

THE CALCH PROJECT

FINAL REPORT



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For: BBNPA



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THE CALCH PROJECT FINAL REPORT

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THE CALCH PROJECT

FINAL REPORT

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THE CALCH PROJECT FINAL REPORT

INTRODUCTION

This report summarises all the work undertaken as part of the Calch Project. The project has helped make the Black Mountain Quarries a fascinating place to visit and to learn about the industrial heritage, wildlife, social history and geology of the area. Linking the Black Mountain Quarries with existing heritage tourism and community initiatives will hopefully benefit local communities and businesses. Supporting information is provided in the accompanying DVD and in hard copy.

Project description

In 2005 BBNPA commissioned DAT to undertake a desk top study of the lime industry on the Black Mountain (Schlee 2005) to provide background information in support of a bid for the Fforest Fawr area to achieve Geopark status.

The importance of the remains of the lime industry on the Black Mountain as a cultural heritage asset has become increasingly apparent, and as the landowners of this area, BBNPA has become increasingly aware of their responsibilities to conserve this asset. With improved public access, site safety and site interpretation, the industrial remains, located in a spectacular location on the A4069 mountain road between Llangadog and Brynaman have the potential to be promoted as a visitor destination.

The site contains the important remains of a long history of industrial heritage showing the development of limestone processing and transport through time, spanning the transition from the pre-industrial exploitation to full industrialisation for use in other industries and agriculture. The site is within the Fforest Fawr Geopark, is a RIGS (Regionally Important Geodiversity Site) and is part of the Mynydd Du SSSI (Site of Special Scientific Interest).

In 2012 BBNPA commissioned DAT to develop a project to set out a programme for the future management and conservation of and to seek funding to undertake improvements to site access and interpretation. The resulting Calch Project (calch is the Welsh word for 'lime') was a partnership project between Dyfed Archaeological Trust (DAT), Brecon Beacons National Park Authority (BBNPA), National Museums and Galleries of Wales (NMGW) and the Black Mountain Centre in Brynaman (BMC).

As part of Cadw's 'Wales – the first industrial nation' pan-Wales heritage interpretation, the project aimed to attract a larger and broader range of audiences to the area, contributing to long-term tourism and other economic opportunities and community enterprises in the region, to the benefit of local communities, businesses, individuals and visitors to the area. The heritage tourism aspects of the project will contribute to increased 'visitor spend' in the area, resulting in general economic benefits to local communities, shops and tourist business enterprises.

Site location

Herbert's Quarry is the modern colloquial name for a substantial limestone quarry complex which incorporates parts of several earlier quarrying named Foel Fawr, Pant-y-Ffynnon, Craig y Nos and Blaen y Gwair Quarries on historic mapping of the area.

The quarries cover an area of approximately 20 hectares and form the western end of a series of limestone quarries covering an additional 80 hectares to the west. Collectively and historically, these quarries have been referred to as the Black Mountain Quarries. This was chosen as the name of the site.

Calch project partners

Dyfed Archaeological Trust

Based in Llandeilo, Carmarthenshire, Dyfed Archaeological Trust is an independent organisation with a strong regional commitment dedicated to the protection, investigation, recording and promotion of the historic environment. The Trust was established in 1975 as part of a network of four archaeological organisations covering the whole of Wales.

Brecon Beacons National Park Authority (and Fforest Fawr Geopark)

The BBNPA is responsible for the management of National Park Authority property and helps to implement policies for conservation of the landscape and to facilitate enjoyment of the Park. Park wardens work closely with other specialist colleagues dealing with education, community development, conservation on farms, woodland management and access to the countryside. BBNPA have committed to in-kind support during the life of the project and the on-going maintenance of the site following the completion of the project.

The Fforest Fawr Geopark was the first geopark to be designated in Wales, having gained membership of both the European Geopark Network and the UNESCO-assisted Global Network of Global Geoparks in October 2005. The Geopark aims to promote and support sustainable tourism and other opportunities to improve the economy of the area whilst safeguarding the natural environment. Its aims largely coincide with the statutory duties and purpose of the Brecon Beacons National Park within which it sits.

National Museums and Galleries of Wales

The National Museum's vision includes working together with the Welsh Assembly Government, other Assembly Sponsored Public Bodies and public agencies, to support and deliver arts, culture, environment and tourism strategies for the benefit of the peoples of and visitors to Wales.

The National Waterfront Museum at Swansea tells the story of industry and innovation in Wales, now and over the last 300 years. Staff at the National Waterfront Museum will provide specialist industrial archaeology knowledge and expertise.

Black Mountain Centre

At the heart of the local Brynaman community the Centre offers community and visitor facilities, including tourist information point and café, conference facilities and exhibition space, located within the settlement of Upper Brynaman. The centre will be promoted as a visitor gateway to the site and will house both printed and virtual interpretation material. It will also help to engage local community groups and tourism providers in the project.

Project staffing

Day to day project management was undertaken by Duncan Schlee, with Louise Austin and Judith Holland providing administrative support. Other members of staff at DAT were employed on specific activities within the project and included Menna Bell, Sarah Rees and Ed Davies and HollyMae Steane-Price. In-kind support was provided by BBNPA staff from various departments.

Menna Bell, Sarah Rees and Ed Davies all started working on the Project as CBA Community Archaeology Bursary Placements, but when these placements finished, continued in employment with DAT. Prior to working on the Calch Project, HollyMae Steane-Price had been working as a Trainee Heritage Officer with BBNPA through the IfA Integrated Heritage Management Bursary Scheme.

Project funding

With resources from BBNPA and DAT, a successful grant application was made to the Brecon Beacons Trust to fund Phase 1 of the Calch Project in 2012. Having successfully secured additional grant funding the project was able to continue to Phase II, delivering some of the goals identified in Phase 1.

WEFO/Cadw Heritage Tourism Project

The Cadw Heritage Tourism Project (HTP) is working with communities, heritage partners and the tourism sector across Wales to provide a more integrated range of heritage tourism activities. It will help maximise the economic value of heritage by increasing the number, length and value of visits to Wales and will help open Wales's outstanding heritage to a wider audience. The HTP project has been part-funded by the European Regional Development Fund through the Welsh Government.

Aggregates Levy Fund for Wales

The Aggregate Levy Sustainability Fund for Wales (ALFW) supports capital projects that benefit communities affected by aggregate extraction including environmental and heritage projects linked to the quarrying industry. The Fund is administered by the Welsh Government.

Brecon Beacons Trust

The Brecon Beacons Trust is a Registered Charity established in 2009. The Trust sees its role as enabling local communities and voluntary organisations, living and operating within the area of the Brecon Beacons National Park, to positively conserve and enhance their local environments so as to contribute to the overall quality of life for people who live, work in or visit the Park.

