 233 - 235).

**5.1.5.29** It is also clear from the Sieveking paper that in addition to the missing bear's teeth the pierced teeth were also missing from the Llandudno Library collection by the early 1970s. Nine of these teeth had however been handed into the Rhos-on-Sea Museum in 1964 and the correspondence between Frank Jowett and Christopher Houlder of the RCAHMW is held in Conwy Archives. Of particular interest is a letter dated 3<sup>rd</sup> January 1964 in which Jowett records the teeth acquired from local collector Mrs Dowler. It reads *"I have just received another consignment of flints etc from the old lady who used to collect. Among them is a group of 9 teeth (I think incisors of (f?)ox) which I feel sure came originally from Kendrick's Cave. They are all pierced at the root for stringing in a necklace, and 8 of them have transverse cuts (like the sheep bones in the library) which seem to have been filled in with a red substance, probably ochre. The box they are in is unlabelled and the lady told me she is sure that they were found in Brittany. However, as they are so similar to the missing teeth, I feel sure that they are the missing ones. As the lady is getting on in years she has probably made a mistake"* (Conwy Archives: CX174/7/25).

**5.1.5.30** It is again unclear as to how these items also made their way out of the Kendrick's Collection but it is clear that by 1971, when Sieveking was writing, the Llandudno Library Collection was a fraction of the size of when originally purchased. There is no mention made of the geological specimens, coins or curios and the collection is now described of consisting of a case of human and animal bones with a series of six fragments of animal bones incised with a number of separate lines or groups of lines showing traces of haematite staining (Sieveking 1971: 235). A photograph taken in the late 1960s was kindly provided by Mr J. Lawson-Reay which shows a female librarian with a case in which can be seen a jumble of artefacts from Kendrick's Cave (figure 13).

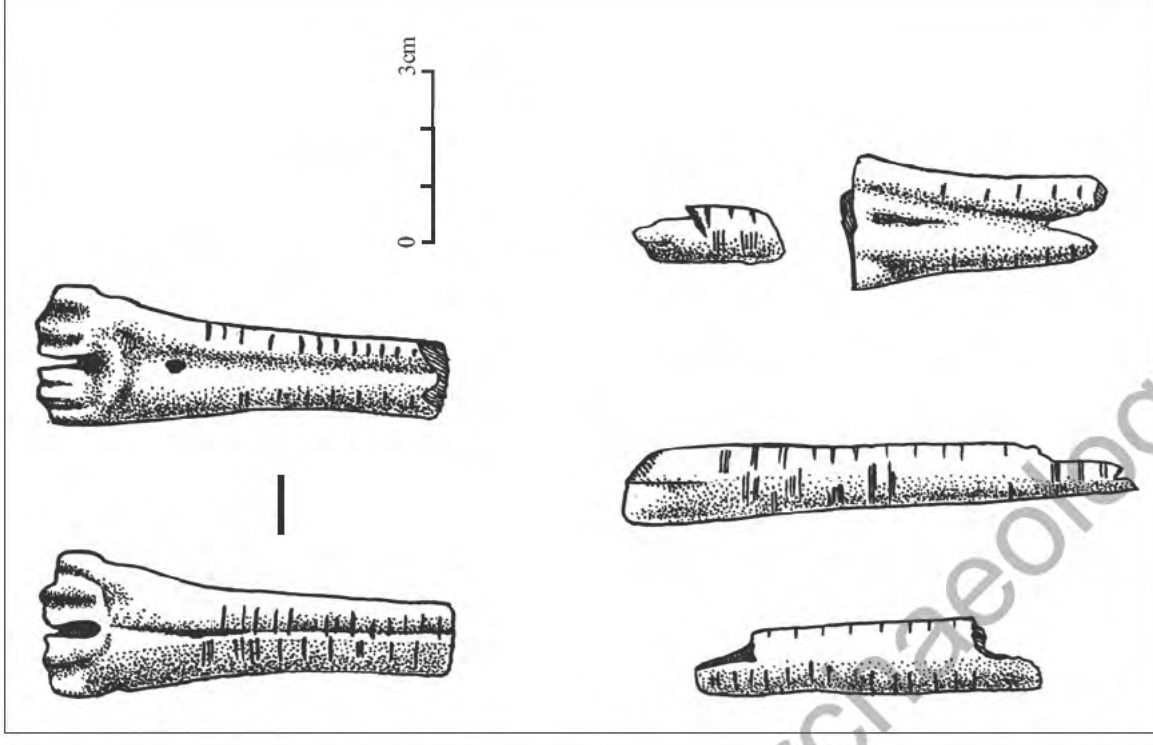
**5.1.5.31** An interesting paper held in Llandudno Library (Reference A195258 DA61.2) was produced by Mel Davies in 1986 when he was given permission to open this locked case and examine its contents. He records that *"the cabinet contains human bones, teeth, animal bones, antler and teeth, the incised deer or sheep bones, paper labels some bearing numbers but no pottery or flint"*. He then proceeds to describe the case contents in detail. It is categorised into human remains, animal remains and decorated bones and each group is summarised below.

**5.1.5.32** As with other artefacts the collection of human bone is not as extensive as is shown in figure 11. The human remains recorded in 1986 consisted of a mandible with six surviving molars, a canine tooth which is not a fit with the mandible, two maxillary molars boxed together, left ulna (almost complete), two radius bones representing two individuals, a right and left humerus both with the proximal articulations missing but from the same individual, two left humerus bones – one complete the other a distal only, two right femora both with their articulations missing, a complete left femur with intact distal and damaged proximal articulation, complete right femur (partner to previous bone) with peculiar patination giving the bone an ivory appearance, two fibulae (side not determined), three skull fragments, a complete clavicle and half a clavicle. Also loose within the case were a human molar (crown only) and a thoracal vertebra fragment (ibid: 2-3).

**5.1.5.33** The animal bones are from a number of different species and each will be listed together with the remains held. **Horse** – right maxillary molar, two other maxillary molars, mandible fragment with two loose incisors within it, four other incisors. Wrapped separately and labelled "Equus Complicatus" was one incisor, an open rooted juvenile molar, and a tooth thought to be a juvenile right mandibular premolar. Loose within the box were also found a worn horse mandibular and maxillary molar, very worn and damaged incisor and a deformed horse mandible with a saw cut mark. **Deer** – six deer teeth (maxillary and mandibular), one hollow rooted tooth (possibly from a juvenile), antler (burr and stump of first tine (right side – naturally shed). Loose within the box were also found a deer premolar and a hollow-rooted broken deer tooth. **Pig** – wild pig *Sus scrofa*, mandible from left side in which canine and first premolar are missing, male maxillary canine with



**Figure 13.** Librarian with Case of Artefacts from Kendrick's Cave  
Taken in the Late 1960's. Picture Kindly Provided by  
John Lawson-Reay from his Personal Collection



**Figure 14.** Incised Deer or Sheep Bone from  
The Kendrick Collection (Reproduced from  
Sieveking 1971)

hollow root. **Bos/Bison** – Distal end of left tibia with a “smash break”, two large fragments of similar appearance, maxillary molar and a large mandibular molar with the crown broken. **Item Labelled Porpoise/Dolphin** – identification not confirmed. The final item was a small broken canine with the root broken off. It is described as slightly larger than fox size but the species is not identified (ibid 3-4).

**5.1.5.34** The decorated bones are the final items discussed and are described as “*probably the most interesting set of bones in the cabinet*”. These bones have been attributed to Kendrick's Cave but there is no mention of these bones in any of the historical sources although it does appear that the larger of the bones is shown in figure 12. An illustration of the set of bones is included in Sieveking's 1971 paper and is reproduced as figure 14. Five bones are held within the collection and they are all recorded as fragmentary metacarpals coloured red in patches and incised with a series of lines and it was suggested by Davies that these marks represented calendrical records relating to either lunar phases or tidal height (ibid 6-7). Although we cannot be certain as to whether these bones were found in Kendrick's Cave or if they were collected from elsewhere by Kendrick for display in his museum they are certainly similar to the other incised items he excavated, and it is more than likely that if they did not originate from the Lower Cave then they are from another cave site in the vicinity.

**5.1.5.35** Over the years there have been many attempts to reunite the Kendrick's Cave assemblage and although there are still many items unaccounted for the current exhibition in Llandudno Museum brings together the known surviving pieces. This is a rather fitting tribute given that Thomas Kendrick opened the first museum in Llandudno and that the items from his collection were originally purchased with a view to them forming the core of a new county museum showcasing the antiquities of the area.

**5.1.5.36** In recent years some dating and analysis of the Kendrick material has been undertaken and dates have been obtained for a number of the artefacts and human remains. The horse mandible has been radio carbon dated twice with two dates given. These dates are given on the British Museum website as approximately 12,950 – 11,950 BP ([www.britishmuseum.org](http://www.britishmuseum.org)). In 2005 Richards et al conducted a fascinating study of the human remains from the cave and four samples from at least three individuals were dated to  $11,880 \pm 90$ ,  $11,930 \pm 90$ ,  $12,090 \pm 90$  and  $11,760 \pm 90$  BP. Isotopic analysis was also undertaken on these remains and it was shown that their around 30% of their dietary protein was obtained from marine sources. Also dated during this work were a bison bone ( $12,410 \pm 100$  BP) and one of the decorated bone tallies which was dated to  $11795 \pm 65$  BP (Richards et al 2005).

**5.1.5.37** In addition to his archaeological legacy there is an important structure built by Kendrick surviving within the gardens in which his lapidary workshop was situated (now within the grounds of Ardwy Orme House). It is an attractive pillar made of local beach pebbles with glass, concrete and carved stone and it is likely to have been one of a number erected by Kendrick to show off his skills and enhance his grotto attraction (see figures 15 - 18). There were two other smaller pillars recorded by Diane and Nigel Bannerman within the gardens of properties on Hill Terrace in 2001 ([www.nbannerman.co.uk](http://www.nbannerman.co.uk)) but unfortunately both have since been destroyed. The Bannerman's have kindly given permission for the reproduction of their image and it is included as figure 19.

**5.1.5.38** There is also a carved sandstone pillar (figure 20) along the cliff side path to the Upper Cave which is likely to have been added by Kendrick and it may well be that the upper site also formed part of his garden attraction – a possibility supported by contemporary reference to the difficulty for invalids in accessing the attraction.





**Figures 15 - 18.** Surviving Pillar Erected by Thomas Kendrick in his Garden Attraction (Now in Grounds of Ardwy Orme)

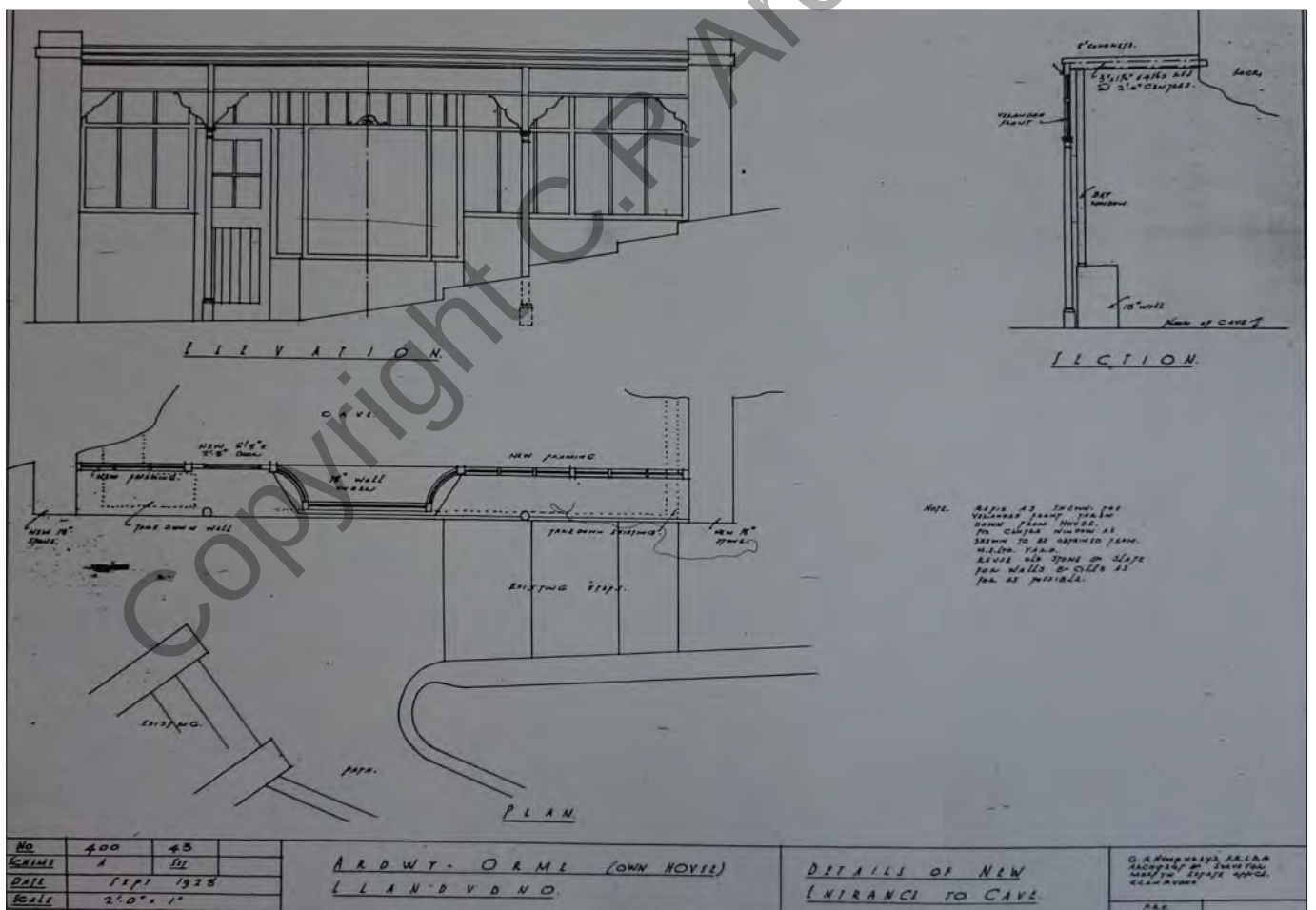




**Figure 19.** Kendrick's Posts on Hill Terrace Taken 2001  
By and Copyright Diane and Nigel Bannerman



**Figure 20.** Sandstone Pillar  
On Path to Upper Cave



**Figure 21.** Proposed New Cave Entrance Elevations Produced by G.A Humphreys 1928  
(Source: Conwy Archives Reel 7/164)

### 5.1.6 The Later Uses of Kendrick's Caves

**5.1.6.00** As mentioned above, the caves associated with Kendrick (both Upper and Lower) passed into the ownership of the Humphreys family and the lower cave site remains within the gardens of Ardwy Orme House. The lower cave has been greatly modified since it was used by Kendrick and contrary to what is stated in a number of local history publications it was not Kendrick who added the current façade to the cave. This is evidenced by the proposed elevations of the cave produced by G. A Humphreys in 1928 (Conwy Archives Reel 7/164) which prove beyond doubt that it was actually Humphrey's who replaced the frontage shown in figure 5 with a frontage taken from a local bank (figure 21).

**5.1.6.01** Humphreys' also converted the front area of the cave into an air raid shelter during the Second World War. It was however never used as such by the family as Mrs. Humphrey's refused to use the cave stating that she would prefer to die in her bed if the area was ever bombed (Professor Wilson pers. comm).

**5.1.6.02** It is not known exactly when the building in front of the Upper Cave was removed but the structure appears on the First Edition Ordnance Survey map of Llandudno dated 1888 as a stone or brick construction (figure 22). This map also shows the plan of the gardens associated with Kendrick's Cave attraction and grotto which includes two wooden or corrugated iron outbuildings and a glass house. The structure is absent from the 1901 Edition Ordnance Survey map (figure 23) and it was therefore presumably removed by Humphreys' when he took over and remodelled the plot.

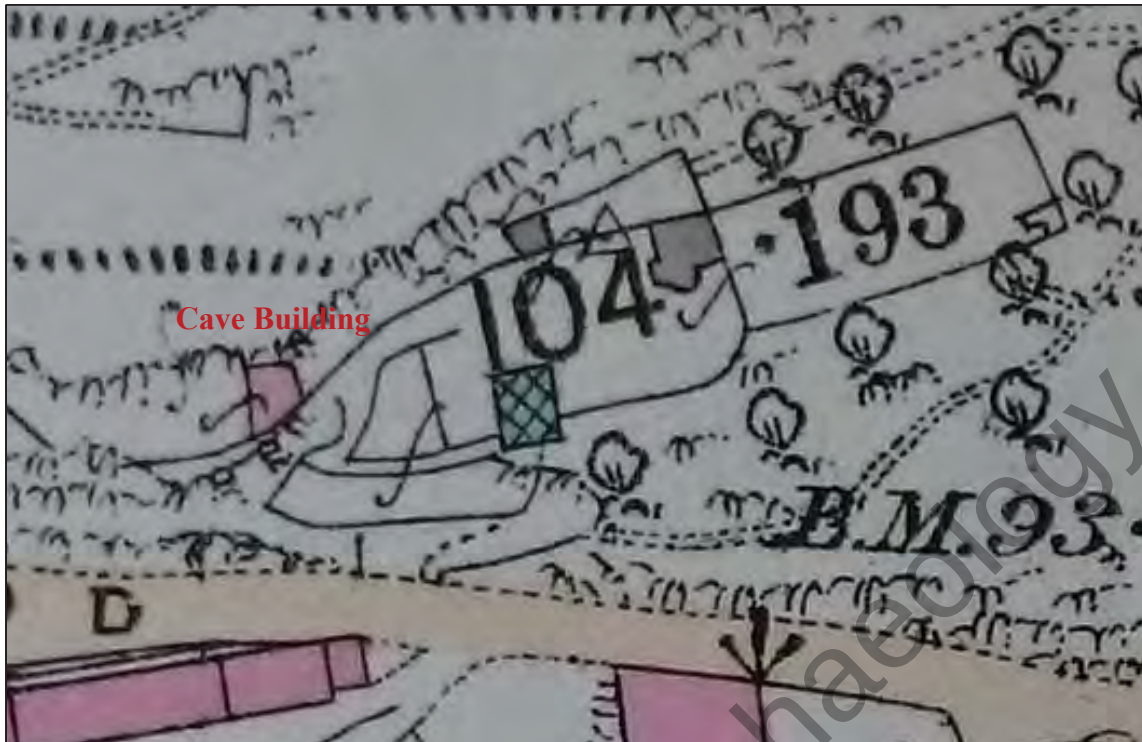
### 5.2 Previous Archaeological Excavations at Upper Kendrick's Cave

**5.2.00** As with the majority of speleological examinations undertaken in the area during the 1970s the excavations at Kendrick's Upper Cave were carried out by Mel Davies and Tom Stone. Works were undertaken over a number of seasons. A short note was placed in the 1975 edition of Archaeology in Wales journal (Davies 1975: 30) shows that some limited works had been undertaken at this date. It is not clear as to the exact nature of this work but in the 1979 Cambrian Caving Council Annual Journal Davies records "*this single-chambered cave was first prospected in December 1974, and the bone scraps found there then*" (Davies 1979: 10).

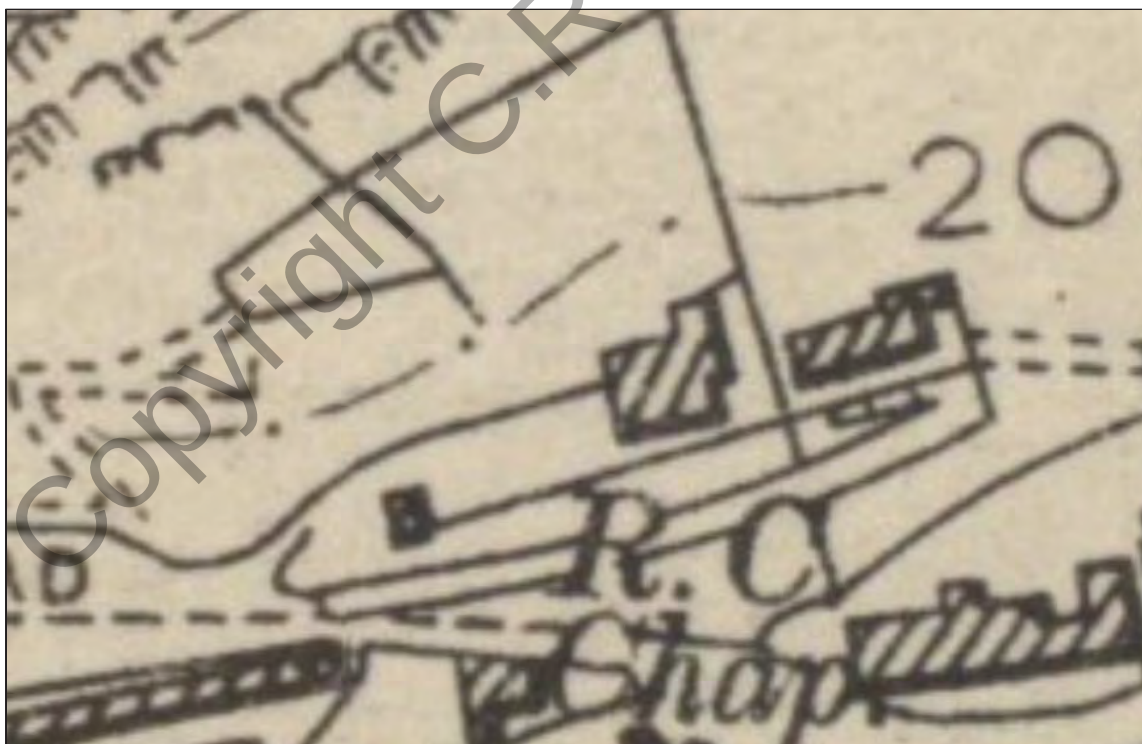
**5.2.01** Stone produced a plan of the Upper Cave which was published in 1994 which plots the locations of the walls built by Kendrick (it has been modified to include additional walls noted during these works and is included as figure 24). There is however an issue when one plots the trenches described onto the plan at the sizes given in the report texts as they are simply too large to fit within the area drawn. It is hoped that data produced during the laser scanning of the cave will resolve this issue. The drawing included as figure 24 have attempted to correct the scale of Stone's illustration but it must be taken that there are inaccuracies in the plan.

**5.2.02** Trial excavations began in 1977 and three trenches were opened. The exact locations of the first trench excavated is unclear but in his 1994 article Tom Stone states that works began in the small alcove to the rear of the cave. The first trench measured 2m x 1m and although the upper layers contained modern material, below this was preserved a brown cave earth resting on a stalagmite floor. The stalagmite did not extend over the whole trench but in the areas where it was surviving it did preserve the underlying deposits. Numerous artefacts were found within the cave earth deposit and Davies records these as "*fragmentary bones of ox, sheep/goat, limpets, mussels and other mollusca*". Three small pieces of pottery of Neolithic appearance, but without pattern were found immediately beneath the stalagmite floor near a group of over thirty periwinkle shells with an associated hearth. Below this were unearthed an unpatinated flint knife, possibly of Late Neolithic date, and several waste flakes. Excavation was abandoned at c. 0.5m due to the high frequency of stalagmites and large limestone slabs (Davies 1979: 10).

