

# LA COTTE DE ST BRÉLADE

## Conservation Statement

Dr Peter Chowne



Revised June 2018

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# INTRODUCTION

This Conservation Statement was commissioned by Jersey Heritage and prepared by Dr Peter Chowne in June 2013. In April 2018 the Société Jersiaise, owners of the site, leased it to Jersey Heritage who have embarked on a project to stabilise the cliff face and protect the in situ sediments from further erosion. During the five years since the production of the Conservation Statement further remedial work has taken place. A major monograph reporting on the work carried out between 2009 and 2011 is currently in press. Several thematic papers based on this research have been published. In 2014 the Société Jersiaise produced an internal strategy report and Conservation Statement (Renouf 2014). The policies set out in this document are those presented in the 2013 draft. The internal report was published in an adapted form in 2015 (Renouf 2015). As a result of these developments Jersey Heritage have commissioned a revision of the 2013 Conservation Statement.

The purpose of the Conservation Statement is to identify the significance and values of the site. From this understanding policies that inform the protection, conservation and management of the site are proposed. These are intended to form the basis upon which a common understanding and thereby agreements about the future, conservation and management of this internationally important and complex site can be reached.

The Conservation Statement is a first stage in a management plan, acting as the assessment stage, whereas the management plan focuses on the action that needs to be taken. Management plans provide the means for establishing an appropriate balance between the needs of conservation, research, access, interpretation and the interests of the local community and visitors. The key stakeholders in La Cotte de St Brélade are the Société Jersiaise, the National Trust for Jersey, Jersey Heritage Trust, States of Jersey and the Quaternary Archaeology and Environments of Jersey Project.

The research that informs the Conservation Statement is based on published information available on the site, and limited archival sources. It was not possible within the time limits of a Conservation Statement to undertake an extensive archival search. The site was visited in April 2013 with representatives of

Société Jersiaise and the Quaternary Archaeology and Environments of Jersey Project. A second site visit took place in July 2017.

Investigations of La Cotte de St Brélade and on the foreshore have been intermittently taking place since the late 19th century. These are described in varying levels of detail, including short notes, papers in academic journals, books and in the 21st century, weblogs and websites. Recent research has also featured in television programmes and related lectures can be viewed on the Internet. Records of the early investigations are housed in the Lord Coutanche Library of the Société Jersiaise. A considerable number of the photographs that form part of the Société's collection have been digitised and can be viewed on their website. The large collection of lithic and faunal material in the site archive has not been examined as part of this study. Future research on the archive may impact on our understanding of the site and its significance. The conservation statement should be considered as a document that will require periodic review to take account of new discoveries and advances in Pleistocene studies.

The area of study for the Conservation Statement is the Listed Place as defined in the States of Jersey Schedule of Listed Buildings and/or Places. It therefore includes a 18th century gun battery with magazine/gunners room on Portelet Common (BR0361), the promontory above La Fentiere natural arch, the Cotte de St Brélade rock shelter and the foreshore (BR0255). It is also a Geological Site of Special Interest (GSSI0003) and an Ecological SSI (Portelet ESSI0005). This Conservation Statement is concerned only with the area as defined by reason of its geological and archaeological interest (figs. 1 & 2).



Figure 1:  
Location of  
La Cotte de  
St Brélade  
from the  
west

©Chris  
Brookes Aerial  
Photography

1 INTRODUCTION

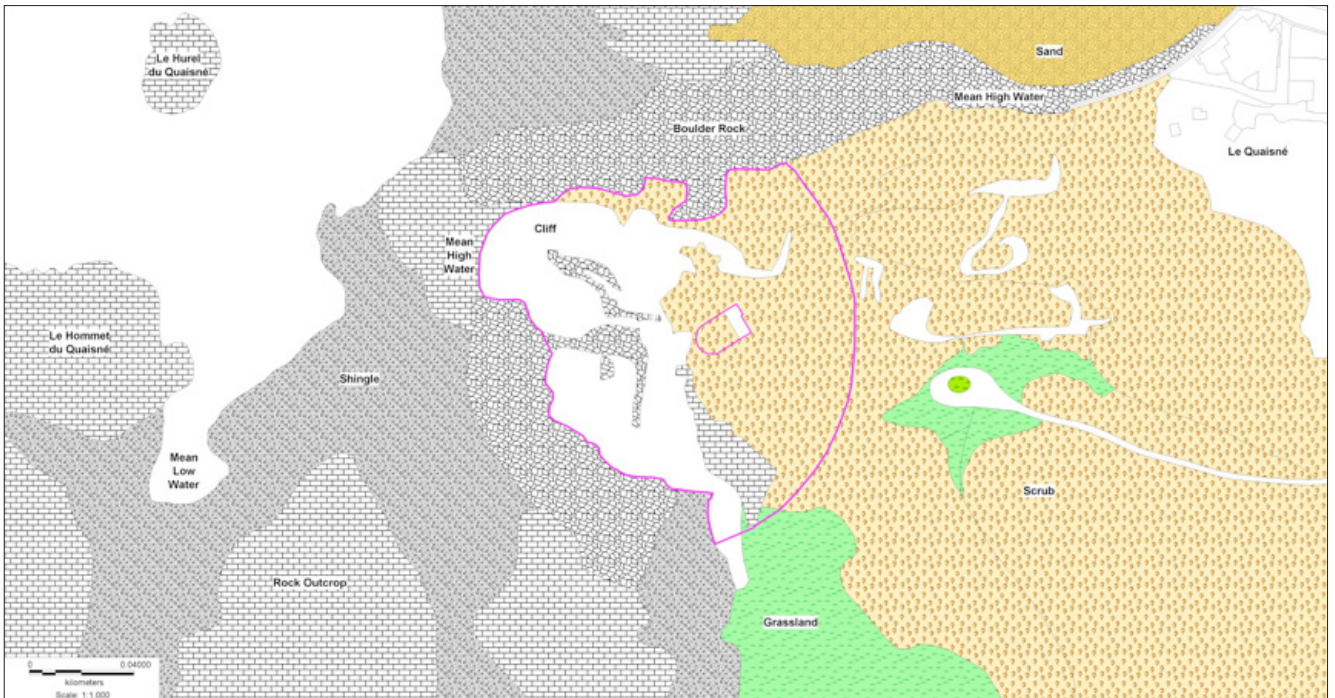


Figure 2: Location of GSSI, listed place BR0255 and listed building BRO361

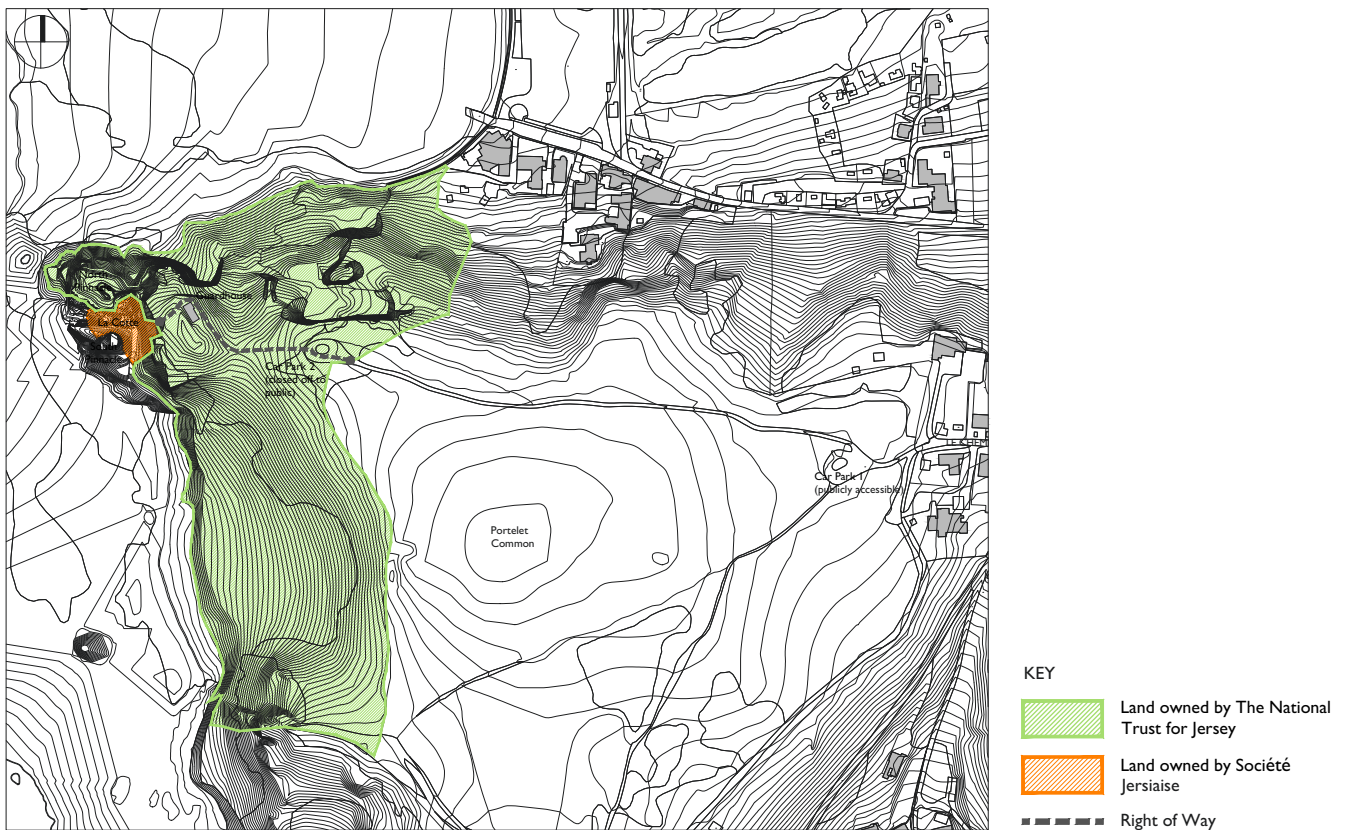


Figure 3: Ownership plan

# 1 UNDERSTANDING THE SITE

## 1.1 INTRODUCTION AND OVERVIEW

The purpose of this section is to investigate the historic development of the site and associated landscape in its archaeological, historic and social context in order to identify its cultural significance.

The primary aim is to provide guidance to the organisations responsible for managing the archaeological heritage within the study area. Portelet Common and La Cotte Battery are in the care of the National Trust for Jersey. La Cotte de St Brélade is in the ownership of the Société Jersiaise, currently leased to Jersey Heritage who also have a wider remit to interpret and promote the archaeology of Jersey. The States of Jersey are responsible for the intertidal zone and legal protection of the archaeological and historical remains.

La Cotte de St Brélade and Portelet Common are rural areas not threatened by commercial development but they are subject to changes, erosion by natural agencies, animals and recreational users. There is also a risk of damage and theft of artefacts from vandalism and illegal excavations. From time to time interventions will be necessary for landscape management and to improve visitor experience and safety. Within designated Listed Buildings and Places these will normally require planning permission. However, in particular cases where the ‘developer’ is a non-profit making community body, the Minister may exercise discretion and seek to provide assistance to ensure an appropriate archaeological evaluation (Island Plan Policy HE 5: Preservation of archaeological resources).

La Cotte de St Brélade has a long history of archaeological research and continues to attract the attention of archaeologists engaged in scientific research. As landowners of Portelet Common the National Trust for Jersey would need to give their consent for archaeological investigations within the framework of policies adopted by the Trust in their role as custodians of the landscape in perpetuity. This also applies to the Société Jersiaise and Jersey Heritage.

