

# Dig Blacon: Health Evaluation



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# Dig Blacon: Health Evaluation

## Introduction

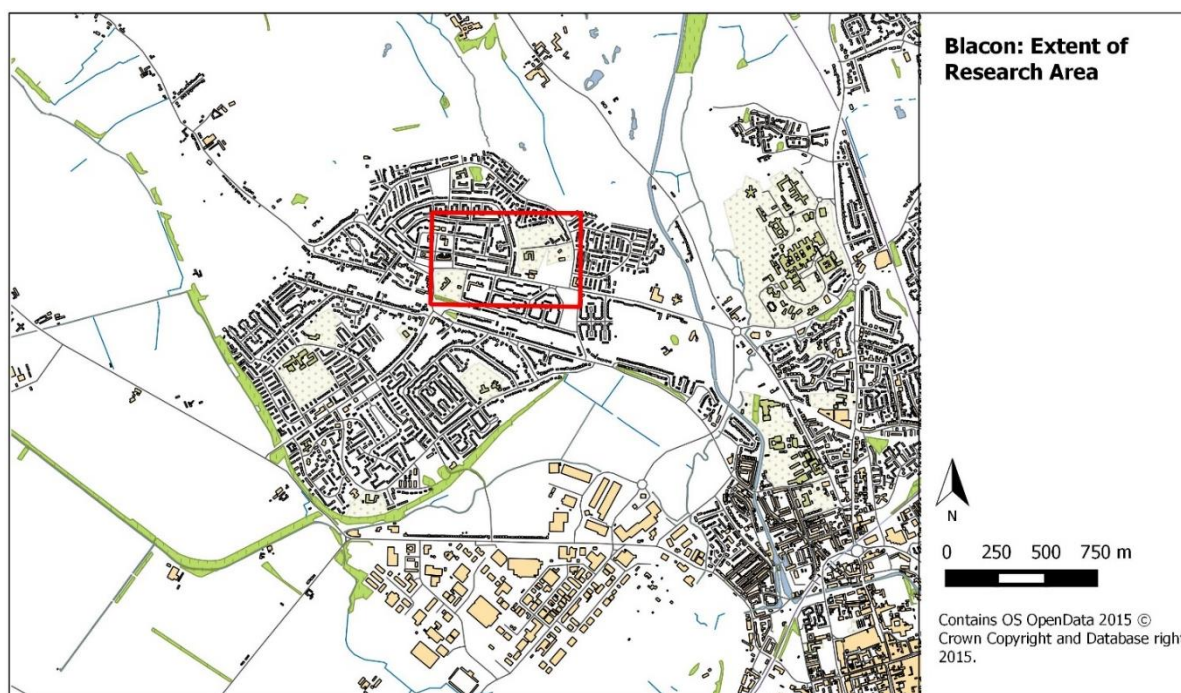
Dig Blacon was a community health and wellbeing project using archaeology as a tool for engaging residents of Blacon with gentle exercise, fresh air and social activities designed to appeal to a wide spectrum of people, but particularly focussing upon physical activity amongst young people and addressing social isolation amongst older people.

Throughout September and October 2015 Big Heritage's team of archaeologists oversaw a range of activities, such as digging trenches, processing and identifying finds, geophysical survey and a multitude of other training opportunities. From November to April 2016 Big Heritage then compiled the archaeological report documenting the results of the investigation and prepared the archive for deposition with the local museum. The results of which are available at [bigheritage.co.uk](http://bigheritage.co.uk).

This project was funded by Cheshire West and Chester's Public Health Team, who recognise that archaeological projects are a good source of gentle exercise and a means of tackling issues of social isolation amongst members of the community.

Dig Blacon focussed on activities around St Theresa's Catholic Primary School and the surrounding area, as this spot is one of the oldest documented parts of Blacon, being home to Blacon Hall built in the eighteenth century. Documentary evidence notes that the area known as *Blacon cum Crabwell* was inhabited at the time of Domesday (AD 1086), as it is mentioned in this famous historical document. It states that the inhabitants were involved in farming and fishing.

This area is also a focus for the local community, as the school, church, community centre and children's adventure playground are all located within the proposed research area (See Fig. 1).



*Fig. 1: Dig Blacon Research Area*

The documentary records provided enough information to suggest that earlier activity might be discovered on the site and was, therefore, a good location to undertake archaeological research and the modern community focus suggested that this was an ideal location to engage the local residents and undertake communal activities.

## Background

This is the first project in the UK where archaeology has been specifically commissioned by a Public Health Team to provide direct and indirect improvements to health and wellbeing. However, there have been a number of projects in the UK that have seen direct health benefits through heritage and or archaeological interventions.

### Past in Mind

A recent publication from Dr Katherine Lack, explores the heritage and mental health outcomes of a project called 'Past in Mind' – specifically using archaeology as a tool for supporting recovery from mental health issues (Lack, 2014).

