Archaeological Investigations on Jethou

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History of research

Archaeological research and discovery on Jethou has been very limited in comparison with that of the neighbouring islands of Guernsey and Herm. In his standard work of 1928, Kendrick summarised what was known in a mere 15 lines (as compared with the 99 pages devoted to Guernsey and 22 pages to Herm) (Kendrick 1928). The Lukis family reported no significant discoveries from Jethou, and no megalithic remains (Kendrick 1928, 221). The only archaeological features referred to by Kendrick are two midden sites with some 'hand bricks' (briquetage), a field wall of megalithic blocks, and a raised beach. The presence of a midden had been noted earlier by Lieutenant Oliver in his 1870 report on prehistoric remains in the Channel islands: "There is a large kitchen-midden, portions of which are being continually washed away by the tide" (Oliver 1870, 58). The wall of megalithic blocks was remarked by members of the Société Guernesiaise in their visit to Jethou in July 1922, and briefly described in the *Transactions* for that year (Carey Curtis 1922).

Further archaeological features were noted in Cliff's booklet on the fauna, flora and history of Jethou, and were examined by Johnston on a visit to the island in 1975 (Cliff 1960; Johnston 1981, 119). Johnston dismisses the cromlechs, stone circles and alignments referred to by Cliff, but notes the existence of two standing stones, both of which he takes to be genuine. One of these was investigated anew in 2007 (Trench D: see below), and is clearly an *in situ* Neolithic standing stone. A second standing stone, in woodland at the eastern end of the island, is more likely to have been a medieval or post-medieval gatepost than a prehistoric feature. A further feature mentioned by Johnston, close to what he terms the Gibbet site at the highest point of the island, was a "small slab-lined cist . . . now very overgrown. It is certainly artificial, and may conceivably be a megalithic cist without a capstone." This latter feature too was explored in 2007 (Trench E). Finally, Johnston remarks on the series of cultivation terraces near the southern tip of the island, attributing them to the Benedictine community in residence from 1070 to 1416 (Johnston 1981, 119).

In terms of artefactual material, two significant prehistoric stone objects have been reported from Jethou. The first (now in the Guernsey Museum) is a broken circular stone with conical depressions in either face that Johnston identifies as an unfinished mace-head (Johnston 1981, 21, 112). The second is a polished stone axe some 7.5cms in length and 4.5cms wide, said to have been discovered in one of the cleared fields on the top of the island.

In addition to these isolated finds, a deposit of flint flakes and blades has been discovered eroding from the seabed in the shallows between Jethou and Crevichon. These were first reported to the Guernsey Museum in 2000, and further material has been collected in subsequent years, giving an assemblage of over 300 flakes and blades. The material has been identified as Magdalenian (Upper Palaeolithic) from its typology and it clearly represents occupation or activity on a buried land surface at a

period of lower sea level (Sebire 2005, 48; Sebire & Renouf 2010, 379; Cataroche 2012, 24; Conneller *et al.* 2016, 62). The gully between Crevichon and Jethou was at the time more enclosed, and would have provided a sheltered location for settlement. The flint is of higher quality than that available from the beach deposits exploited in later periods and may have come from now-submerged deposits close to Alderney. At the time of the Crevichon settlement, the coastline lay some 20kms north of Jethou. Rising postglacial sea level separated the Guernsey archipelago from the French mainland in the late 10th millennium cal BC, and Jethou and Herm (together) from Guernsey towards the end of the 7th millennium cal BC. Jethou probably became separated from Herm only in the mid-6th millennium cal BC (Sebire & Renouf 2010, 376; Conneller *et al*. 2016, 61).

These earlier discoveries indicated that despite Jethou's relative neglect in the archaeological literature, remains from several periods survived on the island and gave evidence of a number of different activities. These included enigmatic features such as the 'slab-lined cist' that were clearly of human origin but of uncertain age and character. In late 2006 the present tenant of Jethou, Sir Peter Ogden, invited the author to undertake new archaeological investigations on the island in order to evaluate the visible archaeological features and to search for additional evidence. A preliminary visit led to the identification of a series of target zones:

• two midden sites in the coastal cliff immediately to the west of the present house;

• the 'megalithic' wall across the summit of the island, remarked during the Société Guernesiaise visit of 1922;

• the sunken feature in the woodland close to the highest point of the island (Johnston's hypothetical 'slab-lined cist'); and

• the standing stone in the open field on the summit of the island.