This part of the Conservation Statement is in three sections. In (1.2) the archaeology of the landscape is outlined. Section (1.3) provides a description of the archaeology. Section (1.4) considers the values and significance of the archaeological sites and landscape.

## 1.2 LANDSCAPE OVERVIEW

The north-west, south-west and south-east corners of the island comprise plutonic rocks and many varieties of granite, two of which are represented at La Cotte de St Brélade: a coarse, porphyritic granite and a finer-grained type (Bland, 1985; Pembroke & D'Lemos, 1996). The coarse porphyritic variety out of which the cave-shelter has been eroded has a number of widely-spaced master joints - with some associated faulting and likely thrusting - which has both guided the erosion but has also allowed the larger structure of the cliff promontory to be strongly resistant to it. Erosion, even within the confines of the ravines of the cave-shelter, is mostly associated with zones of close spaced joints - from 10-20 cm apart down to 1-2 cm in places.

However, the geomorphological form of La Cotte de St Brélade promontory at this present time only developed to this over a period of time to be measured in hundreds of thousands of years back to about a million years ago. During this million years the sea-level in this part of north-west Europe, was reduced from a high of a likely 50 to 60 metres above that of the present mean sea-level down to what it is now. This was overwhelmingly the result of tectonic movements, not of drops related to climate change. The effects of climatic changes were to be seen in the shorter term sea-level variations involving a range of approximately 100 metres, representing the low sea-levels linked to cold climates - the Cold stages - and the high sea-levels to warm periods - the Interglacials. During the last 800,000 years, there has been a broad alternation of 100,000 year climatic cycles with the Interglacial high sea-levels representing only perhaps a small amount of the time involved (Renouf 2014).

In the Pleistocene the rise and fall of sea-levels, and glacial and interglacial climate changes had a dramatic and lasting impact on the Channel Islands. During interglacial periods raised beaches and wave cut platforms evidenced these changes in sea level. In Jersey these are recorded at 30-40m, 18-20m and 8m (Johnston, 1986). The 30-40m sea-level probably played a part in modifying the cliff into which La Cotte cave is cut (Keen, 1986).

During cool-cold and low sea level events, Jersey would have been joined to northern France, isolated between broadly south-east to north-west trending rivers

running between Jersey and the modern Cotentin Peninsula (to the north-east) and the Minquiers to the south. Jersey would have been widely visible across the exposed landscapes of the Channel river plain as an upstanding 'terrestrial island' or plateau, especially from the north, becoming progressively isolated as the climate warmed and the sea level rose; sea level heights some 10m below modern levels would have served to isolate Jersey as an island (Scott et al 2014).

As part of McBurney's excavations the complex stratigraphy of La Cotte was grouped into stages ranked by the sedimentary deposits and other environmental evidence. These seven stages have been linked to Marine Isotope Stages:

Stage I (MIS8), cold, 246-300 ka BP

Stage II (MIS7), Aveley Interglacial, 181-245 ka BP

Stage III (MIS6), cold, 130-180 ka BP

Stage IV (MIS5), Ipswichian Interglacial, 71-129 ka BP

Stage V (MIS4-2), cool, 11.7-70 ka BP

Stage VI (MIS1) the Holocene, temperature. 11.6 ka BP-current.

All dates are approximate and are adapted from (Pettitt & White, 2012) and (Scott & Ashton, 2011).



This shows that at Stage II sea erosion would not be expected and as such occupation of the cave could be assumed (230,000 years ago). The sequence has been further developed in relation to site stratigraphy (figures 21 & 27) and is discussed below in 1.3.11.



Figure 4: Mid-tide view over south ravine to submerged valley



Figure 5: La Cotte headland and the Battery building



Figure 6: Modern topography of La Cotte looking north, note the raised beach and Head sloping down to the sea where it is being eroded

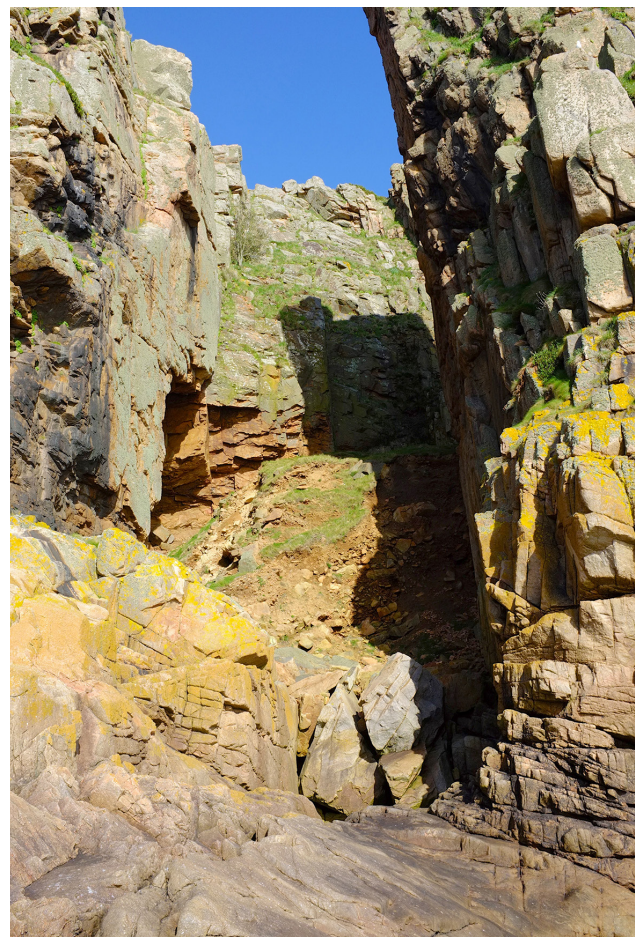


Figure 7: West Ravine from the beach, the precipitous rock face is partially covered by head deposits. This view may have added to the game drive hypothesis (Scott et al 2014)

## 1.3 ARCHAEOLOGICAL OVERVIEW

### 1.3.1 DESCRIPTION

The natural arch in the granite cliff has been used as a shelter since the Palaeolithic when St Brélade's Bay was a lowland plain. The importance of the site lies in the long length of intermittent habitation by Palaeolithic hunter-gatherers, spanning a quarter of a million years. The archaeological finds alone are of great interest and include important lithic assemblages, faunal remains - such as mammoth and woolly rhinoceros - that suggest the use of unique and dramatic hunting strategies, and early hominid remains including 13 Neanderthal teeth.

The brief historical account presented below is intended to give an overview of the investigation carried out at La Cotte de St Brélade. Descriptions of deposits are those of the excavators and reference to the 'cave' and 'floor' has been retained along with imperial measurements. This changes with the 1950s work of Burdo who noted that the 'cave' was at best a rock shelter and his use of the metric system.

### 1.3.2 EARLY INVESTIGATIONS (1881-1904)

La Cotte de St Brélade was first recognised as a prehistoric site in 1881 when Dancaaster and Saunders found a worked flint on rocks beneath the entrance to the cave. In 1894 and 1895 Chappuis and Colson extracted flint and bone from the cave floor. Colson was joined by Rybot in 1896 and they appear to have dug into deposits finding struck flint before abandoning the work for fear of being injured or killed by falling rocks. Unsystematic collecting of worked flint continued with the help of the Guitons and Piquet until 1905 when the Société began investigations led by Nicolle, Chappuis and Colson. Work was hampered by the threat of rock falls and quarrymen were employed to clear precarious blocks of stone and debris, probably removing archaeological deposits in the process (Rybot, 1956).

### 1.3.3 SOCIÉTÉ YEARS (1905-1912)

Investigation resumed in August 1910 when a team of quarrymen exposed about eleven square feet of the 'floor' at the left of the entrance to the cave. No plans or diagrams were published with the report of the first season's work. The deposits were described as black soil comprising layers of ashes, carbonised wood and clay mixed with bone detritus and clay compacted into a breccia. Close to the entrance burnt material interpreted as a hearth was located. This contained ash and charcoal with a few burnt pieces of stone which the excavators suggested were used for heating water. About a hundred flint bifaces of 'Mousterian type' were recovered. The presence of bone was noted throughout the layers but in very poor condition. Where possible this was block lifted and removed to the Museum where they were treated with gelatine. Species identified included rhinoceros, reindeer, bovidae and horse. Within one clay matrix at a slightly higher level than the hearth nine human teeth were found (Marett, 1911; Nicolle & Sinel, 1911). These were subsequently identified as coming from a Neanderthal (Keith & Knowles, 1912). Work stopped in September on the advice of an engineer (fig. 8).

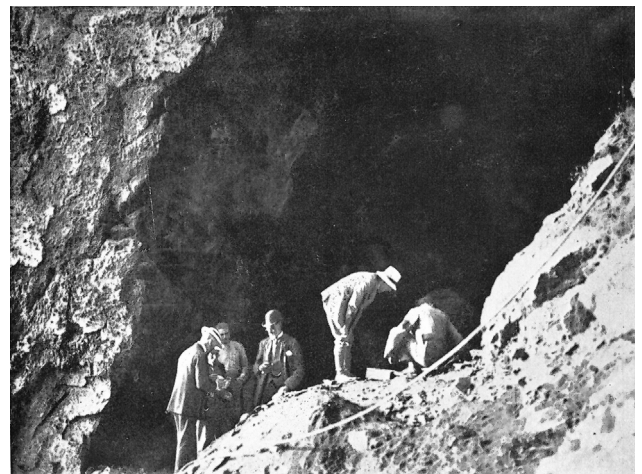


Figure 8: Discovery of Neanderthal teeth on the 25 August 1910 (E. F. Guiton)

In August 1911 investigation resumed with the same team of workmen. Upon clearing debris fallen since the previous year they found a large block of granite that appeared to have fallen from the roof in prehistoric times. Upon removal more flints, bones and teeth, including four more from a Neanderthal were found.

A large trench was then dug along the wall of the cave with no further artefacts being recovered. By the end of the 1911 digging season the occupation horizons, some 3-4 feet thick, had been excavated over an area some 11 feet square. The excavators concluded that the 'main floor' was the main occupation area and the work stopped because of the dangers from overhanging sterile head, a gelifraction deposit of the last cold stage (Nicolle & Sinel, 1912).



Figure 9: c. 1905

During 1912 attention focused on the opposite side of the ravine where there appeared to be a small cave. A number of flint flakes and implements were found but the work was abandoned after realising that tons of rock and rubble would need to be removed (Marett & Gruchy, 1913).