The participants, mostly volunteers and many of whom had experienced mental health difficulties, collaborated to uncover the story of deserted medieval village. At the same time, they were able to draw many parallels with their own past lives. The project was set in rural Herefordshire, and the hidden and under-resourced nature of our understanding of the past in this corner of England had many resonances with the wider implications of mental health care. It delivered important heritage outcomes, and proved there could be a synergy and catalyst between historical research and mental health recovery.

### Operation Nightingale

Operation Nightingale derived from an identified and growing need for some form of occupational therapy and recovery from injured soldiers returning from the conflict in Afghanistan. An amateur archaeologist on the medical team had recognised that archaeology had many elements that could help address some of the complex needs of these soldiers and addressing the ailments that they were exhibiting.

A project, codenamed 'Operation Nightingale' was developed to utilise both the technical and social aspects of field archaeology to help in the recovery and skill development of soldiers injured in the conflict in Afghanistan. There is a close correlation between the skills required by the modern soldier and those of the professional archaeologist. It also allowed the rehabilitation of soldiers suffering from mental health issues borne out of their experience of conflict.

### Big Heritage

Based on previous archaeological and heritage based projects undertaken by Big Heritage (e.g. Discovering Brombrough and Wirral through the Ages), we recognised the positive health and wellbeing benefits each project had for participants. However, these benefits were only recognised as the projects progressed and were not evaluated through qualitative or

quantitative data gathering. Big Heritage wished to devise a pilot project that allowed us to gather this information and explore the best methods for doing this. With the support of Chester and Cheshire West's Public Health Team Dig Blacon was devised to pilot this idea.

## Project Aims

The overarching aim of Dig Blacon was to offer an innovative means of gentle exercise combined with social and learning opportunities to enhance wellbeing amongst participants, whilst using archaeology as a tool to enhance community spirit.

The aims of the project were as follows:

- An increase in the amount of older isolated people (particularly men) engaging in social and health-related activities.
- Participants will have experienced improvements in physical and mental health – with baseline surveys allowing us to monitor these outcomes.
- Pilot evaluating health and wellbeing benefits through quantitative and qualitative analysis. Followed by the identification of what works and what can be improved upon.
- At the end of this project Big Heritage anticipated that there will be a greater understanding and appreciation of the history of Blacon amongst the local community, with more people and a wider range of individuals having engaged with their local heritage.
- This will lead to a greater sense of community pride, cohesion and sense of place amongst participants.
- Create an online legacy, where people are able to access the videos created by the project and volunteers and download photographs and information, including the archaeological report.



## Monitoring Physical Activity

Whilst monitoring the activity of all participants was beyond the scope and budget of the project, we tracked four individuals to monitor their steps, heart-rate and calorie burn throughout different archaeological activities. This allowed us to get a snap-shot of activity levels and potential health benefits.

### Geophysical Survey: 25<sup>th</sup> of August 2015

Geophysical survey allows archaeologists to 'see' under the soil by a variety of scanning tools which must be walked or pushed around an open site. It requires participants to physically walk up and down in grid lines and carry equipment of varying weight (Fig. 2).



*Fig. 2: Participants undertaking geophysical survey as part of the Dig Blacon Project.*

To see the Dig Blacon geophysical survey underway please visit:  
<https://vimeo.com/139201489>

We tracked two volunteers on the survey day to monitor their activity rate. All activity data was captured with FitBit Charge HR wristbands which had been personalised to include the

age, height and weight of the individual user. These devices also monitor heart-rate, so calorie expenditure is not solely reliant on step counting for accuracy.

#### Volunteer One

- Female
- 51 years old
- Height: 5' 4"