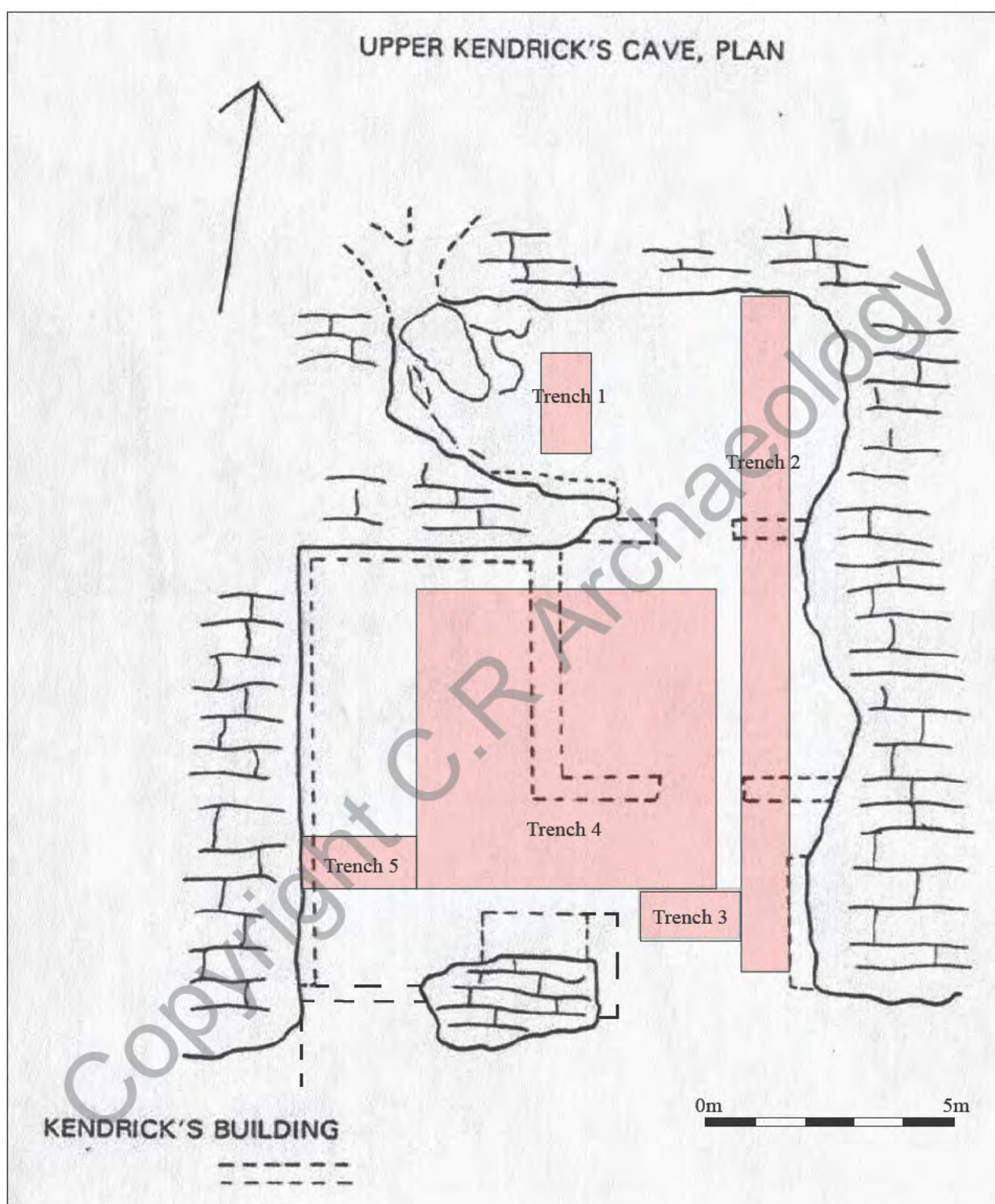




**Figure 22.** First Edition Ordnance Survey Map of Llandudno Dated 1888 Showing Building In Front of the Upper Cave and Kendrick's Garden Layout



**Figure 23.** 1901 Edition Ordnance Survey Map of Llandudno Showing Site Following The Removal of Building and Erection of Ardwy Orme and Neighbouring Property



**Figure 24.** Plan of Upper Kendrick's Cave Produced by Tom Stone Modified to Adjust Scale And Show Approximate Trench Locations (Source: Stone 1994)

**5.2.03** A second trench was opened against the eastern wall of the cave against a 19<sup>th</sup> century stone wall. It was initially around 2m in length and due to the collapse of the trench edges became over 1m in width. During the first season the trench yielded “*scattered human remains comprising metacarpals III, IV & V of the right hand together with one phalange*” together with animal bone identified as “*ox, sheep/goat, roe deer, pig, fox, hare or rabbit and at least four species of mollusca, with limpet predominating*”. Bird and crab remains were also present along with decorated rim fragments of Peterborough ware, other Neolithic pottery and fine, chevron-patterned Beaker pottery. As in the previous trench excavation was abandoned at c. 1.5m due to the high frequency of stalagmites and large limestone slabs (Davies 1979: 10).

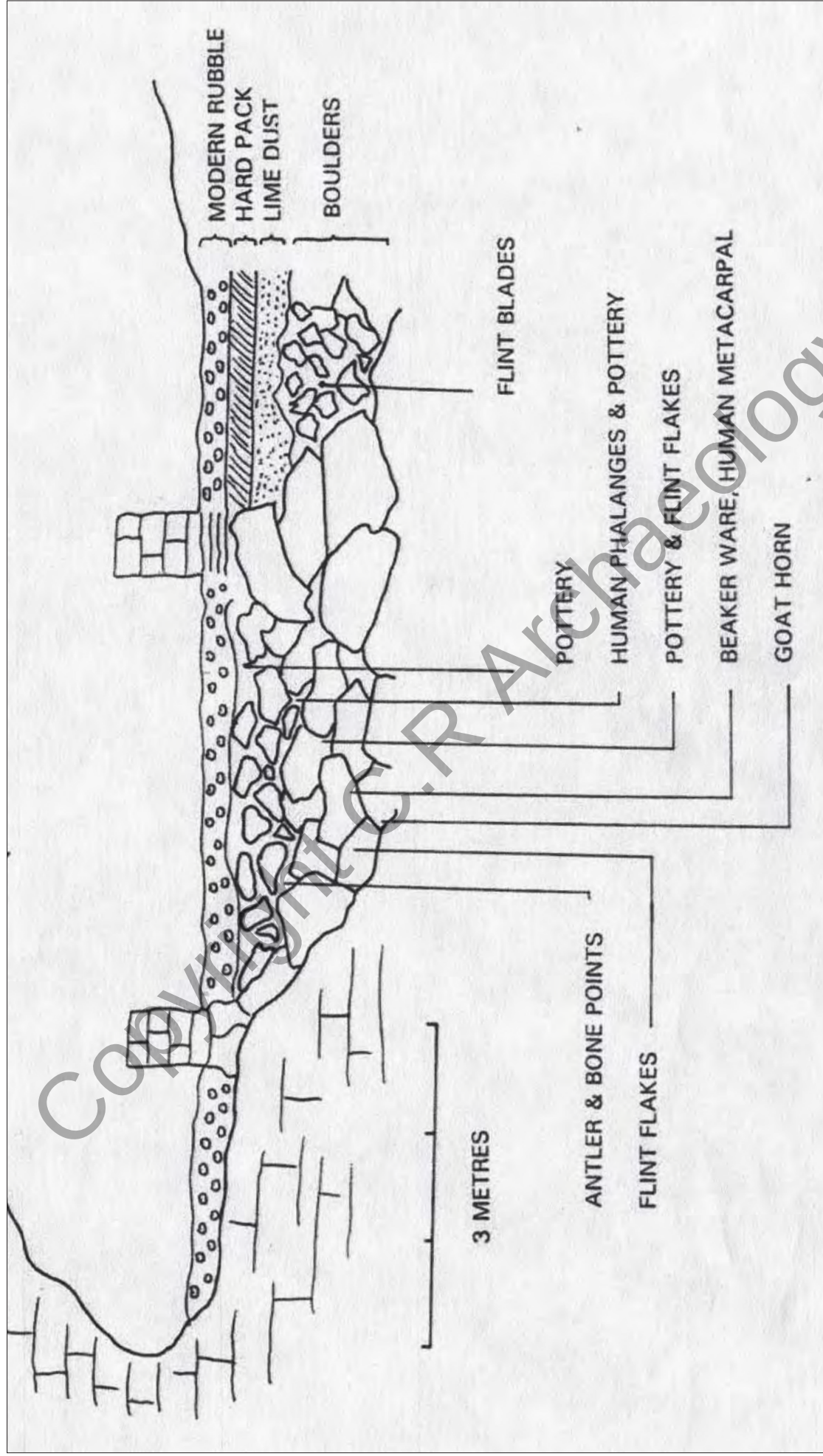
**5.2.04** In his 1994 paper Stone records that this Eastern trench was extended and was 8m in length. Having examined the trench section published by Stone it appears that this 8m was in addition to the original 2m section which had been backfilled. The trench section is included as figure 25. The trench width varied between 1 – 2m. Further artefacts were uncovered including two bone points and another fashioned from an antler tip (believed to have been awls for piercing animal skin and assigned a Neolithic date), several stone pot boilers and a well battered hammer stone (Stone 1994: 13).

**5.2.05** More detail is also given in this paper as to the location of the human bone and the relationship between this cave and the one below. Stone writes “*to have gone any deeper would have caused problems as the fissure in the lower cave was immediately below. A draught from below could be felt as the dig progressed. Several pieces of Neolithic pottery were found here including rim fragments, very crudely made with no visible pattern. Human bone, metacarpals and phalanges were discovered in a crevice also*” (ibid).

**5.2.06** The third trench which measured 2m x 1m was opened near the eastern entrance of the cave. In this trench made ground of c.0.20m of packed clay was found resting on mostly disturbed brown cave earth. Tree roots were noted as having penetrated all these layers up to a depth of 0.50m. It is noted that there was a marked lack of bone in this trench but a single edge-patinated, grey flint blade was found. It is described as “*small in size and suggests a Mesolithic provenance, but the lack of full patination and the depth of 0.40m – 0.50m in brown earth just under stalagmite, suggests also an early Mesolithic date*”. It is also noted “*to date, only one identifiable bone and a single erratic pebble has been found in this trench but work is still continuing*”. An additional section in the same paper concluded the results from trench 3 adding to the assemblage two larger, unpatinated flint blades and a flint spall which could have been used as a blade. The artefacts are all believed to be Neolithic in date. These finds were made at a depth range of 0.58 – 0.65m and the excavation was abandoned at a depth of 1.5m. The soil matrix is still brown cave-earth at the cessation of works but the angular stones are larger at the base of the trench. The final trench dimensions were 2m square to allow more room within which to work (Davies 1979: 10 - 11).

**5.2.07** In addition to the artefacts detailed above Stone & Davies include a small fragment of Romano-British pottery in their list of items found in a short note in the 1977 edition of Archaeology in Wales (Volume 17) (Stone & Davies 1977: 15).





**Figure 25.** West Facing Section Through Trench 2 Kendrick's Upper Cave (Source: Stone 1994)

**5.2.08** In 1978 Davies recorded the new season's fieldwork and mentioned that the three previous trenches have all been backfilled. In this excavation a fourth trench measuring 6m square was excavated near the centre of the floor area. This reached a maximum depth of 2m below the modern, disturbed cave floor. Animals represented included sheep, goat, pig, wild boar, rabbit, bird species, frog, fish and molluscs. Artefacts were listed as utilised left femur of a sheep or goat, an unpatinated flint knife 68mm in length; an unpatinated flint core and spalls, pebbles including one sandstone example with score marks, a boar tusk with the tip rubbed flat, the canine of a wolf with the root pierced and decorated with a number of transverse lines and three potsherds with indentations (Davies 1978: 34).

**5.2.09** A more detailed account of this trench was published by Davies in the North Wales Caving Club Journal 1979. More details of the finds are provided and the location of the pierced wolf's tooth and significance are discussed. Davies writes *"at 2.3m below cave datum a small canine of wolf with the root pierced and decorated with a number of transverse lines. Only nine pierced and decorated teeth are at present known from Britain and all are bovid or cervid. The whole of the decoration cannot be seen due to a stalactite incrustation. Dr J.B. Campbell places such artefacts in the Earlier Upper Palaeolithic but further evidence is required before such an early date can be accepted here. The earlier teeth came from Kendrick's Cave ca. 1880, and the question now arises which of the caves yielded the 19<sup>th</sup> C. finds"* (Davies 1979).

**5.2.10** The stratigraphy was described in detail in the aforementioned paper as is produced in full below:

1. Rubble of bricks, dressed limestone and slate containing contamination as described above.
2. Beaten reddish-brown clay, so flat that it may once have been covered with ceramic tiles carefully laid, but removed when modern occupation ended early this century
3. Greyish lime floor with black flecks, usually with a flat surface this material may possibly represent a 19<sup>th</sup> C. living floor composed of a form of lime mortar or debris cast out from nearby lime kilns
4. Modern, brown earthy humus occupying on one side only of trench 4. It is up to 30cm thick, has cut timbers laid in it, and may represent animal feed, animal bedding, or even peat for fires. It is certainly entirely organic in composition. The foundations of the 19<sup>th</sup> C. walls reach down to this layer but rest on the next one where it is absent.
5. Stoney, brown cave-earth, root-disturbed, in part stalagmited, or loose where stalagmite is absent. The stones in this layer are sub-angular and generally less than 30cm in size. The stalagmite may be so concentrated that the stones are virtually absent from it. These differences are believed to reflect changes in the rate of stalagmite growth, a factor greatly influenced by climate. The layer contains Neolithic/Bronze Age flint and pottery
6. Angular limestone blocks, sometimes over 30cm in size, with a little loose brown cave earth. This is presumed to correlate to the Upper Palaeolithic period although this has yet to be confirmed by typical flint tools or a radiocarbon dating (Davies 1979).

**5.2.11** This paper also provides important information as to excavation technique as it states that *"a lot of sieving is done"* which by implication would give a much higher find yield than excavation alone (ibid). It also minimises the chances that material which has been missed will be recovered from the backfill of the previous excavations.

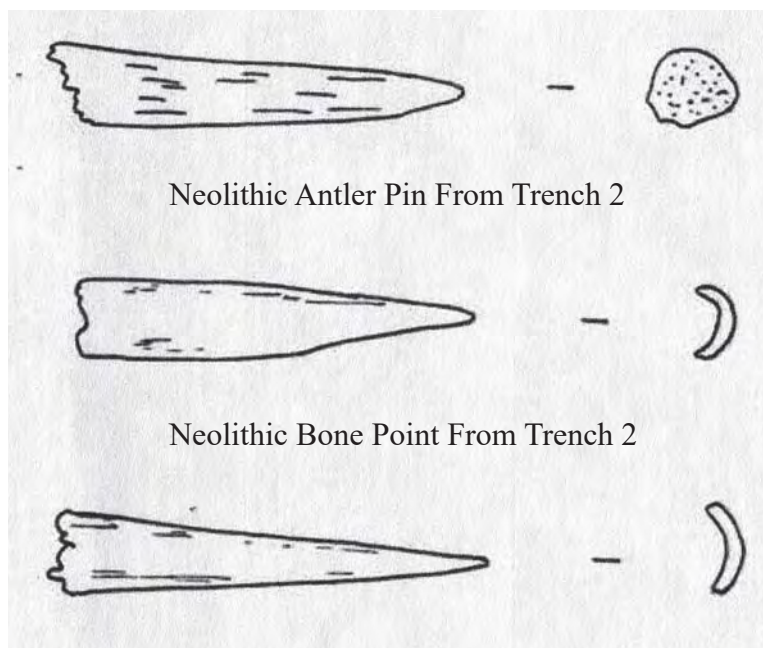
**5.2.12** The excavation of a fifth and final trench was reported in Archaeology in Wales Journal 1979. It was a westward extension of trench 4 and measured 2.5m x 1.2m. This excavation uncovered an occupation floor at 0.43m to 0.55m below the 19<sup>th</sup> century beaten clay floor. A hearth area with “*charcoal, limpets, animal bones especially Bos sp., human bones, pottery and flint. The pottery comprising some 35 units was readily dated to the Late Neolithic/Early Bronze Age. At least two food vessels were present and a beaker sherd with chevron pattern was probably from the vessel described previously*”. The human bone recorded was “*a mastoid process from the right side of the skull, atlas, metacarpal II left side, patella possibly left but damaged, metatarsal V and a bone from the metatarsal I right position*”. Flint artefacts in this trench were unpatinated and comprised a petit-tranchet derivative arrowhead, a thumbnail scraper, an end scraper and an implement with smoothed edges – possibly used for leather working. Also found was a bone piercer made from the left metacarpus of a large sheep or goat, two utilised pebbles, animal bone included badger and dog in addition to species previously encountered (Davies 1979).

**5.2.13** Within the various excavation reports are contained a number of illustrations, predominantly of artefacts recovered during works but one section (trench 2, figure 25) is included. The artefact drawings have been grouped by material and have been included in this paper as figures 26 – 30. Sue Chapman of Ancient Arts has also very kindly provided some photographs of the site under excavation and these images are included as figure 31 – 35.

**5.2.14** The excavations of the cave conducted in the 1970s can be seen to have been quite extensive and covered a large area of the cave floor. They have however not removed all deposits of archaeological interest and it is noted in the papers published that deposits of interest continued outside the excavation areas. In his 1979 North Wales Caving Club Journal report Davies notes that “*it is intended to extend the trench (trench 4) westwards but to leave undisturbed areas of cave floor to the north and south*” and the Archaeology in Wales Journal of the same date he adds that the occupation floor is well sealed and continues beyond the trench limits which it was not intended to excavate. In his 1989 paper Davies stated that “*only one half of the upper cave floor has been excavated and in this a shaft was opened which connected with the bottom cave some 8m below. Only archaeological rubble seemed to separate them; so much remains to be excavated*” (Davies 1989: 99). The cave is therefore still considered to be of high archaeological potential.

**5.2.15** The excavations undertaken at the cave site were carefully conducted, and are well documented – particularly for their era and the stratigraphy is recorded in detail. It is however the opinion of the author that some of the conclusions reached by Stone and Davies – in particular that the famous finds made by Kendrick were from this upper cave are erroneous. This position is based on a number of factors, the first being that in the initial report of the discoveries Eskrigge and Boyd Dawkins had both seen at least some of the finds in situ and clearly describe the lower cave in their findings. The second factor is that a key argument on which this interpretation was reached by Stone and Davies is the absence of larger bones amongst the human remains recovered during their works, which is taken as evidence that Kendrick removed them and took them to the lower cave for display. The discovery of disarticulated and scattered bones is not however particularly unusual in the context of cave archaeology (and certainly not in the context of other deposits found in the local area – see section 5.3). There is no mention made in the report of any evidence that the parts of trench two where the remains were recovered had been disturbed by 19<sup>th</sup> century activity and in the case of trench 5 the remains were associated with an intact hearth deposit (Davies 1979: 12).

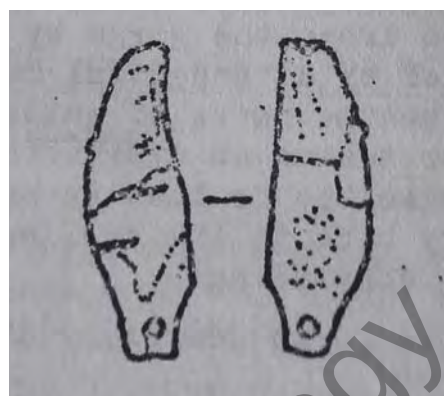
**5.2.16** It is also entirely conceivable that it was not actually Kendrick who initially cleared out this upper cave site and it may have been occupied prior to his taking over the cave. Kendrick is recorded as living in Ty Gwyn Road in all the census reports from 1841 until 1891. Although there is a gap between the date of the last census in which he is recorded and his death in 1897 there is no reason to suggest that he moved here for the last few years of his life – and even if he did the



Neolithic Antler Pin From Trench 2

Neolithic Bone Point From Trench 2

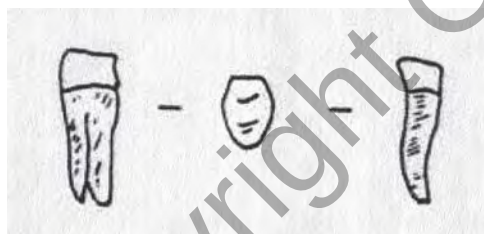
Neolithic Bone Point From Trench 2



Pierced Wolf Canine Found in Trench 4



Broken Antler Point From Trench 4



Human Premolar From Trench 4



Bead from Trench 2  
(Material Unknown)

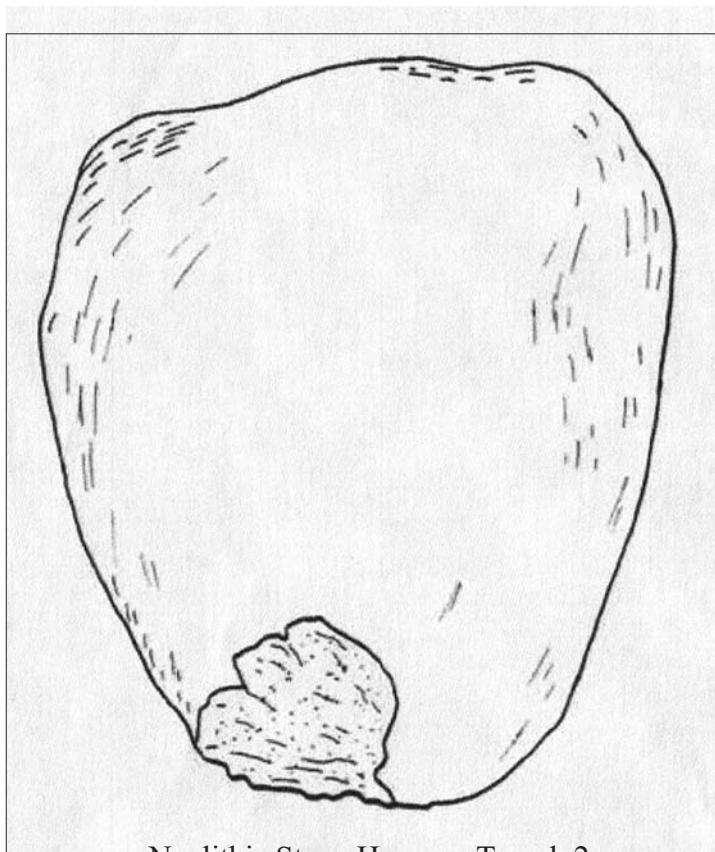


Boar Canine With Flattened  
Tip From Trench 4

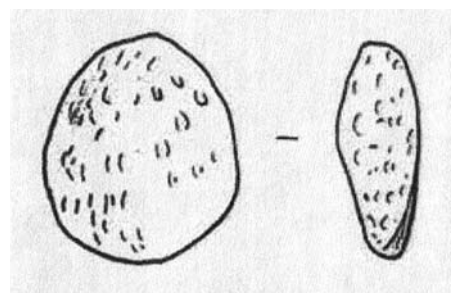
0 3cm

**Figure 26.** Antler and Bone Artefacts (Including Human Remains) Recovered During Excavations at Upper Kendrick's Cave (Source: Stone 1994, Davies 1979)

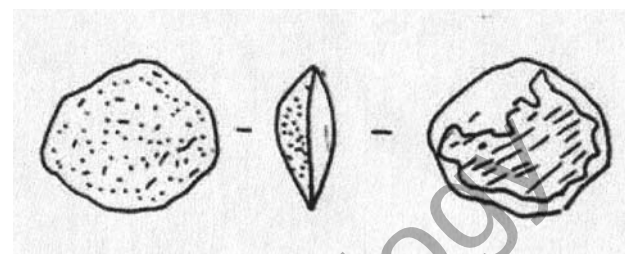




Neolithic Stone Hammer Trench 2



Black Polished Beach Pebble Trench 4



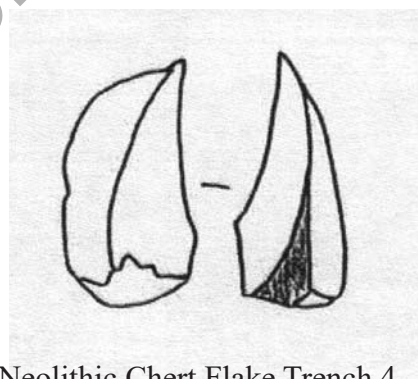
Flake from End of Flint Beach Pebble Trench 4?