As a preliminary step, a geophysical survey was conducted of the two open fields on the top of the island, with the aim of determining the position of any buried archaeological remains such as pits, ditches or buried blocks. This survey revealed a series of geomagnetic anomalies, and investigation of these was included in the programme of archaeological excavations in September 2007, the results of which are reported here. To summarise, pottery of the 5th millennium BC was discovered in the open area on top of the island, Iron Age and Roman remains on the northern coast, and a probable medieval chapel close to the highest point. The investigations also threw light on the character of the island landscape before it was cleared for cultivation. These issues are discussed more fully in the final section below.

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[Figure 1]

Geophysical survey

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Geophysical survey was undertaken in July 2007 to identify areas for excavation and to test for the presence of buried megalithic structures on the higher part of the island. This area comprised two grassy fields enclosed by substantial, carefully constructed, dry-stone walls. The underlying solid geology of the island is granodiorite, an intrusive igneous rock similar to granite, which is overlain by loess.

Given the igneous geological environment of the study area and the unknown depth of soft cover, it was considered prudent to take equipment for both geomagnetic and earth electrical resistance surveys. The techniques rely on different soil properties to provide complementary data. The former is ideal for providing a relatively rapid overview of sub-surface features across large areas, but can be adversely affected by underlying igneous strata, while the latter is ideal for mapping stone features but is much more time-consuming.

Initial survey in Area A (Figure 2) indicated that fluxgate gradiometry was providing useful data and so this technique was employed to survey the whole of both fields. The granodiorite here may be felsic rather than mafic, having relatively low percentages of the heavier elements, such as iron.

[Figure 2]

A 30m grid was established across each survey area and tied-in to known, mapped points. Measurements of vertical geomagnetic field gradient were determined using a Bartington Grad601-2 dual fluxgate gradiometer. A zigzag traverse scheme was employed and data were logged in 30m grid units. The instrument sensitivity was set to 0.1nT, the sample interval to 0.25m and the traverse interval to 1.0m, thus providing 3600 sample measurements per 30m grid unit. Data were downloaded on-site into a laptop computer for initial processing and storage and subsequently transferred to a desktop computer for processing, interpretation and archiving.

Geoplot v.3 software was used to process the geophysical data and to produce both continuous tone greyscale images and trace plots of the raw (unfiltered) data (Figure 3; the trace plots are provided in Figure 4). In the greyscale images, positive magnetic anomalies are displayed as dark grey and negative magnetic anomalies as light grey.

[Figure 3]

[Figure 4]

Positive magnetic anomalies are normally taken to reflect relatively high magnetic susceptibility materials, typically sediments in cut archaeological features (such as furrows, ditches or pits) whose magnetic susceptibility has been enhanced by decomposed organic matter or by burning. Some weak anomalies here, such as those in the eastern corner of Area A, may reflect soil-filled ditches, however, the most striking anomalies are much more intense than would be expected of such features.

Two broadly parallel bands of very strong anomalies were detected across both fields, aligned approximately east-west (Figure 5). To the north of the wider band is a trapezoidal arrangement of similarly high values. Rather than reflecting materials of very high magnetic susceptibility within a ditch fill, these values may reflect a permanent, thermoremanent magnetization acquired by rock as it cooled from molten to solid state. The anomalies could then reflect either geological or anthropogenic features: magma-filled fractures or fissures (dykes) within the granodiorite, or substantial structures of deliberately placed blocks of igneous rock.

[Figure 5]

There are corresponding gaps at the approximate midpoints of the two linear anomalies, lending support to their interpretation as deliberate structures, but subsequent excavation (Trench C) showed them to be geological in origin. The two long parallel features crossing both fields are now known to be igneous dykes, whose uppermost fills had eroded and subsequently been replaced by loess. The large trapezoidal anomaly in the central part of Area A, almost the highest point on the island, was provisionally interpreted as deliberately placed igneous blocks, possibly part of a large megalithic monument, but no evidence of such a structure was detected during the subsequent excavation (Trench B). It was concluded that this anomaly too must reflect deeper features of geological origin.