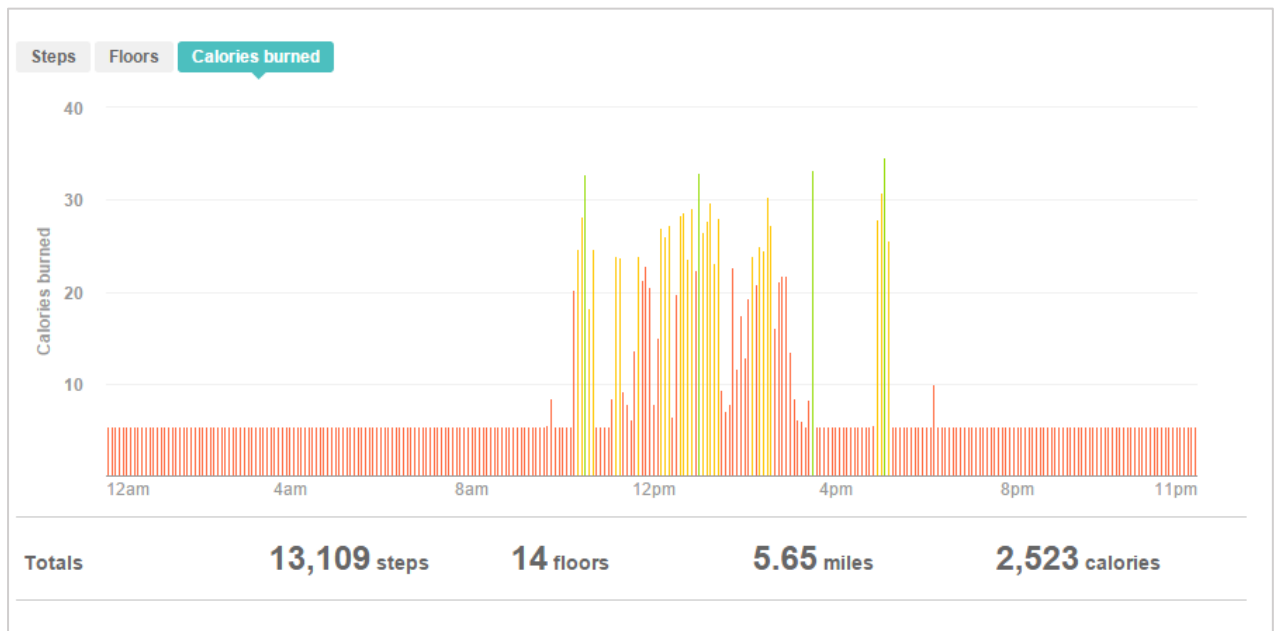


Fig. 3: Results from FitBit tracking

#### Volunteer Two\*

- Male
- 55 years old
- Height 5' 9"

Total Steps: 14,202

Total Distance 6.23 miles

Total Calorie expenditure: 2103

\*Information provided from private FitBit account.



## Test Pitting Day: 13<sup>th</sup> September 2015

Test pitting is often used alongside other forms of archaeological investigation to test for the presence of sub-surface archaeology. Test pits can vary in size from 1m and 2m squares to 5m squares. They are usually excavated by hand and the contents of each pit is usually passed through a sieve to maximise finds recovery. It requires physical exercise both during the excavation, the sieving and the eventual filling-in and re-turfing of the test-pit (a 1x1m<sup>2</sup> test pit requires the excavation *and* backfilling of between 1.2 and 1.7 metric tonnes of soil).



*Fig. 4: Volunteers and pupils participating in test pitting activities*

To see an example of the process please visit: <https://vimeo.com/70215277>

### Volunteer One

- Male
- 22 years old
- 6'

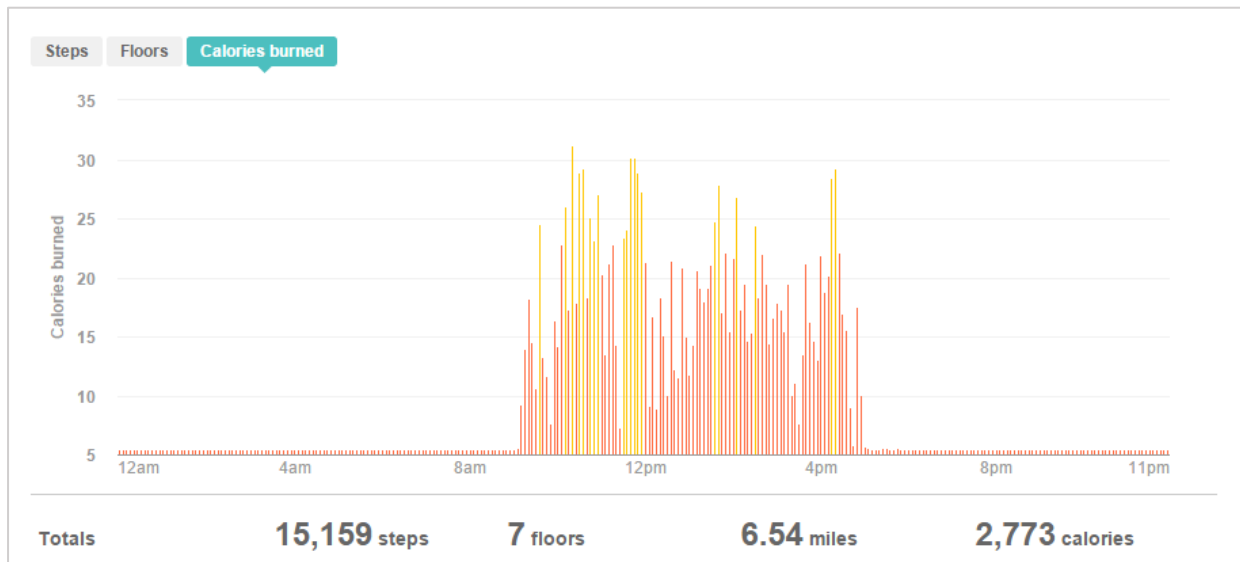


Fig. 5: Results from FitBit tracking

### Volunteer Two

- Female
- 30 years old
- 5' 6"