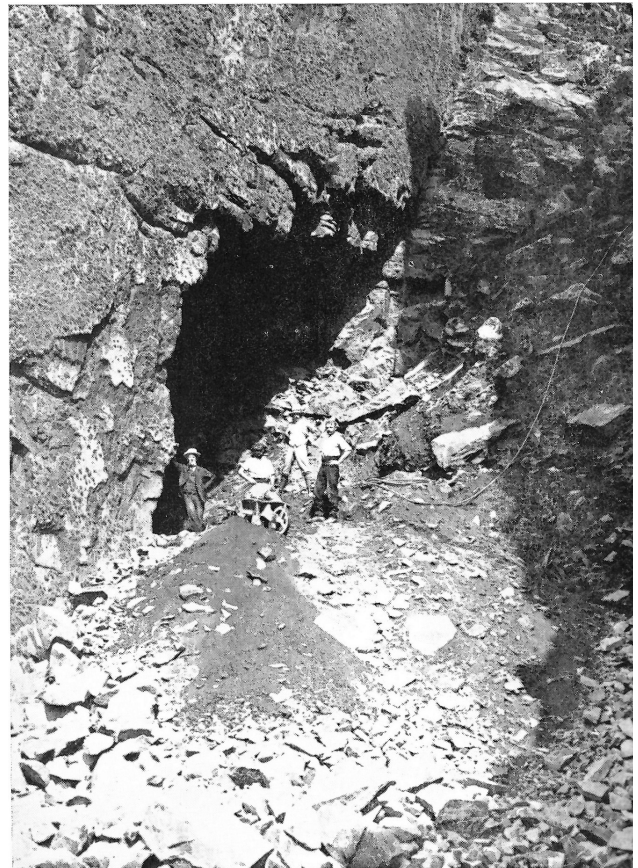


Figure 10: 1910 (E. F. Guiton)

### 1.3.4 MARETT AND THE BRITISH ASSOCIATION YEARS (1914-1915)

In 1913 the British Association for the Advancement of Science appointed a committee to undertake further exploration at La Cotte de St Brélade. During March and April 1914 workmen began clearing rubble from the upper part of the cave filling aided by explosives. A decision was made to excavate a clearing about eighteen feet wide across the mouth of the cave. This proved to be undercut by a further cavity. This appeared to be dry and shielded from rock falls so there was expectations of better bone preservation but further funding would be needed.

Along the eastern wall some evidence for stratification was observed. A black ash layer overlay a sterile deposit under which was a layer of clay containing flint and bone in considerable quantity. At the top of this layer three mammoth teeth and a number of implements were found (Marett et al., 1915).

### 1.3 ARCHAEOLOGICAL OVERVIEW

Further funds were secured and work resumed in July 1915 and continued until 3 September when the roof of the cave, which was in reality a ravine partly roofed over by an arch of residual granite, collapsed depositing some 500 tons of debris. This fall of course put an end to the season's excavations, and a further 200 tons of rubble fell during the winter. Three areas were investigated in 1915. Working area A was to excavate along the western wall to the back of the cave. Conditions were damp with poor bone survival. The implementiferous layer was no more than two feet thick. Working B was a strip along the entrance to the eastern wall. The central portion was sterile but close to the eastern wall a layer containing flints was found most notably a group of five close to a large fragment of the radius from a woolly rhinoceros. Working area C comprised the rearward portion from the eastern wall to the middle of the cave. The layer noted in Working area B was also present here. Burnt bone and an elephant tooth were found with flints nearby (Marett et al., 1916).



Figure 11: 1914 lateral eastern extension of main cave on right, with Marett at entrance

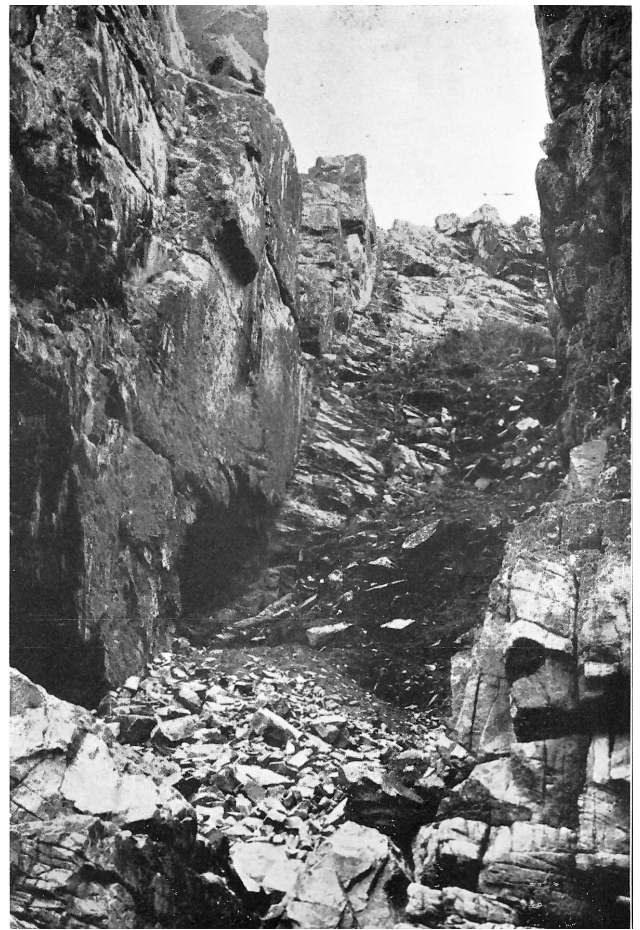


Figure 12: 1914 west ravine and cave (top of arch) and slope of talus

It was during the clearance of the talus shown above that a fragment of child's skull was found (Marett 1916). Initially this was thought to be from a Neanderthal but is now considered to be later in date (Pope et al 2010).

#### 1.3.5 CLEARANCE YEARS (1916-1918)

Faced with the task of clearing some 700 tons of rock debris the next three seasons were mainly devoted to removing the fallen material. In 1916 some investigation of undisturbed deposits on the western side were carried out and the layer encountered in Working A was continued in a haphazard way. This was found to slope upwards when followed northwards. Numerous identifiable animal bones were found, and well above the main occupation horizons, some 20-30 feet above the floor level and towards the western wall, was a rich bed of rodent remains (Marett et al., 1917).

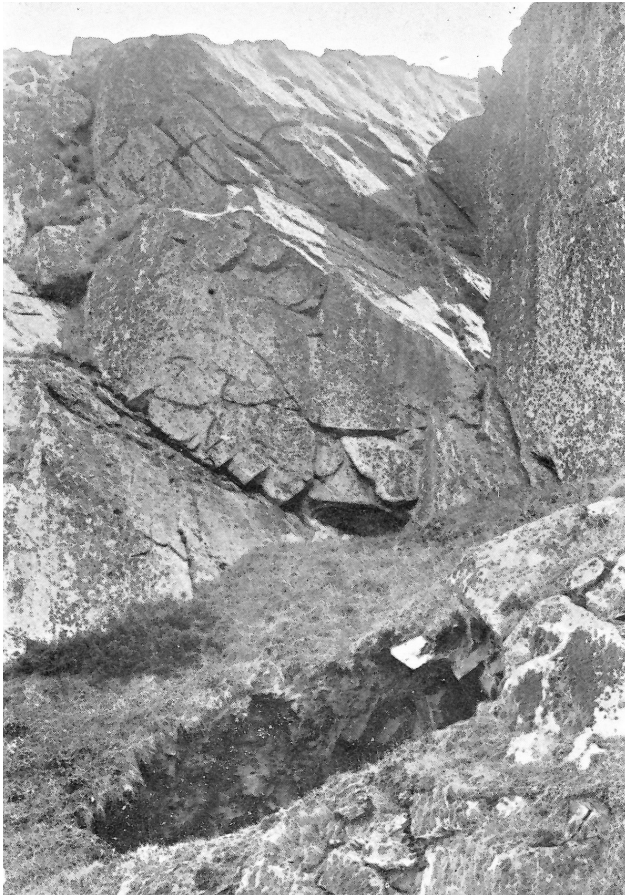


Figure 13: The chimney viewed from the cliff to the north

Figure 14: After the collapse of 3 September 1915



The work done in 1917 was confined to the north side where the access trench to the rear of the cave was deepened. The cave floor was cleared back from the entrance with a view to exploring lower depths in the following year (Marett & Gruchy, 1918).

The 1918 season was mainly limited to rock debris removal again with the use of explosives. Another rodent bed higher up near the eastern wall was explored in 1918 and 1919. A sterile sandy layer interpreted as the bottom of human occupation was reached in 1918 and work stopped (Marett & Gruchy, 1919). In about 1921 the top rodent bed was exposed, and A. E. Mourant and his brother collected material from it. This bed remained exposed until 1936, when it was finally excavated by Burdo. No official excavations were carried out between 1919 and 1936.

### 1.3.6 PRE-WAR YEARS (1936-1940)

Work continued for four seasons until investigations were brought to an end by the German invasion and Occupation of the island. Godfray, Lomax and Burdo cleared c. 20m of overburden in the south and west ravine in order to continue investigation of the rodent bed and layers beneath it. The work in the west ravine added very considerably to knowledge of deposits equivalent to those excavated in the main cave before 1918, though not to the point of recovering the lost stratigraphy of those layers. Few artefacts were recovered but they did establish that stratification was continuous inside and outside the cave.

In 1938 Professor F. E. Zeuner, the eminent Pleistocene geologist and archaeologist, visited Jersey and made a critical examination of the Pleistocene cave sites. He re-excavated part of the trial trench dug in 1911 and showed that there were two distinct 'peat' layers (Zeuner, 1940). Up to 1940 the peaty soil was regarded as the base of the whole cultural sequence, probably with a marine raised beach only a short distance below. Zeuner advised Burdo to look for further archaeological deposits below them.

### 1.3.7 BURDO YEARS (1950-1956)

Burdo's work in the 1950s is of particular significance in that he established that there were two phases of hominid activity represented in the stratigraphy and artefacts at La Cotte de St Brélade.

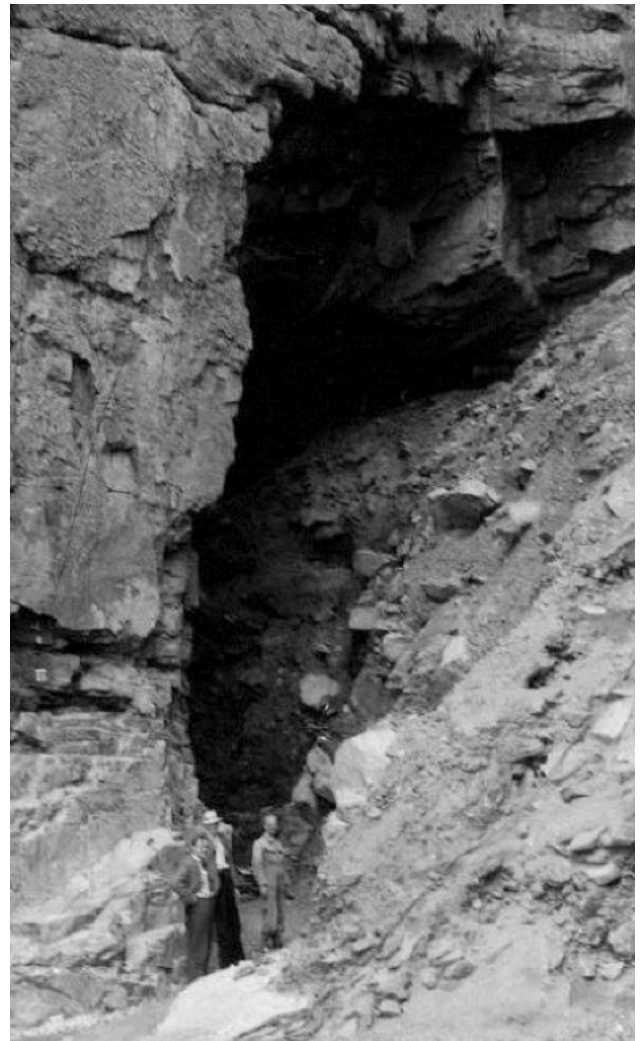
### 1.3 ARCHAEOLOGICAL OVERVIEW

Burdo began work in the west ravine, but this time at a lower level and against its north wall. At first he encountered the residue of the 'Mousterian' deposits left by earlier workers and the 'peats' on which they had also commented. These, like the underlying loessic layer in this part of the site, exhibited a very steep dip towards the sea. Initially, very few artefacts were found below the 'peats'; lower down, the concentration of tools increased dramatically and moreover appeared to be of quite a different industry from that previously recovered. Among the discoveries were handaxes of characteristic Acheulian type. These finds occurred in a very stony loessic 'head' with, as the excavation progressed into the north ravine, occasional patches of ashy material. One of the more puzzling aspects of the stratigraphy was that these layers, also, maintained a strong dip towards the sea and yet bore very many traces of human habitation (Mourant & Callow, 1986).