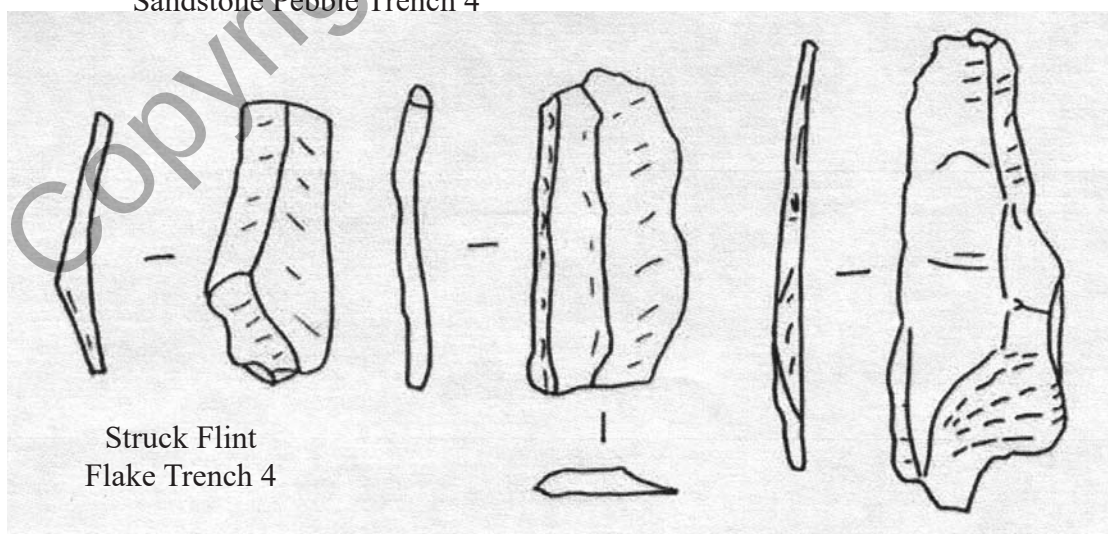
Neolithic Flint Flake Trench 4



Sandstone Pebble Trench 4



Neolithic Chert Flake Trench 4



Struck Flint  
Flake Trench 4

Broken Neolithic Flint  
Blade Trench 4?

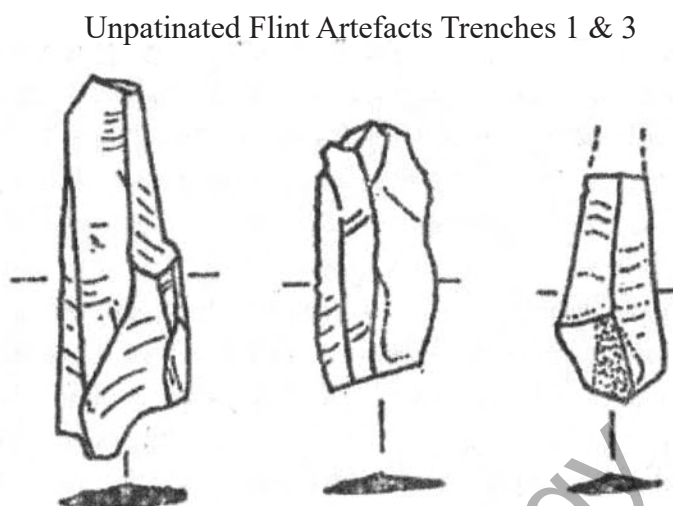
Neolithic Flint Blade  
Trench 4?

0 3cm

**Figure 27.** Stone & Flint Artefacts from Upper Kendrick's Cave (Source: Stone 1994, Davies 1979)



Flint Knife Trench 4



Unpatinated Flint Artefacts Trenches 1 & 3

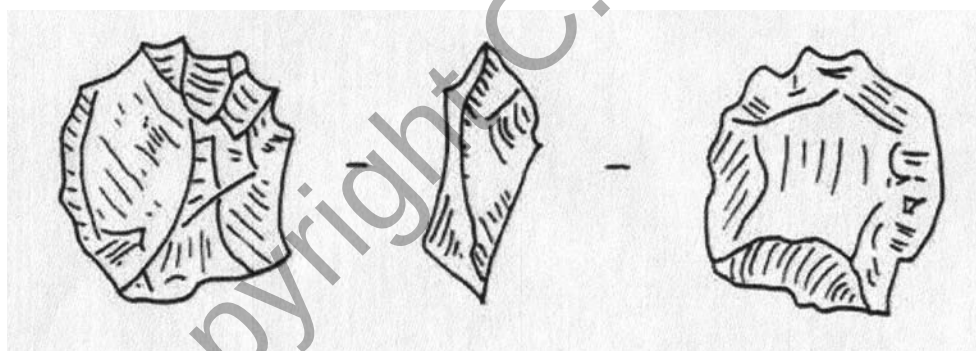


Neolithic Flint Flake Trench 4

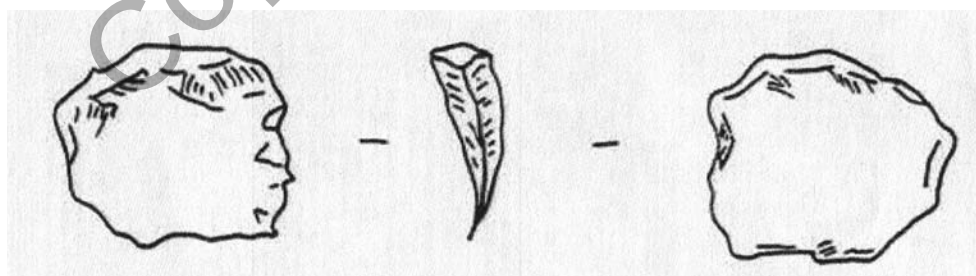


Broken Neolithic Flint Flake

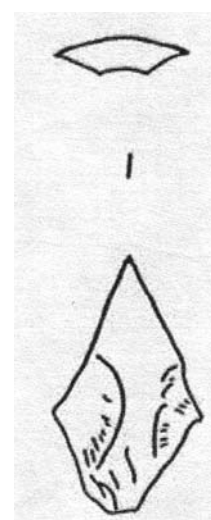
Neolithic Flint Core Trench 4



Flake from a Beach Pebble Trench 4



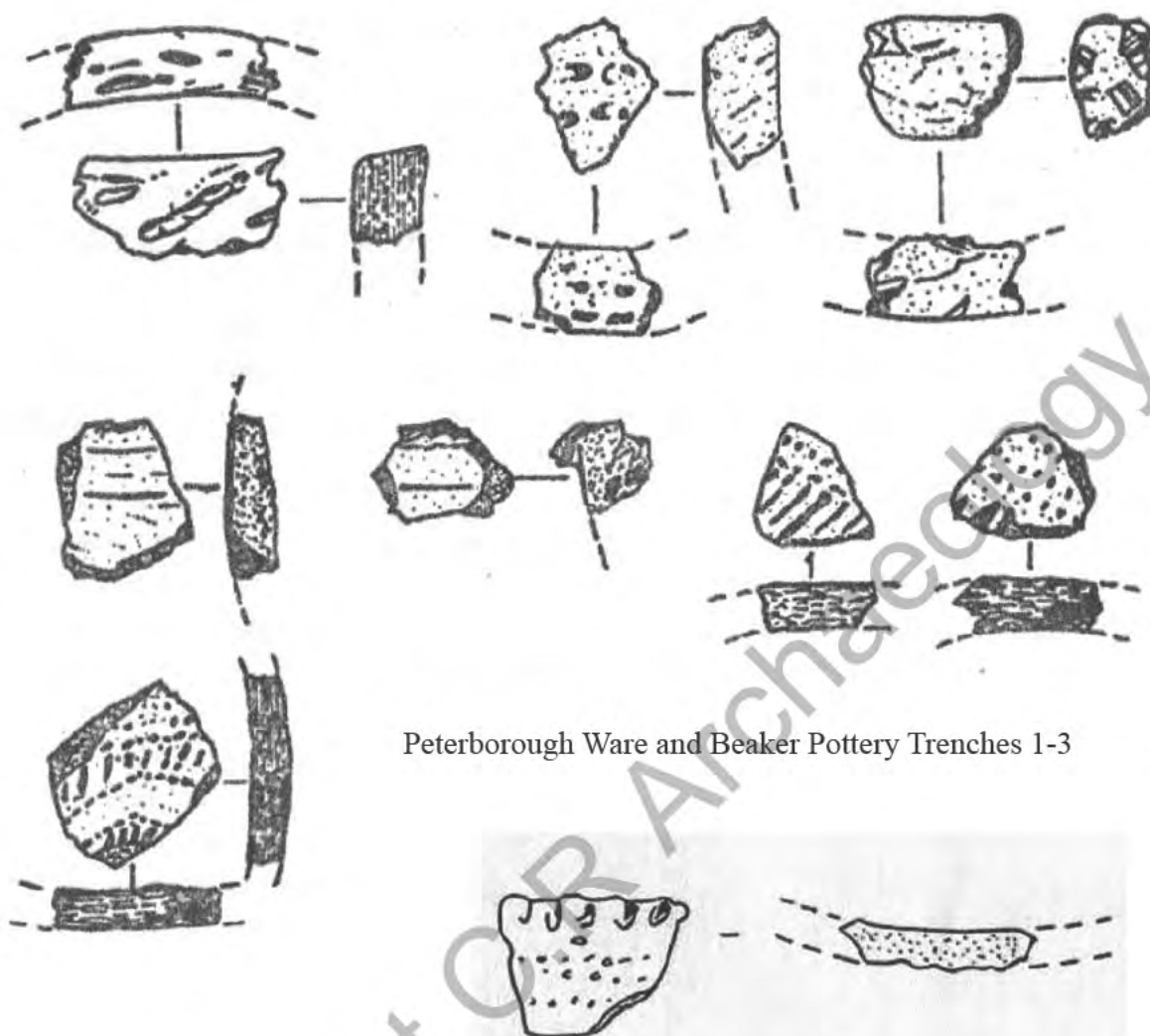
0 3cm



Neolithic Flint Flake

**Figure 28.** Flint Artefacts from Upper Kendrick's Cave (Source: Stone 1994, Davies 1979)



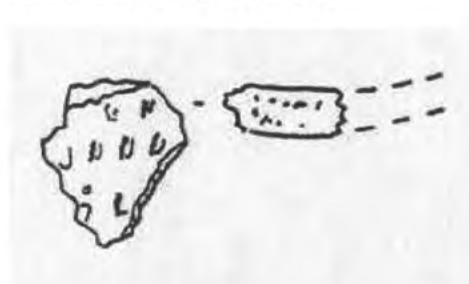


Peterborough Ware and Beaker Pottery Trenches 1-3

Fragment of Beaker Pottery Trench 4



Fragment of Beaker Pottery Trench 4

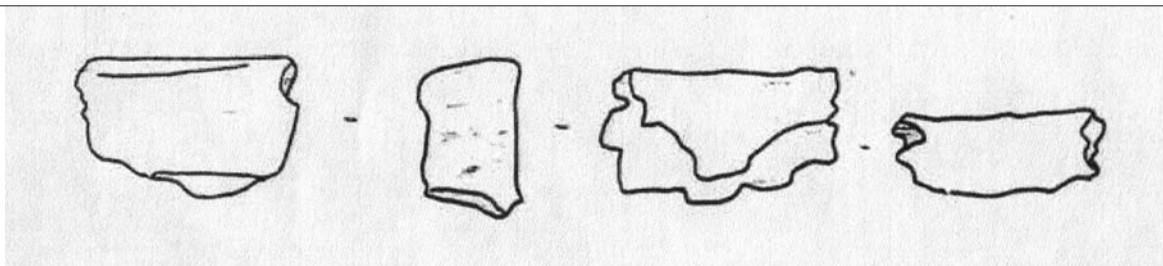


Fragment of Beaker Pottery Trench 4

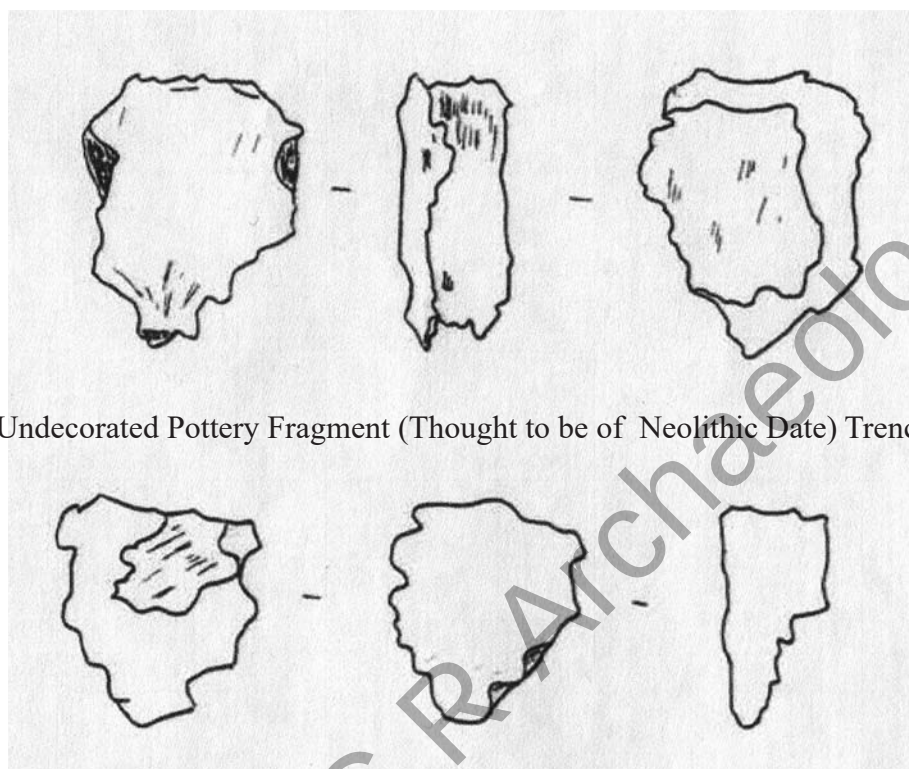
0 3cm

A scale bar is located at the bottom left of the page, consisting of a horizontal line with vertical tick marks at each end, labeled '0' and '3cm'.

**Figure 29.** Neolithic and Early Bronze Age Pottery from Upper Kendrick's Cave  
(Source: Stone 1994, Davies 1979)



Undecorated Pottery Fragment (Thought to be of Neolithic Date) Trench 1

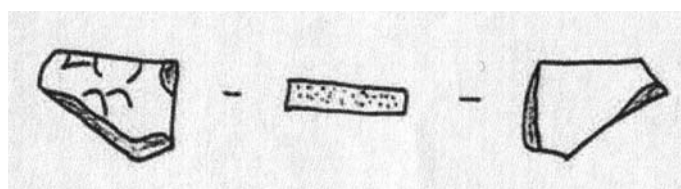


Undecorated Pottery Fragment (Thought to be of Neolithic Date) Trench 1

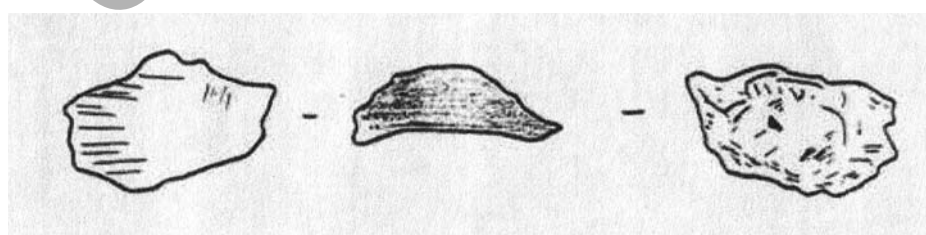
Undecorated Pottery Fragment (Thought to be of Neolithic Date) Trench 1



Undecorated Pottery Fragment (Thought to be of Neolithic Date) Trench 4



Fragment of Romano-British Pottery from Trench 4



Fragment of Beaker Pottery Trench 4

0 3cm

**Figure 30.** Neolithic, Early Bronze Age Pottery and Romano-British Pottery From Upper Kendrick's Cave (Source: Stone 1994)



Photographs Taken During  
Late 1970's Excavations at  
Upper Kendrick's Cave -  
Taken and Kindly  
Provided by Sue Chapman

**Figure 31.** Rear of Cave

**Figure 32.** Rear Eastern  
Area of Cave

**Figure 33.** Section of Tr 5  
At Front of Cave

**Figure 34.** Tr 5 Section -  
Detailed Shot

**Figure 35.** Tr 5 Showing  
Tr 6 Extending to W. Wall



discoveries would have been over a decade old by this point. None of the newspapers or articles which were written about Kendrick in his lifetime make any reference to him actually living in a cave despite them describing him as a colourful local character. This is an important point given that there are quite a number of stories of other local residents who did reside in caves during this era and this is discussed below.

**5.2.17** The stratigraphy of the cave as described by Davies and Stone (and encountered during the current excavation) also indicated that the site was levelled prior to the erection of the walls associated with Kendrick's use of the cave. Within these pre-wall layers there was a series of clearly differentiated Post Medieval occupation layers and occupation may have originally been by a miner or quarryman working on the Orme a few decades before Kendrick made his discoveries. There is no clear indication of this in the census documents although there are a number of references to individuals living in caves and it is not always clear as to the location of these caves. There are however references to a cave nearby having been used for storage from the 1840s and this may well have also been the case for the upper cave.

### 5.3 Llandudno's 19<sup>th</sup> Century Cave Dwellers

**5.3.00** It has been much reported since the death of Kendrick that he lived in either the upper or lower cave, and the idea that the artefacts were actually found in the upper cave and were moved to the lower cave for display has been put forward. In an article written by the excavator of the upper cave Tom Stone he states that the Upper Cave was *“where Thomas Kendrick had lived on first entering the cave and it was quite a surprise to see where he had constructed four rooms within it. True, it was over a hundred years ago and little remained but some rubble, the wall footings and some remains of walling which quite clearly showed the outlines and dimensions of his dwelling”*. He continues by describing the cave dimensions before continuing *“Kendrick had realised that this was the ideal place to make his home, everything was to hand by way of building material, rocks for walls etc. Levelling the floor and giving it a thick layer of limestone dust mixed with cow dung, in the manner used in Medieval times, ensured him a solid and dry surface. With a plentiful supply of rock and few bricks he constructed four rooms. Wooden steps, complete with handrail (as seen in figure 6) leading down to his place of workshop gave him easy access up and down. A small alcove to the rear of the cave was used to store other items usually found within a household”* (Stone 1994: 13).

**5.3.01** Research has however shown that although Kendrick did clearly use this space it would seem unlikely that he ever actually lived here. A photograph taken around 1895 (figure 8) appears to show him entertaining visitors outside the building erected at the front of the cave and it is more likely that this site was used for this purpose, or for storage and as an additional workshop area. This is reinforced by the discovery of a number of chisels during the archaeological works here.

**5.3.02** There is however clear evidence that other caves on the Great Orme were occupied at this time and some of the accounts make for fascinating reading. The earliest account was found in the North Wales Chronicle dated 1862 July. The piece describes a local hermit and his cave. It records *“after scrabbling up the hill for a few minutes we came to a small cavern in the rock directly facing Conway Bay, and in which an Irishman named Stephens has resided for the last 14 years. This hermitage is literally in the rock and bears more resemblance to what we can fancy of Robinson Crusoe's cave than anything I have ever seen before. The cave is rather a spacious one but the furniture in it is not very varied. A bed placed on the floor, a chair, a table, and a few common and necessary utensils constitute the whole household furniture. Some time ago Lady Mostyn visited the recluse and kindly presented him with an iron bedstead: but this was found to be “inconvenient” and it is now outside the doorway broken up. The hermitage I am informed is visited by a great number of ladies and gentlemen, who occasionally give the old man a small present, so that he manages to pass through life comfortably – without a wife and without the drudgery of much*

*labour: the old man is content and happy, and would not quit his cave in the rock, not to be removed even to Penrhyn Castle". The Blackburn Standard August 14<sup>th</sup> 1880 records a visitors guided tour around the Great Orme and highlights the continued fascination with the cave. The visitor writes "we visited a small cave which in years gone by had been tenanted by an old hermit. From this point a loud "hallo" produced a splendid echo, with which we amused ourselves for a few minutes".*

**5.3.03** John Stephens can be found in the Llandudno census for 1851 and is recorded as an agricultural labourer aged 48 and his address is given as "in a cave". In the 1861 census his address is given as cave by Ty Dean, his age is given as 50 but this is likely to be an error. He does not appear in the 1871 census.

**5.3.04** The 1861 census records another cave dweller in the entry immediately above that for Stephens. Isaac Jones age 50 is noted as living in a cave by Gogarth. His status is given as married and his occupation as boatman. Isaac was the husband of another notable local character Miriam Jones or "Miriam of the Cave/Miriam Ogof" as she was also known. The family also appears in the 1871 census and this time Miriam and five of their children are also recorded as resident in the cave. The Gossiping Guide of 1882 records how the family were evicted from their cave when the New Marine Drive was built. *"In making the New Marine Drive a happy couple who lived in a cave had to be ejected. To look at the habitation one would think that, with a family, the cave-wife must have been put to inconveniences as great as the old lady who lived in a shoe, and yet we were told by the woman of the cave that she had given birth to a reared thirteen children in it, and was far happier there than in her present more civilized habitation".*

**5.3.05** Her fame appears to have spread a considerable distance and an article was written about her life in the London Daily News on 23<sup>rd</sup> July 1910. It reads *"in a little cottage on the west side of the Great Orme, dwells Miriam Jones, better known as Miriam the Cave Dweller. For over 50 years she and her husband lived in a cave near her present abode and in it she gave birth to thirteen children. Miriam has just celebrated her 91<sup>st</sup> birthday and she earns a livelihood by selling refreshments to visitor who walk around the marine drive. She is probably the only woman who can claim to have assisted in the construction of the drive. About half a century ago her husband Isaac Jones was one of the men engaged by contractors in the excavation of the rock through which the road was cut, and as he was paid by measurement Miriam frequently gave him a helping hand. The old lady has a fund of interesting reminiscences. She remembers Dean Liddell building his house on the Gogarth side of the Orme, and his daughter Alice for whom Lewis Carroll originally spun those wonderful fairy tales which all the world knows under the title of "Alice in Wonderland".*

**5.3.06** Following her death in 1910 at the age of 92 Miriam's story was widely reported with articles appearing locally in the Gwalia and the North Wales Express and in papers further afield such as the Sunderland Daily Echo and Shipping Gazette (3<sup>rd</sup> September 1910), The Western Times (3<sup>rd</sup> September 1910).

**5.3.07** Another interesting cave dweller story of the Great Orme is told in an article entitled "The Storming of Rock Castle" published in the North Wales Chronicle July 30<sup>th</sup> 1881. The article reports the findings of the case of Mostyn versus Foulkes which had recently appeared before the Llandudno County Court. It reads *"the defendant has occupied a cave dwelling place, which he calls by the high sounding name of "Rock Castle". The trustees of the Mostyn Estate are the plaintiffs and they have brought on the action to put the defendant out. The case was resumed on Saturday at Conwy, Mr Horatio Lloyd, the judge, holding a special court for that purpose – Mr R.S Chamberlain appeared for the plaintiffs, and Mr M Louis represented the defendant. The case for the plaintiff had been closed on the former occasion, and Mr Louis had delivered his opening address. On Saturday Edward Foulkes stated that he had enjoyed undisputed possession of the cave*



for 24 years. He called it “Rock Castle” and had voted at the last election, the (two works unclear) having granted him a vote upon the claim. He remembered the Mr Chamberlain canvassed him for his vote (laughter) – William Lester stated that he had known Foulkes since 1842, and that at that time he kept his tools &c in the cave. A door had been on it ever since the year named. He remembered that Mr Felton made a survey of it some years ago. It had a lock on then, and the defendant lived there at that time. William Hughes, painter, stated that he knew Foulkes to have had possession of the cave for 23 years. William Foulkes, Edward Brookes and William Brookes, all old inhabitants corroborated. His Honour here remarked that there appeared to be considerable weight of evidence to show that the defendant had exercised some kind of possession of the cave and it was not considered necessary to call the remaining 37 witnesses”. The article then stated that the case was to be deliberated but that it was the fifth or sixth occasion on which this case had been contested.