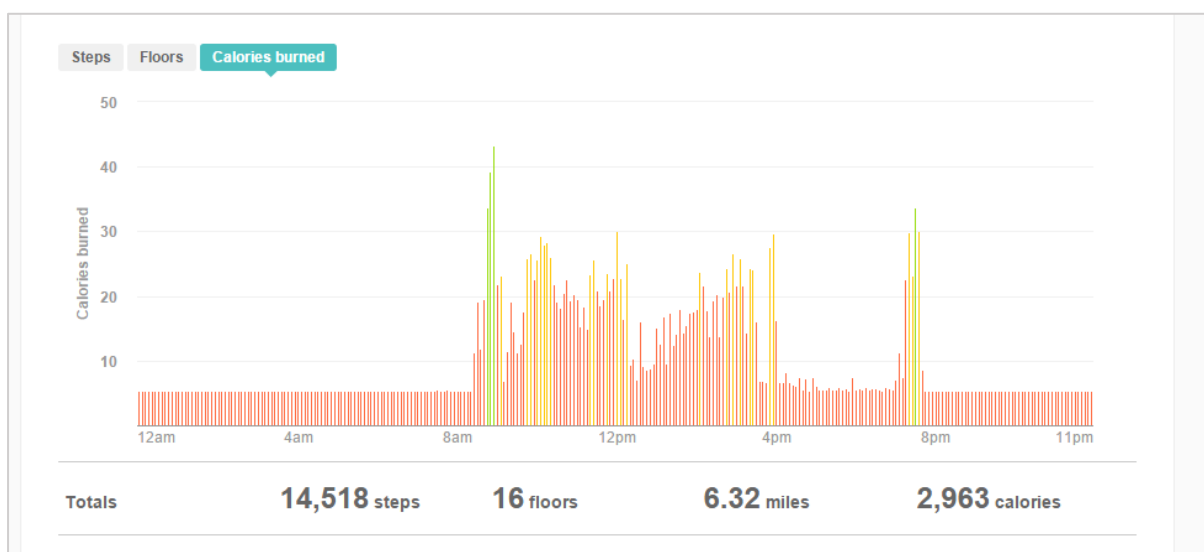


Fig. 6: Results from FitBit tracking

## Conclusion

Volunteering in a community archaeology project requires physical exertion on the part of the individual. A base level of mobility is required, but crucially, there is no prerequisite level of fitness needed to take part, as volunteers of varying levels of fitness worked up until their own levels of perceived exertion.

Based on the results documented above, for both the test pitting and geophysical survey, archaeological activities clearly encourages gentle exercise over a prolonged period of time leading to significant calorie burn and elevated heart rate.

## Social Wellbeing

Over 1466 volunteer hours were logged by over 100 community volunteers over the life of the project and 400 school children and staff. These hours were spread across a range of activities, from physically excavating soil, to washing finds in a 'tea and biscuits' environment designed to encourage social interaction over a practical task.

We placed a heavy emphasis on the social element of the work to encourage individuals to see how they could usefully participate when they were unable to physically take part in the excavation process. This provided opportunity for already established activity groups, such as Here and Now Chester to offer their members a new and interesting activity.

Big Heritage approached a number of local groups, some specifically geared toward improving individuals health and wellbeing. As members were participating in day activities we asked team leaders to provide qualitative feedback.

## In their words: Here and Now Social Group for Older People

*“Here and Now Social Group for Older People became involved with Big Heritage big dig after staff and volunteers attended a test pit dig followed by a very informative session to members, volunteers and staff of the group. It was very interactive with many of the members discussing and imparting their memories of Blaenau and discussion on some of the finds.”*

**Karen Smith, Service Leader**



Fig. 7. Here and Now members, staff and Big Heritage

In their words: Tier 4 Inpatient CAMHS, Pine Lodge and Maple Wards:

*“Well it was a lovely sunny Sunday and we were in a school playing field in Blacon about to start on an archaeological project organised by Big Heritage. We had been invited to participate by Jo Kirton and were very much looking forward to this community project. The young people were a bit apprehensive at first, not sure what to expect. But we were soon put at ease meeting Alison our archaeologist for the day. She was extremely friendly and relaxed and soon got the young people digging the trench for the days excavating.*

*As we are an inpatient mental health ward for 13-18 year olds, we staggered the sessions and brought different young people down in shorter slots, this enabled us to bring young people from both our wards, Maple and Pine lodge. The young people were able to do everything, from digging the trench, looking for finds, sieving and then at a later date washing the finds.*