Figure 15: 12 March 1952 compare with figure 16 for an indication of the volume of material removed by Burdo

Figure 16: 23 June 1955 compare with figure 15 for an indication of the volume of material Burdo removed



#### 1.3.8 MCBURNEY YEARS (1961-1978)

The University of Cambridge Department of Archaeology and Anthropology commenced research and training at La Cotte de St Brélade in 1960. The work was designed to build on that of Burdo and was directed by C.M.B. McBurney. In 1961 and 1962, he concentrated on trenching at a lower level than Burdo had reached and on recovering fresh samples of artefacts from a more precise stratigraphic context than previous techniques had permitted. As an aid to studying the finer stratigraphy of the ashy layers and as a permanent record of the cliff, he also took a series of latex 'peels' of the sections. The presence of a 8-10 metre raised beach at the foot of the cliff was demonstrated, and has proved to be the key to the La Cotte sequence (McBurney, 1962, 1963).

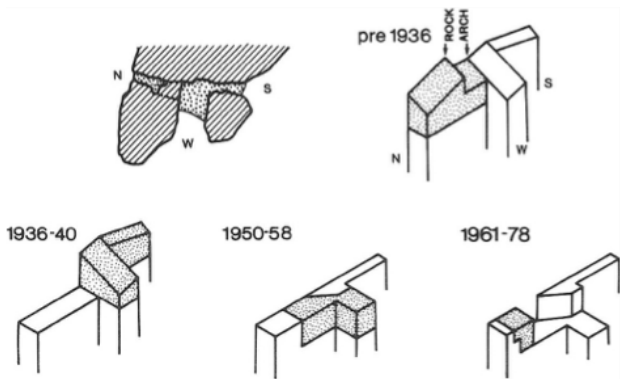


Figure 17: Stages in the removal of deposits

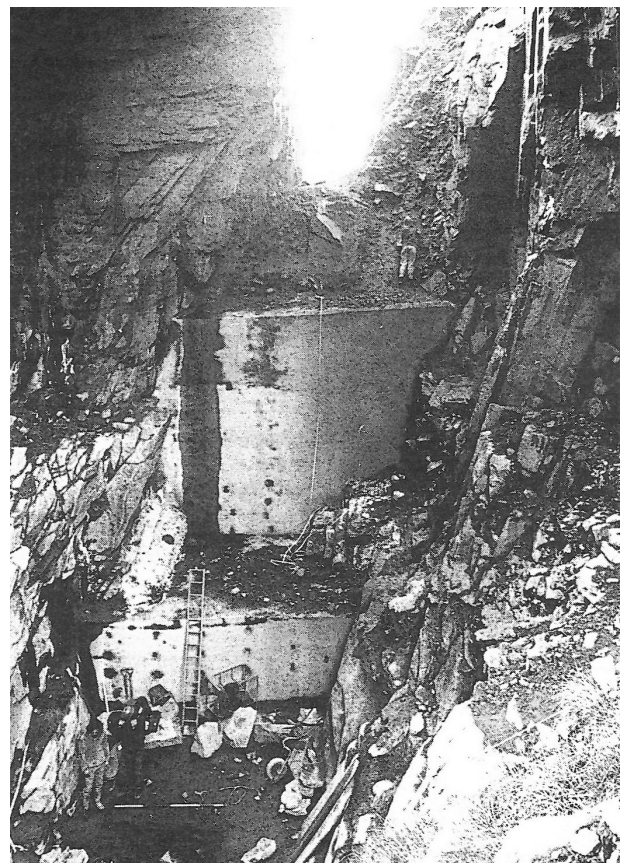
In both 1966 and 1968 a considerable amount of largely sterile overburden was removed so that the loesses could be excavated. In 1966 a number of bones of large mammals were discovered in these layers. In 1968, when the cutting had been extended both northwards and westwards, it became apparent that the mammoth and woolly rhinoceros bones at the base of layer 6.1 formed a deliberate accumulation, of a kind previously unknown in cave deposits of this antiquity. The fragility and size of the bones, in decalcified loess, meant that special techniques had to be devised, with the help of conservation staff from the British Museum (Natural History), for their safe recovery - a particularly difficult operation because very often they were interlocking (McBurney, 1969).

In subsequent work until 1977 the site had therefore to be divided into two parts: in the west, progress was greatly slowed by the need to conserve the faunal remains, whereas in the more exposed area to the east the bones not only seemed to have been scarcer originally, but what few there were had virtually disappeared as a result of leaching and could not be recovered.

The considerable quantities of bone in layer 6 had been completely cleared by 1973 and, after removal of a layer of slabs that had fallen from the west wall in antiquity, work commenced on another 'bone heap' directly below the first in an earlier loess, layer 3 (figure 21). By 1976 most of the excavated area had been taken down to the archaeologically rich ashy loess of layer A, and a trench 'deep sounding' could be sunk in the working floor in an attempt to relocate the underlying layers B and C (Mourant & Callow, 1986).

Figure 18: North ravine end of 1978 season step in cutting is top of layer C

Figure 19: Concrete walls in place



1.3 ARCHAEOLOGICAL OVERVIEW

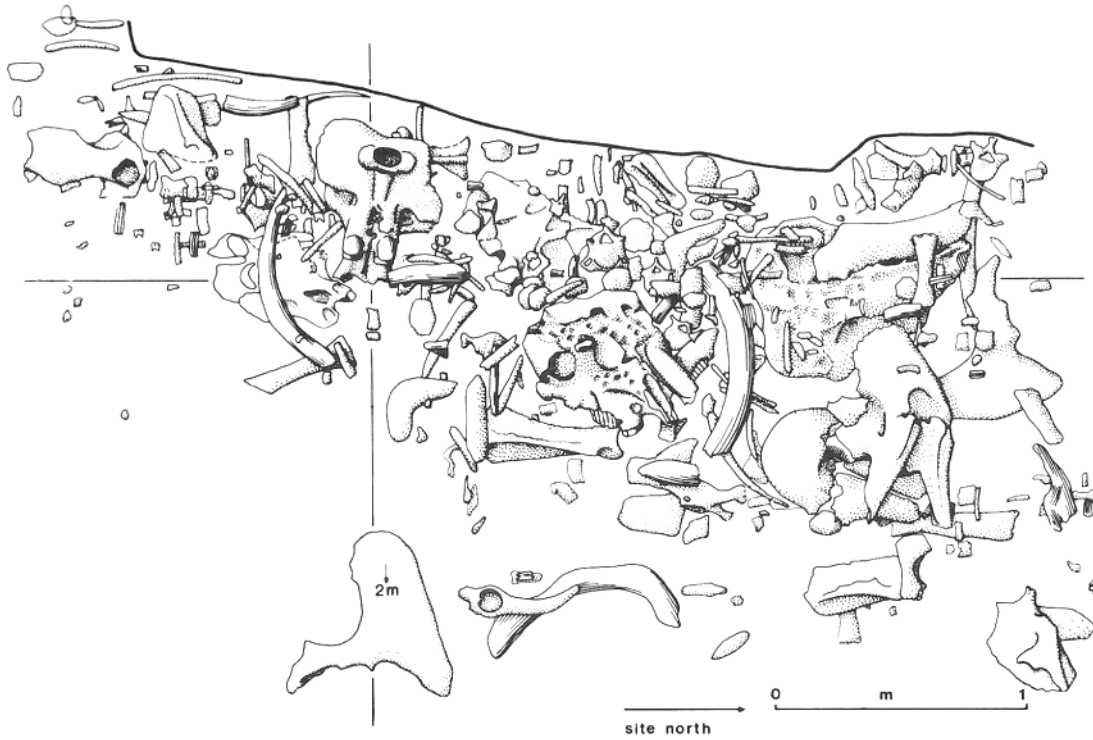


Figure 20: Composite plan of bone heap (Callow & Cornford, 1986: Fig. 18.3)

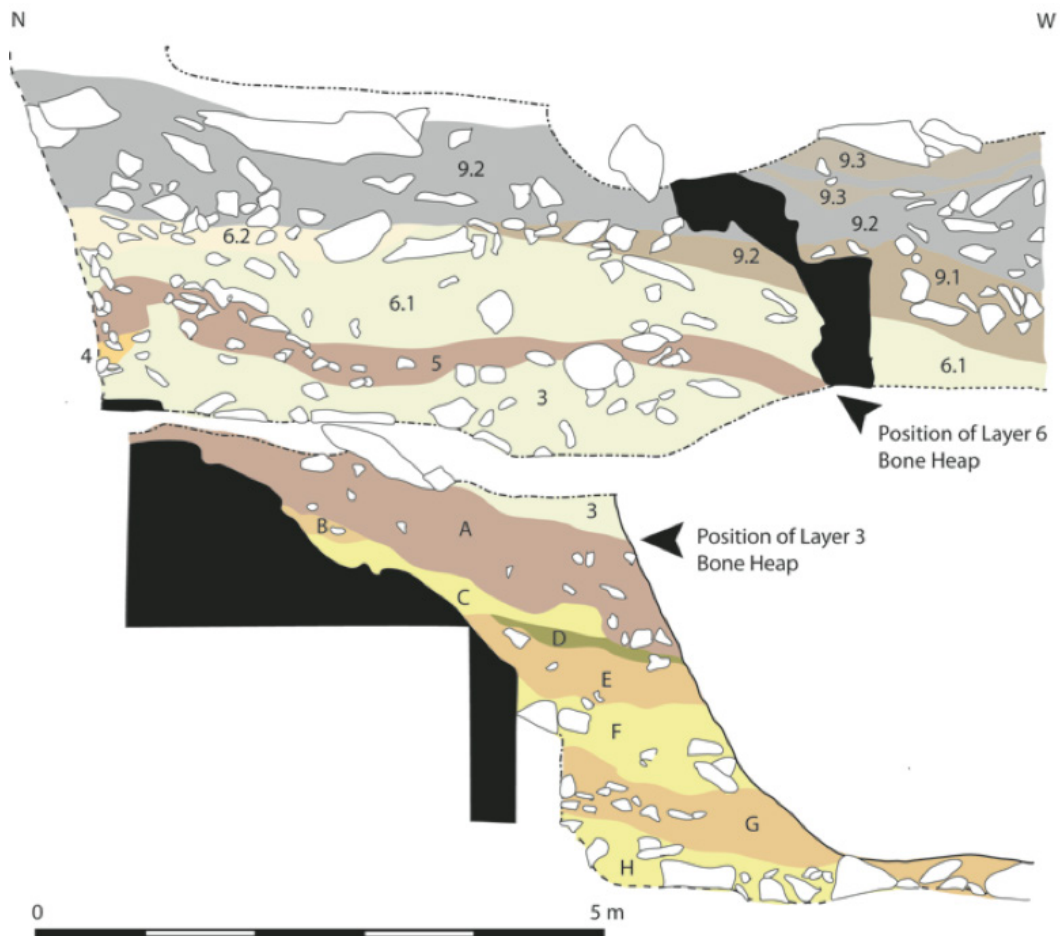


Figure 21: East face observed between 1968 and 1978 (Callow & Cornford, 1968: Fig. 6.6, re-interpretation by Shaw et al 2014)



After removal of the backfill, the old 1962 north face was cut back in two stages for a further distance of about 140 cm. Immediately after the close of work the principal sections were walled in, to protect them from erosion by natural and human agencies, and in the expectation that no further excavations would be undertaken at the site for many years (to allow time for significant advances in scientific techniques to be made).