**5.3.08** As with Stephens and the Jones family, Foulkes can be traced in the census documents and he and his family are registered at Ty Gwyn Yard in 1861 but it is not written whether this is in the cave or in the cottage row opposite. He is however not recorded as living in the cave in 1871 when he is recorded along with his first wife Jane, three daughters and a granddaughter as living on Green Hill. He is however resident by 1881 and his little joke of “Rock Castle” is recorded on the 1881 census where he is listed as a fishmonger aged 70 living with his wife Fanny (58) and granddaughter Sarah Hughes (14). The 1891 census shows that he and his granddaughter remain at the cave in 1891 when his occupation remains fishmonger and Sarah is now his shop assistant. Foulkes does eventually move into a house and by the 1901 census he is living on Mostyn Street, Eglwys Rhos with his daughter and her family.



**Figure 36.** The Scarlet Merrions Performing at Foulkes' Cave  
(Source Conwy Archives CP395/3/47)

**5.3.09** Foulkes' Cave was to become home to a rather different group when in May 1907 the Scarlet Merrions began performing there (Llandudno Advertiser 18<sup>th</sup> May 1907). It was however to continue to be the site of controversy in the town and the Caernarfon and Denbigh Herald of the 26<sup>th</sup> June 1908 reported that complaints had been made by private residents about the entertainments and crowds which had become a nuisance. The

article continued that the sum of £500 had been spent on preparing the area as a place of entertainment and concluded that a licence was no longer required as similar entertainment was found nearby in Happy Valley for which no such document was required. It is not known exactly how long the troupe continued to perform here but a postcard showing the venue is held in Conwy Archives (CP395/3/47) and is included as figure 36).



**5.3.10** The tradition of cave burial in the Llandudno caves was also found to have continued for much longer than elsewhere with the latest recorded deposition occurring in 1899. It was reported in The Evening Telegraph of June 16<sup>th</sup> 1899 and the following rather whimsical story is the published article. *“The Home Office has shown itself quite human in agreeing to Mr Lawson Tait's desire to be buried in the Gogarth Cave at Llandudno. So the kindly antivivisectionist is to be cremated first, and then his ashes will be placed in that “romantic cavern” of his own garden. All humanity, except the philosophers, has always been anxious about its place of burial. Reason tells us it makes no difference whether our outworn bodies lie in pyramids, jars or ditches, but we do not always listen to reason. So probably most of us sympathise with Mr Lawson Tait, and would much prefer a roomy and romantic cave to a cramped-up hole in the suburban cemetery”*. Mr Lawson Tait was a strong advocate for the purchase of the Kendrick's Collection and indeed for the purchase of Kendrick's Cave and for the establishment of a museum in Llandudno.

#### **5.4 Contextualising Kendrick's Caves – The Limestone Caves of the Llandudno Area**

**5.4.00** Research undertaken as a key element of the post-excavation phase of the recent excavation at Upper Kendrick's Cave has highlighted the fragmentary nature of the current approach to the cave archaeology of the Llandudno area and the need to amalgamate the works of antiquarians, archaeologists, cavers and local societies into a single accessible whole from which further research agendas can be formed. It has also highlighted that there are several periods during which cave usage or occupation forms a significant element of the archaeology of the area – specifically the Palaeolithic, the Mesolithic, Neolithic and Bronze Age and to a lesser extent the Iron Age/Romano-British period.

**5.4.01** Previous works have been undertaken and of particular note are the excavations led by Mel Davies and Tom Stone during the 1970s, the results of which are key in highlighting the wealth and significance of the archaeological resource of the cave sites of the Llandudno area. Both excavators kept thorough records and published their sites in both specialist caving journals and archaeological publications.

**5.4.02** A map (Appendix B) has been produced showing the locations of the caves discussed in the text. For ease of discussion the caves have been divided into three categories: Caves of the Great Orme, Caves of the Little Orme and Caves of the Llandudno Area. It has not been the intention to include all known caves in the area in this study but rather to highlight those which are known to contain or have contained archaeological deposits. It must also be highlighted that the scope of this investigation does not extend to the Post Medieval cave use of the area, which although fascinating is beyond the scope of placing Kendrick's Cave and the finds from therein within a regional context. Therefore sites such as Llech Cave have been omitted and only the earlier phases of Printing Press Cave are discussed in the following section. Where caves have more than one name both are used.

#### **Caves of the Llandudno Area**

##### **5.4.03 Coed Marl Hall - Cave System within Grounds**

In 2002 Engineering Archaeological Services Ltd conducted an Archaeological Assessment at Coed Marl Hall. During this survey Laws & Brooks identified remnant cave systems containing Pleistocene deposits. The entry is included in full below:

**5.4.04** *“Part of three cave systems were recorded during the survey. By far the largest was PRN 16722. This appeared to be a partial longitudinal section through the cave, revealed either through quarrying or by the natural collapse of a rockface. The stratigraphy exposed within the cave would appear to include an indurated breccia, over a less indurated breccia containing large limestone block, which in turn seals fine orange brown clayey sand. It is likely that the deposits extend both into the hillside and below the level of exposure.*

**5.4.05** *The other caves may be much smaller. PRN 16744 was seen at the top of Jacob's Ladder and it appears to extend out of the survey area. The deposits it contained include flowstone (stalagmitic) deposits and red/brown cave sands.*

**5.4.06** *The blocky nature of some of the limestone deposits within the survey area has revealed a water worn wall of a third cave (PRN 16737) behind a jumble of fallen blocks. It is likely that this cave was partly responsible for the collapse along this line. No deposits were recorded, however, access to this feature was difficult.*

**5.4.07** *Whilst no artefacts were noted in the survey associated with the caves it should be noted that two caves on the Great Orme, in similar limestones, contained Late Upper Palaeolithic artefacts (Aldhouse-Green 2000: 9). These are Kendrick's Cave and Ogof Tan-y-Bryn. Kendrick's Cave is of particular note as it contained very rare examples of portable art together with possible human burials (Aldhouse-Green 2000, 21). It is unlikely that PRN 16744 and PRN 16737 were large enough for human use, however PRN 16722 has considerable potential.*

**5.4.08** *Even small cavelets, however, may contain important deposits. Research since the 1980s, in similarly caves at Creswell Crags, Derbyshire (e.g. Jenkinson 1984, Jenkinson and Gilbertson 1984, Jenkinson et al 1981) has shown that even small caves can contain important Pleistocene deposits, often sealed by flowstone (stalagmitic) deposits. These deposits can contain a detailed record of environmental change over long periods in the form of animal and plant remains preserved in the sediment's" (Laws & Brooks 2002: 6).*

#### **5.4.09 Ogof Pant-y-Wennol**

Excavations at Pant-y-Wennol began in 1974 and continued until 1977. During this time a 2m x 1m trench was excavated to a depth of 2.75m. There was also excavation of 10 1m x 1m squares of a gridded pattern which the cave floor had been subdivided into. The cave is described as a very wide sunny cave mouth with a low narrower chamber behind it (Davies 1974: 8).

**5.4.10** A report on the first season of works was published in Archaeology in Wales 1974. The document records that the cave mouth had been blocked by a rough modern wall and the back had been filled with rubbish including modern bone and food debris from a cottage in front of the cave. When the wall was removed a number of human bones were recovered which were encased in stalagmite. This was due to cave earth having been used to consolidate the wall. The remains of a trench at the rear of the cave are thought to have been the area where the cave earth for the wall was excavated and the bones are believed to have come from this area (ibid).

**5.4.11** *"The main finds so far are parts of 5 human skeletons – 4 adults and one child. Part of one of the adults was in an undisturbed position at the bottom of a narrow fissure at the back of the cave. The burial seems to have been covered by a flat slab. The child may have been buried close to the wall. The skeletons are in some cases cemented by stalagmite deposits. Animal bones include sheep, goat, pig and ox together with fox or dog. A single sherd of coarse pottery was found. Judging from the fabric this could be either Neolithic or Late Bronze Age, but its position beneath the stalagmite would favour the former alternative. A pointed bone tool, perhaps an awl or blade and two struck lumps of flint were the only other artefacts found. Beneath the level of the skeletons and the stalagmite a red silt is present in patches. This layer contains hearths which may be of Mesolithic date" (ibid).*

**5.4.12** A report on the second season of works was published in Archaeology in Wales 1975. The human remains which were uncovered had by that date been identified as belonging to of four adults and 2 children. It is described that some of the bones were undisturbed although soliflucted or cemented in stalagmite. Based on the site stratigraphy these remains were dated to the Bronze

Age. Neolithic pottery was found below the stalagmite layer which is of Ebbsfleet decoration. Also at the same level was an unpatinated flint scraper, awl and assorted flint pieces together with a worked piece of rock crystal and bone worked into a “limpet scoop”. The deposit was described as rich in limpet, mussel and periwinkle shells and was a greyish-brown cave earth (Davies 1975: 28).

**5.4.13** Below this layer was a Mesolithic deposit described as a red silt containing some stones. From this deposit were recovered 3 microliths at 0.6 – 0.95m below the surface. Two are described as having slightly blunted backs and the third is detailed as similar to the arrow-tips found at Starr Carr (ibid).

**5.4.14** As excavation continued the deposits became more stoney and clayey and there was no trace of human occupation. Large numbers of bone fragments were found, generally black in colour with teeth of deer, horse and fox. At a depth of 1.66m the left astragalus of a rhinoceros was uncovered. A maximum depth of 2.52m was reached but the lower deposit was a sterile clay (ibid).

**5.4.15** An account of the complete works was published in 1978 in the Transactions of the Penmaenmawr Historic Society. This adds that one half of the cave, lying to the east of the meridian line was left undisturbed (Davies 1978: 8).

**5.4.16** In his 1994 paper on the Prehistory of Llandudno Tom Stone provides further information on artefacts recovered during the Ogof Pant-y-Wennol excavations. He adds further information on the potential for Palaeolithic material stating that the cave was used by wolves and hyenas and described fragmentary fossilised remains – possibly of ox or reindeer. He also details another “*item of importance*” - a bone fragment 4cm in length which had been decorated with incised lines (Stone 1994: 4). This bone could possibly be of Upper Palaeolithic date.

**5.4.17** In 1979 an excavation at the cave was carried out in an alcove under the rock face on the western side of the overhang. The following artefacts were found: three thumb-nail scrapers (with secondary working), one large flake (with secondary working), possibly an engraver, several blades and flakes of black chert, two small, yellow chert or jasper cores (worked to form scrapers), a fragment of bone with cut marks at one end (polished with use), two potboilers, a stone with a flat worn base (possibly for grinding or smoothing), a small, white, egg-shaped quartz pebble, wolf and wild pig teeth, mussel, limpet and oyster shell. This activity was attributed to the late Mesolithic or early Neolithic period (Stone et al 1980: 21).

**5.4.18** Excavation at Pant-y-Wennol shelter continued the following year and works were concentrated on the platform in front of the cave. Bone and shell was found together with a slender, bone needle characteristic of the Creswellian period. Four possible slate artefacts were also found – two scrapers and two blades. These artefacts were found beneath scattered human arm bones (Stone 1981: 22, Stone, T. & Smith, B. 1979: 12).

**5.4.19** In 2002 Dr. Rick Schulting of Queen's University, Belfast sampled one of the crania from Pant-y-Wennol and the date was given as 3940-3655 BC giving the remains a Neolithic date. Stable isotope analysis was also carried out and interestingly the values were characteristic of a diet based almost entirely on terrestrial resources, with very little fish or shellfish consumed despite the proximity of the site to the sea (Source: Letters Held in Conwy Archives Ref C01/D8/2/35).

The site is a Scheduled Ancient Monument (Ref CN190).

#### **5.4.20 Ogof Tan-y-Bryn**

Ogof Tan-y-Bryn is a north-west facing cave measuring 3.4m in width, 3m in height and accessible for 5.5m. A limited examination of Ogof Tan-y-Bryn was made by Mel Davies in the mid 1970s although he stated that the owner did not want the cave to be excavated. Davies made a cursory record of an area c.1m square near the cave entrance which he recorded showed that approximately 2m of cave deposits had been removed in the past, presumably for lawn building. Below this level he describes the deposits as intact due to a stoney matrix (Davies 1975: 29).

**5.4.21** He also recovered a number of artefacts including patinated flint and hacked bone fragments indicative of human occupation. One of the tools was described as a fine Creswellian-type blunted back blade and a second as a worn leaf-shaped blade. The rear of the cave is noted as having been undisturbed with a blocked pothole running upwards in the ceiling which would have formed an ideal animal trap. Davies regarded the cave as having great archaeological potential (ibid).

**5.4.22** In a paper published in the Newsletter of North Wales Caving Club 1975 he described how only the upper 10-20cm of deposits below the leaf litter at the site were disturbed and it was within the sealed layer directly below this he describes finding the aforementioned blade. He did however state that although there are important intact deposits he believes that around 2m of deposits have been removed from the front 5.5m of the cave.

The site is a Scheduled Ancient Monument (Ref CN204).

#### **5.4.23 Unnamed Cave on Bryn Euryn**

As has been the case on the Great and Little Orme's extensive quarrying has taken place on Bryn Euryn during the late 19<sup>th</sup> and early twentieth centuries. There is a short note on the discovery of a cave in the Proceedings of the Llandudno, Colwyn Bay and District Field Club 1924-25. It records that "In a quarry on the north-east slope of the hill, when a boring was made in November 1900, a cavity was reached, circular and about 4 ft in diameter; the sides and top were smooth. It was almost filled with sand, in which were found fragments of flint implements" (Proceedings of the Llandudno, Colwyn Bay and District Field Club 1924 - 25: 119).

### **Caves of the Great Orme**

#### **5.4.24 Corkscrew Cave**

Corkscrew Cave was excavated by Geoff David and pupils from St. David's College, Llandudno in 1979. Corkscrew is located on the south-facing side of the Great Orme, approximately 100m from the junction between Anglesey Road and Tyn-y-Coed Road. It is a small natural cave with two entrances positioned around 17m apart. Both entrances are positioned just below the crest of a steep slope cannot therefore be seen from either above or below. Modern rubbish was found in both cave entrances (David 1990: 5).

**5.4.25** It was noted by the excavator that there were no signs of mineralisation, drill holes or pick marks along the cave length. The cave was described as being initially very narrow (less than 0.5m in width) although on excavation the walls were found to slope away from the centre of the passage and extended to as much as 1.5m in width (ibid). No prehistoric artefacts were found despite carefully sieving of all earth removed. Two chert flakes were recovered although it is noted that these showed no signs of secondary working and may have been natural. Undated human bones were recovered from a small area in the western half of the cave. The bones were disarticulated and comprised of cervical vertebra, metacarpal II left (distal end broken off and missing), phalange from the Ph 2 position in the hand. These bones were found scattered haphazardly through the upper cave earth and it was believed by the excavator that the bones had been brought to the surface by rodents. No stalagmite layer was encountered and it was noted by the excavator that they were not deep enough to encounter this layer (ibid: 7).



The cave is recorded in David's paper as a Scheduled Ancient Monument although this is an error.

#### **5.4.26 Kendrick's Cave – Lower**

The history of the Kendrick's Lower Cave site is covered in detail above but a note must be made in this section that following a site visit it is evident that, although the area at the front of the cave has been cleared and a concrete floor laid, the area to the rear of the cave has significant archaeological potential. A passageway to the rear of the cave can be seen to have been cleared by Kendrick, and the western cave area has been revetted with stone but it would seem most likely that beneath this material are surviving intact archaeological deposits, potentially of Mesolithic or Palaeolithic date. It would also seem that having examined a number of holes within the cave floor that the current floor level is not the base of the cave.

The site is a Scheduled Ancient Monument (Ref CN191).

#### **5.4.27 Lloches-yr-Afr**

Works at Lloches-yr-Afr were begun in 1973 and concluded 1974. The cave is situated alongside the Marine Drive on the Great Orme and was badly affected by the construction of the road. The outer wall had been blasted away and the site survived only as an overhang or rock shelter. The majority of the site was excavated during the 1970s works which removed 2.5m x 1m of deposits to a depth of 1.6m although it was noted that bedrock was not reached at this level (Davies 1978: 8).

**5.4.28** Hyena chewed bones were uncovered dating the earliest phase of cave usage to the Ice Age and human activity was identified as beginning in the Mesolithic period. Flint and fish bones were excavated associated with this period. Above this a series of hearths were identified associated with Neolithic pottery and animal bone. A stakehole was found in association with one of the hearths. The animal bones were described as “*common but never large ones, as if the meat eaten was a small joint carried onto the site perhaps pre-cooked*”. Limpet and mussel shells were found along with a pile of white quartz pebbles (ibid).

**5.4.29** An interim report was published in 1973 which provided more detail on the first season of excavation. It records “*This rock shelter was discovered near Llandudno in October 1973, and excavation is now nearly completed. Deposits 3.5m wide banked against the remnant of a cave wall have been removed to a depth of 1.6m. Six distinct layers seem to be present from a recent sheep-trampled surface layer, to a deep red-coloured, rock fall deposit at the bottom. Finds include many bones including mandibular of deer, mandibular canine of female pig, many sheep bones, a large vertebra of fish, a wide variety of mollusc shells mostly limpets, and some scores of unidentified scraps of bone. Some of the bones are split, and blackened by fire. Five of the six layers contain charcoal, sometimes as distinct hearths. Only one group bones was found in the lowest layer, but these seem to have been broken by chewing hyena. Artifacts include a leaf-shaped flint blade, and one microlith without secondary working. A scrap of bronze was found, and one pot sherd. This could be Neolithic “A” and the stratigraphy supports this hypothesis, but this sherd could also be of Iron Age date*” (Davies 1973: 15).

**5.4.30** The 1974 excavation report confirmed that excavation had been completed during this season. It added that the bones which had been chewed by hyena were likely to have been the proximal end of a horse tibia. The mesolithic occupation is interpreted as a place to “*call for a quick meal rather than a permanent habitation site, understandable as the shelter faces north and never gets any sun*” (Davies 1974: 9).

#### **5.4.31 Ogof Arth or Bear's Cave or Toby's Cave**

Little is known about this cave but in her work on the Ormesday Project Diane Bannerman (1998: 10) records that various Neolithic animal bones have been found in this cave. This is the cave believed to have been occupied by farm labourer John Stephens detailed above.

#### **5.4.32 Skeleton Cave**

The archaeological remains from this cave are covered in detail in Section 5.1.2.

#### **5.4.33 Snail Cave Rock Shelter**

In June 2011 Gwynedd Archaeological Trust carried out a small evaluation excavation at Snail Cave which had been discovered in 2010 by David Chapman of Ancient Arts. At the site erosion due to sheep/goat trampling and water run off from the cliff above had uncovered a number of small flint blades and a layer of snail shells. A preliminary report was produced by the Trust on behalf of Cadw in December 2011 (GAT project No. 2179, Report No. 1002) and the results of that report are summarised below.

**5.4.34** At the site a 3m x 1m trench was excavated across the approximate centre of the rock centre where the surface spread of marine shells was identified. The trench ran from the back of the shelter against the rock face to the forward scarp edge where the scree slope began. Deposits were hand excavated and the material was wet sieved (Smith 2011: 3).

**5.4.35** Occupation deposits were encountered from the trench surface down to a depth of 0.70m. Five horizons were identified during the works although it was noted that due to animal burrowing some contexts were not securely stratified. The upper horizon was a layer of marine shells and sealed a thin layer of charcoal rich soil, the close relationship between the two deposits was interpreted as both having been part of the same activity. Several worked flints and a pierced shell were collected from these upper layers. The lower layers of the trench produced an assemblage of waste flint and retouched point of Later Mesolithic type. Also recovered during excavation were charcoal fragments (including hazelnut shells), marine shell and bone fragments (Smith 2011: 2).

#### **5.4.36 Ogof Colomennod/Pigeon's Cave**

Ogof Colomennod is reputed to have been the site of the discovery of a Late Bronze Age hoard in 1898. The hoard consisted of two gold penannular ear-rings, a bronze palstave, and a socketed bronze implement with a stout spike (interpreted either a spearshaft-ferrule or a leather worker's awl). Little is known about this find as no publication of the hoard was made until 1953 when the collection passed to the National Museum of Wales. The only source of information about the find was taken from the May 20<sup>th</sup> edition of the Weekly News. It recorded that two youths Lewis and Arthur Riddell discovered the hoard amongst the debris at the back of a large loose rock near Pigeon's Cave. Doubt has been expressed as to whether this was the true location of the findspot and it is stated that there is considerable suspicion that as Pigeon's Cave is a sea cave material is unlikely to have remained undiscovered or undisturbed over such a considerable time period and it is possible that these artefacts belong to a burial rather than a hoard (Savory 1958: 14-15 & 57).

#### **5.4.37 Ogof Tudno/Badger's Cave**

Excavation at Ogof Tudno was undertaken beginning in 1975. The cave comprises a minimum of four entrances, one of which was of sufficient height to allow the visitor to pass whilst remaining standing. It is noted that this cave was much disturbed by copper miners. In August 1975 a trial excavation was begun by Stone, Mason & Davies. The upper deposit was described as a cave earth containing the remains of sheep or goat, badger and rabbit and it was presumed that this deposit had built up relatively recently other past few hundred years (Davies 1975: 29).

**5.4.38** Below this was recorded a brown cave earth layer which rested upon a stalagmite floor. Occupation evidence was found in and above the stalagmite floor. This included a hearth containing charred bone, limpet and mussel shells and a crudely worked bone “limpet scoop”. The occupation evidence reached a depth of 0.60m. Davies records that in this first season the 1m wide trench seemed “*to be breaking into an entrance but the cave is very wet and cannot be dug in winter*” (ibid).

**5.4.39** Work concluded in 1977 during which numerous boulders were removed. The trench was deepened to 1.75m but no trace of occupation was found and the clay proved sterile at this depth. Below this clay layer was a 5cm thick layer of stalagmite. Beneath this a greyish granular clay was identified as decomposed limestone 20cm in thickness which overlay the bedrock (Stone 1977: 14).

**5.4.40** In a small tunnel running westward from the excavation an astragulus of ox was found together with a small cache of hazel nuts at a depth of 20cms. The information on this excavation concluded with the interpretation that small amounts of charcoal, a few bone fragments, mussel and limpet shells suggests that the cave was used as a temporary shelter. The alternative explanation is that as the cave mouth has collapsed down the slope towards the sea then the evidence of long term habitation has been lost (ibid).

**5.4.41** Diane and Nigel Bannerman re-examined the cave in 1995/6 and in their 2001 publication “*The Great Orme Explained*” (page 37 - 39) make a very compelling argument that this site was exploited by Bronze Age miners. Also of interest in the Bannerman's account of their excavations at the cave was their account of the discovery of a section of bovine rib with two incised lines. It was examined by Rodger Jacobi and thought to be of “*Upper Neolithic*” date. This bone is however not thought to have originated from Ogof Tudno but rather to have come from a low bedding plane nearby which had been dug out by “*young cave explorers*” who had dumped their spoil into the Ogof Tudno Shaft. The remains of the bags were found around the bone (www.nbannerman.co.uk). This artefact is of particular interest considering the other examples of portable art recovered from other cave sites nearby.

### **Caves of the Little Orme**

#### **5.4.42 Fissure on the Little Orme**

Around 1891 a fissure in the Little Orme was encountered during quarrying. It was found to contain a number of distinct horizons with the teeth and bones of bear, hyaena, rhinoceros and other mammals a few feet above the quarry floor, a female skeleton was found approximately 30-40 ft above these and a bronze spear head was found near the top of the fissure. Gregory et al (2000) examined this material and concluded that the horizons represent three main phases of deposition within the fissure – the lowest strata has been assigned a Pleistocene date, the human remains have been radiocarbon dated to the middle Neolithic and the spear has been assigned a late Bronze Age date. It is postulated that the remains are from a deliberate burial, accompanied by the sacrifice of a pig (Gregory et al 2000: 7).

#### **5.4.43 Dead Rabbit Cave or Letterbox Cave**

Dead Rabbit or Letterbox Cave was a cave of two small chambers reached via a low crawl. It was excavated by John Blore in 1961 and by Geof David and his school pupils in 1978. During David's excavation the remains of a skeleton aged 17-25 years of age was discovered below a speleothem floor (Dinis & Ebbs 2013: 33). The material is currently held in Llandudno Museum and it would benefit from further study.