*We were made to feel very welcome and the young people really enjoyed learning lots of new skills, they had loads of questions for Alison who was incredibly patient and answered endless questions about Canada her home country. The young people commented on how great it was to be out in the fresh air and learning something very new with other people, and felt like any other member of the community, it was a great way to challenge stigma and break down barriers.*

*We also received a visit from Jo and Rob who came to the ward, bringing the objects from the dig for our young people to wash, which helped demonstrate what happens after the dig is finished. We hope to be involved in lots of projects with Big Heritage in the future, thank you to all who made this possible.”*

**Clair Josting Moulder, Participation Lead Pine Lodge and Maple Ward**



## In their words: Gorse Hill Homeless Families

*“We were really chuffed when Big Heritage offered to come and talk to us at Gorsehill Homeless Families unit, about their community archaeology project going on in the locality. It was really something different for our residents, a third of the unit assembled in our communal area, impatiently waiting for Karen to arrive, and plied her with questions relentlessly.*

*She brought along some finds to show them, and rather than give a talk (with its overtones of the classroom which may have been alienating), she just sat down with them and had a conversation about archaeology. Two of the residents made a point of coming telling me afterwards how interesting they had found it, and hopefully it will entice them to get out in the community and try it for themselves” in the future, now they realise that archaeology is something that is accessible to them. Thanks Big Heritage!”*

**Maxine Bailey, Project Officer at Muir Group Housing Association**

## In their words: Blacon Children's Centre:

*As part of our role as Early Year's Worker's we aim to engage local families with children under 5 in positive activities that promote learning and development. As part of our role we wanted to use the dig as an engagement activity, for families who we wanted to bring into the centre and who were due to start our targeted groups in the upcoming months. We also joined up with Tinies Nursery, who are attached to the children's centre and they brought out some of their 2 and 3 year olds along to join in the activity!*

*During the dig it was clear that it was a successful day that was enjoyed by all. Many children simply loved digging and observing what they found and sharing it with Karen. This became a routine for them and soon we could hear little voices shouting 'Karen!' when they had found something. Many of the parents also got really stuck in and were intrigued by what they found, asking questions and discussing what they had seen on Time team!*

**Tammy Gibson, Early Years Worker, CWaC**

Some of the feedback comments we received from families were:

*'Really good experience, glad to have been given the chance.'*

*'Interesting to see what was in there.'*

*'Enjoyed playing in the mud and the archaeology, thanks for the experience.'*

*'He loved getting dirty at the dig. It was a lovely activity for him.'*





In their words: The Arches Primary Community Primary School:

*Thank you so much for allowing us to take part in the 'Big Dig'. The children had a fantastic time and learned a lot about archaeology and the value of archaeology in finding out about the past.*

**Rebecca Challinor, Deputy Head**

*'We really enjoyed taking part in the Big Dig. We got to be archaeologists for the day! We learned what an artefact is and how they can tell us about the past. During our Big Dig session we found different artefacts including coins and pottery. Once we had cleaned our findings we recorded what we had found and its location. We would love to do it again and would definitely recommend it to others!'*

**Year 5**



*Fig. 10: Year 5 excavating with Big Heritage staff*

## In their words: St Theresa's Catholic Primary School

*"Big Heritage spent three days in total at our school and with each day they inspired more and more children with their activities and enthusiasm for their work. Big Heritage worked with the community first, mapping out our field. This was a huge success and the children and families had nothing but praise for all involved.*

*On the other two days the Big Heritage and their staff turned our children into archaeologists for the day, they brought knowledge and excitement to the children and taught them the three different stages of a dig. The digging, the sieving and the washing. They taught the children about the importance of historical finds and how the finds teach us about what has happened in the area in the past. The new National Curriculum states that 'the pupils should gain knowledge and understanding of Britain's past. It should inspire children's curiosity to know more about the past.' This project certainly did that. The children are inspired to learn about their community and discover what was here in the past.*

*This project has brought history alive for our children. They are still making 'finds' and discussing them in the playground and at home a week later. They are excited about history, this is a project that they will remember for the rest of their lives."*

**Nicola Sowerby, History co-ordinator**



*Fig. 11: Pupils, family and staff at St Theresa's*

## Participant Survey

Participants over the age of 16 were invited to take part in a post-activity survey, which gave us some indication of the health and wellbeing experience of Dig Blaen, as opposed to their general interest in history and archaeology.

The survey results, although taken from a relatively small cross-section, indicate that a wide ranging age group took part in the activities provided, and that it was appealing to both sexes, but with a female majority.

Almost all participants saw archaeology as a means of undertaking physical exercise and almost all saw benefits to their social wellbeing as a result of taking part, with 92% of those surveyed believing that it gave them an opportunity to socialise and meet new people.