### 1.3.9 CALLOW YEARS (1981-1982)

Callow took over the work following the death of McBurney and in 1980 collected fresh soil and pollen samples. In the course of the next year the laboratory work on these and other samples, together with an exhaustive analysis of the excavation records and the first (highly tentative) age estimates based on thermoluminescence, made apparent the need for a drastic revision of the environmental sequence and dating, coupled with a modified depositional model. Therefore in August 1981 fresh work was carried out at La Cotte. Such sections as were still accessible were cleaned up and new soil samples taken. Two small cuttings were made in the floor of the site, south of the retaining wall, in order to expose the upper part of layer H.

The final stage of field investigations was carried out in October-November 1982, when a team under Callow's direction, and with the aid of a grant from the Jersey Heritage Trust, reopened the 1961-1962 'deep sounding'. An effort was made to minimise disturbance of in situ archaeological deposits, as the goals on this occasion were entirely geological: in particular, to obtain fresh confirmation of the 1961 observation of the raised beach, which had never been sectioned, and of its relationship to the fossil cliff. At the same time, all accessible standing sections were cleaned once more, and re-examined (Mourant & Callow, 1986). McBurney's interpretation of the stratigraphy was confirmed but the hypothesis linking sea-level and raw material was invalidated (McBurney & Callow, 1971) because the 1982 soil samples showed that the 'loessic' sediments of layer H with their flint-rich industry had been redeposited during an early temperate phase.

### 1.3.10 QAEJ YEARS (2009-2011)

After a lull of almost thirty years archaeologists began again to take an interest in La Cotte de St Brélade but this time as part of wider research in the island. The Quaternary Environments and Archaeology of Jersey project brought together a multidisciplinary team of archaeologists, geoarchaeologists and lithic specialists working on the site and archive.

The 2010 investigation established that large parts of the site remained unexcavated and these deposits contained in situ archaeology. The extant deposits comprised a complete sequence - including the missing stratigraphy from the 1910 excavation which had produced Neanderthal remains (Marett, 1911; Nicolle & Sinel, 1911). Locating and characterising surviving sediments required mapping backfill and ascertaining the age of extant sediments relative to the original excavations. Two areas were targeted; apparently intact stratigraphy observed under the remains of Burdo's railway line, and the south ravine, which is exposed by coastal erosion on the southern flank of the headland.

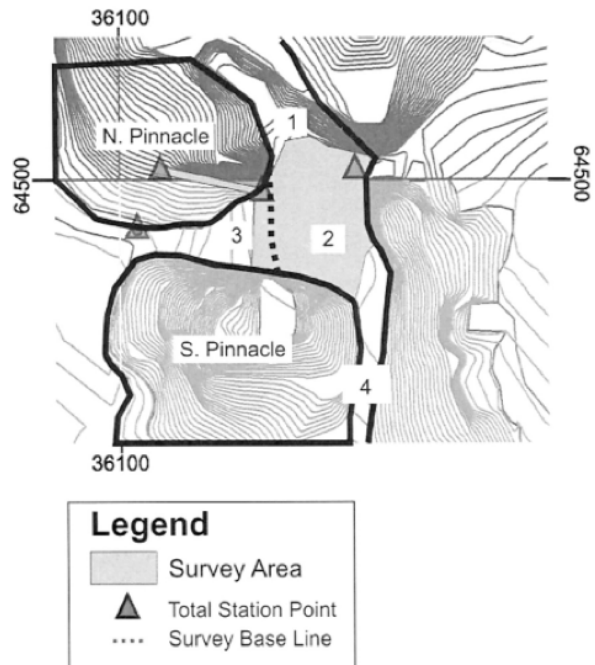


Figure 22: Survey of ravine system (Pope et al., 2012)

A total station was used to establish an accurate site grid based on earlier excavations. Cleaning sections allowed for correlation of horizons identified in the earlier excavations. Samples were taken for Optically

Stimulated Luminescence (OSL) dating. Raised beach outcrops on the coastline immediately adjacent to La Cotte were recorded and sampled.

During the 2010 investigations, sections were carefully cleaned and recorded in the central and western ravine. The western ravine is a relatively poorly understood part of the site that is thought to contain last cold stage (MIS3) deposits.

Section cleaning in the exposed standing faces in the eastern end of the western ravine and the edge of the central excavation area began with clearing the extant face preserved beneath the remains of the railway tracks constructed by Burdo for the extraction of waste debris from the northern ravine. This track runs across the deep sounding and, in the area examined during 2010 field season, rests in part on backfill. Nine lithological units were identified beneath the backfill. The section shows that some backfill exists at both ends of the sequence examined. Beneath the backfill the intact stratigraphy exhibited a total thickness of at least 2.8m, though this represents a minimum thickness in the central part of the section, which was not bottomed (Pope et al., 2012).

In 2011 a small team returned to the site to undertake further sampling and stabilisation of the area under the railway tracks. Collapse of layer G at the edge of the deep sounding was identified. The threatened section was analysed to characterise its archaeological and palaeoenvironmental potential as well as provide OSL dates. The work determined, through two concordant OSL dating programmes, that the section formed part of an extensive sequence of sedimentation spanning >105 to <48 ka. Furthermore, reanalysis of the archive determined that the sediment sequence examined contained the stratigraphic equivalent of deposits lying below those that have previously produced Neanderthal fossils. These younger sediments are younger than 48 ka. The combined results suggest that this sequence now represents the recovery of an extensive dataset, thought lost to science through complete excavation, which holds the potential to throw light on the disappearance of Neanderthal populations from the Atlantic-edge outpost on the north-west frontier of their world (Bates et al 2013).

With the completion of the QAEJ project in March 2012 this short description and review of the investigations conducted over more than a century closes. For a full understanding of the investigations the reader should consult the publications listed in the bibliography.

### 1.3.11 RECENT RESEARCH (2013-2017)

The widely accepted theory that the deep ravines at La Cotte de St Brélade provided a location for game drives by Neanderthal hunters has been challenged in a paper by Scott et al (2014). They questioned the views derived from Scott's faunal analysis of two distinctive bone heaps (early MIS 6) which formed part of the deep stratigraphic sequence at La Cotte (Scott 1980, 1986). Scott concluded that the composition and arrangement of the bone heaps was most consistent with Neanderthal hunters driving mammoth herds over the headland into the deep granite ravines. The involvement of Neanderthals in premeditated and organised predation challenged assumptions concerning their cognitive capabilities as hunters. La Cotte de St Brélade therefore entered the canon of key Middle Palaeolithic localities which offered in the last decades of the 20th century a new perspective on Neanderthal populations.

From above, the ravines can be seen as part of a wider system dissecting the headland. La Cotte Point protrudes north-west into St Brélade's Bay, connected to Portelet Common by a narrow neck of land and superficially forming a topographic projection of the wide plateau suitable for game drives. However, crossing this projection actually entails crossing complex, rocky and rugged topography, involving a significant dip and near vertical climb out over the last granite outcrop. The topography of the headland would present a significant barrier to mammoths.

Combining the onshore and offshore data, the latter derived from bathymetric survey, provides a fresh perspective on Neanderthal occupation of the site when sea level was lower. The data shows that rather than sitting at the edge of a rather flat and featureless landscape, La Cotte was located at the margins of a relatively complex and structure-led granite landscape of bluffs, canyons and valleys. The hard architecture of this landscape had the following features:

1. The west-east trending structure of the geology provided the major potential routes through the now-submerged Pleistocene landscape.
2. Now-submerged granite reefs would have comprised a network of steep-sided valleys controlled largely by joint and fault structures in the granite, giving rise to access patterns reminiscent of gridded street plans.

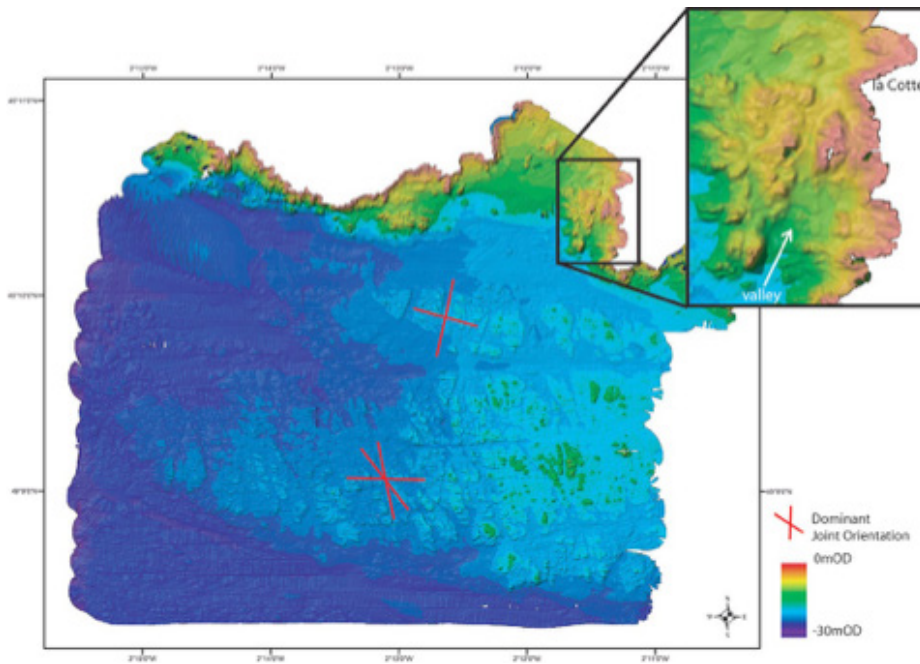


Figure 23: Bathymetric chart of the area surveyed. Inset shows detail of valley running north up to south entrance to La Cotte fissure system (Scott et al 2014: Fig. 6)

- Most importantly, a small valley is mapped running in a northerly direction from one of the major valley systems, directly towards the south-facing entrance of La Cotte. This valley ends in an abrupt line of rising granite bluffs just below the site (figure 27).

From the detail of this survey we can now determine the view from La Cotte de St Brélade was far from flat and featureless; during times of low sea level, the cave overlooked a view over a highly structured landscape of variable relief in contrast to the difficult game-drive terrain of the upper plateau. The grid-patterned landscape and dead-end valley offered Neanderthals a landscape in which large mammals could be both effectively controlled and ambushed.

The faunal remains and lithic artefacts from layer 3 and layer 8 (not analysed as part of the 1986 monograph) were also examined in the context of sedimentation at the site. Initial assessment suggests behavioural continuity between the main occupation layer A and the layer 3 bone heap. Sedimentation at the site reflects a single, variable system of climate-driven accumulation and Neanderthal occupation.

Reconsideration of the bone heaps themselves further undermines the 'mass kill' hypothesis, suggesting that these were simply the final accumulations of bone at the site, undisturbed and preserved in situ when

the return to a cold climate blanketed them in wind-blown loess.