#### **5.4.44 North Face Cave/Ogof Rhiwledyn**

Ogof Rhiwledyn or North Face Cave was excavated from 1962-1976 by John Blore. The results are fully published in his excavation report entitled “*Archaeological Excavation at North Face Cave, Little Ormes Head, Gwynedd*” (self published 2012) and this section is a summary of these findings.

**5.4.45** In his work Blore identified five layers below the modern topsoil and detailed descriptions are provided in his site report. A considerable quantity of animal bone was recovered during the excavation including 518 identifiable remains, hundreds of frog/toad bones and over 600 unidentifiable bone fragments. It is noted that this is largely due to damage from predators and the damage over time caused by the use of the cave by humans and animals alike. The bones belong to numerous animals and birds including both carnivores and herbivores (Blore 2012: 5).

**5.4.46** Of particular interest is layer III – a red brown clay deposit approximately 0.10-0.15m in depth. It contained pieces of irregular shaped breccia. Blore states that this layer contained “*all the evidence of human occupation and burial, the finds were numerous and varied and covered a wide spectrum of archaeological wealth*”. Bones found within this deposit were divided into two categories – remains of species that would naturally seek refuge in a cave and species brought in by predators, and remains brought in by man (i.e butchered bones). Of the 121 bones attributed to human activity, 43 were human and six species of animal were identified – pig, roe deer, ox, small ox, goat and sheep. It must also be noted that two human bones from an adult and a child were found in Layer IV a stalagmite later – they are recorded as being directly linked to the remains from layer III and the fragmentary material from the top of this layer is considered contemporary with Layer III (Blore 2012: 10-11).

**5.4.47** The remains of four individuals were recovered during the excavations – three belonging to children (aged 3-4 years, 8-9 years and 10-12 years) and one to an adult. This skeletal material appears to represent the remains of inhumations. Artefactual material was also recovered during works but the artefacts were not deposited in association with the burials. There was an amber bead, discoidal pebble, slate tools, three unworked flint or chert pieces, an antler tool, a shaped bone and a pierced sheep phalanx found at the site (Blore 2012: 26-38).

**5.4.48** Interestingly Mel Davies visited this cave in 1974 and was seemingly unaware of the works of Blore at the site. He describes how “*someone has opened a hole in the floor measuring 1m by 0.5m*” and attributes the disturbance to an antiquarian or potholers. When Davies examined this trench he found several large bone fragments and a human canine, mandibular premolar and toe bone under a stalagmite layer (Davies 1974). This is of great interest as Blore records the human remains he excavated as either coming from above the stalagmite layer or imbedded in it.

**5.4.49** Earlier this year Nick Jowett of the Great Orme Mines Ltd revisited the cave in June 2015 and noted that there had been disturbance in the cave following the completion of John Blore's work. Material was found that had been taken from a hole dug in the rear of the cave and within this disturbed material Jowett recovered a human maxilla with three teeth. These teeth were compared with those recovered by Blore and are believed to belong with the jaw of the 10-12 year old child. Jowett sent the remains to SUERC Glasgow and received a Bronze Age radiocarbon date of 3065 (+/-36) BP. Also found in cave during his visit was a Romano-British bronze fibula (Nick Jowett Pers Com).



#### **5.4.50 Printing Press Cave/Chimney Cave**

Although more famous for its later use as the site of a printing press for Catholic literature this cave has yielded archaeological remains during fieldwork by John Blore in 1959 and 1962-3. On his website Ebbs records that *“When Blore excavated the cave in 1962 he found evidence in the lower layers (450mm below the joist marks) of the butchered and cooked bones of Ox and Sheep. and the tooth of an 11/12 year old Child. In 1963 the cave was vandalised with the remaining soil deposit thrown over the cliff face. Blore recovered some of this material including a human tibia belonging to an adult”* ([www.sites.google.com/site/cavesofnorthwales/11-caves-of-llandudno](http://www.sites.google.com/site/cavesofnorthwales/11-caves-of-llandudno)).

### **6.0 Results of Archaeological Fieldwork**

**6.00** The archaeological fieldwork was conducted in two phases. The first phase was an archaeological watching brief which was conducted on the excavation of postholes into which a removable safety fence was to be fitted. The second phase of works was the hand excavation of two trenches across the cave openings. The results of each phase will be detailed separately.

#### **6.1 Results of Archaeological Watching Brief on Post Hole Excavation (Figure 37, Plates 1-6)**

**6.1.00** The hand digging of six post holes along the cliff side edge of the platform in front of the two cave entrances was monitored and all material removed during these works was hand sieved for artefact retrieval. The postholes were all dug into what was clearly made ground of 19<sup>th</sup> century date and no intact archaeological deposits were encountered in any of the holes. Despite the sieving of all material only Post Medieval artefacts were recovered during the works. The artefacts are discussed in Section 6.3. It was clear from this work that at least the upper levels of the flat platform area at the front of the cave have been created using material which was cleared out of the cave.

**6.1.01** The post holes were numbered 1 – 6 beginning at the cave wall and running in a clockwise direction.

**6.1.02** Post hole 1 contained a single deposit – Context 101 which was a mid-brown, loose silt-loam fill with frequent small angular stone inclusions. The post hole measured 0.50m x 0.34m and was 0.42m in depth. The post hole is shown in plate 1.

**6.1.03** Post hole 2 contained a single deposit – Context 102 which was a mid-brown, loose silt-loam fill with frequent small angular stone inclusions. The post hole measured 0.60m x 0.55m and was 0.49m in depth. The post hole is shown in plate 2.

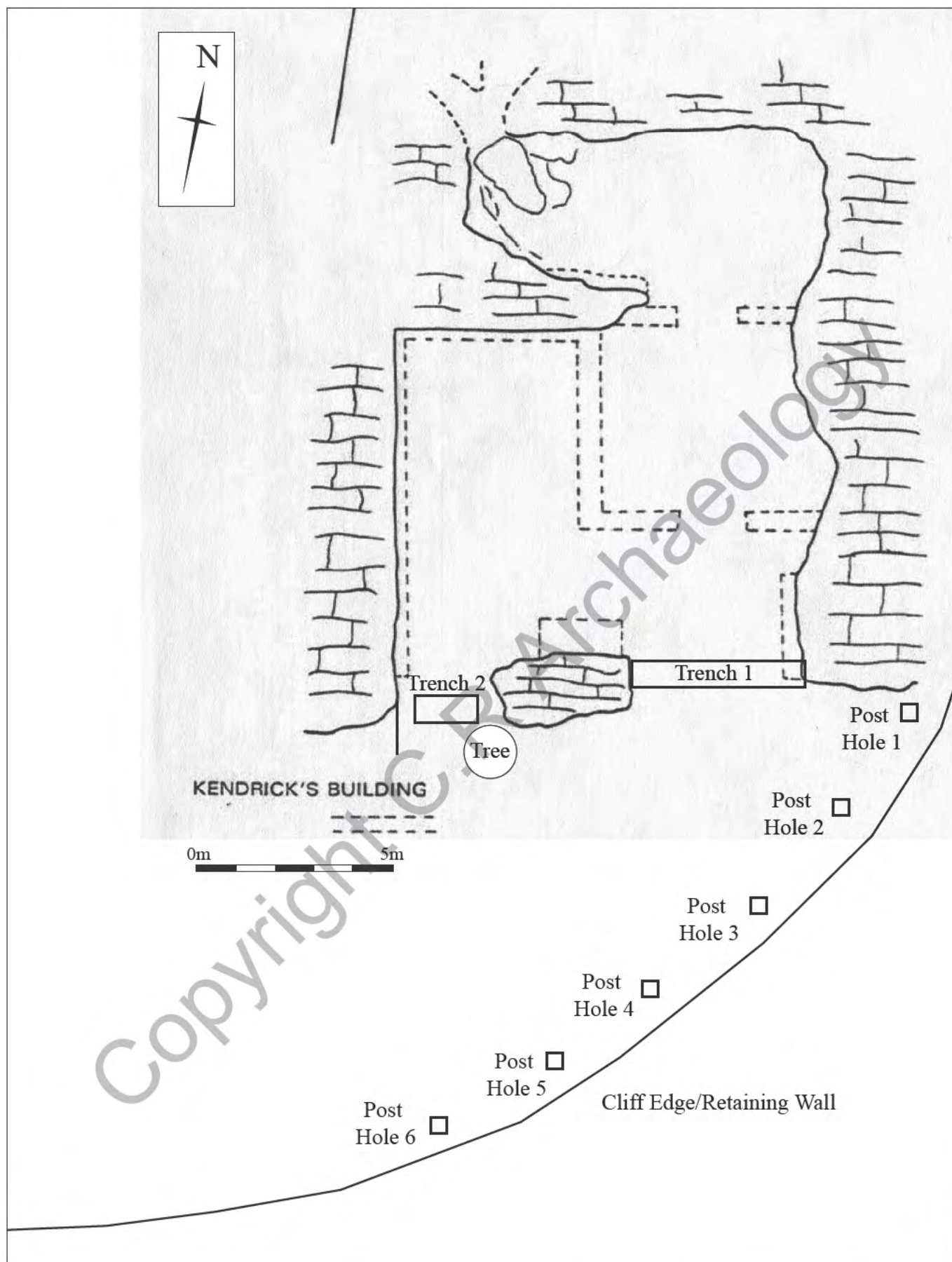
**6.1.04** Post hole 3 contained a single deposit – Context 103 which was a mid-brown, loose silt-loam fill with frequent small angular stone inclusions. The post hole measured 0.30m x 0.40m and was 0.42m in depth. The post hole is shown in plate 3.

**6.1.05** Post hole 4 contained a single deposit – Context 104 which was a mid-brown, loose silt-loam fill with frequent small angular stone inclusions. The post hole measured 0.42m x 0.34m and was 0.50m in depth. The post hole is shown in plate 4.

**6.1.06** Post hole 5 contained a single deposit – Context 105 which was a mid-brown, loose silt-loam fill with frequent small angular stone inclusions. The post hole measured 0.37m in diameter and was 0.45m in depth. The post hole is shown in plate 5.

**6.1.07** Post hole 6 contained a single deposit – Context 106 which was a mid-brown, loose silt-loam fill with frequent small angular stone inclusions. The post hole measured 0.45m x 0.30m and was 0.50m in depth. The post hole is shown in plate 6.

**6.1.08** As mentioned above there was no distinction between the material encountered in each of



**Figure 37.** Trench Location Plan - Modified From Tom Stones' 1994 Plan of the Cave





**Plate 1. Post Hole 1**



**Plate 2. Post Hole 2**



**Plate 3. Post Hole 3**



**Plate 4. Post Hole 4**





**Plate 5.** Post Hole 5



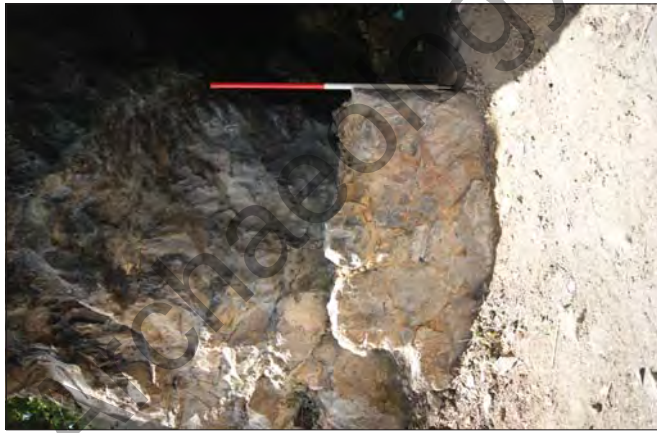
**Plate 6.** Post Hole 6



**Plate 7.** Larger Eastern Cave Entrance Before Commencement of Works



**Plate 8.** Surviving Lime Plastered Wall Against Eastern Cave Side



**Plate 9.** Lime Plastered Wall Against Central Entrance Pillar



**Plate 10.** Western Cave Entrance Before Commencement of Works



the different post holes and separate numbers were assigned to allow for the location of artefactual material rather than to differentiate different deposits.

## **6.2 Results of Archaeological Excavation**

**6.2.00** Two trenches were hand excavated across the two cave entrances at Kendrick's Upper Cave. Both trenches were found to contain exclusively Post Medieval artefactual material and it was evident during the excavation that the archaeological material from the larger of the cave entrances had been removed in order to level the cave floor during the 19<sup>th</sup> century. The smaller cave entrance was an artificial addition and the result of dynamite having been used to enlarge a smaller opening.

### **6.2.01 Trench 1 (Figure 37, 38 & 39 Plates 7 - 14)**

Trench 1 was excavated across the larger cave entrance. It was 4.40m in length and 0.70m in width and was excavated to a maximum depth of 0.80m. Eleven contexts (numbers 201 – 211) were assigned to the trench. All layers other than context (201) were sieved to maximise artefact recovery.

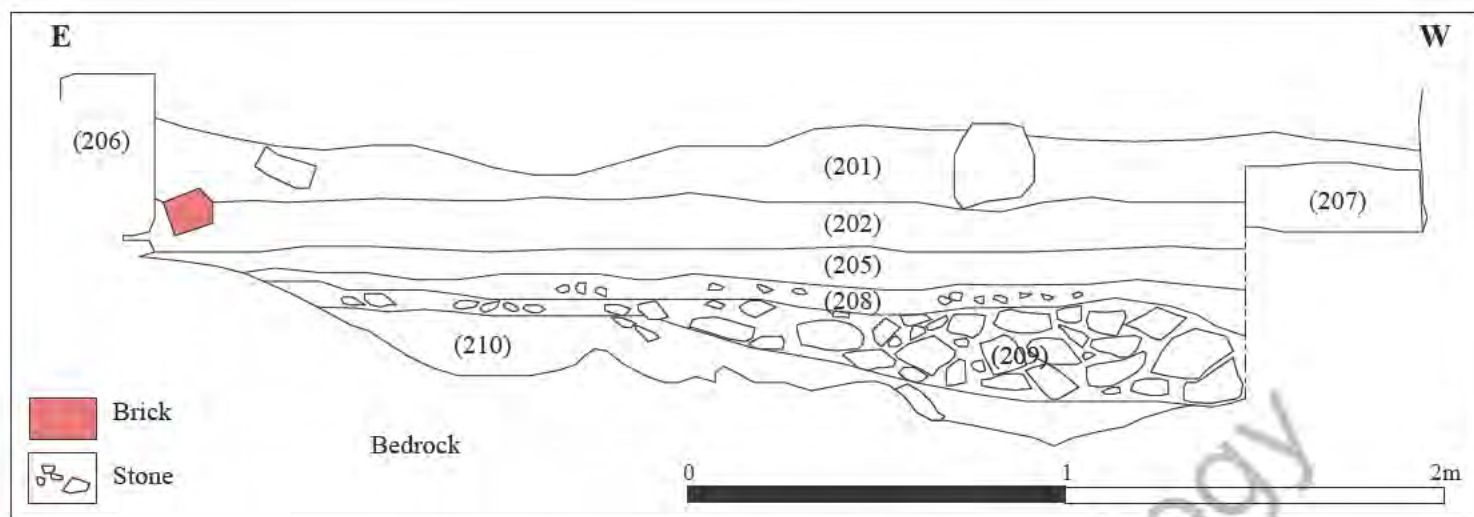
**6.2.02** Context (201) was stratigraphically the latest deposit and was a mixed modern (post 1980) deposit which covered the whole of the cave floor. There were clearly separate layers visible within this deposit but none were of significant age and were the result of the repeated use of this area of the cave to light fires. This layer was approximately 0.15m in thickness and due to the modern contaminants evident and the risk of the presence of hypodermic needles within deposit it was not sieved.

**6.2.03** Context (201) sealed context (203) which was the backfill of the 1970s archaeological excavation trench (assigned cut number [204]). The material within the previous excavation trench contained a considerable quantity of rubbish including plastic buckets etc and was easily distinguished from the surrounding deposits. It was predominantly composed of limestone rubble and breccia. The trench edges had clearly suffered collapse due to the loose material at the base of the trench and had dug down to the bedrock level. The cut reached approximately 0.50m across the width of the trench.

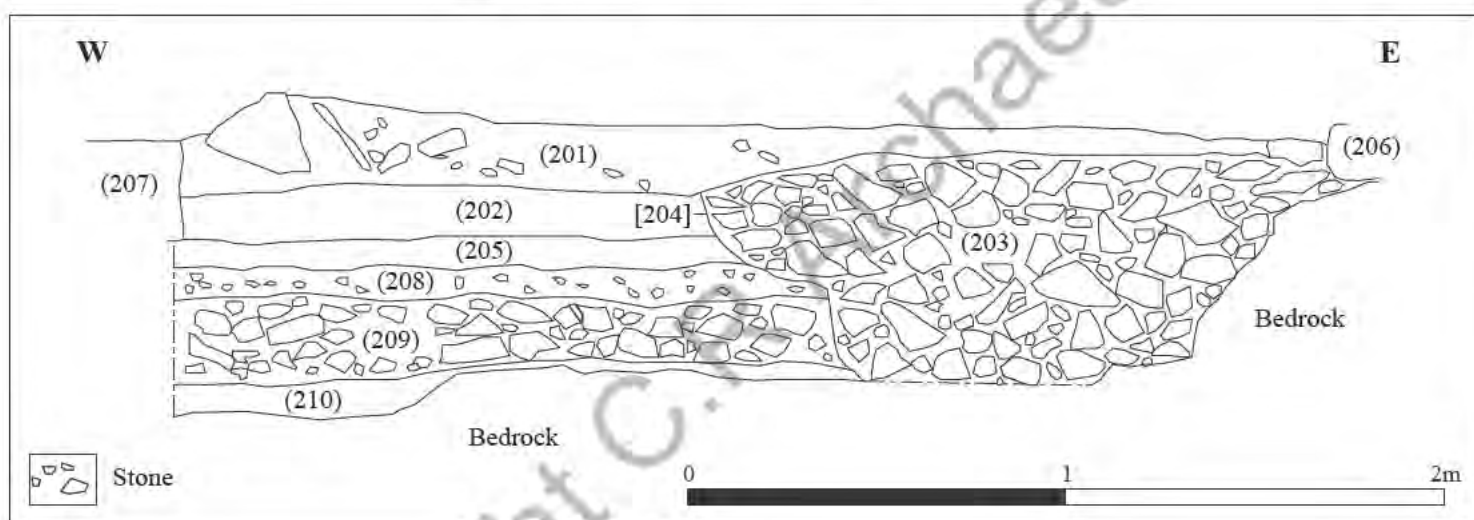
**6.2.04** Context (202) was physically below (201) and had been cut by the previous archaeological trench ([204]). This deposit was a floor layer between walls (206) and (207) which appeared to have been deliberately laid as a flat surface by the 19<sup>th</sup> century cave occupants. It comprised a mixture of lime mortar and brown cave earth with patches of straw mixed in. It is presumed that this layer is the manure and lime floor level described in Tom Stones' excavation report. The layer contained 19<sup>th</sup> century artefacts of pottery, glass, bone, metal and wood. The layer extended beyond the trench limits and had an average depth of 0.08m.

**6.2.05** Below (202) was layer (205) which was another 19<sup>th</sup> century levelling deposit. Walls (206) and (207) were both built on this layer. It was a very compact hardcore layer made from clay, lime mortar and brick & coal dust. A fine layer of sand covered the deposit and was taken to belong to the same episode and was therefore not assigned a separate number. The layer extended beyond the trench limits and had an average depth of 0.08m.

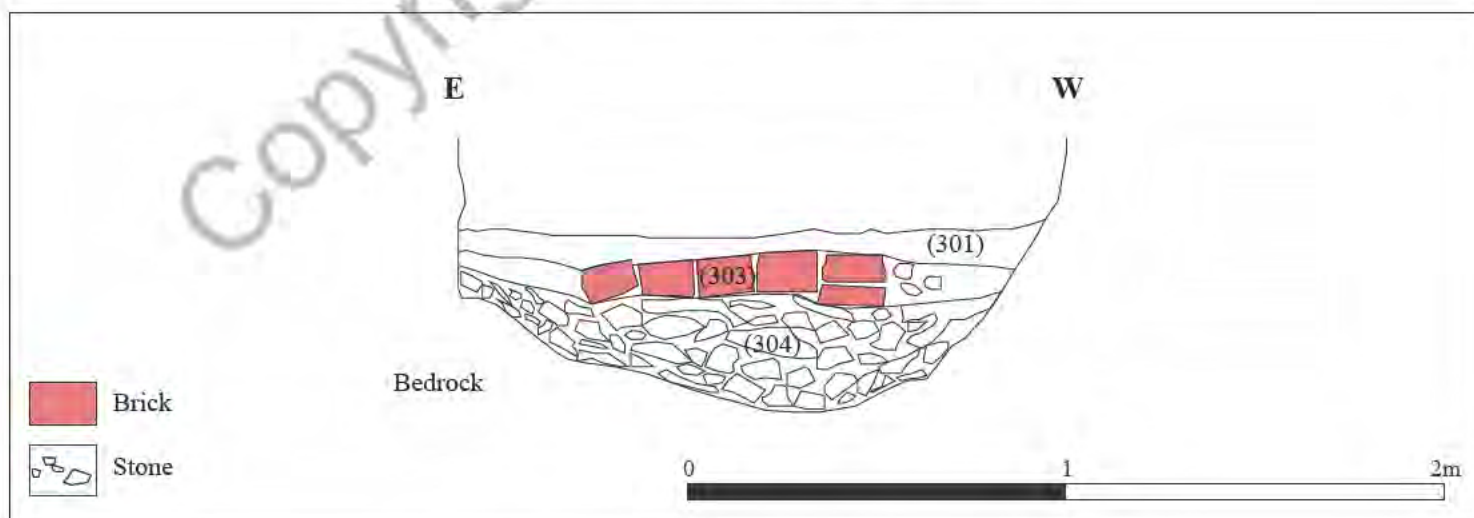
**6.2.06** Wall (206) was of limestone and lime mortar construction and was built directly against the eastern wall of the cave. Lime plaster had been used to render the inner face of the wall. It ran for 2.70m from the cave mouth before turning 90 degree to the west, The wall was 0.38m in thickness and survived to a maximum height of 0.50m. The wall had to be partially destroyed during this excavation to allow for the insertion of the grille and a photographic record was therefore made



**Figure 38.** Trench 1 North Facing Section



**Figure 39.** Trench 1 South Facing Section



**Figure 40.** Trench 2 North Facing Section





**Plate 11.** Trench Across Large Cave Entrance Showing Floor Surface (202) and Trench Excavated in the 1970's



**Plate 13.** Post Excavation Shot of Large Cave Entrance. Taken Facing North West to Show East Facing Section



**Plate 12.** Post Excavation Shot of Large Cave Entrance. Taken Facing North East to Show South Facing Section



**Plate 14.** Post Excavation Shot of Large Cave Entrance. Taken From Above to Show Bedrock and North Facing Section

before works commenced (see plates 7 & 8). In places the wall was built directly on top of the bedrock of the cave floor and as the bedrock level falls away the wall is built on top of levelling layer (205).

**6.2.07** Wall (207) was of identical construction to wall (206) and was located directly opposite, on the eastern side of the central area of stone which separates the two cave entrances. The wall runs from the cave entrance around the back of the natural rock to create a squared off appearance to the rough interior. It is 1.85m in length and has a maximum thickness of 0.61m. The wall survived to a maximum height of 0.69m and was built directly on top of deposit (205). The wall was not removed during the initial excavation of trench 1 as it would have resulted in the collapse of the trench sides. A section of the wall was however removed following the recording of the trench to allow for the insertion of the grille. As with wall (206) a photographic record was made prior to the commencement of works (see plates 7 & 9).

**6.2.08** Below context (205) was a further floor deposit (208). It was a compact beaten earth layer containing occasional coal and mortar flacks along with frequent small limestone fragments. It contained 19<sup>th</sup> century pottery and bone fragments. The layer extended beyond the trench limits and had an average depth of 0.08m. Context (209) lay below (208) and was a clay and rubble layer made up predominately of fragments of limestone with a large number of voids. This material is believed to have been redeposited material taken from the clearing out of the cave and reused as construction material. The layer extended beyond the trench limits and had an average depth of 0.28m.