Brecon Beacons National Park Sustainability Fund

The Sustainable Development Fund empowering communities to build a better future. The Brecon Beacons National Park Sustainable Development Fund (SDF) aims to support projects which take into account economic, environmental, community and cultural issues, and projects which improve quality of life for communities in the Park.

Project aims

Through partnership working, community events and activities, conservation work and publicly disseminated information, the aims of the project were:

- To develop the Herbert's Quarry area as a learning resource and visitor destination.
- To celebrate the industrial heritage of Herbert's Quarry with local communities, and wider audiences.
- To inform the future care of the industrial remains.
- To preserve the industrial features, improve access and site safety.
- To increase economic and other associated benefits to existing enterprises and communities in the area.
- To work in partnership with a range of heritage and conservation professionals to deliver a sustainable and environmentally friendly project with due regard to the natural environment.

Project objectives

The objectives of the project were:

- to undertake survey work to develop understanding of the industrial remains in and around Herbert's Quarry by assessing their extent, significance and condition; to identify conservation requirements for the site; to create a record and archive of the site and its surroundings, as a publicly accessible resource.
- to provide conservation and management plans, to inform and ensure the future management and long term survival of the site.
- to undertake access and site safety works to ensure the survival of the site.
- to engage local communities, groups and visitors in the Calch Project.
- to produce and implement an interpretation plan for the site, including:
 - On-site interpretation, including interpretation panels, waymarkers and an audio trail.
 - Off-site interpretation (web-based and Black Mountain Centre based digital and printed resources to include:-
 - interpretative material covering the themes as set out in the draft Cadw interpretation plan "Wales first industrial nation"
 - popular publication on the history of the lime industry in southwest Wales
 - guide material for visitors
 - Exhibitions

- Signposted links to and from other industrial sites
 - publicly accessible archive
 - learning resources for schools
- to make interpretation material and information available at the Black Mountain Centre and the BBNPA Tourist Information Centres.
- to produce and implement a marketing plan to reach new and wider audiences and thereby increasing economic and other benefits to communities in the area.
- To promote the Black Mountain Centre, Brynaman as an Industrial Heritage Tourism gateway, along with local tourism initiatives and hubs such as BBNPA TICs, Community tourist information hubs and Brecon Beacons and Geopark Ambassadors.
- Promote the Black Mountain Quarries as a visitor destination accessible by car, bicycle and on foot and promoted as a heritage tourism product for the BBNP and Carmarthenshire promoting the importance of Welsh industrial history to a wider audience, engaging visitors and locals.

OUTPUTS – PHASE 1

LiDAR Survey processing (Phase 1)

The Lidar survey processing was undertaken as part of Phase 1 with funding from Brecon Beacons Trust and staff time contributions from BBNPA and commissioned input from RCAHMW.

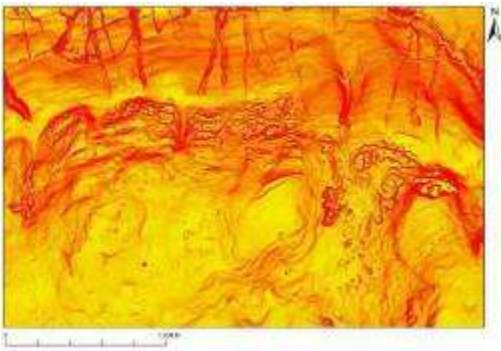
Following an extensive peat fire, BBNPA commissioned NERC to undertake a LiDAR survey of a large area of the Western part of the Black Mountain to enable them to assess the extent and severity of the damage to help inform the future management of the land. The LiDAR survey area was extended to include the CALCH project study area.

The Data was processed by Shaun Lewis at BBNPA and Oliver Davis at RCAHMW. Although a 0.5m resolution would have provided more detail, the 1m resolution was sufficient to adequately define the majority of roads, tracks, spoil tips and other significant features, and to hint at the presence of other features.

From the 3D LiDAR visualisations, 2D plots for use in Mapinfo were produced as a basis for plotting the lime working features. In addition to grey-scale shaded relief terrain models from various low angles of lighting.

The project included:

- Processing of LiDAR data.
- Creating various images of the Black Mountain to facilitate GIS mapping of archaeological features.



Outputs

- Processed LiDAR data.
- 3D LiDAR visualisations
- 2D LiDAR visualisations

Outcomes

- Baseline data to enable further analysis and understanding of the development of the Black Mountain Quarries.
- Effective partnership working.
- Useful images for interpretation and publicity.

LiDAR survey interpretation and GIS plotting (Phase 1)

The LiDAR survey interpretation and GIS plotting was undertaken by DAT as part of Phase 1 with funding from Brecon Beacons Trust. Using the LiDAR data, digital aerial photographs, historic mapping and other documentary sources, the archaeological remains of the lime industry on the Black Mountain were plotted using Mapinfo GIS. The plotting focussed on recording the tops and bottoms of quarry faces, buildings and other masonry structures, lime kilns, roads and tracks of various types, 'barrow runs', and spoil tips. Features were grouped according to type and quarry identity. Within each quarry, polygons were drawn around groups of features associated with individual kilns and quarries. Each kiln was allotted a reference number and each group of features (usually including a kiln) was allotted another number.

The resulting data enabled much greater understanding of the extent of quarrying and most importantly enabled understanding of how the industry developed and spread over time. The results form part of the project archive.

The project included:

- Analysis of historic maps, aerial photographs and LiDAR data.
- Using GIS to map the industrial features on the Black Mountain.



Outputs

- GIS mapping of the extent of lime quarrying and limekilns on the Black Mountain.
- Data for use in interpretation materials.
- Data for use in field survey work.
- Data for future study of the Black Mountain lime industry.

Outcomes

- Greatly enhanced understanding of the development of the lime industry on the Black Mountain.

Ground Survey (Phase 1)

The ground survey was undertaken by DAT with the assistance of volunteers. The digitised plotting of features from the desk-top and LiDAR surveys was followed up by field survey work to 'ground truth' the digitised plotting and to record the characteristics of the lime kilns and other significant features around the site in more detail. This enabled greater understanding of how the quarries had evolved through time, and the opportunity to make a record of the characteristics and condition of the industrial remains to inform a management plan for the site.

Ground survey of the quarries to the east of the A4069 was undertaken to confirm and augment the features plotted from the LiDAR survey. Recording sheets were produced for each 'quarry group' upon which the range of features within the group were noted.

Photographs were taken of kilns and other features of each quarry group. Over 36 quarry groups were identified and recorded. Other quarry groups to the east have not yet been recorded.