Near the eastern end of one of the linear features is a similar, though perpendicular, anomaly. This is also now believed to reflect an igneous dyke. Other anomalies of possible archaeological origin comprise relatively weak positive magnetic lineations, which could reflect soil-filled features such as ditches.

To summarise, intense anomalies were detected in both areas A and B. On the basis of the geophysical evidence alone such anomalies could have reflected either intrusive igneous dykes or massive stone structures deliberately constructed from dyke material as part of a prehistoric ritual landscape. Subsequent excavation, however, revealed that none of the major anomalies corresponded to anthropogenic activities and a geological origin appears more likely.

Excavations on the northern coast of the island

The northern coast of Jethou where the present house stands is less precipitous than the other sides and also benefits from the shelter provided by the rocky outcrop of Crevichon, which is connected to Jethou by a shingle bar at low tide. The beach cobbles overlie a loamy earth of loessic type that has yielded the assemblage of flint flakes and artefacts referred to above.

[Figure 6]

To the west of the present house the shingle beach is backed by an eroded granite cliff, the latter topped by a metre of loam. The coastline here forms a shallow bay, with two discrete deposits of shells with burned clay or ceramic and traces of burning sandwiched between the base of the loam and the underlying bedrock. Oliver, Kendrick and Johnston all reported middens on Jethou (Oliver 1870, 58; Kendrick 1928, 221; Johnston 1981, 119). Kendrick (drawing on Lukis manuscripts) also refers to the presence of 'hand-bricks' (briquetage) in this context, and briquetage has been discovered in coastal exposures on the neighbouring island of Herm (Cunliffe & De Jersey 2000), but no trace was found in our own investigation of these Jethou deposits.

Trench A

The midden exposures were labelled A (to the south-west) and B (nearest the modern house). Of the two, Midden B was the larger, with 40cms of stratified deposits extending 1.2m in width. In order to explore this deposit a trench (Trench A) was opened on the cliff top, some 2m back from the cliff edge. An important consideration in this work was to avoid damage to the cliff itself and to ensure that the archaeological work did not precipitate further coastal erosion.

Trench A began as a 2m x 2m test pit but was extended a further 2m to the east as the depth of the deposits became apparent. The location was marked by a surface scatter of loose medium- to large-sized granite blocks and boulders that were removed by hand and machine before excavation began. The trench lay between a path and the cliff edge, and the presence of a ruinous stone building with slate roof on the opposite (eastern) side of the path proved significant in terms of the material recovered in the upper layers. The building may originally have been constructed as a storeroom, possibly for gunpowder in connection with 19th century granite quarrying on Crevichon, but had subsequently housed the electricity generator for the island. That too was now dismantled, and considerable quantities of generator parts and debris had come to rest in Trench A, concentrated notably in the southern part of the trench.

[Figure 7]

The northern half of Trench A cut through a mound of dark organic soil mixed with rubble and modern detritus (context 101). Immediately below was a continuous horizon of broken slates (102), covering the entire southern and western part of the trench and derived presumably from the roof of the ruined storeroom. Below that again was a light brown loam (103), dipping downwards slightly at the northern end of the trench; then a darker more organic soil (109); and finally a layer of fine-grained loess (110), sterile save for occasional smudges of charcoal. The deeper layers were explored only in a 1.1m x 2m sounding in the southwest corner of the trench.

In the south-eastern corner of the trench at a depth of 50cms a deposit of limpet shells was encountered (context 107), associated with a few orange flecks of decayed ceramic (but no identifiable shapes). The deposits continued into the eastern and southern sections and appeared to be fringed by a loose arrangement of medium-sized granite blocks. This may represent a small discrete midden deposit similar in character to Midden A exposed in the cliff face. Excavation in this part of the trench ceased at this level.

In the deeper sounding to the southwest, a layer of yellow-brown gritty material at a depth of 80cms was identified as the surface of the eroded granite bedrock. It was sealed by the loess, and was dipping down towards the south. Thus no trace was discovered of Midden B exposed in the cliff face only 3m to the west of the southwest corner of the trench, where the scatter of material continued down to the bedrock surface. This suggests that in surface extent midden B covered only a limited area and was not part of a more extensive occupation surface. Midden A, likewise, may have been only a localised feature, of the kind represented perhaps by the limpet layer (context 107) within Trench A.