**6.2.09** Below context (209) was a loose, light grey ash and lime mortar layer which had been used to fill in the natural undulations within the bedrock and create a level surface upon which to create flat surfaces for occupation. This layer of lime dust was identified by Tom Stone and Mel Davies during their excavations and as one moves further away from the cave mouth this layer is the lowest level of disturbance and intact archaeological deposits were encountered directly below it. The layer extended beyond the trench limits and had a maximum depth of 0.20m.

**6.2.10** Context (209) had been laid directly on the limestone bedrock which was at the base of trench 1. It was encountered at a depth of approximately 0.80m.

#### **6.2.11 Trench 2 (Figure 37 & 40)**

Trench 2 was excavated across the mouth of the smaller, western cave entrance. It was clearly evident when examining this entrance that it had been enlarged in the late eighteenth or 19<sup>th</sup> century and the drill holes into which charges were set were visible on the cave walls. This opening did not originally extend to the cave floor and therefore no deposits encountered in this trench can be of any great antiquity. The deposits within the trench had been disturbed by the roots of a tree located just outside the cave entrance.

**6.2.12** Trench 2 was 1.54m in length and 0.70m in width. Three contexts were identified within the trench and an additional number was assigned to a low stone step or wall to 0.46m to the north of the trench. The upper fill in the trench was a modern disturbed layer of leaf mulch and organic material containing modern rubbish. This context was not sieved. The deposit extended beyond the trench limits and had a maximum depth of 0.10m. Below this was a brick layer which began at the southern trench edge and continued south, outside the cave mouth. This layer was not chased and it was not clear whether this was a laid floor or a wall on which a window or door frame stood. It had been disturbed by tree roots and was a maximum of 0.15m in thickness. Below this was a grey-brown clay and limestone fragment layer very similar to context (209) in trench 1. This material is believed to have been redeposited material taken from the clearing out of the cave and reused as construction material. The layer extended beyond the trench limits and had a maximum depth of





**Plate 15.** Trench Across Small Cave Entrance  
Showing North Facing Section



**Plate 16.** Post Excavation Shot of Small Cave Entrance.  
Taken Facing South to Show North Facing Section



**Plate 17.** Post Excavation Shot of Small Cave Entrance.  
Taken Facing North to Show South Facing Section



**Plate 18.** Shot of Kendrick's Upper Cave Entrances  
Following Removal of Rubble

0.40m. It lay directly on the limestone bedrock which was reached at a maximum depth of 0.52m.

### **6.3 Artefactual Material**

**6.3.00** Due to the potential for the bone from this excavation to have been redeposited from archaeological deposits disturbed during the 19<sup>th</sup> century clearance of the cave the material was sent for specialist analysis. The following report was produced by Vickki Hudson and her findings are reproduced in full.

#### **6.3.01 Kendrick's Cave Faunal Assemblage**

Vickki Hudson

With the faunal assemblage from the cave excavations being so small it was decided that it was not possible to undertake any in depth statistical analysis as this could have created a false idea of animal use within the site. The remains will be dealt with by context, and identified, (as far as possible), to skeletal element, species, side and age, in a text format rather than within a spreadsheet. There will also be a discussion of any pathologies noticed, and any patterns indicated by these which may apply to the assemblage as a whole. All of the bones came from disturbed deposits, and were assumed to be contemporary with the finds in the area.

#### **Context 103**

- Large ungulate diaphysis fragment, spiral fracture

#### **Context (104)**

- Sheep/Goat cervical vertebrae, severely damaged due to erosion, but appears to have been cut longitudinally through the body.
- Small ungulate rib body with cut marks on the lateral face.
- Large bird cervical vertebrae.
- Fragment of small ungulate skull.
- Fragment of large ungulate rib, recently broken, with saw and cut marks.
- Sheep/Goat left ischium with acetabular surface, recently broken, fusion suggests an age of under 3 years, (Silver, 1963).
- Two fragments of juvenile right hand cattle scapula which fit together at a recent break. Fusion suggests an age of under 7 months, (Silver, 1963). A clear, blunt edged cut mark with grey staining within it seems to be responsible for the recent break, most likely from excavation.

#### **Context (105)**

- Proximal Sheep/Goat tibia, less than 3 years old, (Silver, 1963), right hand side.
- Unfused distal articular end of a Goat metatarsal, under 20 months, (Silver, 1963).
- Small ungulate skull fragment.

#### **Context (106)**

- Butchered fragment of cattle pelvis in a poor state of preservation, chopped rather than sawn.
- Small ungulate ischium with cut marks.
- Distal cattle ulna, under 3 ½ years, (Silver, 1963), cut across the diaphysis.

#### **Context (202)**

- Sheep/Goat proximal femoral diaphysis fragment, left hand side.
- Two small ungulate rib fragments, one of which had considerable rodent gnawing along the distal edge.
- Two fragments of Rabbit mandible which fit together along a recent break on the

mandibular process, to form the complete right hand side.

- One fragment of left hand side Rabbit mandible.
- Rabbit distal radius, right hand side, which has been sawn mid diaphysis.
- One small animal long bone shaft.

#### **Context (203)**

- Shells of limpet, cockle, whelk and periwinkle, and a fish bone.
- Two small fragments of possible bird bone.
- One definite bird bone fragment.
- Complete Sheep/Goat metatarsal, left hand side, unfused distal end suggests under 20 months (Silver, 1963).
- Sheep/Goat distal tibia, lack of fusion gives an age of under 18 months, (Silver, 1963). Sawn across the mid diaphysis, left hand side.
- Sheep/Goat proximal radius, left hand side, fused so over 10 months. Highly polished on the caudal side, with small striations across its surface, and a small area of rodent gnawing on the lateral edge.
- Complete unfused Sheep/Goat calcaneus, left hand side, Less than 20 months, (Silver, 1963).
- Sheep/Goat right ilium.
- Unfused Sheep/Goat Proximal phalange epiphysis, Left hand side, under 13 months, (Silver, 1963).
- Two fragments of recently broken Sheep/Goat proximal phalange which fit together, with a second unfused proximal epiphysis, left hand side, under 13 months, (Silver, 1963).
- Complete Sheep/Goat carpal, left hand side.
- Cattle tibia diaphysis transverse section, right hand side, sawn on both sides.

#### **Context (204)**

- Sheep/Goat metatarsal, two distal shaft fragments which fit together along a recent break. Right hand side, distal end also recently broken.

#### **Context (208)**

- Sheep/Goat Calcaneus, right, proximal articulation missing so no age estimation given. The entire lateral side was abraded, removing practically all of the cortical bone on this side.

Most of the contexts consist of the remains of common domestic animals, with many of the individual elements showing cut or saw marks consistent with domestic butchery. There are two contexts which contained some interesting assemblages and warrant further discussion, those are contexts (202) and (203).

Context (202) contained some rabbit bones that showed signs of butchery, with a mandible and part of a lower forelimb being present, which may indicate the remains left after jointing an animal for consumption.

Context (203) seems to contain many Sheep/Goat bones of a similar age range, from the left hind leg. These are probably from the same animal, with the limb being removed at the mid tibia. There were also some interesting wear patterns on a polished Sheep/Goat right proximal radius, which could indicate that the bone was partially buried with the caudal edge lying just at or above ground level. The polishing could be the result of moving water and sediments over the exposed surface. The sawn cattle tibia section from this context could be related to Mr. Kendrick's lapidary processes, or to the presence of a very specific cut of meat known as bucco, which is a cut for stewing which contains a section of the long bone to provide extra richness from the bone marrow.

The assemblage from Kendrick's cave as a whole is very domestic in nature, and mostly appears to be remains of primary butchery practices. The age of some of the Sheep/Goat bones seems to be a little older than the usual slaughter age of 6 to 8 weeks for lamb, or 3 to 5 months for spring lamb, so could indicate that at 10-13 months the animals were not slaughtered by conventional means. One bone from (105) was identified as probably Goat rather than Sheep, which would indicate a use of the local resources, as also reflected by the Rabbit remains in (202).

### **6.3.02 Kendrick's Cave Artefact Assemblage**

Matthew Jones

The remainder of the artefacts were examined by Matthew Jones and were found to be exclusively of 19<sup>th</sup> century date. They are represented a range of materials including iron, bronze, bone, ceramic, slate and glass. The assemblage is largely domestic in nature although there were a number of iron chisels recovered reflecting Kendrick's trade as a lapidary. The material list/descriptions is included below. The material is described by context, and subdivided by material.

#### **Unstratified Finds**

Part of a slate slab or plaque 14.5cm long and 2.5cm deep was found in a pile of rubble outside the cave (plate 19). The slab had been worked to create an internal incised frame decoration 5.2cm wide and 2cm deep. The outside edges of slab have the characteristic cut marks of an Hunter saw which came into usage in the late 1850's. The frame has a single cut internal line approximately 1cm in from the internal edge. The external edge has one gouge 1.5cm wide roughly cut into it. This gouge has some plaster fill surviving within it which would suggest that this piece was once attached to the wall. It appears to be part of the same object as was found in context 204.

#### **Context (105)**

##### **Ceramic**

A single fragment of a white porcelain jar or pot base was collected from posthole 5. It had impressed letters visible on the underside and a D and a partial N were visible.

##### **Glass**

The base of a medicinal bottle was recovered. It was clear glass and the base measured 7.5cm by 4.5cm.

##### **Metal**

A single square headed iron bolt with washer was collected. It was 5cm in length with a 3.5cm by 2.5cm rectangular head. Rectangular headed bolts are considered an earlier style due to forging techniques but they never really went out of fashion and are not in themselves a particularly effective dating tool.

An iron chisel was found within this posthole (see plate 20). The tool was 15cm in length and the head was sub-square measuring 2cm x 2.5cm. The tool had been heavily used and the metal was corroded. This tool is likely to have been used by Kendrick in his work as a lapidary.

Also recovered was a heavily corroded iron fragment which was possibly part of a bolt measuring 4.2cm by 1.5cm and a piece of iron wire 8.8cm in length.

Four cut nails made of a copper alloy were collected. These nails had a square cross section and were of mixed size. The largest measured 6.8cm and smallest 3.5cm in length. Cut nails had their heyday between 1820 and 1910 when they were succeeded by the advent of the wire nail (Willetts 1987).





Plate 19, Slate Frames



Plate 20, Iron Chisels



Plate 21, Buttons

## **Buttons**

Two buttons were collected from this context. The smaller was a small mother of pearl button, diameter 1cm, with a flat face and convex back. There were four holes with a 1mm diameter.

The second button was copper alloy in an octagonal in shape with a circular central boss on its face. The back is hollow with a shank attachment. The buttons are shown in plate 21.

## **Context (106)**

### **Ceramic**

A single fragment of shallow white ceramic plate base was recovered. It had a partial foot ring surviving and a moulded leaf decoration which extended towards the rim although the rim itself has not survived.

Four connecting sherds of a cream coloured ceramic were collected. It had a yellow internal glaze. The vessel type is unclear.

A single body sherd of grey stone ware jar with a clear glaze and a domed teapot lid with a light cream body with a brown glaze were collected.

## **Context (202)**

### **Ceramic**

Three sherds of a large cream ware jar were recovered. The exterior had been transfer printed with a repeating geometric design on a banner motif. The seams of these transfers are very badly matched and vessel could have been sold as seconds.

A large sherd of earthen ware bowl was uncovered during excavation. It showed elements of a slight inverted rim. The body is of an orange-brown fabric with an internal brown glaze.

Seventeen white porcelain sherds all belonging to the same bowl were collected. Elements of a shallow foot ring base survive.

Eleven fragments of coarse, unglazed orange ceramic were recovered. The interior and exterior are both roughly smoothed and the colour is uniform throughout. It is most likely that these sherds belong to plant pots or drain pipes.

### **Glass**

Thirteen sherds of window glass with no joins were collected together with a single sherd of yellow glass. The yellow glass formed part of a decorative bowl with rouletting along the rim bottom. The rim itself has a wave design.

### **Metal**

A convex one piece copper alloy button was collected. It had a 2cm diameter and a thickness of 0.04cm. It had a broken looped shank fitting. There appears to be three numbers or letters on the button but they are too corroded to make out.

A copper alloy ring handle was recovered. It had a 2cm diameter and the fitting and attachment were 2.5cm in length with evidence of corrosion and preserved wood.

Also collected was a copper alloy washer with an external diameter of 2.8cm and an internal diameter of 2.2cm and a thickness of 1mm.

Thirteen cut nails made of a copper alloy were collected. These were of mixed size with the largest measuring 10.5cm and smallest 4.8cm. Cut nails had their heyday between 1820 and 1910 when they were succeeded by the advent of the wire nail (Willetts 1987).

### **Slate**

A shaped slate bar 30cm in length, 3.5cm in width and 2cm in thickness was found in this layer. One of the long sides has been cut with a Hunter saw (the cut pattern is visible) and the other sides have been rounded. There are two drilled holes one 7.5cm from one end of the bar and the other 10cm from the other end.

### **Buttons**

Two bone buttons of the same design were recovered from this context. They were 2cm in diameter with four roughly central holes. One of the buttons is highly polished and looks to have been unused or well maintained, whilst the second button is very worn and has a crack partially running through it. The buttons are shown in plate 21.

### **Context (203)**

#### **Ceramic**

Ceramics from this context were a mixture of utilitarian coarse ware and more delicate porcelain serving vessels. They have been subdivided into these two types.

Twenty fragments of a coarse orangey ceramic ware believed to be part of plant pots or drain pipes were recovered from this layer.

A fragment of a cream stone ware jar was also collected. The remains of a painted oval label were visible but were too fragmented to make out a company name. Letters visible within the second track of the oval read HOOS.

The neck and rim sherd of a stone ware jar with a brown green glaze was collected. It had a grey body fabric. Two smaller body sherds were also identified which belong to this jar.

A single body sherd of a stone ware with a light grey body and brown-orange external glaze and burnished interior was recovered along with a large robust stone ware sherd. It has a mid grey body fabric with a brown external glaze. Elements of a clear glaze were visible internally along with small grit and brick fragment inclusions. This is possibly a water or drain pipe.

#### **Porcelain**

Plain and decorated porcelain pieces were recovered. The undecorated sherds were: A curved thick fragment of white porcelain with a clear internal and external glaze, a single sherd of plain white ware saucer and a single sherd from a plain white ware cup.

The decorated sherds were as follows: a fragment of a cup or small bowl with blue and white willow pattern design, two linking fragments of a large plate or serving platter with an Asian style woods design, a sherd of pearl ware platter with a transfer printed blue and white design badly printed and overlaying the edge, a white ware saucer with green transfer printed with flowing 'British Scenery' scene, a white ware with transfer print grass scene - possibly part of a cup and a fragment of a curved decorated sherd with mould stamped leaf (lily) design on a green background. It is unclear what vessel type this sherd came from but it is possible that it was a decorative display piece.

## **Glass**

Four glass fragments were recovered during works. They were: part of a glass jar in a light green-blue 5.2cm by 7cm and 1cm base thickness, a small fragment of blue glass with a slight curve which raises sharply to a base of a neck - possibly part of a square ink well, an indistinguishable fragment of brown glass and a fragment of blue-green glass bottle with the remains of an impressed oval product stamp showing the letters A.BR.

## **Wall Plaster**

A fragment of wall plaster was collected. It measured 4 cm by 3.5cm and was 2cm thick. The plaster was a brown-cream with small white inclusions. It had been painted white.

## **Metal**

Two small, iron cut nails made of a iron were recovered which measured 1cm x3.5cm and 1cm x 3cm in length. Cut nails had their heyday between 1820 and 1910 when they were succeeded by the advent of the wire nail (Willetts 1987).

A copper alloy coat hook was uncovered. It was 7.5cm long with a large circular base attachment and a circular knob at the curved hook end.

A copper alloy pipe fitting was also recovered. It had an external diameter of 2cm and an internal diameter of 1.5cm

## **Context (203)**

### **Metal**

Little material was recovered from context (203) and the only material recovered was two small iron cut nails measuring 1cm x 3.5cm and 1cm x 3cm and an iron shelving bracket measuring 7.5cm with a return at 4cm. It had a thickness of 1cm.

## **Context (204)**

### **Metal**

There was also material collected from (204) and in this case the assemblage consisted of two iron items - an iron hook 10cm long with a 2.5cm diameter and an iron bar fitting 15cm long and 2.5cm wide. Also within this deposit was an iron chisel. The tool was 11cm in length with a pointed head. There does not appear to a striking platform on this tool and it likely that the tool was originally longer and had been broken. The tool had been heavily used and the metal was highly corroded. This tool is likely to have been used by Kendrick in his work as a lapidary. It is shown in plate 20.

## **Slate object**

Part of a slate slab or plaque 30cm long and 4cm deep was recovered from this context. The slab had been worked to create a internal incised frame decoration 5.2cm wide and 2cm deep. The outside edges of slab have the characteristic cut marks of an Hunter saw which came into usage use in the late 1850's. The frame has a single cut internal line approximately 1cm in from the internal edge. The external edge has four unevenly spaced gouges 1.5cm wide roughly cut into it. These gouges have plaster fill surviving within them which would suggest that this piece was once attached to the wall. It appears to be part of the same object as was found in rubble outside the cave and is shown in plate 19.



### **Context (205)**

#### **Metal Button**

A copper alloy button was collected during works. It was 1.7cm in diameter and 0.02cm in thickness with four central holes for fixing. The button had been machine stamped with a company name and decoration. A section of the company name is slightly corroded so is incomplete but certain letters can be distinguished. It reads either U or J. Williams' along the top arch of the button and 'mlwch' along the bottom arch. It is presumed that this would have originally been Amlwch. The Amlwch history group was contacted but they had no records related to this company.

### **Context (208)**

#### **Ceramic**

One fragment of a coarse orange ceramic vessel was recovered. It was believed to have been part of a plant pot or drain pipe.

#### **Glass**

Two sherds of green bottle glass and a single sherd of clear glass were recovered from this context.

#### **Clay Tobacco Pipe**

A single fragment of a clay tobacco pipe stem was collected. It was 3.1cm in length leading to a heel and the smashed base of a bowl.

#### **Metal**

Three small cut nails made of a copper alloy were recovered. They measured 2cm x 3.5cm and 1cm x 3cm.

Also collected were fifteen heavily corroded iron nails. The largest nail was 10.5cm in length and the smallest 4cm.

### **Context (210)**

#### **Ceramic**

Two fragments of a coarse orange ceramic vessel was recovered. They are believed to have been part of a plant pot or drain pipe.

A small fragment of a white ceramic porcelain with a white internal glaze and a white back ground with a sky blue and brown strips was collected

#### **Plaster**

A fragment of wall plaster 3.5 cm by 2.5cm and 2cm in thickness was collected. The plaster was a brown-cream lime mix with small white inclusions. The plaster had been painted white.

#### **Clay Tobacco Pipe**

A fragment of a clay tobacco pipe stem 1.6cm in length was recovered. I included a tip with a lipped mouth piece.

#### **Glass**

A shoulder fragment of green bottle glass was recovered. There were some bubbles within the glass which suggest that it may be older than the remainder of the assemblage.

#### **Metal**

A single iron fragment, 4 cm in length was collected. It is possible that this was a highly corroded nail.

## 7.0 Discussion & Conclusion

**7.00** *“The limestones of North Wales outcrop from Anglesey eastwards through the county of Clwyd and south to the border country at Llanymynech. Rugged landscape features occur where thicker beds are well developed, notably in the sea cliffs of the Great Orme's Head at Llandudno”* (Appleton 1989: 217). In his 1989 paper Appleton describes that this area is still little known and that the Llandudno area did not seem to have attracted the same level of antiquarian study as the Elwy Valley which was excavated by Edward Lloyd and Boyd Dawkins, and the limestone Strata of the Llangollen area which was classified by G.H Morton (ibid: 218).

**7.01** It is within this limestone strata that the archaeological caves of the Llandudno area are to be found and it is clear that given the sheer number of sites in the area containing intact archaeological deposits that this is a tremendous resource which is deserving of further investigation. Much of the work in this area was conducted during the 1960s and 1970s and many sites would benefit from targeted re-evaluation using more modern techniques and analysis, particularly given that some very significant sites such as Ogof Tan-y-Bryn and Ogof Pant-y-Wenol have been identified.

**7.02** The sites identified in the Llandudno area (including the Great and Little Ormes) range from the Palaeolithic through to the Romano-British Period and there are several recurrent themes in the usage of the cave sites. There is a strong emphasis on them as a site for burial and children and groups are particularly represented within the assemblages. These burials are believed to be predominantly of Neolithic and Early Bronze Age date, but very few of the individuals have been subject to radiocarbon dating and most dating is tentative at best. It would also be fascinating to see if DNA analysis could be used to establish family relationships of the groups which appear to have been buried together. Once secure dates were obtained it would be possible to examine how these burial practices compare to others of that time period, an exercise which would allow the integration of the evidence from the cave sites into the wider discourse of the area.

**7.03** This research has also highlighted that there are numerous rock shelters, fissures and cave sites which have yet to be examined in any way and many may be potentially at risk due to erosion (as see at Snail Cave Rock Shelter) or from pot holers digging within sites. There are also a great number of caves within the limestone areas yet to be identified – this includes those which may have been partially destroyed by quarrying such as at Bryn Euryn or those on private land such as at Coed Marl Hall.

**7.04** Despite no archaeological remains being uncovered during the current phase of works at Kendrick's Upper Cave this project has been able to determine that the cave is still considered to be of significant archaeological potential. The previous works in the Upper Cave have shown that there is a strong Neolithic and Early Bronze Age element to the cave occupation/usage. A pierced wolf canine recovered from this site does however demonstrate that there is also the potential for Mesolithic or Upper Palaeolithic deposits and artefacts to be preserved at the site. As at other sites the cave has been used as a burial ground and it would be beneficial to establish the antiquity of the remains recovered.

**7.05** These works have also been able to gather a considerable amount of material on Kendrick himself and to place his life and work within the history of the town. Far from being seen as an ignorant workman, Kendrick should be considered to be an intelligent entrepreneur and a prime figure in the development of the tourist trade in Llandudno. He was a knowledgeable collector of the antiquities of the area and it is likely that Kendrick himself dug at a number of sites around the Great Orme to gather material for his museum which was the first in the town.

**7.06** The Kendrick legacy has been sadly neglected and questions as to the validity of his claim to have found the remains he is most famous for in the Lower Cave have rather unfairly tarnished his reputation. Having brought together information from numerous different sources it seems apparent that Kendrick was the victim of snobbery and there seems to have been no good reason for his honesty in this matter to have been questioned.

**7.07** Although excavations at the Upper Cave during the 1970's found human remains it would seem unlikely that these were fragments that Kendrick had missed when clearing out this cave and similar disarticulated remains were found at numerous other sites (and given that the remains from the Lower Cave have now been dated, radiocarbon dating of the remains from the Upper Cave should confirm this). The wolf canine – although of the same broad tradition as the pierced teeth found by Kendrick is also not evidence that all the teeth came from this cave and it would seem an interesting possibility that mobile art and this form of personal adornment is actually a strong feature in the Upper Palaeolithic/Mesolithic material culture of the Llandudno area and once more the need for a programme of radiocarbon dating on significant artefacts is highlighted.

**7.08** Archival research has uncovered a collection of papers and photographs giving further detail of the material collected by Kendrick and although it has emerged that some of these had been previously identified by local historians the discoveries had not been brought to the attention of the archaeological establishment. This is particularly true of a series of photographs and accounts of the Kendrick Cave material when it was first displayed at Llandudno Library in 1902. The picture shows that the human remains were once more complete and that there were originally far more pierced teeth than the nine examples currently known. It also shows that the bear's teeth were once held in the library collection. This photograph is the only known image showing both of the teeth although one of the pair is illustrated in the Eskrigge and Boyd-Dawkins paper.