The project included:

- 'Ground trothing the GIS mapping of the Quarries.
- Fieldwork days recording the archaeological remains.
- Creating written and photographic records for kilns and other features.



Outputs

- A written and photographic record of the industrial remains in the Black Mountain Quarries.
- Data to inform the management of the quarries.
- Data to inform future research.
- Information and understanding of importance to the interpretation of the site to the public.

Outcomes

- Greater understanding of the development of the quarries and the lime industry on the Black Mountain.
- Volunteer engagement
- Volunteer training

Conservation and Management Plan (Phase 1)

The conservation and management plan was undertaken by DAT as part of Phase 1 with funding from Brecon Beacons Trust. Based on the results of the desk-top, LiDAR and field survey work, a draft Conservation and Management Plan has been completed setting out the significance, condition and conservation requirements of all of the major lime industry features on the site. The plan also includes a prioritised list of management objectives forming the basis of a tender document for commissioning the site safety and access works to improve access and site safety. The plan has formed the basis of a tender document for commissioning the site safety and access works.

Interpretation Plan (Phase 1)

The interpretation plan was undertaken as part of Phase 1 with funding from Brecon Beacons Trust. An 'Interpretation Workshop' attended by DAT and BBNPA staff took place with interpretation consultants to enable the creation of an Interpretation Plan for the project. A draft plan was subsequently produced which formed the basis for the various tenders to realise the interpretive goals of the project.

Marketing plan (Phase 1)

The conservation and management plan was commissioned as part of Phase 1 with funding from Brecon Beacons Trust. The marketing plan was commissioned to provide guidance for raising awareness about the project and its products.

Grant funding applications (Phase 1)

During Phase 1, with funding from Brecon Beacons Trust, DAT were able to make successful grant applications to the Aggregates Levy Fund for Wales (ALFW), the Brecon Beacons National Park Sustainable Development Fund (SDF) and the Cadw Heritage Tourism Project (HTP). Documentation for these applications can be found in the project archive.

Outputs

- Plan documents to enable the delivery of different aspects of the project.
- Grant applications to secure funding for the delivery of Phase 2.

Outcomes

- Sufficient grant awards to enable the delivery of Phase 2.
- More detailed understanding of the necessary tasks and costs needed to archive the project goals.

Documentary research (Phase 1)

The documentary research was undertaken as part of Phase 1 with funding from Brecon Beacons Trust and with the assistance of volunteers. Research was needed to inform the content of public presentations and to identify engaging facts, stories and images for the production of publicity and interpretive and educational material for the project.

In addition, adding new data and sources collected during the project the research has added considerably to publically accessible data relating to the Black Mountain Quarries that is held at the Regional HER,

Information held in the Regional HER was reviewed and updated. On-line resources were surveyed for useful reference material. Census returns were consulted to try and identify individuals that worked in the lime industry. Newspaper archives were searched along with other records held at various regional Records Offices and the NLW and on-line resources.



Outputs

- Extensive collection of reference sources and information to inform understanding and interpretation for other aspects of the project.
- Material for inclusion in the Archive, web site, booklet etc.

Outcomes

- Informed and engaged volunteers.
- Trained volunteers
- Increased understanding of the lime industry and the Black Mountain Quarries.

Web site (Phase 1)

The CALCH website (www.calch.org.uk) was created as part of Phase 1 with funding from Brecon Beacons Trust contains background information about the project and the history of the Black Mountain Quarries.



Outputs

- A web site for the Calch project presenting background information about the project, the history of the lime industry on the Black Mountain, project progress, news etc.

Outcomes

- A means of presenting information about the project to the public etc.
- Informed and engaged members of the public.
- Increased understanding of the lime industry and the Black Mountain Quarries.

Community engagement (Phase 1)

A large amount of community engagement was undertaken during the project. Raising awareness and understanding about the Black Mountain Quarries among local communities and other groups was considered important to identify the quarries as an interesting place for locals and visitors to explore, and to encourage support for and participation in the Calch project. Engagement with heritage professionals was also important in raising awareness about the site among a wider geographical catchment. Numerous Powerpoint presentations were produced at different stages of the project for a variety of lengths of presentation and aimed at a range of different audiences.

Talks in Phase 1

Brynamman community (20/02/12)

Ammanford Archaeology and History Society (19/03/12)

Tywi Centre 'Open Day' (21/4/12)

Welsh Industrial Archaeology Panel, Amlwch (22/05/12)

Fforest Fawr Geopark Festival talk at Myddfai (23/5/12)

Llanddeusant Community (24/05/12)

Llanddeusant WI (12/06/12)

Brynamman community (20/06/12)

Capel Isaac community (11/09/12)

Ammanford Archaeology and History Society (17/09/12)

Gwynfe Community (30/10/12)

Llangadog Community (09/11/12)



Exhibition displays (Phase 1)

A range of posters describing different aspects of the project, leaflets and other exhibition materials were produced at the start of the project, to help raise awareness of the project at talks and larger events. Calch exhibitions were displayed at several events organised as part of the Calch Project, and also at events organised by project partners and other organisations during Phases 1. These helped raise awareness about the project, recruit volunteers, engage with the public and develop a mailing list for project news.

Exhibition displays in Phase 1

DAT 'Open Day' (12/04/12)

Tywi Centre 'Open Day' (21/04/12)

FBA weekend (21-22/06/12)



Walks and tours (Phase 1)

During Phase 1 numerous walks and tours around the Black Mountain Quarries were undertaken as part of larger Calch events and other events such as the Festival of British Archaeology.

Phase 1

FBA weekend (21-22/06/12)

Geopark Re-validation Committee (12/07/12)

Brecon Beacons Trust Committee (20/07/12)



Events (Phase 1)

Two events were organised during Phase 1 to raise awareness about the project and to engage with local communities and visitors. Several of the specialists and other contributors volunteered their time by giving talks and leading tours around the quarries and providing displays and other entertainments. Other participants charged expenses.

Phase 1

DAT open day (12/04/12)

FBA weekend (21-22/07/12)



Community engagement outputs (Phase 1)

- Presentations, talks, exhibitions and displays given to a range of organisations, and groups covering a broad geographical area.
- Working with partners and developing new links with other organisations and community groups.
- A range of Powerpoint presentations developed for talks to various groups and society's, presenting the work of the Calch Project and the history of the Black Mountain Quarries.
- A range of exhibition materials used to raise awareness about the Black Mountain Quarries and the Calch Project.
- Photographs of members of the community attending / involved with activities (for publicity and raising awareness).
- Informed and engaged and entertained members of the public.
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- Over 300 people signed up to Calch mailing list
- Over 10 active volunteers
- Over 80 potential volunteers
- Over 500 people attended Calch events

Volunteering opportunities (Phase 1)

Volunteers from local communities were involved in several practical aspects of the project including the field survey and documentary research. Volunteers also helped in the delivery of the public events, helping with event set-up and taking visitors on guided tours. Other local people volunteered information and knowledge of use and interest to the project. Several professional and specialists also volunteered their time and services, providing expertise, presentations, displays and entertainments at various events. Others charged expenses.