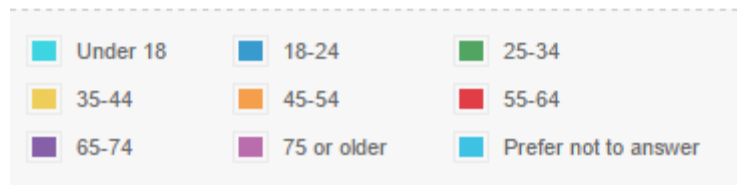
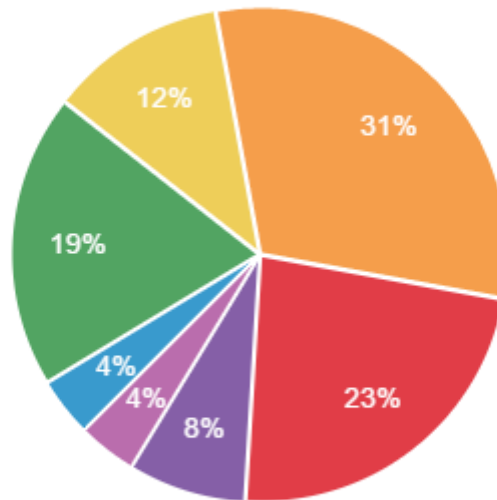
Three quarters of respondents also stated that they thought the project helped maintain and/or generate positive community spirit and over half of all surveyed agreed that it encouraged interaction between different groups within the community both of which are key issues faced by people who often feel isolated within their own local communities and/or disengaged from certain sub-groups within the wider community.

All of the surveyed participants wished to take part in similar activities again.



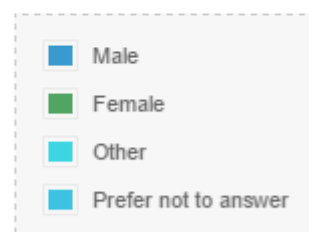
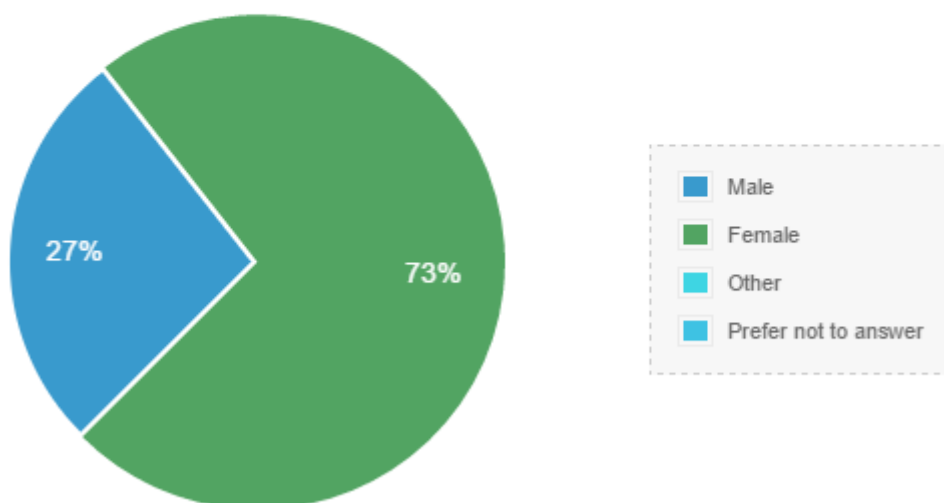
## What is your age?

Answered: 26 Skipped: 0



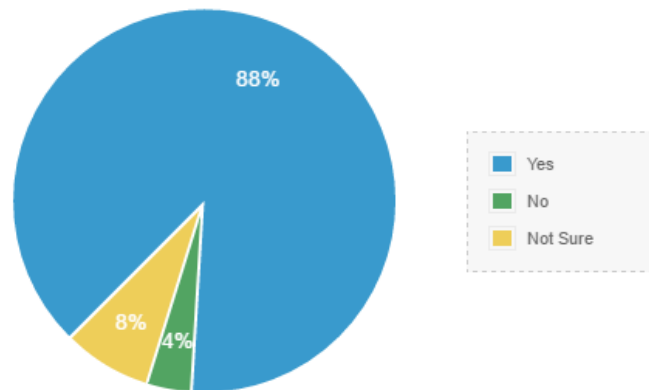
## What is your gender

Answered: 26 Skipped: 0



## Do you feel that Dig Blacon offered an introduction to or additional opportunity to partake in gentle exercise?

Answered: 26 Skipped: 0



### Comments on exercise:

Just the physical effort of digging. I was keen to get involved with the digging even though it was something I wouldn't choose to do at home.