**7.09** It was found that Thomas Kendrick established the first museum in Llandudno and when his collection was purchased by the Llandudno Library Committee it was with the intention that it form the core of a county museum in the town. The current display at Llandudno Museum with the horse mandible, human remains and other artefacts at the heart of the new exhibition is the realisation of that vision and it is rather apt that artefacts such as chisels belonging to Kendrick and recovered during the excavation will now be submitted for display at the museum alongside these finds. This work has resulted in a reappraisal of Kendrick's work and the collection he gathered and it is hoped that his significance as an antiquarian, collector and excavator of his day together, with his role in the rise of the early tourist industry in Llandudno will now be recognised.

## 8.0 Bibliography

### Newspaper Articles

Blackburn Standard August 14<sup>th</sup> 1880  
Evening Telegraph June 16<sup>th</sup> 1899  
Gwalia September 5<sup>th</sup> 1910  
Llandudno Advertiser and List of Visitors December 30<sup>th</sup> 1897  
Llandudno Advertiser and List of Visitors April 21<sup>st</sup> 1898  
Llandudno Advertiser and List of Visitors May 18<sup>th</sup> 1907  
London Daily News 23<sup>rd</sup> July 1910  
Manchester City News April 28<sup>th</sup> 1888  
North Wales Chronicle September 2<sup>nd</sup> 1865  
North Wales Chronicle June 12<sup>th</sup> 1875  
North Wales Chronicle November 11<sup>th</sup> 1876  
North Wales Chronicle September 25<sup>th</sup> 1880  
North Wales Chronicle May 21<sup>st</sup> 1881  
North Wales Chronicle July 30<sup>th</sup> 1881  
North Wales Chronicle August 27<sup>th</sup> 1881.  
North Wales Chronicle September 27<sup>th</sup> 1884  
North Wales Chronicle August 28<sup>th</sup> 1886  
North Wales Chronicle November 17<sup>th</sup> 1888  
North Wales Chronicle November 1<sup>st</sup> 1890  
North Wales Chronicle December 30<sup>th</sup> 1897  
North Wales Chronicle January 14<sup>th</sup> 1899  
North Wales Chronicle May 20<sup>th</sup> 1899  
North Wales Chronicle January 20<sup>th</sup> 1900  
North Wales Express September 9<sup>th</sup> 1910  
Shrewsbury Chronicle 24<sup>th</sup> September 1880  
Sunderland Daily Echo and Shipping Gazette September 3<sup>rd</sup> 1910  
Western Times September 3<sup>rd</sup> 1910

### Archival Material

#### Bangor University Archives

SC/482 1932 Glynlivon Estate Sale Catalogue

#### Buxton Museum

Boyd-Dawkins Collection Feild Notebook 1880

#### Conwy Archives

Nonconformist section of the Baptism Records

**C01/D8/2/35.** Letters Relating to Radiocarbon Dating/Isotopic Analysis of Remains from Llandudno Museum

**CX174/7/25.** 1964. Finds from Kendrick's Cave correspondence

**CX522/1/1.** 1888. Coin newspaper article

**CP395/1/16 & CP395/1/18.** Photographs of Thomas Kendrick

**CP395/3/47.** Scarlet Merrions, Foulke's Cave Postcard

**Reel 7/164.** 1928. Proposed Elevations for new frontage for Kendrick's Cave

**XM/4016/2.** 1898. Minutes of Llandudno Library Committee

**X5/22.24/19/8/5/3.** c.1902. Artefacts from Kendrick's Cave



## **Gwynedd Archaeological Trust Historic Environment Record**

**PRN 18298.** The "Frederick Dally" Collection, Finds from the Great Orme

### **Census Documents**

1841 Census

1851 Census

1861 Census

1871 Census

1881 Census

1891 Census

### **Websites (Visited 30/10/2015)**

[www.archaeoleg.org.uk/documents2011.html](http://www.archaeoleg.org.uk/documents2011.html)

[www.bgs.ac.uk/geologyofbritain/home.html](http://www.bgs.ac.uk/geologyofbritain/home.html)

[www.britishmuseum.org/research/collection\\_online/collection\\_object\\_details.aspx?objectId=1599124&partId=1](http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=1599124&partId=1)

[www.cadw.wales.gov.uk](http://www.cadw.wales.gov.uk)

[www.caveburial.ubss.org.uk/wales/wales.htm](http://www.caveburial.ubss.org.uk/wales/wales.htm)

[www.coflein.gov.uk](http://www.coflein.gov.uk)

[www.conwy.gov.uk/upload/public/attachments/580/Great\\_Orme\\_Management\\_Plan\\_20112016.pdf](http://www.conwy.gov.uk/upload/public/attachments/580/Great_Orme_Management_Plan_20112016.pdf)

[www.greatorme.org.uk](http://www.greatorme.org.uk)

[www.gwynedd.gov.uk](http://www.gwynedd.gov.uk)

[www.historicwales.gov.uk/](http://www.historicwales.gov.uk/)

[www.nbannerman.co.uk/The\\_Great\\_Orme\\_Explained.pdf](http://www.nbannerman.co.uk/The_Great_Orme_Explained.pdf)

[www.sites.google.com/site/cavesofnorthwales/](http://www.sites.google.com/site/cavesofnorthwales/)

[www.oldllandudno.co.uk/historical-information](http://www.oldllandudno.co.uk/historical-information)

[www.unife.it/interfacolta/lm.preistoria/insegnamenti/.../silver\\_1963.pdf](http://www.unife.it/interfacolta/lm.preistoria/insegnamenti/.../silver_1963.pdf)

[www.web.prm.ox.ac.uk/rpr/index.php/primary-documents-index/16-second-collection-1880-1900/601-saswm-pr-papers-l2068/](http://www.web.prm.ox.ac.uk/rpr/index.php/primary-documents-index/16-second-collection-1880-1900/601-saswm-pr-papers-l2068/)

### **Publications**

AAF. 2007. *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*

Appleton, P. 1989. *Limestones and Caves of North Wales*. In Ford, T. D. *Limestones and Caves of Wales*. Cambridge University Press. Cambridge

Ayto, E. 2002. *Clay Tobacco Pipes*. Shire Publications Ltd

Bannerman, D. 1998. *Ormesday Project*. Journal of the Great Orme Exploration Society 1.

Barton, R.N.E & Colcutt, S.N. 1986. *A Survey of English and Welsh Palaeolithic Cave Sites*. Report Commissioned by Historic Buildings & Monuments Commission and Cadw

Blair, D. 2001. *British Buttons: Civilian Uniform Buttons 19th-20<sup>th</sup> Century*. Greenlight Publishing

Blore, J. 2012. *Archaeological excavations at North Face Cave, Little Ormes Head, Gwynedd, 1962-1976*. Privately printed.

Blore, J. (n.d.) *Digs, discoveries and megaliths*. Privately printed.

- Boyd Dawkins, W. 1880. *Memorandum on the Remains from the Cave at the Great Ormes Head*. Proceedings of the Liverpool Geological Society
- Brown, W. 1860. *An Account of Human Bones, Found Within the Lime-stone Mountain of the Great Ormes Head, at Llandudno, in North Wales; Illustrated with an Engraving*. (Copy held in Conwy Archives)
- Copeland, R. 2010. *Blue and White Transfer-Printed Pottery*. Shire Publications Ltd
- Davies, F.J and Ellis B M. 1960. *Caving in North Wales*. Occasional Paper No 2. Shepton Mallet Caving Club
- David, G.C. 1979. '*Corkscrew Cave*', *Great Orme*. *Archaeology in Wales* **19**: 11.
- David, G.C. 1990. *Little holes for little people*. Journal of the Great Orme Exploration Society 2.
- Davies, M. 1972. *Ogof Hafnant*. Newsletter of the North Wales Caving Club
- Davies, M. 1973. *Ogof Rhiwledyn, Little Orme*. *Archaeology in Wales* **13**: 15.
- Davies, M. 1974. *Ogof Rhiwledyn*. Newsletter of North Wales Caving Club
- Davies, M. 1974. *Ogof Pant y Wennol*. *Archaeology in Wales* **14**: 8-9
- Davies, M. 1974. *Ogof Pant y Wennol: excavations of 8th to 15th September, 1974*. South Wales Caving Club Newsletter 78: 22-23.
- Davies, M. 1975. *Ogof Tan-y-Bryn: A New Cave Archaeological Site in Llandudno*. Newsletter of The North Wales Caving Club 1975
- Davies, M. 1975. *Re Ogof Tudno*. Newsletter of the North Wales Caving Club 1975 (pg 32-35)
- Davies, M. 1975. *Ogof Pant y Wennol*. *Archaeology in Wales* **15**: 20
- Davies, M. 1975. *Upper Kendrick's Cave*. *Archaeology in Wales* **15**: 30
- Davies, M. 1978. *Upper Kendrick's Cave, Great Orme*. *Archaeology in Wales* **18**: 34
- Davies, M. 1979. *Upper Kendrick's Cave, Great Orme*. *Archaeology in Wales* **19**: 12-13
- Davies, M. 1979. *Upper Kendrick's Cave, Great Orme: Excavations of 1978*. South Wales Caving Club Newsletter **91**: 10-13
- Davies, M. 1979. *Upper Kendrick's Cave, Great Orme, Llandudno: Excavations of 1978*. Newsletter of North Wales Caving Club
- Davies, M & Stone, T. 1978. *Re Upper Kendrick's Cave*. William Pengelly Cave Studies Trust (pg 31)
- Davies, M. 1983. *The excavation of Upper Kendrick's Cave, Llandudno*. *Studies in Speleology* **4**: 45-52

- Davies, M. 1986. *Kendrick's Cave, Llandudno – Some Nineteenth Century Finds*. Llandudno Library Reference A195258 DA61.2 (Also published 1991 in Studies in Speleology Volume V.III 57-61)
- Davies, M. 1989. *Cave archaeology in North Wales*. In Ford, T.D. (ed.) Limestones and Caves of Wales. Cambridge University Press, Cambridge, pp. 92-101
- Draper, C. 2007. *Llandudno before the hotels*. Gwalch. Pwllheli
- Dibble, K. 1997. *The Lady of the Little Orme*. Privately printed
- Dinnis, R. & Ebbs, C. 2013. *Cave deposits of North Wales: some comments on their archaeological importance and an inventory of sites of potential interest*. Cave and Karst Science **40**: 28-34
- Dutton, L. A. 1990. *'Llety'r Filiast Chambered Tomb' in Archaeology in Wales 30, 41*
- English Heritage. 2006. *Management Of Research Projects in the Historic Environment (MORPHE)*
- English Heritage. 2011. Environmental Archaeology: *A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation*
- Eskrigge, R.A. 1880. *Notes on Human Skeletons and Traces of Human Workmanship found in a Cave at Llandudno*. Proceedings of the Liverpool Geological Society
- Ford, T. 1989. *Limestones and Caves of Wales*. Cambridge. Cambridge University Press
- Gregory, R.A., Roberts, J., Robinson, M.E. & Shimwell, D.W. 2000. *A retrospective assessment of 19th-century finds from a Little Orme quarry*. Archaeology in Wales **40**: 3-8
- Griffiths, R. 1994. *Caves of the Great Orme*. Ogofa 2
- Heywood, J. 1888. *Illustrated Guide to Llandudno and Neighbourhood*. (Copy held in Conwy Archives)
- Humphries, G. A. 1907. *Prehistoric Remains. Kendrick's Cave, Great Orme, Llandudno*. Proceedings of the Llandudno, Colwyn Bay and District Field Club
- Humphries, G. A. 1938. *Llandudno Public Library. Historical Notes 1855-1939*. Proceedings of the Llandudno, Colwyn Bay and District Field Club
- Ingram, A. H. W. 1885. *On the Discovery of Human Bones and Ornaments in a Cave in the Great Ormes Head*. Geological Magazine
- Ingram, A. H. W. 1885. *On the Discovery of Human Bones and Ornaments in a Cave in the Great Ormes Head*. Archaeologica Cambrensis
- Jones, C. 2013. *Thomas Kendrick – Llandudno's Cave Man*
- Jones, J. 1997. *The Search for Bronze Age Habitation Sites on the Great Orme, Llandudno*. Unpublished manuscript (held by Llandudno Museum)

- Jones, M.C. 1888. *Discovery of Roman Coins at Llandudno*. Archaeologia Cambrensis
- Jones, S. 1999. *The Great Orme Management Plan*. Gwynedd Archaeological Trust Report 399
- Laws, K & Brooks, I. *Coed Marl Hall, Esgyryn. Archaeological Assessment*. Engineering Archaeological Services Report EAS 2002/26
- Llandudno and District Historical Society. 1991. *Llandudno as it was*. Hendon Publishing Co Ltd. Nelson
- Medieval Pottery Research Group. 1998. *A Guide to the Classification of Medieval Ceramic Forms*. Medieval Pottery Research Group Occasional Paper. No 1
- Price, J. 1875. *Llandudno and how to enjoy it, a handy guide to the town and neighbourhood*. (Copy held in Conwy Archives)
- RCAHMW. 1956. *Caernarvonshire Volume I: East*
- Renfrew, C & Bahn, P. 1998. *Archaeology: Theories, Methods & Practises (Second Edition)*. Thames & Hudson. London
- Richards, M.P, Jacobi, R., Cook, J., Pettitt, P.B & Stringer, C.B. 2005. *Isotope Evidence for the Intensive Use of Marine Foods by Late Upper Palaeolithic Humans*. In Journal of Human Evolution 49 (390-394).
- Roberts, A. 1882. *Gossiping Guide to Wales*. (Copy held in Conwy Archives)
- Roberts, J. 2002. Llandudno Past and Present. Sutton Publishing Limited. Stroud
- Savory, H. N. 1958. *The Late Bronze Age in Wales: Some New Discoveries and New Interpretations*. Archaeologia Cambrensis Vol. CVII
- Sieveking, G. 1971. *The Kendrick's Cave Mandible*. The British Museum Quarterly (Vol 35 p230-250)
- Silver, I. A. 1963. *The Ageing of Domestic Animals*
- Smith, D. 1988. *The Great Orme Copper Mines*
- Smith, G. H. 2003. *Proposed Housing Development at No.1, Pyllau Road, Llandudno: Archaeological Assessment*. Gwynedd Archaeological Trust Report 474.
- Smith, G. H. 1994. *Watching brief: Llandudno Burial Chamber*. File note held in Gwynedd HER Under PRN648 Further Information file
- Smith, G., Walker, E., Madgwick, Richard and Best, Julia. 2015. *Excavations at Snail Cave, a Mesolithic rock shelter on the Great Orme, Conwy*. Archaeologia Cambrensis
- Stone, T.A. & Davies, M. .1976. *Upper Kendrick's Cave, Great Orme*. Archaeology in Wales 16: 15
- Stone, T. A. 1977. *Ogof Tudno*. Archaeology in Wales 17: 14



- Stone, T.A. & Davies, M. 1977. *Upper Kendrick's Cave, Great Orme*. Archaeology in Wales **17**: 15
- Stone, T.A., Jones, W., Jones, S., & Smith, B. 1980. *Pant-y-Wennol Platform*. Archaeology in Wales **20**: 21
- Stone, T.A. & Jones, W. 1981. *Pant-y-Wennol Platform*. Archaeology in Wales **21**: 22.
- Stone, T.A. & Smith, B. 1979. *Pant-y-Wennol Cave*. Archaeology in Wales **19**: 12.
- Stone, T.A. 1994. *A glimpse of Llandudno in prehistory*. Journal of the Great Orme Exploration Society Supplement **2**: 1-28
- The Chartered Institute for Archaeologists. 2014. *Code of Conduct*
- The Chartered Institute for Archaeologists. 2014. *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*
- The Chartered Institute for Archaeologists. 2014. *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*
- The Chartered Institute for Archaeologists. 2014. *Standard and Guidance for Archaeological Excavation*
- The Chartered Institute for Archaeologists. 2014. *Standard and Guidance for Archaeological Desk-Based Assessment*
- The Chartered Institute for Archaeologists. 2014. *Standard and Guidance for Archaeological Watching Brief*
- The Chartered Institute for Archaeologists. 2014. The Institute for Archaeologists. 2008. *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*
- Underwood. 1951. *Chairmans Address*. Proc Llandudno & Colwyn Bay and District Field Club xxiv.ii
- Unknown. 1881. *Prehistoric cave at Llandudno*. Archaeologica Cambrensis
- Unknown. 1925. *Chamber in Quarry on Bryn Euryn*. Proceedings of the Llandudno, Colwyn Bay And District Field Club
- Valdemar, AE & Jones RD. 1970. *An initial report on the archaeological and palaeoecological caves and rock shelters of north wales*. Transactions of the Cave Research Group of Great Britain Vol 12(2) 99-107
- Walker, K.1990. *Guidelines for the preparation of excavation archives for long-term storage*. United Kingdom Institute for Conservation (UKIC) Archaeology Section
- Watkinson, D. & Neal, V. 2001. *First Aid for Finds*. London. United Kingdom Institute for Conservation of Historic & Artistic Works
- Willeys, A. 1987. *The Black Country Nail Trade*. Dudley Leisure Services

Williams, H. 1990. *Thomas Kendrick*. Great Orme Exploration Society Journal (p7-8)

Williams, T. 1864. *Williams' Complete Guide to Llandudno*. (Copy Held by Conwy Archives)

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## **Appendix A.**

### **Agreed Specification for Archaeological Works**

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**Specification for Archaeological Works at**

**Upper Kendrick's Cave,  
Great Orme, Llandudno**

**NGR SH 77981 82821**

**Report Number CR104-2015**



**C.R Archaeology**

Compiled by C. Rees & Dr G. Nash  
on Behalf of AQB Historic Landscapes



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## **Specification for Archaeological Works at Upper Kendrick's Cave, Great Orme, Llandudno**

|                                     |                         |
|-------------------------------------|-------------------------|
| <b>Planning Application Number:</b> | N/A                     |
| <b>National Grid Reference:</b>     | NGR SH 77981 82821      |
| <b>Client:</b>                      | AQB Historic Landscapes |
| <b>Report Authors:</b>              | C. Rees & Dr. G Nash    |
| <b>Report Number:</b>               | CR104-2015              |
| <b>Date:</b>                        | 07-07-2015              |

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## 1.0 Introduction

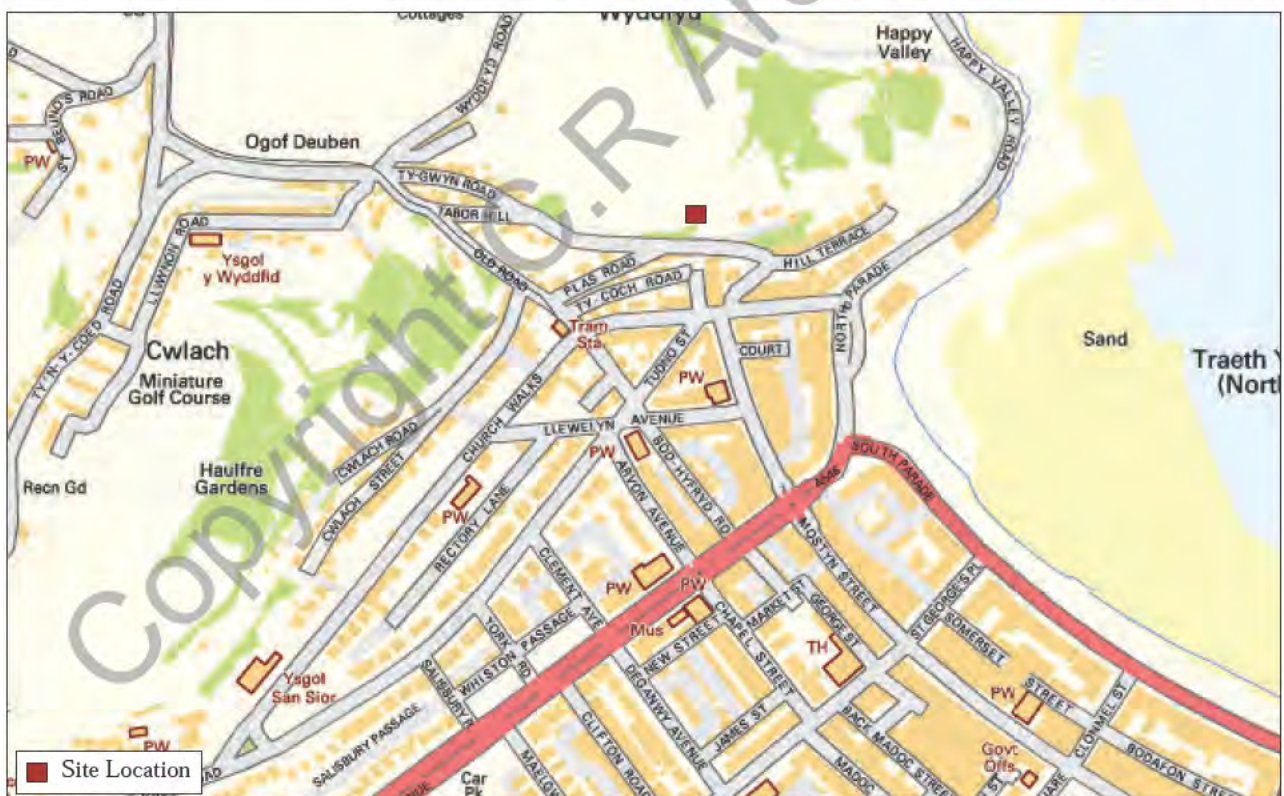
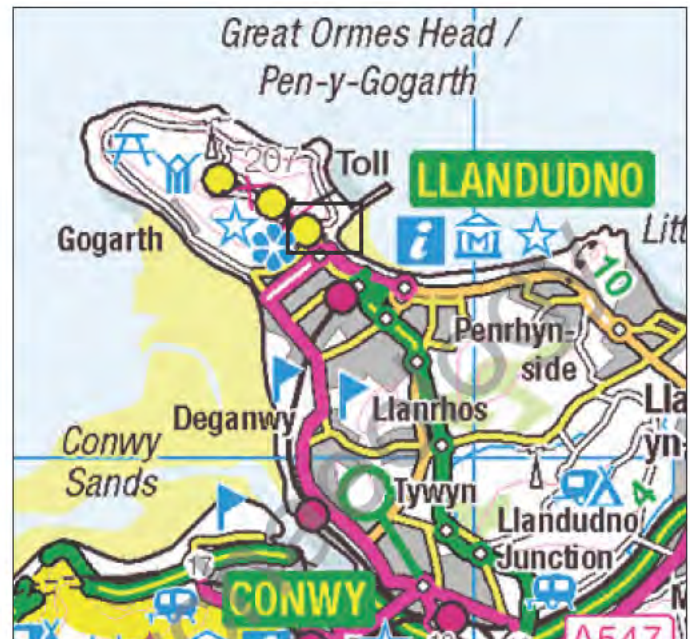
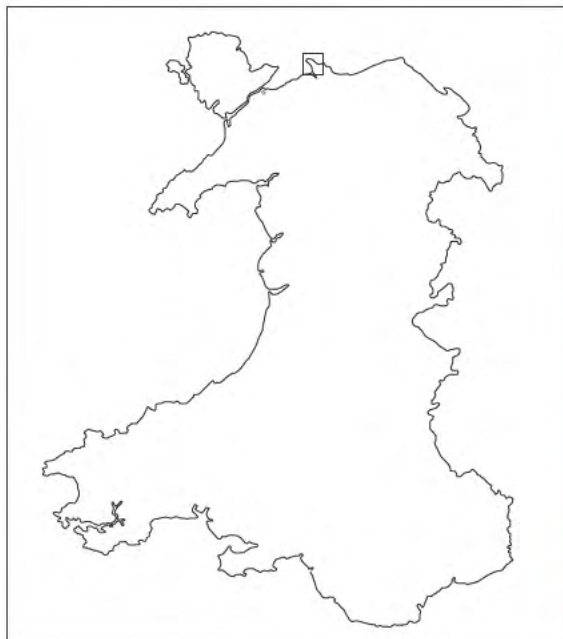
C.R Archaeology have been instructed by AQB Historic Landscapes to conduct archaeological works at Kendrick's Upper Cave. These works will include the hand excavation of two trenches across the cave entrances (approximate dimensions 0.75m x 3m and 0.75m x 1.2m) to allow for the insertion of a metal grille and an archaeological watching brief which is to be undertaken on the hand digging of fence posts to be erected around the cave site.