Volunteering opportunities (Phase 1)

Ground survey (28-31/05/12)

DAT open day (12/04/12)

FBA weekend (21-22/07/12)



Outcomes

- Informed, educated, trained, engaged and entertained members of the public
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- Data and survey and excavation reports for inclusion in regional HER

Volunteer research (Phase 1)

Oral history recording

Three volunteers were interviewed and their reminiscences about mineral extraction on the Black Mountain. BBNPA wardens also took notes on conversations with local farmers about their memories of using lime on their farms. Digital recordings of interviews and written notes of conversations form part of the project archive.

Documentary research

Following an initial Calch research day (20/03/12), when volunteers were introduced to the archives at the Carmarthen Records Office, several volunteers continued to undertake documentary research on behalf of the project, to gather information that would inform the interpretation material produced for the project and to form part of an archive for the Black Mountain Quarries that will be held in the Regional Sites and Monuments Record. Much of this work was undertaken under the banner of 'Calch Thursdays' when volunteers could drop in to use the facilities at the DAT offices and HER.

The following research was undertaken by volunteers in Phase 1:

- A survey of Census returns to identify workers in the Black Mountain Lime industry.
- Research into the 'Black Mountain Quarries Lime Fraud'.



Outputs

- Informed, educated, trained, engaged and entertained members of the public
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- Resources for interpretation and presentations etc.
- Resources and data for inclusion in the archive.
- Increased understanding of the history of the Black mountain Quarries

OUTPUTS – PHASE 2

Web site (Phase 2)

The Calch website was updated during Phase 2. Following completion of the project, project information from the Calch website (www.calch.org.uk) that is not on the Breconbeacons.org web site will be transferred to the Geopark and DAT web-sites to form a research resource and project archive.

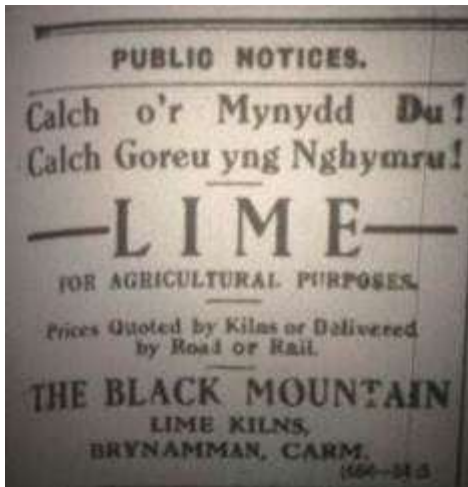
CALCH also featured on the new DAT Facebook and Twitter! Sites (Facebook - <https://www.facebook.com/pages/Dyfed-Archaeological-Trust/102613443129892?fref=ts>

Twitter - <https://twitter.com/DyfedArch>)



Documentary research (Phase 2)

Research was also undertaken during Phase 2 by volunteers and during the delivery of other Phase 2 objectives. Volunteers produced documents on research relating to the lime industry on the Black Mountain, including census returns, the Black Mountain Quarry fraud case, the Rebecca Riots and Turnpike Trusts. These documents will form part of the project archive and will be added to the on-line project resources.



Outputs

- Extensive collection of reference sources and information to inform understanding and interpretation for other aspects of the project.
- Informed and engaged members of the public.
- Increased understanding of the lime industry and the Black Mountain Quarries
- Material for inclusion in the Archive, web site, booklet etc.

Archaeological excavation and structure recording (Phase 2)

Prior to the commencement of access and site safety works, small scale excavations were undertaken on selected kilns and other structures as part of Phase 2. The excavations were undertaken by DAT staff with the assistance of local community volunteers.

Recording structures (11-23/03/13)



Kiln excavations (17-23/5/2013)



Outputs

- Project web site.
- Project archive.
- Informed and engaged members of the public.
- Raised awareness of the Calch Project.
- Raised awareness of the Black Mountain Quarries.

Access and site safety (Phase 2)

Conservation and repair work (Phase 2)

To improve access and site safety for visitors to the quarries, and to prolong the survival of several of the industrial features in the quarries, it was necessary to undertake some consolidation work on structures suffering from weathering and erosion.



Outputs

- A safer site with improved access.
- Consolidated structures of historic interest.
- Prolonged survival of industrial features.

Drystone walling, carparks benches, paths and litter picking

Several small-scale measures were taken to improve access around the site. These included removing trip hazards (stones) where possible; removing fly-tipped rubbish and litter; improving access to the trail from the 'top' carpark; placing rocks to define the trail route; installing additional picnic benches; bridging a drainage ditch that crosses the trail; building a drystone revetment wall to improve part of the trail route, and rebuilding an actively collapsing wall adjacent to the trail.



Outputs

- A range of measures to improve access to the Black Mountain Quarries.
- A range of measures to improve safety in the Black Mountain Quarries.

Waymarkers (Phase 2)

Designing a route that could be followed from each of the two carparks servicing the quarries, and which drew a balance between providing an interesting and easy to follow trail, against the need to avoid potentially dangerous or environmentally sensitive areas was a challenge, requiring bespoke waymarkers tailored to specific locations along the chosen route. Hand-carved stone waymarkers were commissioned to mark a walking trail around the Black Mountain Quarries, and to indicate the location of audio trail points. The choice of carved stone provided a hard-wearing, low maintenance product in-keeping with the character of the site.



Outputs

- Effective, durable bespoke stylish waymarkers indicating the trail route and linking it to the audio trail.

Bat Survey (Phase 2)

A bat survey was commissioned with funding from Phase 2 prior to the commencement of on-site works.

On-site interpretation (Phase 2)

Interpretation panels

Welcome and orientation panels mounted on stone-built lectern style plinths were constructed in both of the car parks serving the Black Mountain Quarries. Panels were also erected at the old offices and on top of one of the kilns, providing a panoramic view of the quarries and the surrounding landscape. The panels help to draw attention to the geology, archaeology and social history of the Black Mountain.



Outputs

- A series of contemporary stylish interpretation panels providing information to visitors to the quarries.
- Informed, educated, engaged and entertained members of the public
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- 'Follow the story' signposting to other related heritage sites.