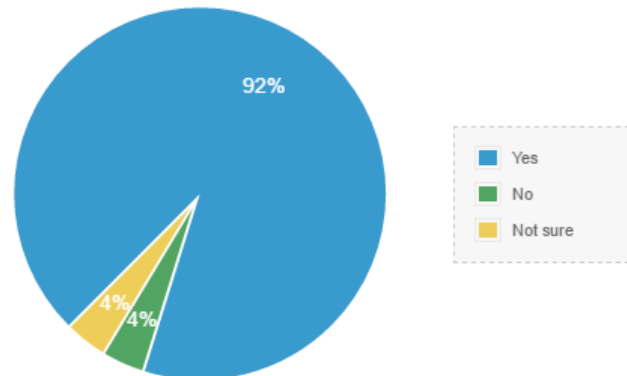
I had more confidence and spending quality time outdoors greatly improved my general wellbeing. Plus the gentle exercise really did give me more energy and helped me to feel uplifted as a result. I really enjoyed meeting new people and socialising with people from a range of backgrounds. This was a fantastic project to be involved in.

It is an enjoyable means of spending time out in the fresh air (test pitting - all the anticipation of fishing none of the cruelty), provides a general focus for people to engage together (community building through joint projects), be sociable (or not, depending how you are feeling at the time), likewise finds washing, nice thing to do sitting round a table and have met pleasant people in Blacon wouldn't have met with normally

I have just retired so the project was hopefully a good introduction to an active retirement. Both mental and physical

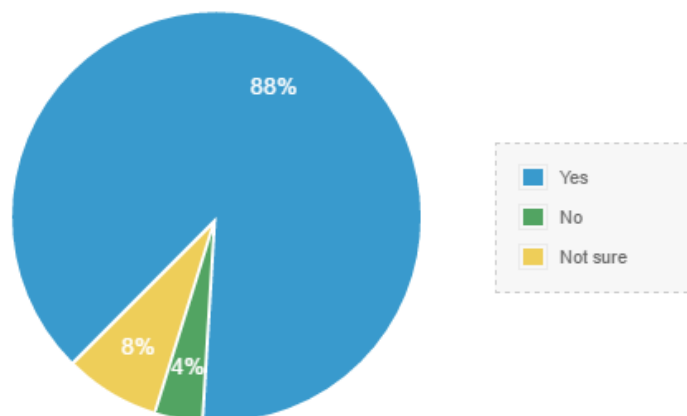
Do you feel that Dig Blacon offered an opportunity to socialise that had a positive impact on your health and/or wellbeing i.e. did it make you feel better?

Answered: 26 Skipped: 0



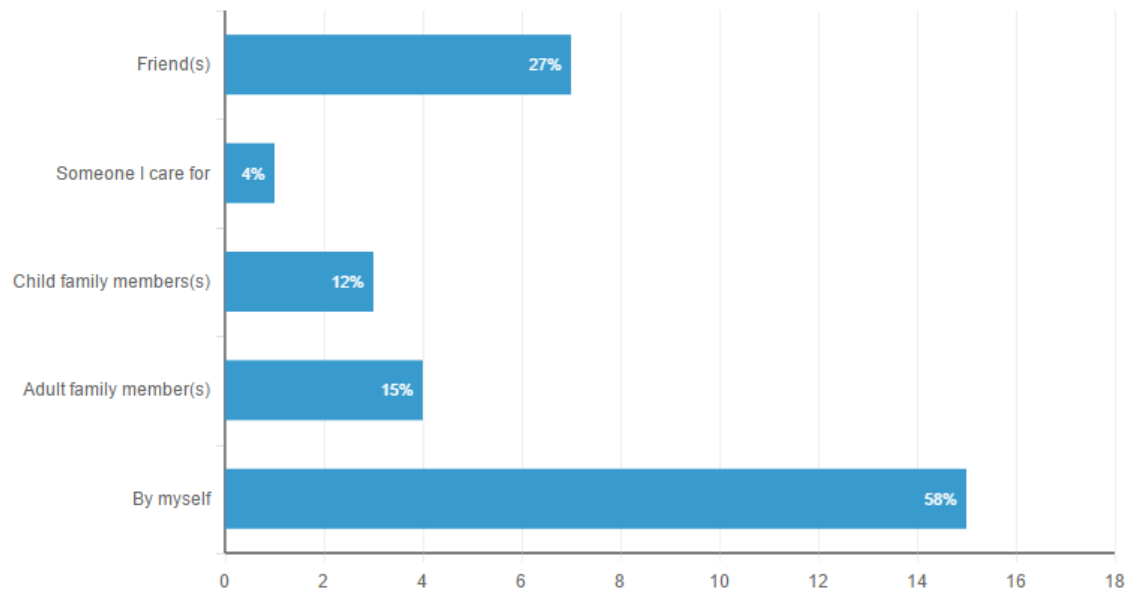
Did you learn any new skills or information during your involvement with the project?