La Cotte de St Brélade provides a focal point from which behavioural changes amongst the Neanderthals of the southern Channel river plain can be inferred. The bone heaps simply represent two features within an extensive sequence of Neanderthal occupation; whether they represent two discrete behavioural episodes is a matter of interpretation. Even if accepted as a mass kill signature, the Neanderthal achievement at La Cotte was not driving mammoths over a headland, it was meeting the adaptive challenges of extreme climate change while maintaining a long-term, if punctuated, presence in the region. Given the vast span of time and environmental variation involved, no single hunting strategy or behavioural model can be expected to explain the archaeological signatures at the site. The only constant is the structure of the site itself; a sheltered ravine and cave system at the interface between the plains of the St Malo Gulf and the Jersey Plateau, commanding a structured landscape of gullies and a single, dead-end valley (Scott et al 2014).

Over the winter of 2013-2014 severe Atlantic storms coincided with high tides causing the destruction of sediments in the West Ravine at La Cotte de St Brélade, removing a large block of sediment from the base of the West Ravine sequence sampled in 2011.

## 1.3 ARCHAEOLOGICAL OVERVIEW

In response a laser scan of the entire headland was carried out. In addition, photogrammetric survey work was undertaken on the interior of the cave system. The data was used to help model wave-heights during storm events within the cave, and to create accurate models of sediment removal and re-profiling of the site to effect stabilisation. In November 2014 the first stages of the remediation works got underway with the covering of the West Ravine's unstable section in a protective membrane and excavation at the base of the slope (Pope et al 2015).

### 1.3.12 DISCUSSION

Although the QAEJ project has been completed the process of analysing and interpreting data continues for publication. Shaw et al (2016) presented further detail of artefact and sediment analysis outlined in Scott et al (2014). They suggest that particular assemblages from La Cotte give an insight into early Neanderthal 'landscapes of mind': the curated flint tools from layer 5, and the resharpened flint flakes from layer A attesting to journeys in excess of 20 km being made (figure 28).

The paper by Scott & Shaw (2018) uses this data to discuss La Cotte in the broader context of the Normano-Breton Gulf. They argue that La Cotte de St Brelade appears to be a stable place within a changing landscape: a granite headland overlooking a now-submerged landscape repeatedly subject to climatic cycling, the devastating effects of marine transgression/regression and the transformative effects of loess mantling. A further quality of the headland might have been its visibility: within the expanded coastal plain of the cold-stage Normano-Breton Gulf, Jersey, France and the semi-submerged rock formations between the Cotentin peninsula and Bay of St Brieuc. However, they suggest that the structure of the offshore landscape and the distances over which the flint artefacts were carried suggest that La Cotte was a 'destination' and not simply somewhere encountered through undirected wandering or drift.

This is a very selective overview of some key points to demonstrate the importance and value of La Cotte and the research undertaken so far. The definitive publication, when available, will enable further discussion and updating of this section (Shaw & Scott forthcoming).

In summary: it has been established that despite the massive amounts of material that have been removed more sediments survive at La Cotte than a reading of the excavation reports would suggest, although this is hinted at in the monograph on McBurney's work (Callow & Cornford, 1986). Furthermore ongoing analysis of the faunal and lithic material continues to make connections between the earlier interventions and sediments observed by QAEJ (figure 27).

The investigations undertaken by the QAEJ have demonstrated that: 'intact stratigraphy is present at the eastern end of the west ravine and that this is at least 4.5m thick. Similarities in the nature of the sediment sequences with layers 6.2 to 9 of Callow & Cornford (1986) suggest the sequences probably belong to the last cold stage. There is circumstantial evidence within the sedimentary units to suggest changing environmental conditions are recorded in the profile from colder conditions at the base of the sequence to milder conditions upwards. Although the full depth of sequence present has not been demonstrated, as fallen debris conceals the base of the profile only minimal disturbance to these sediments has occurred as a result of previous excavations.' (Pope et al., 2010).

Recent research by the QAEJ team has:

- extended the stratigraphic sequence covering much of the late Middle and Upper Pleistocene (MIS7 - MIS3)
- indicated periodic occupation and abandonment of the site by Neanderthals
- demonstrated that the Neanderthal teeth are likely to post-date beginning of MIS3, whilst the occipital must post-date the teeth by a significant period
- shown that it is now possible to investigate the changing nature of occupation in response to alterations in local and regional conditions
- identified stratigraphic and environmental context of some sediments exposed by erosion
- suggested an alternative view for Neanderthal hunting strategy to the game drive hypothesis (Scott et al 2014).

### 1.3.13 PORTELET COMMON

Within the area of Portelet Common that forms part of the Listed Place (BR0255) are two features that require consideration as part of this conservation statement.

La Cotte Battery is a Listed Building Grade 3 (BR0361). It comprises a gun platform on La Cotte Point overlooking the bay, with a magazine store / gunners room sheltering behind a natural rock outcrop to the rear. The gun platform is granite-paved, and would likely have had a low parapet wall - now lost. The magazine store / gunners room is single storey, rubble granite - now rendered or painted with a modern corrugated roof. There are a pair of doorways on the north gable - one accessing the magazine store, and the other a gunners room with fireplace and landward facing window. There is a lean-to store on the south gable (figures 24-26).

La Cotte Battery was built as part of a programme of increased fortification of Jersey's coast in response to the threat of French invasion in the 18th and early 19th century. Designed for the strategic defence of St Brélade's Bay - working in partnership with Le Coleron Battery located on the opposite side of the bay. Military records show that a battery and platform for 3 x 12 pounder guns was ordered to be built in 1759. The Magazine was constructed some time between 1759 and 1786 (when it was repaired). La Cotte Battery and Magazine were constructed at the expense of the Island and manned by the 5th or South-West Regiment of the Jersey Militia. Used as a cottage following de-militarisation in the later 19th century, the property was donated to the National Trust for Jersey in 1978 by Mrs Hope Dixon, in memory of her father, Jurat Guy Fortescue Burrell de Gruchy, Seigneur



de Noirmont. The National Trust for Jersey undertook repair and restoration works in 2007, including re-roofing and removal of modern extensions.

To the east of La Cotte Battery the lands dips steeply into an infilled fissure and then rises towards a turning area marked by small standing stones. From this point it is possible to descend via a footpath through the former stone quarry to the beach or to Quaisné Bay (figures 1 & 2).

The vegetation on the common is mainly scrub with some rough grassland. From this vantage point it is possible to observe aspects of Pleistocene and earlier topography (figures 31 & 32).



Figure 24: Gun platform, note grass cover

Figure 25: Magazine store / gunners room

Figure 26: Gunners room

1.3 ARCHAEOLOGICAL OVERVIEW

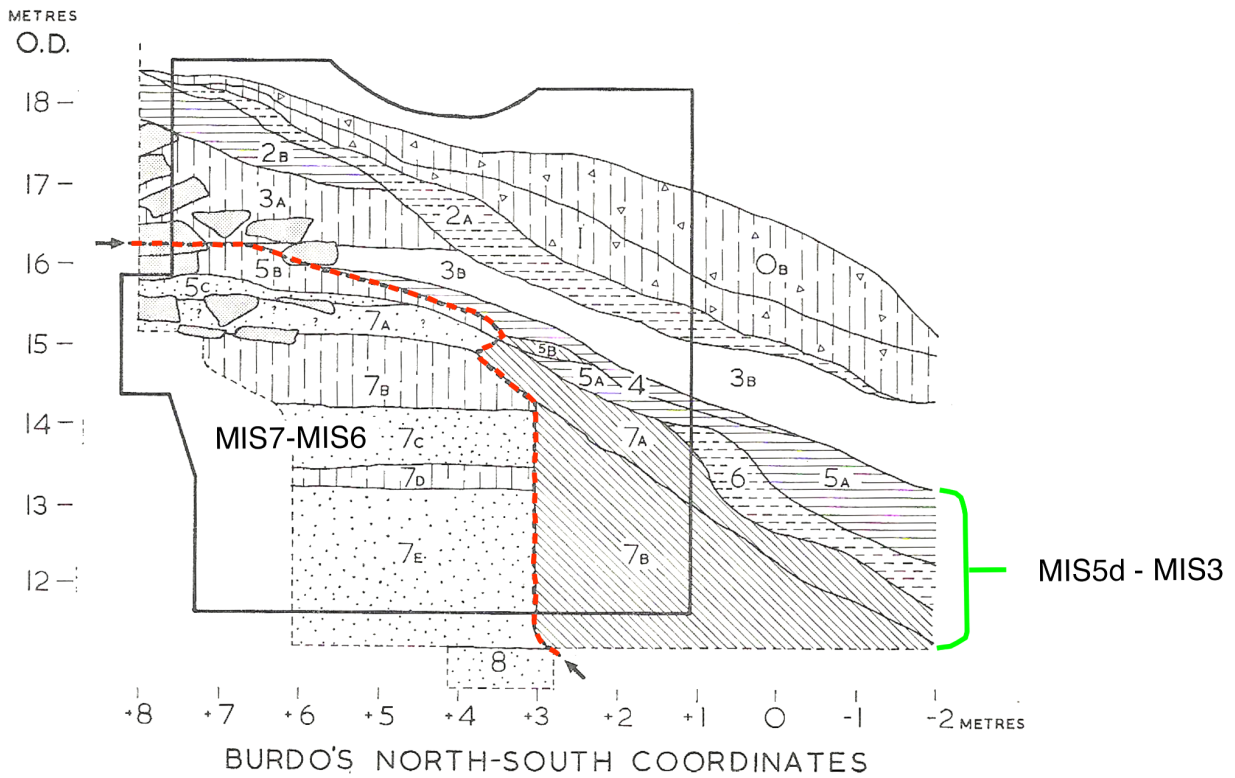


Figure 27: Burdo's longitudinal section (Burdo 1960, re-interpretation by Shaw et al 2014)

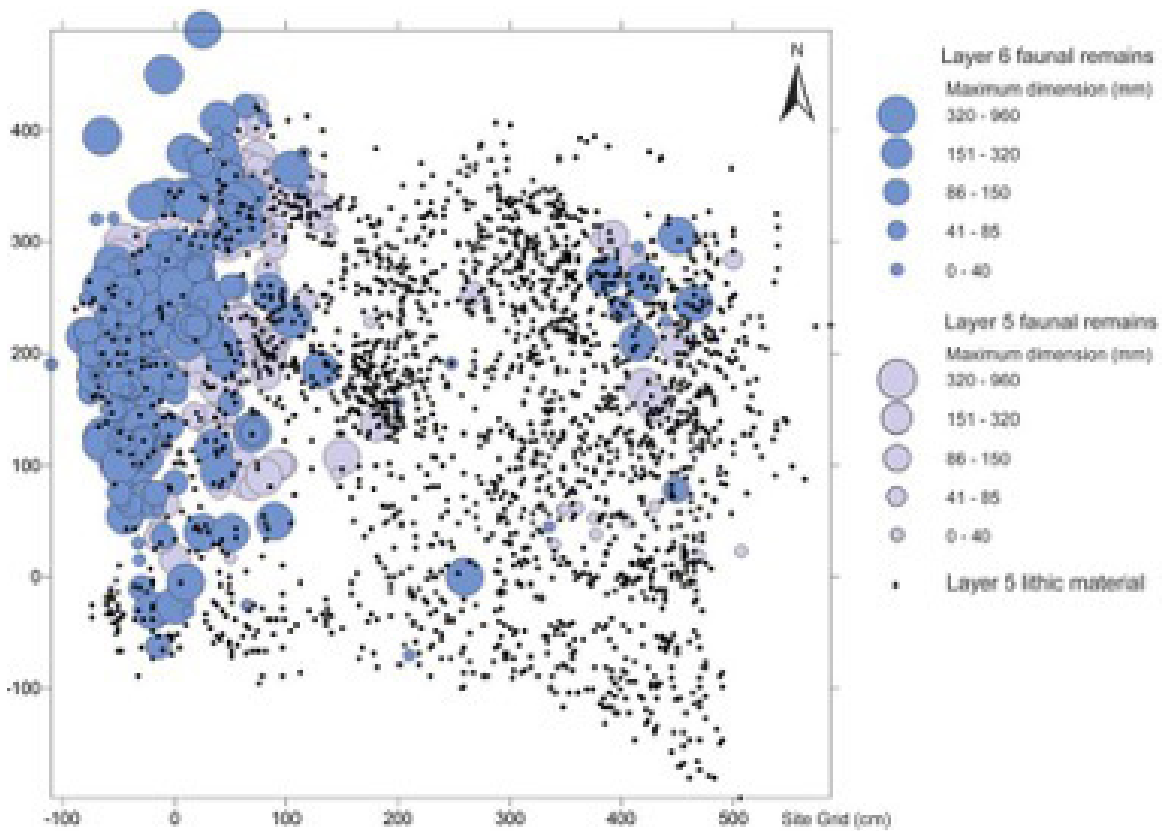


Figure 28: Distribution plan of faunal material from Layers 5 and 6.1, and lithic artefacts from Layer 5 showing distribution of lithics around the main bone concentration (Shaw et al 2016)