Audio trail, Youtube video and audiotrail app (Phase 2)

An audio trail featuring a narration by Roy Noble as well as a host of other characters was commissioned to broaden the appeal and accessibility of a visit to the quarries for families and young people. The bilingual audio trail provides information and stories relating to the site in an entertaining and imaginative manner, adding a different dimension and context to the information provided on the interpretation panels and booklet.

The audio trail can be accessed before visiting the site as Mp3 files from the website, or as a mobile phone app downloaded from the website (on the Apple store, Android Marketplace and Windows Phone 7 Marketplace). The app can also be downloaded via a QR Code on the Trail leaflet and flyer, or can be accessed by mobile phone dial-up on site.



You can listen to the audio trail using your mobile phone and following the instructions:

Call 01269 333123 (English) or 01269 333123 (Welsh).

The Youtube videos can be viewed at:

English: <http://youtu.be/NygIvXAI3sY> Welsh: <http://youtu.be/Bn8DKZkNR3Y>

Outputs

- An imaginative and entertaining bilingual audio trail to improve accessibility to the site and broaden its appeal.
- A low impact means of increasing on-site interpretation
- A promotional video for Youtube or other purposes.
- An app to improve the accessibility and appeal of the trail.
- Informed, educated, engaged and entertained members of the public
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- 'Follow the story' signposting to other related heritage sites.

Off-site interpretation

Black Mountain Centre display

Wall mounted interactive display panels were commissioned to create a focal point at the Black Mountain Centre in Brynaman where visitors can obtain information about the site, and make use of the facilities available at the centre. The panels feature information about the site, a video screen with slide show, a phone point where selections from the audio trail can be listened to, and interactive reveal panels. The display will hopefully benefit the Black Mountain Centre by increasing the number of visitors to the centre and developing its potential as a tourist information hub.



Outputs

- An eye-catching and engaging wall mounted bilingual interactive display providing inspiration and information for visitors to the Black Mountain Centre and the Black Mountain Quarries.
- 'Follow the story' signposting to other related heritage sites.
- Informed, educated, engaged and entertained members of the public
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- 'Follow the story' signposting to other related heritage sites.

Popular booklet, leaflet and flyer

The results of all the research undertaken during the project has been brought together in a booklet aimed at providing more in-depth information about the history of the Black Mountain Quarries for visitors and schools. A trail leaflet and a flyer have also been produced. These products, all aimed at raising awareness about the Black Mountain Quarries, will be distributed to visitor information centres Tourism offices, tourist providers and schools in the area, and can also be downloaded from <http://www.breconbeacons.org/blackmountainquarries>.



Outputs

- A 40 page colour bilingual booklet, illustrated by a mixture of text and photographs, drawings, old photographs, maps historical information and visitor information etc.
- A downloadable version of the booklet is available at <http://www.breconbeacons.org/blackmountainquarries>.
- A bilingual guide leaflet for the Black Mountain Quarries trail.
- A downloadable version of the trail guide is available at <http://www.breconbeacons.org/blackmountainquarries>.
- Bilingual flyers for publicising the Black Mountain Quarries.
- 'Follow the story' signposting to other related heritage sites.
- Informed, educated, engaged and entertained members of the public
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- 'Follow the story' signposting to other related heritage sites.

Community engagement

A large amount of community engagement was undertaken during the project. Raising awareness and understanding about the Black Mountain Quarries among local communities and other groups was considered important to identify the quarries as an interesting place for locals and visitors to explore, and to encourage support for and participation in the Calch project. Engagement with heritage professionals was also important in raising awareness about the site among a wider geographical catchment. Numerous Powerpoint presentations were produced at different stages of the project for a variety of lengths of presentation and aimed at a range of different audiences.

Talks in Phase 2

Carmarthenshire Archaeology Day (02/03/13)
Dyfed Family History society (27/03/13)
Brecon Beacons Park Society (17/04/13)
Llandeilo Civic Trust (14/05/2013)
Ammanford and District Probus (23/05/2013)
Rocks Roads and Riots talk (27/05/13)
Mynydd Du Graziers Association (29/05/13)
Buryport U3A (18/06/13)
Welsh Industrial Archaeology Panel, DAT (25/06/13)
Geopark Festival talk at Brynaman (31/06/13)
Brecon U3A (03/10/13)
CBA Wales Symposium (19/10/13)
SDF Presentation (29/01/14)
Gorseinon College (18/02/14)
Ammanford and District Probus (26/02/14)
BBNP Heritage Day (06/04/14)
Brynamman Heritage Group (23/04/14)
Geopark Festival talk at Brynaman (30/05/14)
Trapp Community (04/06/14)
Dyfed Family History society (24/09/14)



Exhibition displays

Pop-up panels and a range of posters describing different aspects of the project, leaflets and other exhibition materials were updated during Phase 2, to help raise awareness of the project at talks and larger events. Calch exhibitions were displayed at several events organised as part of the Calch Project, and also at events organised by project partners and other organisations during Phases 1 and 2. These helped raise awareness about the project, recruit volunteers, engage with the public and develop a mailing list for project news.

Exhibition displays

Carmarthenshire Archaeology Day (02/03/13)
Rocks Roads and Riots (27/05/13)
NAMHO (28-29/06/13)
FBA Weekend (20-21/07/13)
Royal Welsh Show (22-25/07/13)
Dyfed Family History Society event (21/08/13)
Brynaman Heritage event (14/09/13)
Llanelli heritage Festival (17/09/13)
BBNP Heritage Day (06/04/14)
Llangadog Lime Day (07/06/14)
Black Mountain Celebration Day (05/07/14)
National Eisteddfod, Llanelli (09/08/14)
Trail Launch (21/09/14)



National Waterfront Museum, Swansea

The National Waterfront Museum in Swansea also designed a 12 panel exhibition for display at the museum from 6 December 2014 to 26 March 2015. The exhibition covers the general history of limestone extraction in the Brecon Beacons National Park, the uses of limestone, the Black Mountain Quarries, the Calch Project and its community engagement events etc.

Travelling exhibition

The National Waterfront Museum exhibition will also be produced as a travelling exhibition on pop-up displays. This resource will be available to schools, TICs or other organisations and venues that may wish to use it in the future.

Walks and tours

During Phase 2, numerous walks and tours around the Black Mountain Quarries were undertaken as part of larger Calch events and other events such as the Fforest Fawr Geopark Festival. Some talks to groups were also followed up with site tours.

Walks and tours

Brecon Beacons Park Society (20/04/13)

DAT members tour (23/05/13)

Geopark Festival walk (01/06/13)

Welsh Industrial Archaeology Panel, DAT (25/06/13)

Pembrokeshire Industrial Heritage group (11/08/2013)

Brecon U3A (25/04/14)

National Parks Historic Environment Group (14/05/14)

Geopark Festival walk (31/05/14)

Calch summer walk (26/07/14)

Trail Launch 21/09/14)

Several walks and tours were also given as part of CBA festival weekends, schools visits and other events during 2012-14.