Kendrick's Cave is situated on the Great Orme, Llandudno (Figure 1). The landscape of the Great Orme itself is considered to be an area of very high archaeological potential. Numerous archaeological sites are recorded on the Great Orme including Upper Palaeolithic cave deposits, Bronze Age and later mining activity, Medieval and later Prehistoric/Roman settlement. Kendrick's Cave itself is a Scheduled Ancient Monument (Cn191) whilst the Great Orme headland has been designated a Special Area of Conservation, a Site of Special Scientific Interest and a Heritage Coast ([www.greatorme.org.uk](http://www.greatorme.org.uk)). The site has been assigned the NPRN 300812 by the RCAHMW and the PRN 635 by Gwynedd Archaeological Trust.

The site was first excavated by Thomas Kendrick in the 1880's when the cave was modified to be used as a workshop and display area. The 1956 RCAHMW Inventory records the cave as *"a natural cavern, 50' deep 16' wide at the entrance, 200ft above OD on the S of the Gt Orme; during partial clearance in 1880 and later the remains of four human skeletons were found together with bones of badger, bear, boar, bos longifrons, horse (including a jaw bearing incised chevrons) and goat. Some animals' teeth were perforated. There were also fragments of flint. The human remains and some of the unworked bones are now in Llandudno Public Library. Condition: in use as store: much of the cave remains unexcavated* (RCAHMW, 1956: 114).

Further excavation was undertaken by Mel Davies in the late 1970's when 5 trenches were excavated which yielded finds of the bone remains of *"one adult human, ox, sheep or goat, roe deer, fox, hare, several bird species, frog, crab and at least eight species of mollusca with limpets predominating. Flint and pottery indicated a neolithic occupation accompanied by hearths lying under a full nineteenth century floor with one door, a window with glass and a slate slab"*. He also records the unearthing of two antler awls, two bone awls, Bronze Age Beaker, decorated Neolithic and Romano-British pottery, unpatinated Neolithic flint knives and a pierced and decorated wolf canine (Davies 1989: 99).

In his aforementioned paper Davies stated that *"only one half of the upper cave floor has been excavated and in this a shaft was opened which connected with the bottom cave some 8m below. Only archaeological rubble seemed to separate them; so much remains to be excavated"* (ibid).



**Figure 1. Site Location Map** - Source: OS Open Data  
(Contains Ordnance Survey data © Crown copyright and database right 2015)



## 2.0 Project Aims & Objectives

The primary aim of this programme of works is to conduct the archaeological works necessary to allow for the erection of a metal grille across the cave entrances in order to exclude unauthorised access to the interior and thus prevent further damage/vandalism. The method agreed for installing grilles at the cave is to create a concrete foundation lying on bedrock (or on a suitably solid rock foundation above this) that will stop just below the current floor level into which a pre-fabricated metal grille will be set. Surface deposits from the excavation will then be used to conceal the concrete foundation.

This scheme of works also aims to monitor any groundworks which may be necessary (i.e the excavation of postholes for demountable safety fencing.) to identify and assess the survival, character and date of any archaeological remains and to excavate/record any archaeological remains uncovered. This material is believed to be redeposited but may contain artefactual material associated with the cave.

It aims to fulfil the mitigation criteria for undertaking an Archaeological Excavation and an Archaeological Watching Brief as specified in the CIfA Standard and Guidance documents (2014).

The objectives of this work are to:

- excavate and record all deposits which lie along the line of a proposed metal grille in a careful, scientific and controlled manner. This will be achieved through the excavation of a slot trench across the entire width of each of the cave entrances at the agreed locations down to a suitable depth. A suitable depth is deemed to either be bedrock or a suitably solid or concreted deposit above this
- to record a full section across the cave in order to understand and interpret surviving deposits and potentially to obtain further environmental, dating, sedimentological and artefactual samples for future detailed laboratory analysis
- to increase understanding of the site's history, development and significance
- describe past interventions and the potential for surviving undisturbed deposits
- create an archive record of the excavation
- to establish and make available any further information discovered about the archaeological resource existing on the site

It is also envisaged that the results of this excavation will contribute towards a full re-evaluation of the archaeology of Kendrick's Upper Cave. The necessity of the following points has therefore been highlighted as being of utmost importance

- the gathering of new samples of intact cave deposits for scientific analysis so as to glean a greater understanding of the surviving deposits within the cave
- the identification of what interventions/excavations have previously been undertaken at the caves, it is hoped that it will be possible to determine at what point previous excavation ceased and to identify what remains undisturbed below this level insofar as can be determined from descriptions of past interventions.

In addition to these defined goals, dependant on the time periods represented within the material recovered from the site (be it Palaeolithic, Neolithic or Romano-British etc) the information gathered will be examined in relation to the relevant Welsh Archaeological Research Frameworks ([www.archaeoleg.org.uk/documents2011.html](http://www.archaeoleg.org.uk/documents2011.html))

### 3.0 Historical Background

This section is through necessity brief and is intended merely to provide a basic outline of the site history. The compilation of a more detailed history will form an integral part of the final report.

The site was first excavated by Thomas Kendrick in the 1880's when the cave was modified to be used as a workshop and display area. The 1956 RCAHMW Inventory records the cave as *“a natural cavern, 50' deep 16' wide at the entrance, 200ft above OD on the S of the Gt Orme; during partial clearance in 1880 and later the remains of four human skeletons were found together with bones of badger, bear, boar, bos longifrons, horse (including a jaw bearing incised chevrons) and goat. Some animals' teeth were perforated. There were also fragments of flint. The human remains and some of the unworked bones are now in Llandudno Public Library. Condition: in use as store: much of the cave remains unexcavated (RCAHMW, 1956: 114).*

Further excavation was undertaken by Mel Davies in the late 1970's when 5 trenches were excavated which yielded finds of the bone remains of *“one adult human, ox, sheep or goat, roe deer, fox, hare, several bird species, frog, crab and at least eight species of mollusca with limpets predominating. Flint and pottery indicated a neolithic occupation accompanied by hearths lying under a full nineteenth century floor with one door, a window with glass and a slate slab”*. He also records the unearthing of two antler awls, two bone awls, Bronze Age Beaker, decorated Neolithic and Romano-British pottery, unpatinated Neolithic flint knives and a pierced and decorated wolf canine (Davies 1989: 99).

In his aforementioned paper Davies stated that *“only one half of the upper cave floor has been excavated and in this a shaft was opened which connected with the bottom cave some 8m below. Only archaeological rubble seemed to separate them; so much remains to be excavated”* (ibid).

It must also be noted that Upper Kendrick's Cave is but one of a series of caves found on the Great Orme and whilst it is the most famous, and arguably one of the most significant cave sites in the UK it is important that the role and importance of this cave be examined in relation to the neighbouring sites.

Palaeolithic artefacts have also been excavated in Ogof Tan y Bryn which are approximately 12,000 years old and therefore contemporary with the earliest finds from Kendrick's and the numerous stone tools found in or near to other caves on the Orme are indicative of a mobile human population utilising the area for thousands of years. There is an important group of Neolithic cave burials in this area, along with a recurrence of Romano-British finds and it is vital that these later periods are not overlooked in favour of the more ancient occupation and usage. The historical background of the full report will seek to examine all known periods of the cave usage including the Post Medieval occupation.

### 4.0 Geographical and Geological Context

#### 4.1 Topography

The Great Orme is a prominent feature in the landscape, the relatively undeveloped nature of which contrasts with the rest of the mainly developed Creuddyn Peninsula. A number of habitats are represented, such as wooded areas on the lower slopes, grasslands, cliff faces and rock exposures. The Great Orme can be seen for many miles around, from Anglesey and along the North Wales coast, and for many miles inland. Rising 209m (679ft.) from sea level, views from much of the site, but especially the summit, are extensive ([www.conwy.gov.uk](http://www.conwy.gov.uk)).

## **4.2 Geology**

The bedrock is recorded as “Loggerheads Limestone Formation - Limestone. Sedimentary Bedrock formed approximately 331 to 335 million years ago in the Carboniferous Period. Local environment previously dominated by shallow carbonate seas. These rocks were formed in warm shallow seas with carbonate deposited on platform, shelf and slope areas; often rich in corals and shelly faunas. May include evaporites where seawater was trapped and salts concentrated by evaporation”. The superficial geology is not recorded ([www.mapapps.bgs.ac.uk/geologyofbritain/home.html](http://www.mapapps.bgs.ac.uk/geologyofbritain/home.html)).

Soil formations are recorded in the “*Great Orme Country Park and Local Nature Reserve Management Plan 2011-2016*”. It states that “recent research into soil/plant interactions on the Great Orme (ITE/NERC 1995) reveals that patches and bands of post-glacial loess (a windblown, fine sand/silt) which are non-calcareous are present on the Great Orme, and in places obscure the underlying limestone. Where the loess is more than approximately 40cm deep over the limestone or boulder clay, heath has developed. Where loess thins out to 20-30cm, calcareous grass heath has developed. Where the loess thins further the influence of the limestone ensures that calcareous grassland occurs. Due to geographical and geological circumstances, the Great Orme's Head is of low agricultural quality in the national classification” ([www.conwy.gov.uk](http://www.conwy.gov.uk)).

## **5.0 Scheme of Works - Methodology**

The proposed works will be conducted in three stages and each is detailed separately below.

### **5.1 Scheme of Works – Methodology for Desk Based Research**

A complete and coherent history of the site will be compiled utilising information sourced from Bangor University Archives & Conwy Archives. Specialist journals, museum collections, publications and personal archives will be examined as appropriate. Web resources will also be utilised.

This material will form the historical background for the archaeological report. The report will also include a compact disc containing all site images in Tiff format.

### **5.2 Scheme of Works – Methodology for Archaeological Watching Brief**

All intrusive groundworks related to the erection of the safety fence around Upper Kendrick's Cave are to be monitored by an archaeologist from C.R Archaeology. This work will be undertaken by approved subcontractors appointed by AQB Historic Landscapes. Post holes are to be hand excavated to allow for the insertion of a series of fence posts. An archaeologist will be present during all works and will examine and record any material removed during the excavation. It is presumed that the material in this area is redeposited but should any change in the context be noted this will be recorded along with the depth of the change and where possible/relevant sections will be drawn. Spoil will be hand dry sieved on site examined for artefactual material. The location, size and depths of the postholes will be recorded on a site plan.

Fieldwork is to be conducted by Matthew Jones or Catherine Rees of C.R Archaeology. Both staff members are qualified, experienced archaeologists and cv's can be provided on request.

### **5.3 Scheme of Works – Methodology for Hand Excavation of Grille Trench**

The following section has been based on the excavation model devised for Cathole Cave on the Gower. It has been modified to allow for the off site processing of environmental samples. The dimensions given are approximate and may be amended to take into account the actual width of trench required within which to stand the grille and the minimum width within which it is possible to work and to gain meaningful results.

Hand excavation will be undertaken of two slot trenches of up to 75cms in width which are to run the full width across each of the two cave entrances (approximate lengths of 3m and 1.2m). The trenches will run along the precise future location of the grille which is to be marked out by AQB Historic Landscapes or their appointed subcontractors prior to the commencement of works. The excavation area will therefore be very limited but will be subject to high intensity recording.

The excavation will aim to excavate down to bedrock, or to a point when sufficiently concreted deposits are reached that can be demonstrated to be impossible to be undercut. The maximum depth of the trench will be determined according to what is deemed to be safe and practical. This is expected to be to a depth of approximately 0.70m (unless solid rock is encountered sooner).

The topsoil and subsoil removed from the trench will be dry sieved on site for artefact recovery. Below this level material will be excavated using a 50cm wide grid system. Deposits will be removed in spits by context. The level of sampling will be determined by the deposits encountered but provision will be made for bulk sampling of intact deposits. The volume of samples will be determined by the nature of the deposits but it is proposed that a minimum sample size of 40 litres be retained from each sealed context recorded with up to 100% sample retention for significant deposits. Any material which is not taken as a bulk sample will be dry sieved on site. Sampling will be undertaken in accordance with English Heritage guidelines (2011). Samples will be initially stored by C.R Archaeology until it has been agreed with the client and Cadw as to the most appropriate processing methodology and who is to conduct such works. Should this take longer than 1 month from the completion of site works the samples will be transferred to Cadw for safe storage until a decision is reached.

The works will be carried out in accordance with the ClfA Standard and Guidance documents for Archaeological Excavation (2014).

### **5.3.1 Recording**

The record forms at C.R Archaeology are based on the English Heritage system and full written, graphic and photographic records will be made in accordance with the English Heritage *Field Recording Manual*. Sample forms can be provided on request. The written record shall comprise completed *pro-forma* record sheets.

Plans, sections and elevations will be produced on gridded, archive standard stable polyester film at scales of 1:10, 1:20 or 1:50, as appropriate. Representative measured sections will be prepared as appropriate showing the sequence and depths of deposits. A temporary benchmark (TBM) will be established on the site and plans, elevations and sections will contain grid and level information. Where possible this will be relative to OS data. All drawings will be numbered and listed in a drawing register, these drawing numbers being cross-referenced to written site records.

All trench sections will be drawn at a scale of 1:10 or 1:20 as appropriate and any archaeological features identified will be pre and post excavation planned at an appropriate scale.

A high-resolution 14.2mp Sony Alpha digital camera will be used to create a photographic record of the site. This will be comprised of photographs of archaeological deposits in plan and section, in situ artefacts and any features which may be identified within the trenches. Included in each photograph will be an appropriate scale and north arrow. Photographs will be taken of all trench sections. All photographic records will be indexed and cross-referenced to written site records. Details concerning subject and direction of view will be maintained in a photographic register, indexed by frame number. Images from photography will be stored in a loss-less digital format in this case '\*.TIF'.



A 'harris matrix' diagram will be constructed for the excavated area.

### **5.3.2 Additional Mitigation/Contingency Measures**

In the event of a significant archaeological discovery being made during the excavation C.R Archaeology will immediately inform both the client and Cadw. Consultation will take place between C.R Archaeology, Cadw and the client with regards to the most suitable course of action.

In the event that human remains are encountered site work will cease with immediate effect. The coroner, client and monitoring body will be informed immediately. The company will abide by the requirements of Section 25 of the Burial Act 1857. Any arrangements regarding the discovery of human remains will be at the discretion of HM Coroner whose instruction/permission will be sought. All human remains are to be preserved *in situ*, covered and protected. They will only be removed in exceptional circumstances and with the appropriate Ministry of Justice licence, environmental health regulations, Coroner's permission and, if appropriate, in compliance with the Disused Burial Grounds (Amendment) Act 1981 or other local Act, with adequate security provided in such cases.

Any artefacts recovered that fall within the scope of the Treasure Act 1996 will be reported to the landowner, Cadw and to HM Coroner.

### **5.3.3 Recovery, Processing and Curation of Artefactual Material**

All recovered artefactual material will be retained, cleaned, labelled and stored according to *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014) and *First Aid for Finds* (Watkinson & Neal 2001). The aim will be to create a stable, ordered, well-documented, accessible material archive forming a resource for current and future research (CIfA 2014).

All artefactual material will be bagged and labelled with the site code and context number prior to their removal from site. The archive reference number will be clearly marked on all finds.

Each assemblage will be examined according to typological or chronological criteria and conservation needs identified. An assessment report of all post-medieval material will be produced by Matthew Jones and further specialists will be appointed as required. A list of specialists will be prepared prior to the post-excavation phase of works.

Specialist conservation will be undertaken by an approved conservator on advice provided by a suitable specialist. This will be conducted in accordance with guidelines issued by the Institute for Conservation.

Following analysis all archaeological material recovered will be deposited with Llandudno Museum. Processed assemblages will be boxed according to issued guidelines and a register of contents compiled prior to deposition.

The works will be carried out in accordance with The Chartered Institute for Archaeologists: *Standard and Guidance for Archaeological Watching Brief* (2014).

#### **5.3.4 Archive Compilation**

All records created during the fieldwork will be checked for consistency and accuracy and will form part of the *Primary Site Archive (P1)* (EH 2006). The archive will contain all data collected, including records and other specialist materials. It will be ordered, indexed, adequately documented, internally consistent, secure, quantified, conforming to standards required by the archive repository and signposted appropriately to ensure future use in research, as detailed in the English Heritage *Management of Research Projects in the Historic Environment* (MoRPHE) methodology.

The archive will be assembled in accordance with the guidelines published in, *Standards in the museum care of archaeological collections* (Museums & Galleries Commission 1994), *Guidelines for the preparation of excavation archives for long-term storage* (United Kingdom Institute for Conservation, 1990) and *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (AAF 2007).

All materials contained within the *Primary Site Archive (P1)* that are subsequently identified by the *Assessment Report (P2)* as appropriate for analysis will be processed by suitable specialists and the resultant *Research Archive (P3)* will be checked and ordered according to MoRPHE criteria.

Llandudno Museum will be notified in advance of the proposed work and the deposition of any archive created by this archaeological project and archive material will be deposited in accordance with the museum's terms and conditions for archive deposition.

#### **5.4.0 Timetable for Proposed Works**

It is envisaged that works at Uppper Kendrick's Cave will commence on Friday 10<sup>th</sup> July 2015. Initial site work (archaeological watching brief during erection of fence) is to take place over 1 - 2 days with up to 7 further days (beginning 12<sup>th</sup> July 2015) allotted to the excavation and recording of the grille trenches across the cave entrances. Cadw will be informed of the exact site days to allow monitoring of works.

#### **5.4.1 Staffing**

The project will be managed by Catherine Rees (BA, MA, PgDip HEC). All staff will have a skill set equivalent to at least the CIfA ACIfA level. C.Vs for all staff employed on the project can be provided on request.

Due to the importance of the site and the rarity of Upper Palaeolithic sites in the UK also present during the excavation will be Ice Age and rock art specialist Dr George Nash who has carried out similar projects to this on the Gower in South Wales.

All projects are carried out in accordance with CIfA *Standard and Guidance* documents.

#### **5.4.2 Monitoring**

The project will be subject to monitoring by Cadw. The monitor will be given prior notice of the commencement of the fieldwork. A projected time-scale and copy of the risk assessment can be provided on request to the monitoring body prior to the commencement of works.

#### **5.4.3 Health and Safety**

A risk assessment has been conducted prior to the commencement of works and site staff have been familiarised with its contents. A first aid kit will be located in the site vehicle.

All staff will be issued with appropriate Personal Protective Equipment (PPE) for the site work. Initially this is anticipated to consist of:

- Safety Helmets (EN397)
- Hi-visibility vests (EN471)
- Safety footwear – steel toecap and mid-sole boots and Wellingtons (EN345-47)
- Gloves
- Plastic hard cased kneeling pads
- Alcohol dry “handwash”

Any further PPE required will be provided by C.R Archaeology.

All staff will have passed at least a CITB health and safety test at least operative level and will carry a Construction Related Organisation (CRO) White Card for Archaeological Technician (Code 5363) or a Site Visitor card.

C.R Archaeology staff will also comply with any Health and Safety Policy or specific on-site instructions provided by the client or their appointed Principal contractor or H&S coordinator.

#### **5.4.4 The Report**

The report will clearly and accurately incorporate information gained from the entire programme of archaeological works. It will present the documentary evidence gathered in such a way as to create a clear and coherent record. The reports will contain a site plan showing the locations of photographs taken.

The report will include:

- A copy of the agreed specification
- A location plan
- Sufficient historical and archaeological detail to allow interpretation of the results and to support assessment of significance
- All identified features and significant finds plotted on an appropriately scaled site plan
- Full dimensional and descriptive detail of all identified finds and features
- Full dimensional and descriptive detail of all contexts identified
- A plan illustrating the location and direction of any photographs or drawings
- A full bibliography of sources consulted
- An archive compact disc

The report will detail the results of the archival research, the archaeological watching brief and the hand excavation of the grille trenches.

Should remains be encountered which require specialist analysis Cadw and the client will be consulted to discuss whether an interim report will be produced or whether publication would more appropriately be delayed until the results of all works have been obtained. Specialist reports may be summarised within the main report text but as a minimum will be included in full as appendices.

Copies of the reports in Adobe PDF format will be sent to the appropriate monitoring archaeologist for approval before formal submission. A bound paper copy and PDF digital copy of the report will be submitted as part of the formal submission. A digital Adobe PDF version and a bound paper copy of the final report and will be lodged with the Gwynedd Historic Environment Record within six months of completion of fieldwork.

As a minimum in the event of a positive result a summary of the work will be published in the Archaeology in Wales Journal. Papers will be submitted to relevant additional publications dependant on the results of the field work.

#### **5.4.4.1 Copyright**

C.R Archaeology and sub-contractors shall retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it hereby provides a licence to the client and the local authority for the use of the report by the client and the local authority in all matters directly relating to the project as described in the Project Specification.

## **6.0 Bibliography**

- AAF. 2007. *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*
- Davies, M. 1989. *Cave Archaeology in North Wales*. In Ford, T. 1989. *Limestones and Caves of Wales*
- Dinnis, R. & Ebbs, C. 2013. *Cave Deposits of North Wales: Some Comments on their Archaeological Importance and an Inventory of Sites of Potential Interest*. In Transactions of the British Cave Research Association Volume 40
- Dutton, L. A. 1990. *'Llety'r Filiast Chambered Tomb' in Archaeology in Wales 30, 41*
- English Heritage. 2006. *Management Of Research Projects in the Historic Environment (MORPHE)*
- English Heritage. 2011. *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation*
- Ford, T. 1989. *Limestones and Caves of Wales*. Cambridge. Cambridge University Press
- Jones, C. 2013. *Thomas Kendrick – Llandudno's Cave Man*
- Jones, J. 1997. *The Search for Bronze Age Habitation Sites on the Great Orme, Llandudno*. Unpublished manuscript (held by Llandudno Museum)
- Jones, S. 1999. *The Great Orme Management Plan*. Gwynedd Archaeological Trust Report 399
- RCAHMW. 1956. *Caernarvonshire Volume I: East*.
- Smith, G. H. 2003. *Proposed Housing Development at No.1, Pyllau Road, Llandudno: Archaeological Assessment*. Gwynedd Archaeological Trust Report 474.
- Smith, G. H. 1994. *Watching brief: Llandudno Burial Chamber*. File note held in Gwynedd HER Under PRN648 Further Information file
- The Chartered Institute for Archaeologists. 2014. *Code of Conduct*
- The Chartered Institute for Archaeologists. 2014. *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*



The Chartered Institute for Archaeologists. 2014. *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*

The Chartered Institute for Archaeologists. 2014. *Standard and Guidance for Archaeological Excavation*

The Chartered Institute for Archaeologists. 2014. *Standard and Guidance for Archaeological Desk-Based Assessment*

The Chartered Institute for Archaeologists. 2014. *Standard and Guidance for Archaeological Watching Brief*

The Chartered Institute for Archaeologists. 2014. The Institute for Archaeologists. 2008. *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*

Walker, K. 1990. *Guidelines for the preparation of excavation archives for long-term storage*. United Kingdom Institute for Conservation (UKIC) Archaeology Section

Watkinson, D. & Neal, V. 2001. *First Aid for Finds*. London. United Kingdom Institute for Conservation of Historic & Artistic Works

**Websites – all sites were visited 06/07/2015**

[www.archaeoleg.org.uk/documents2011.html](http://www.archaeoleg.org.uk/documents2011.html)

[www.bgs.ac.uk/geologyofbritain/home.html](http://www.bgs.ac.uk/geologyofbritain/home.html)

[www.cadw.wales.gov.uk](http://www.cadw.wales.gov.uk)

[www.coflein.gov.uk](http://www.coflein.gov.uk)

[www.conwy.gov.uk/upload/public/attachments/580/Great\\_Orme\\_Management\\_Plan\\_20112016.pdf](http://www.conwy.gov.uk/upload/public/attachments/580/Great_Orme_Management_Plan_20112016.pdf)

[www.greatorme.org.uk](http://www.greatorme.org.uk)

[www.gwynedd.gov.uk](http://www.gwynedd.gov.uk)

[www.historicwales.gov.uk/](http://www.historicwales.gov.uk/)