## 1.4 ASSESSMENT OF SIGNIFICANCE

### 1.4.1 ARCHAEOLOGICAL VALUES

La Cotte de St. Brélade is considered to be the most important Middle Palaeolithic site in northern Europe. During investigations over the last 100 years over a quarter of a million finds have been recorded. The site also holds an unparalleled, unbroken record of human presence/absence in northern Europe spanning in excess of 200,000 (238k-40ka BP) years. These factors combine to make the record at La Cotte de St Brélade the most comprehensive database of Neanderthal behavioural development through Acheulean, Early Middle Palaeolithic and Mousterian phases (Pope et al 2012).

Recent research has established that the preservation of sediments is far greater than previously thought. These contain an invaluable record of past environments, sea level and climatic change through the preservation of botanical and faunal remains. Advances in scientific dating techniques such as Optically Stimulated Luminescence (OSL) provide an opportunity to date sediments and therefore the sequence of environmental change during the Pleistocene.

The existence of a vast artefactual archive with associated records of varying quality adds value to the in situ sedimentary record.

### 1.4.2 LANDSCAPE VALUE

An important new view of La Cotte de St Brélade has been gained by understanding its landscape setting in detail, both on the terrestrial headland and through exploration of its now submerged environs through bathymetric survey.

Previous interpretations of two megafaunal ‘bone heaps’ as the residues of mass kills through cliff fall hunting are challenged by recent research.

Combining the onshore and offshore data provides a fresh perspective on Neanderthal occupation of the site. The data showed that rather than sitting at the

edge of a rather flat and featureless landscape, La Cotte sat at the margins of a relatively complex and structure-led granite landscape of bluffs, canyons and valleys.

From the detail of this survey it can be determined that the view from La Cotte de St Brélade was far from flat and featureless; the cave overlooked a view over a highly structured landscape of variable relief. In contrast to the difficult game-drive terrain of the upper plateau, the grid-patterned landscape and dead-end valley offered Neanderthals a landscape in which large mammals could be both effectively controlled or ambushed.

This hypothesis has implications for the understanding of changing Neanderthal behaviour throughout the drowned landscapes of the La Manche plain as they met environmental challenges, including rapid climate change (Scott et al 2014; Scott & Shaw 2018).

The recognition of the importance of the fissure system on Portelet Common and the commanding views over the valley system at low tide enhance the value of La Cotte de St Brélade headland (figures 31 & 32).

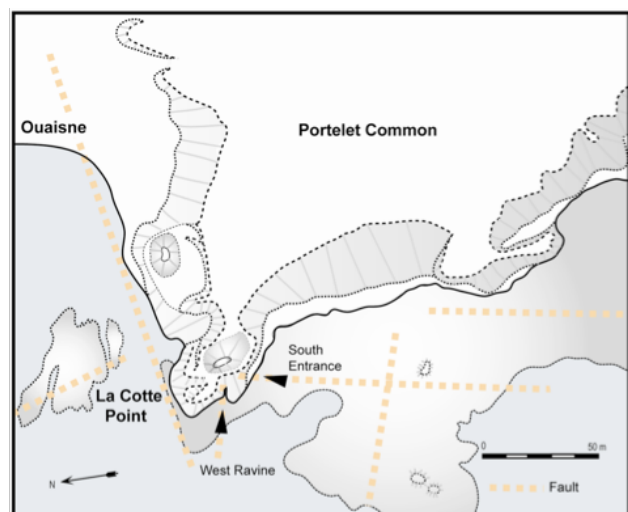


Figure 29: Modern topography of La Cotte Point as projection from Portelet Common (Scott et al 2014)

### 1.4.3 SOCIAL VALUES

The social value of La Cotte de St Brélade is that it has the potential to add considerably to residents and visitors growing knowledge and understanding of Jersey and European prehistory. It has a potential value as an educational resource in the subjects of archaeology, environment (particularly climate change) geography, geology and human evolution.

Portelet Common is valued by the local community as a recreational space managed by the National Trust for Jersey.

La Cotte de St Brélade is one of the key internationally important geosites within the aspiring Jersey UNESCO Global Geopark, a designation that will bring a greater community understanding of the role that geology, climate and hominin activity have played in the development of Jersey's landscape.

### 1.4.4 ECONOMIC VALUE

The economic value of La Cotte de St Brélade lies in its potential to form the key site in a broader heritage tourism strategy for Jersey such as the 'Ice Age Island' project. It is already an 'iconic' site that has featured on several television programmes (figure 30).

#### Jersey to star in new BBC series

Monday 2nd July 2012, 2:30PM BST.



Figure 30: BBC filming for Digging for Britain TV series presented by Professor Alice Roberts

### 1.4.5 STATEMENT OF SIGNIFICANCE

This Conservation Statement has established that La Cotte de St Brélade is of significance to Jersey, the other Channel Islands and northern Europe:

- As the most comprehensive database of Neanderthal behavioural development through Acheulean, Early Middle Palaeolithic and Mousterian phases in northern Europe.
- For the potential preservation of Neanderthal skeletal remains.
- As a key site for understanding Neanderthal hunting strategies.
- As a key site for the study of past environments, sea level and climatic change through the preservation of botanical, faunal and pedological remains.
- As a place designated by the States of Jersey as a Listed Place Grade 1 and a Geological Site of Special Interest.
- As an educational resource to inform people of the geological and environmental development of the island landscape and the story of human evolution.
- For its potential economic value in tourism as part of a wider prehistoric heritage interpretation of the island.
- For its social and economic value as a key geosite within an aspiring Jersey UNESCO Global Geopark.





Figure 31: The fissure on Portelet Common looking east



Figure 32: The fissure on Portelet Common looking west

# 2 CONSERVATION POLICIES

This part of the Conservation Statement indicates how the various individual values placed on the sites are vulnerable to damage, and then proposes a series of Conservation Statement Policies, which should ensure that the significance and values of the sites are protected and, wherever possible, enhanced for public enjoyment and benefit.

The framework of policies seeks to:

- Preserve and enhance the significance of the Archaeological Sites and their setting for future generations, and ensure that all conservation and archaeological research is undertaken in strict accordance with international best practice;
- Guide management proposals for the preservation and future interpretation of the sites as a heritage and educational asset;
- Ensure that the sites can be maintained as sustainable heritage assets for the foreseeable future. The conservation policies that are set out are intended to ensure an adequate balance between all the values placed on the sites during their ongoing management and in any future proposals to investigate them. Conserving them as heritage assets to the highest possible standards, whilst securing maximum benefit to the community. For the purposes of the Statement, the term investigation includes archaeological excavation, landscape conservation, ecological conservation interpretation, and the provision of facilities to encourage and improve public enjoyment and sustainability.

## 2.1 CONSERVATION PHILOSOPHY AND OBJECTIVES

The policies set out in this Conservation Statement seek to ensure compliance with international and States of Jersey laws, planning policies, principles, guidelines, and best practice concerning the conservation and protection of archaeological sites. In particular the policies pertaining to the preservation of archaeological resources in the Island Plan (2011) and Supplementary Planning Guidance Note 1: Archaeology and Planning (2008).

There are also a range of policies, principles, and guidelines for the care of heritage sites and these are set out in a range of international documents. Clear policies for conservation and management are set out in the International Charter for the Conservation and Management of Monuments and Sites (1964) and the ICOMOS specialist charters, in particular the Charter for the Protection and Management of the Archaeological Heritage (1990) and the European Convention on the Protection of Archaeological Heritage (Valetta 1992), signed by the States of Jersey, English Heritage's guidance publications Caves, Fissures and Rockshelters (2011) and Scheduling Selection Guide: Site of Early Human Activity (2012).

This Conservation Statement is only concerned with the area described by reason of its geological and archaeological interest. However, as it lies within the Portelet SSI which is covered by the Convention on the Conservation of European Wildlife and Natural Habitats (Bern 1979) and the Convention on the Conservation of Migratory Species of Wild Animals (Bonn 1979) Council Directive 92/43/EEC (1) of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora, is applicable to the archaeological and geological site (see Biodiversity Strategy for Jersey and Biodiversity Action Plans).

Although designated as a Geological SSI and supported by a map and schedule as required under Planning and Building (Jersey) Law 2002 it has not been possible to locate specific documented guidance on the management of geological sites in Jersey. In the absence of guidance on geological conservation the sediments at La Cotte de St Brélade are considered in this document to be geoarchaeology and therefore covered by the conventions and guidance set out in the previous paragraph.

The following key principles are adapted in this Conservation Statement for La Cotte de St Brélade (section 2.3).

## 2.2 VULNERABILITY

La Cotte de St Brélade is an internationally important archaeological site that is vulnerable to a reduction in its significance and value as a heritage resource. This vulnerability comes from both human and natural agencies which are outlined below. The full extent of vulnerability can only be established by further research in the field and laboratory.

### 2.2.1 ACCESS AND CONTROL

The site is protected under States of Jersey, Planning and Building (Jersey) Law 2002, Listed Buildings and/or Places as a Listed Place Grade 1. This has not deterred illicit digging at the site. There has been a noted history of unauthorised workings and criminal excavation on the site.



Figure 33: Disturbance at the base of the lower retaining wall noted by John Clarke, President of the Société Jersiaise and Dr Peter Chowne during the site visit on 18 April 2013

This may have happened because people were not aware of the protected status of the site. Although this is noted on an information board in Ouaisne Slipway car park the site can be accessed from several directions at low tide. Until very recently there was no sign in place at the west ravine which is the most likely access point. Adequate signage should be in place to warn those approaching the site to act as a deterrent to illegal digging and to ensure that if it does occur enforcement action can take place. The Site was fenced off in the past, but the Owners for reasons of potential litigation removed these barriers.



Figure 34: West ravine showing sea surge route, the grass lies on MIS5d-MIS3 deposits

### 2.2.2 SEA EROSION

From research undertaken by QAEJ it seems likely that some 12m of sediment have been removed in the west ravine since the 1950s; an average rate of c.0.20m/year. Given the evidence for mass collapse of deposits in the west ravine during the two cold winters in 2010 and 2011, it is likely that this recession is punctuated and catastrophic as opposed to incremental at a constant rate (table 1). During the winter of 2013/14 further in situ archaeological deposits were removed from the west ravine by a combination of heavy Atlantic swells, strong winds and high spring tides.