Events (Phase 2)

Several events were organised during the project to raise awareness about the project and to engage with local communities and visitors. The Calch Project also participated in other organised events. Local volunteers participated in the organisation and delivery of many aspects of these events. Several of the specialists and other contributors volunteered their time by giving talks and leading tours around the quarries and providing displays and other entertainments. Other participants charged expenses.

Events

Rocks Roads and Riots (27/05/13)

FBA Weekend (20-21/07/13)

Llanddeusant YHA event (08/08/13)

Llangadog Lime Day (07/06/14)

Celebration Day (05/07/14)

Calch project Trail Launch (21/09/14)

Fforest Fawr Geopark Activity Day (28/05/2014)



Other activities and workshops (Phase 2)

Considerable efforts were made to engage other groups in different aspects of the project with varying success. 1st Tycroes Scouts undertook site visits and evening workshops to enable them to obtain their 'Heritage Activity' and the 'Artist Activity' badges while also engaging with their industrial heritage of the Black Mountain. Brecon Young Archaeologists Club also visited the site and participated in other lime-based learning. Heritage and other groups were also engaged through walks and tours.

Community workshops included an introduction to digital media and a family art day (both activities were run in conjunction with local volunteers), and a visit to the Carmarthen Records Office for volunteers to help undertake research for the project.

1st Tycroes Scouts art and heritage workshops (19-22-26/06/13 & 03/07/13)

Introduction to Digital Media 9/7/13

Family art workshop 13/08/2013

Brecon Young Archaeologists Club 12/04/14

Brecon Young Archaeologists Club 10/05/14



Several other organisations and groups were contacted with a view to engaging with them during the Calch Project, but for one reason or another, these did not actually happen. These included: Mencap, Mess-up-the-mess Youth theatre, Community art project, Coleg Elidyr, Llangadog School, Towy Centre, Sculpture Cymru, Mentir Bro Dinefwr, BMC time-banking Scheme.

Community engagement outputs (Phase 2)

- Presentations, talks, exhibitions and displays given to a range of organisations, and groups covering a broad geographical area.
- Working with partners and developing new links with other organisations and community groups.
- A range of Powerpoint presentations developed for talks to various groups and society's, presenting the work of the Calch Project and the history of the Black Mountain Quarries.
- A range of temporary and permanent exhibition materials used to raise awareness about the Black Mountain Quarries and the Calch Project which can also be used in future years.
- A range of interactive materials such as quiz sheets or treasure hunts for people to engage with.
- Photographs of members of the community attending / involved with activities (for publicity and raising awareness).
- Informed and engaged and entertained members of the public.
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- Scouts 'Heritage Activity' and 'Artist Activity' badges achieved
- Over 500 people signed up to Calch mailing list
- Over 20 active volunteers
- Over 80 potential volunteers
- Over 1000 people attended Calch events

Schools outreach (Phase 2)

The DAT CBA Community Archaeology Bursary Placement delivered an ambitious programme of schools engagement with the project and developed an educational resource for use during and beyond the life of the project. Over 400 children from 9 local schools were taken on tours of the quarries to discover about the history of the lime industry on the Black Mountain and the uses of lime etc. Their visits were followed up with a range of class-based activities relating to art, science, history and geography. The tours and class based activities helped design the range of topics and content of the education resource. The following Schools were involved in the education programme.

Dinefwr Home Education Group
Amman Valley School MATS
Penrheol School
Tregib School
Bro Myrddyn School
Llandovery Prep School
Llandeilo CP
Ysgol y Beddol Garnant
Brynamman School



Outputs

- Informed, educated, engaged and entertained members of the public
- Raised awareness of the Calch Project and the Black Mountain Quarries
- Over 400 school children engaged in education programme
- Tycroes School artwork display
- Materials for education resource developed

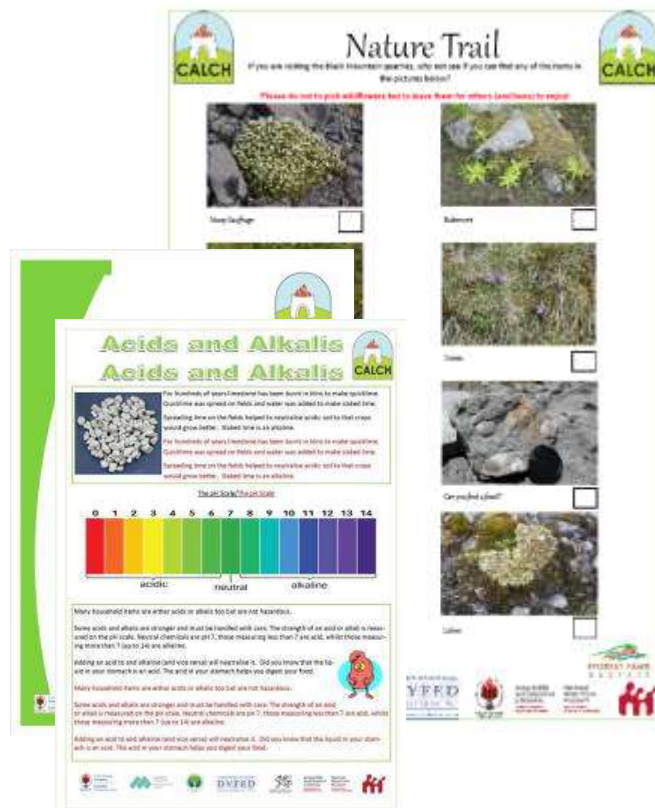
"The way the visit was organised immediately captured the children's interest. They asked questions and were allowed to discover things for themselves...A most worthwhile and enjoyable experience for pupils and staff. Pupils gained much from it; knowledge and understanding improved and a vast range of skills were developed. Excellent."

(Tycroes School teacher)

Education resource (Phase 2)

Following on from DAT's programme of engagement with local schools the project also produced an education resource (available in both English and Welsh) designed to help teachers and home educators use the Black Mountain Quarries as an inspiring location and subject for a range of different learning topics.

The education resource was developed by a qualified teacher to work with key stage 2 and key stage 3, with as many links to the curriculum as possible. The educational packs incorporate teacher's notes and guidance sheets, worksheets and classroom ideas for different aspects of the curriculum including History, Science, Art and design, Geography and English. The educational resource will be downloadable from the BBNPA website and other teaching resource web sites.