Answered: 26 Skipped: 0



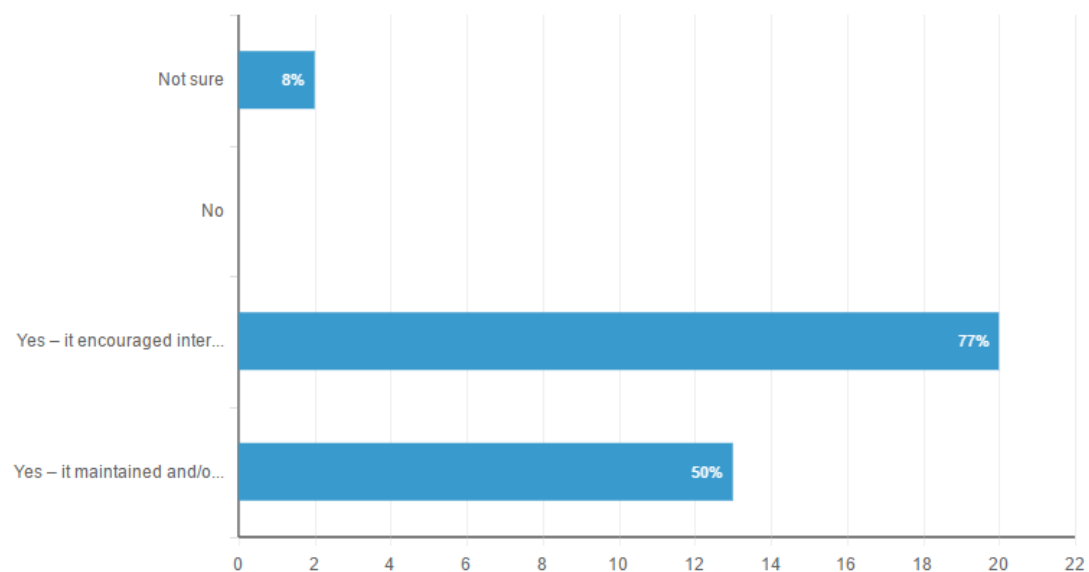
Did you participate in the project with friends, family and/or someone you care for?

Answered: 26 Skipped: 0



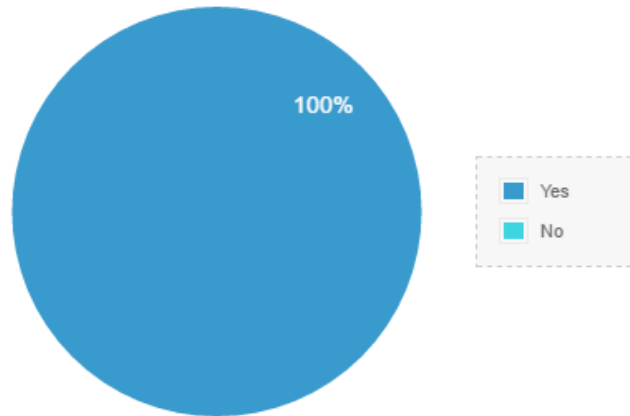
Do you think the project helped maintain and/or generate positive community spirit and encourage interaction between different groups within the community.

Answered: 26 Skipped: 0



Would you be interested in participating in similar projects in the future?

Answered: 26 Skipped: 0



## Future Research

Dig Blacon, based on both the qualitative and quantitative feedback discussed above, made a positive impact on people's health and wellbeing. Big Heritage were able to document this across approximately 30% of the projects volunteers.

Big Heritage would recommend undertaking similar evaluation across a larger group of participants over a longer period of time. This would include FitBit monitoring (or something comparable) to gather exercise statistics for a cross section of ages, fitness levels and genders. Big Heritage would also recommend providing greater direction to stakeholders completing qualitative feedback to ensure we understand the needs of particular groups and specifically note how certain activities were beneficial to particular groups and learn which activities might be better employed elsewhere.

One issue the evaluation noted was the matter of monitoring people's health and wellbeing over a *sustained* period of time, as many volunteers turned up to events on an ad hoc. basis. Based on this, Big Heritage believes that two different types of evaluation would be beneficial. The first would be the type used on Dig Blacon. The second would monitor a group of individuals who were committed to undertake different activities over an agreed fixed period of time. The latter type of engagement and monitoring would potentially offer a greater insight into the health and wellbeing benefits of archaeological activity on specific individuals, potentially with particular health related conditions, by producing a greater body of data related to a specific individual, which can then be compared and contrasted with others.

In addition, through Dig Blacon, Big Heritage have developed strong ties with a number of organisations and we will seek to develop activities and forms of evaluation based on the needs of specific groups. For example, Big Heritage have returned to the Tier 4 Inpatient CAMHS, Pine Lodge and Maple Wards to work with service users on their own projects. This will allow us to improve our activities portfolio, providing more nuanced approaches and means of evaluation. Big Heritage will also seek to work with health professionals to build upon the results of Dig Blacon, developing appropriate evaluation and dissemination strategies. These outputs will be disseminated so others can build on this work.