These threatened deposits are of great scientific value, forming part of the same sequence which contained the only known late Neanderthal anatomical remains from the British Isles and north west France and associated Mousterian artefacts, hearths and mammalian fauna.

### 2.2.3 LAND FORM AND LAND SLIP

The removal of significant burden during excavations of the last 120 years and the underlying topographic formation of the Site exposes it to dynamic erosion and land slip processes. There are known archaeological remains which are compromised by these processes as set out below:

- Middle to Late Pleistocene sediments adhere to the east wall of the northern ravine including the 'peat'/ranker soil horizons

## 2.2 VULNERABILITY

- Middle to Late Pleistocene sediments (previously unrecognised) below Burdo's railway and extending to significant depth in the west ravine
- Middle to Late Pleistocene sediments, at the intersection of all three ravines
- Deposits of unknown age range in the south ravine

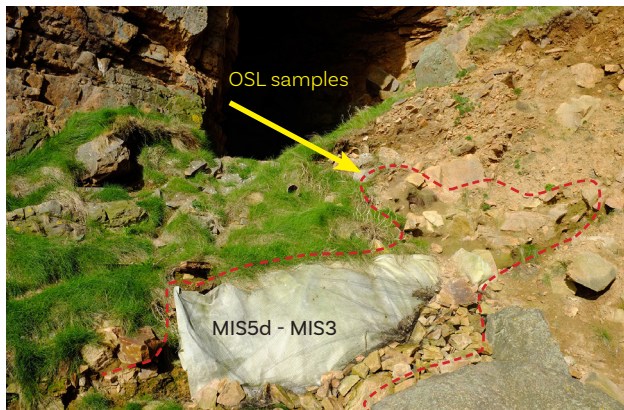


Figure 35: Stabilised section under Burdo's railway, note drain outlet above geotextile

### 2.2.4 RAIN WASH OUT AND DEEP SOUNDING

Middle Pleistocene deposits remain within the main cave around McBurney's deep sounding. Rich occupation deposits from layers H to C are washing into the now open deep sounding. These deposits contain exceptional archaeology and are extremely rich in bone, lithics and charcoal. The most notable cause for concern is the 'deep sounding' within the north ravine, which was partially filled by the catastrophic fall of Head deposits in 2010. These episodes have effectively turned the 'deep sounding' into a drainage sump allowing surface water to be channelled into the void. This is currently eroding high-value occupation horizons which are demonstrably rich in fauna, burnt fauna, charcoal, artefacts and palaeoenvironmental material. Additionally, a sequence of intact sediments has also been identified on the east wall of the north ravine that are currently susceptible to weathering and collapse.

### 2.2.5 IMPACT OF RETAINING WALLS ON SEDIMENTS

Middle to Late Pleistocene material is retained behind the concrete walls and contains the continuation of



Figure 36: Partially filled 'deep sounding' below plastic sheet

bone heap layers 3 and 6, artefact rich occupation horizons 5 and A. The impact of ground water penetration on the chemical structure of the sediments and faunal remains is unknown. Sediments flushed out through the drainage holes have been observed by the QEAJ team, these contain lemming bones. This suggests erosion of sediments and a possible impact on stratigraphic relationships.

TABLE 1: FORMATION & EROSION PROCESSES OVER TIME

PERIOD	PROCESS	LANDFORM
Late glacial maximum	Formation of Head	Filling of west ravine with Head deposits, sloping across MIS5e platform to below current sea level
Early Holocene	Stabilisation of slope and vegetation	Stable wooded slope
Mid Holocene	Sea level rise erodes through Head deposits, forming a cliff which cuts through deposits formed during MIS5e-MIS2	Unstable cliff through Head. Railway section forms part of the north corner of this cliff, unstable loose head eroded at base to a greater degree leading to undercutting
Mid-Holocene -1950s	Collapse of cliff due to subaerial weathering and burial of mid Holocene cliff and eroded section	Talus slopes form in west ravine covering railway section, visible on 20th century photographs

PERIOD	PROCESS	LANDFORM
Late 20-21 C	Renewed erosion due to natural cycle, sea level rise or increase in frequency of storms	Sea removes up to 12m of talus and Head, railway section and early Holocene cliff reexposed and left vulnerable to weathering, especially during severe cold winters of 2009 and 2010, sediments washed out winter 2013/14

## 2.2.6 PORTELET COMMON

The battery and magazine / gunners room is kept locked and is good order with no sign of graffiti or damage but given the remote location vandalism is a possibility. It provides shelter and is being used as a toilet. Parts of the gun platform are showing early signs of deterioration caused by the growth of grass between the stones. Structural remains south of the building are obscured by scrub.



Figure 37: Overgrown gun platform

## 2.3 CONSERVATION STATEMENT POLICIES

### 2.3.1 CULTURAL POLICIES (CONSERVATION)

**Policy CP1:** Meet legal and statutory requirements having regard to Jersey Heritage's obligations to the States of Jersey to comply with the Island's laws; with policies contained in the Island Plan; and with supplementary planning guidance.

#### Implementation

CP1.1 Satisfy local planning requirements, and particularly policies relating to registered Listed Places and Listed Buildings.

CP1.2 Comply with Health and Safety at Work (Jersey) Law (1989).

CP1.3 Comply with provisions of environmental health legislation.

**Policy CP2:** All conservation work should be carried out in accordance with the conservation philosophy stated in this document and conservation good practice, as outlined in national guidelines and international conventions.

#### Implementation

CP2.1 Employ suitably qualified professionals to prepare specifications and to supervise all works.

CP2.2 Employ appropriately skilled and qualified contractors with experience of similar archaeological conservation work for all repairs.

CP2.3 Ensure access arrangements for conservation and maintenance works are carefully planned so as to cause the least damage to the archaeological site, while ensuring all visitor management and health and safety provisions are adequately met.

CP2.4 Ensure conservation proposals relate to the management and interpretation of the site.

**Policy CP3:** Make decisions concerning repair and conservation based on the best available information about the extent, condition and degree of preservation

of archaeological deposits and palaeoenvironmental deposits.

#### Implementation

CP3.1 Undertake appropriate levels of research prior to the commencement of repair works. This might range from archival research to surface survey, geophysical survey and other non-intrusive survey techniques.

CP3.2 If any new works are proposed which might adversely affect archaeological deposits, seek to mitigate those affects by a change of design.

**Policy CP4:** Ensure that the site and its integrity, including any below ground material of archaeological value, are not adversely affected by alterations in land use, new development or the provision of services.

#### Implementation

CP4.1 Any investigation or excavation must be based on a thorough understanding of the site and commenced only after sufficient desk-based assessment has been carried out.

CP4.2 Maintain and implement a strategy whereby services are installed with a minimal loss of archaeological deposits and in routes where they are accessible for future work.

CP4.3 Means of maintaining necessary environmental and security conditions to be designed and executed in a way so as not to harmfully impact on archaeological deposits.

CP4.4 Wherever possible, ensure that functions and services that may adversely affect the archaeological significance and integrity of the site are placed elsewhere.

**Policy CP5:** Ensure that any proposals to carry out archaeological research at the sites have been approved by the Minister for Planning and Environment.

#### Implementation

CP5.1 Any proposal for fieldwork must be justified in a detailed project design that sets out the project research, curatorial, educational and community engagement aims. It should provide detail of responsible team leaders setting out their qualifications and experience, the proposed

methodology, post-excavation analysis, archiving, publication plans and a timetable.

CP5.2 Any fieldwork proposal must include a plan for the restoration of areas of the site that are disturbed by excavation or palaeoenvironmental sampling.

CP5.3 All personnel involved are expected to abide by the relevant Codes of Conduct of the Institute for Archaeologists.

CP5.4 Project proposers must demonstrate that adequate funding is in place to complete the project as per the research design.

**Policy CP6:** Mitigate risks and vulnerabilities affecting the cultural significance of the site by taking appropriate and timely actions.

Implementation

CP6.1 Prepare a detailed risk assessment to identify areas at risk from fire, extreme weather, high winds, heavy rainfall and flooding, and include preventative measures in the site management plan.

**Policy CP7:** Ensure the long-term sustainability of the site by maintaining consistent records of research and work undertaken at the site.

Implementation

CP7.1 Ensure that a record is made of all interventions, including ongoing maintenance, repair and servicing works, and that this is deposited in an appropriate off-site archive and a copy maintained at the offices of Jersey Heritage, National Trust for Jersey and Société Jersiaise.

CP7.2 Ensure these records are regularly updated.

**Policy CP8:** Produce a Management Plan to help inform and guide future management, research and any further excavation of the site.

Implementation

CP8.1 Establish a Steering Committee with representatives of Jersey Heritage, the National Trust for Jersey, Société Jersiaise and States of Jersey and other stakeholders to provide guidance on the management of the site.

CP8.2 Commission a comprehensive Conservation Management Plan to cover engineering, archaeology, archive and interpretation/access issues.

**Policy CP9:** Encourage the dissemination of knowledge on Cotte de St Brélade commensurate with its international importance.

Implementation

CP9.1 Promote further research into the site, particularly from archival sources held by the Société Jersiaise and Jersey Archive.

CP9.2 Investigate options to undertake non-destructive surveys to record the ravine system.

### 2.3.2 SOCIAL POLICIES

**Policy SP1:** Convey the significance and values of the site in various forms of interpretation and activities at the site.

Implementation

SP1.1 Provide a good range of interpretation that will enhance the visitor experience, whilst maintaining the integrity of the archaeological site.

SP1.2 When major conservation and/or archaeological investigations are being undertaken, the works and their purpose should be conveyed to visitors, including provision of indirect or managed direct access.

**Policy SP2:** Maintain a good provision of physical, social and intellectual access to the site that will promote its significance and values to a wide audience.

Implementation

SP2.1 Produce interpretive material that is easily available and accessible to a range of audiences, and considers those with physical and non-physical disabilities.

SP2.2 Designs and strategies to ensure the safety of all users of the site should be in keeping with the site and its setting, as defined in this Conservation Statement.

SP2.3 In undertaking access improvements, the presumption should be in favour of the in situ preservation of the archaeological remains, unless a convincing case can be made for excavation.

### 2.3.3 ECONOMIC POLICIES

**Policy EP1:** To manage and develop La Cotte de St Brélade as a sustainable heritage asset as an integral part of Jersey's history to the benefit of the local community and visitors to the island.

Implementation

EP1.3 Undertake necessary and urgent conservation and stabilisation based on available funding.

### 2.3.4 IMPLEMENTATION AND REVIEW

Jersey Heritage intends to implement the Conservation Statement Policies during its management of La Cotte de St Brélade and comply with them during any future proposals to conserve, investigate and interpret the sites.

The Conservation Statement should be reviewed at appropriate times in order to ensure compliance with changing circumstances, revisions to legislation, new approaches to conservation, change of land use and visitor needs.

The policies presented above are general in nature and do not address some of the issues that need to be resolved to secure the long term conservation of the site. This is intentional given the complex history of intervention and conflicting stakeholder interests. These recommendations are therefore intended to provide Jersey Heritage with independent guidance on what needs to be done at La Cotte de St Brélade.

As this Conservation Statement is a revision of the version produced in July 2013 (compliant with 2.3.4) the original recommendations are retained but supplemented where they have been adopted or are in the process of implementation.

Completing a comprehensive Conservation Management Plan is a priority. However, this cannot be done satisfactorily without further site investigation. This raises the difficult issues of governance and finance which must be addressed in order to ensure a timely and coordinated response from all interested parties.

This remains a priority and needs to be considered in the context of the site being leased to Jersey Heritage.



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