Outputs

- Downloadable versions of the documents are available as a pdfs on the website.
- Provided a lasting tangible legacy of the project available into the future.
- Provided a comprehensive teaching package for schools and other educational groups to use.
- Identified the broad educational potential of the industrial heritage of the Black Mountain Quarries in teaching a broad range of subjects.

Volunteering opportunities (Phase 2)

Volunteers from local communities were involved in several practical aspects of the project including excavation and structure recording, litter collection, trail installation and installing picnic benches. Volunteers also helped in the delivery of many of the public events that happened during the project, helping with event set-up, taking visitors on guided tours. Other local people volunteered information and knowledge of use and interest to the project. Several professional and specialists also volunteered their time and services, providing expertise, presentations, displays and entertainments at various events and workshops. Others charged expenses.

Recording structures (11-23/03/13)



Kiln excavations (17-23/5/2013)



Trail preparation
days (15/05/14) (19/05/14)



Outputs

- Informed, educated, trained, engaged and entertained members of the public
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- Data and survey and excavation reports for inclusion in regional HER

Volunteer research (Phase 2)

Following an initial Calch research day (20/03/12), when volunteers were introduced to the archives at the Carmarthen Records Office, several volunteers continued to undertake documentary research on behalf of the project, to gather information that would inform the interpretation material produced for the project and to form part of an archive for the Black Mountain Quarries that will be held in the Regional Sites and Monuments Record. Much of this work was undertaken under the banner of 'Calch Thursdays' when volunteers could drop in to use the facilities at the DAT offices and HER.

The following research was undertaken by volunteers:

- A survey of Census returns to identify workers in the Black Mountain Lime industry.
- A survey of documentation relating to the Llangadog and Llandovery Turnpike Trust.
- A survey of historic newspaper articles relating to the Black Mountain Lime industry and the Rebecca Riots.
- Research into Bricks used in the kilns on the Black Mountain.
- Research into the 'Black Mountain Quarries Lime Fraud'.



Outputs

- Informed, educated, trained, engaged and entertained members of the public
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries
- Resources for interpretation and presentations etc.
- Resources and data for inclusion in the archive.
- Increased understanding of the history of the Black mountain Quarries

Work experience and training (Phase 2)

Young people from Tregib, Bro Myrddyn and Amman Valley and other schools were engaged in the project through work experience programmes with DAT and BBNPA. Other volunteers also gained archaeological experience by undertaking field survey, excavation and recording of kilns and other structures.

Volunteers involved in field survey and excavation received training in and experience of Archaeological techniques and processes etc.



Originally it was intended to involve participants in the Towy Centres Traditional Building Skills Bursary Scheme in the site safety and access works in the Black Mountain Quarries, but in the event, this was not possible.

Outputs

- Informed, educated, trained, engaged and entertained members of the public
- Raised awareness of the Calch Project
- Raised awareness of the Black Mountain Quarries

Marketing and publicity (Phase 2)

A marketing strategy was commissioned as part of Phase 2 of the Calch Project. The majority of the recommendations were followed as much as was possible during the project, but further publicity and awareness raising will also occur beyond the grant funded period of the project by the partnership organisations.

The following publicity was produced during the project:

Site works information board



An information board about the project was displayed during on site works.

Event display and exhibition



The event display and poster exhibition was used at several events throughout the project, including:

- Carmarthenshire Archaeology Day (02/03/13)
- Rocks Roads and Riots (27/05/13)
- NAMHO (28-29/06/13)
- FBA Weekend (20-21/07/13)
- Royal Welsh Show (22-25/07/13)
- Dyfed Family History Society event (21/08/13)
- Llanelli heritage Festival (17/09/13)
- BBNP Heritage Day (06/04/14)
- Llangadog Lime Day (07/06/14)

Black Mountain Celebration Day (05/07/14)

National Eisteddfod, Llanelli (09/08/14)

Event posters

Posters for all events were produced for distribution around the area surrounding the Black Mountain, and sent out as mail shots to the mailing list etc. to raise awareness and publicise events.



TV

Items on the Calch Project and the Black Mountain Quarries were featured on the S4C magazine programme *Prynhawn Da* in 2013 and 2014. (14/10/2013) (24/09/2014).

Radio

BBC Radio Wales 'Country Focus' featured a half hour programme on the Calch Project and the Black Mountain Quarries (broadcast 03/08/2014).

The Calch Project and the Black Mountain Quarries featured in a programme on the Dei Thomas Show on BBC Radio Cymru (broadcast 10/08/2014).

On line

The launch of the Black Mountain Quarries Trail featured on BBC and ITV websites.



Magazines and newsletters

Geopark newsletter. Three updates on the Calch Project appeared in this publication.

Press Coverage - Articles about CALCH appeared in the Carmarthen Journal (25/01/2012) and the South Wales Guardian (08/02/2012), with a mention on Radio Carmarthenshire. A welsh language article also appeared in Glo Man community magazine. Articles also appeared in the 'Geopark Newsletter', 'Interpret Wales', 'The Post' and The DAT Newsletter.

The Calch project has featured in the DAT Newsletter.

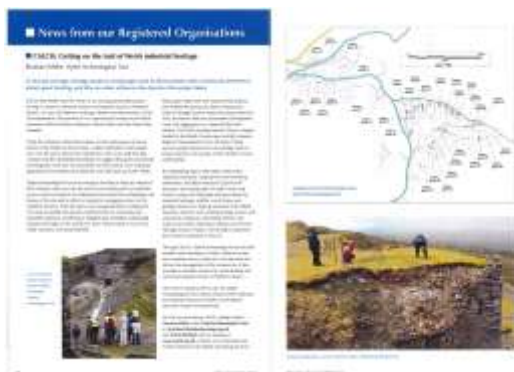
The Post. Articles publicising the Calch Project and the Black Mountain Quarries appeared in this local news magazine (July 2012, May 2013 and May 2014 editions).



Article in "Interpret Wales"



"Heritage in Wales" Spring 2012



Magazine "The Archaeologist" (Spring 2013)

- The Calch Project and the Black Mountain Quarries feature in : Quarrying industry in Wales- a history by Ian A Thomas

Newspapers

The Calch Project features in several newspaper articles promoting the project and various events etc.

South Wales Guardian (08/02/12)



Carmarthen Journal articles

(15/05/2013)



(04/07/2012)



03/09/2014



Leaflets flyer and booklet

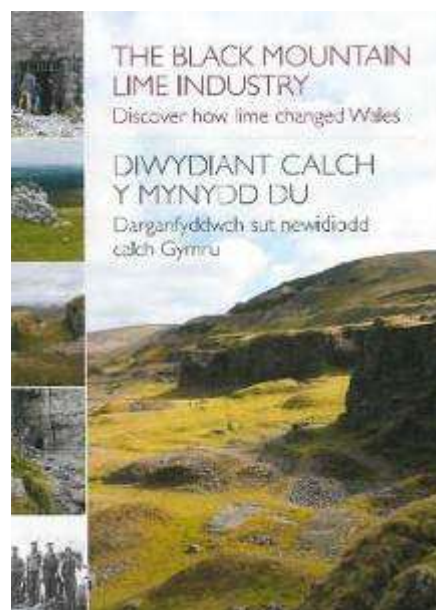
A bilingual flyer has been produced to provide publicity for the trail, and sources of additional information.



A bilingual leaflet has been produced to guide visitors to and around the quarries. These will be distributed to regional TICs by BBNPA and other tourism promoters in the area.



A booklet has been produced that provides an in depth history of the Black Mountain Quarries. The Booklet is aimed at a general public audience and as a resource for schools. It will be distributed to Heritage organisations, Schools, TICs and to participants in the Calch project and for distribution to and for other tourism organisations.



- The Black Mountain Quarries will feature in a forthcoming BBNPA Aman/Twrch promotional leaflet

- **Web sites**

The Calch project website contains news and information about the project, and information about the history and other aspects of the Black Mountain Quarries. At the end of the project the website will be hosted by the DAT website, as a source of background information for those wishing to discover more about the background history of the Black Mountain lime industry etc.



Youtube

A Youtube video has been produced to publicise the Black Mountain Quarries.



Pages have been produced for the Brecon Beacons 'visitor' website (breconbeacons.org)

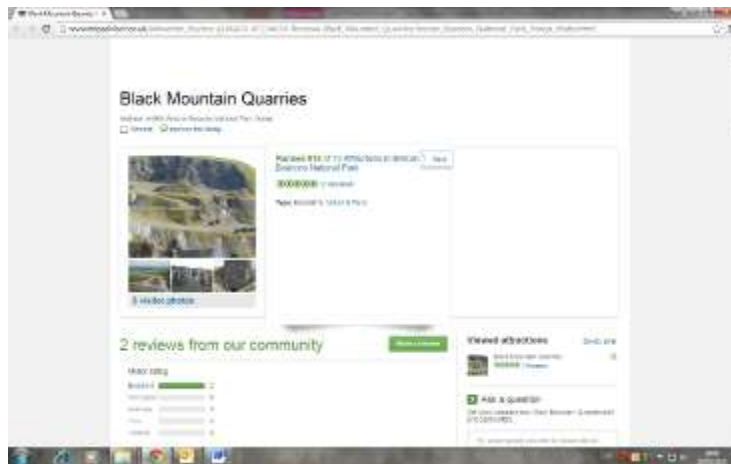
This site is the primary source for information about visiting the Black Mountain Quarries, Follow the story, leaflet, booklet, and audio trail app downloads etc and links to other resources and information sources.

<http://www.breconbeacons.org/blackmountainquarries>



Tripadvisor

A tripadvisor entry has been created for the Black Mountain Quarries



Cadw web site

The Black Mountain Quarries is publicised on the Cadw website, with links to the BBNP website.

Social media

The Calch project has featured regularly on the DAT Facebook and Twitter sites:

Facebook - <https://www.facebook.com/pages/Dyfed-Archaeological-Trust/102613443129892?fref=ts>

Twitter - <https://twitter.com/DyfedArch>

and also at:

<http://hspheritage.com/calch-fieldwork-diary/>

Follow-on marketing and publicity

It has not been appropriate to publicise and market the Black Mountain Quarries Trail until all the relevant aspects of the project were completed (Brecon Beacons.org website, booklet, leaflet and flyers, Black Mountain Centre display etc.)

The Quarries will continue to be publicised and promoted beyond the grant funded period, by the BBNPA and other tourism organisations.

Mailing list

Throughout the project a mailing list has been compiled which will be used to publicise the existence of the Black Mountain Quarries as a visitor destination and the various resources and sources of information generated by the project.

Tourism Ambassadors

A training event for Geopark and BBNP tourism Ambassadors will be held in 2015 to raise awareness of the Black Mountain Quarries among tourism providers in the area.

Teacher Inset day

An inset day to raise awareness of the education resource will be held in 2015.

Integration of results into HER

The paper documents, digital documents photographs and other materials produced during the Calch project will be archived at the Dyfed Archaeological Trust as part of the publically accessible Historic Environment Record. In addition, the project website which presents information about the history of the lime industry on the Black Mountain as well as a summary record of the project will be maintained as part of the Fforest Fawr Geopark website.

Outputs

- A paper and digital archive of the Calch project held in the regional HER.
- A publically accessible resource containing the reference material and archaeological reports and records generated by the Calch Project.

PROJECT MANAGEMENT

Project Board – responsible for overall direction and management

Senior user - Judith Harvey (BBNPA)

Executive - Louise Austin (DAT)

Senior supplier - Ken Murphy (DAT)

Additional involvement as required from NMW, BMC and Cadw.

Project manager and Team manager – responsible for day to day management

Duncan Schlee (DAT)

Implementation Group

Two 'Stakeholders' meeting were held with representatives of all of the project partners, and other interested bodies and organisations including CCW, RCAHMW, Treftadaeth Brynman, Local Councillors, etc. The first meeting was at the beginning of February 2012 at the Black Mountain Centre, and the second at the end of September 2012.

Team meetings

Regular team meetings were held throughout the project.

Minutes of meetings, progress reports and other management documentation form part of the project archive.

Monitoring and evaluation

A car counter has been installed at each of the car parks at the Black Mountain Quarries.

People counters have been installed in two locations along the trail. Data has been recovered from these devices during 2013-14 and will continue to be collected by BBNPA for a further 5 years in order to monitor visitor numbers to the Black Mountain Quarries.

THE CALCH PROJECT

FINAL REPORT

DYFED ARCHAEOLOGICAL TRUST

RHIF YR ADRODDIAD / REPORT NO. 2016/3
RHIF Y DIGWYLLIAD / EVENT RECORD NO.106563

Ionawr 2016
January 2016

Paratowyd yr adroddiad hwn gan / This report has been prepared by:

Duncan Schlee

Swydd / Position: **Project Manager**



Llofnod / Signature

Date: 26/01/2016

Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith
This report has been checked and approved by

ar ran Ymddiriedolaeth Archaeolegol Dyfed Cyf.
on behalf of Dyfed Archaeological Trust Ltd.

Swydd / Position:

Llofnod / Signature Date:

*Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau
sydd gennych ar gynnwys neu strwythur yr adroddiad hwn*

***As part of our desire to provide a quality service we would welcome any
comments you may have on the content or presentation of this report***