100	topsoil	glass iron & copper (generator parts) mortar slag bone shell pottery (modern)
101	medium brown loam (modern midden)	glass iron bone shell
102	roof slates	glass iron tile slate shell
103	light brown gritty loam	bone
104	surface blocks (eastern extension)	[none]
105	topsoil & medium-brown organic (modern midden) (equivalent to 100, 101 & 102)	glass iron tile slate bone clay pipe shell pottery (modern) pottery (*Terra nigra*)
106	light brown gritty loam (equivalent to 103)	[none]
107	light brown grey deposit with shells (southwest corner of trench)	shell pottery (ceramic flecks)
108	wall or kerb surrounding 107	[none]
109	dark brown soil	[none]
110	fine-grained loess	pottery (Normandy gritty ware)
111	eroded granite bedrock	[none]

The majority of the abundant artefactual material from Trench A was of recent origin, and came from the upper layers 100-102 & 105. Context 105 did however contain a

small rim sherd of Gallo-Roman *Terra nigra*, a class of ceramic produced in northeastern France during the 1st century BC and 1st century AD. The sherd was discovered among post-medieval and modern debris most likely dumped within the past 50 years. This dump overlies the horizon of roof slates from the ruined storeroom and hence must post-date the abandonment of the latter and the decommissioning of the electricity generator that it formerly housed. The material probably came from clearance and construction around the modern house and its outbuildings. This single sherd of *Terra Nigra* is the only evidence of Roman period activity on Jethou, but should be set within the context of Gallo-Roman traffic known to have used St Peter Port harbour, and most graphically represented by the Gallo-Roman shipwreck discovered in the harbour entrance in 1982 (Sebire 2005, 112-113). It is consistent with the view that the shoreline sheltered behind Crevichon where the present house stands has always been the preferred location for settlement on Jethou, with a shelving shingle beach up which boats could be drawn.

[Figure 8]

A second diagnostic potsherd was discovered in context 110, a layer otherwise devoid of artefacts. This small sherd of Normandy gritty ware may have arrived in this location through the action of burrowing animals, although no trace of burrows was visible. Normandy gritty ware was manufactured in the Rouen area between the 11th and 13th century AD.

Middens A and B

Excavation of Trench A demonstrated that Midden B did not extend back from the cliff face to any significant extent, and certainly not far enough to be encountered in that trench. It was decided therefore to conduct limited examinations of middens A and B in the cliff face itself. For this purpose a ladder was placed against the face of the cliff at both locations, and photographs and sketch diagrams prepared indicating the composition and stratigraphy of each deposit. Samples were also taken for C14 dating and other environmental analysis, including two conjoined blocks of deposit from Midden A. Both middens consist probably of debris dumped from occupation nearby. In Midden A there was also evidence of high temperature heating which may indicate metalworking activity in the vicinity.

[Figure 9]

Midden B was the larger of the two exposures (1.2m wide and 40cms thick). Its most prominent feature was a sharply defined charcoal horizon some 2cms deep curving down towards its northern end. This was infested with ants and hence too contaminated for radiocarbon dating. Below the charcoal horizon, and extending slightly above it, was a mottled area of burned deposits, in places dark or light grey in colour, in other places yellow/brown, and elsewhere marked by orange patches. The latter were areas of burned clay rather than ceramic, as had at first been suspected, though small sherds of indeterminate date were recovered from the samples taken from this midden. The stratigraphy was consistent with the remains of a superimposed series of hearths or deposits of hearth debris. At the base, a brown gritty deposit marked the upper 5-10 cms of the eroded granite bedrock.

[Figure 10]

Immediately below the charcoal horizon in the northern half of the exposure was a thin deposit of limpet shells.

Midden A was located within the same cliff face at a point approximately 20m south of Midden B. The exposure was less extensive than Midden B and was divided into five stratigraphic units:

1. a dark grey earth with ash and small dark inclusions (0-18cms)

2. a hard red clay (burned) with small white and some larger red flecks (18-24cms)

3. a hard gritty yellow horizon (24-25 cms)

4. a dense deposit of limpet shells in grey ashy matrix with charcoal (25-31cms)

5. hard sand directly overlying eroded granite bedrock

The block samples removed from Midden A were analysed at the University of Stirling. (Technical reports on the micromorphological and sediment analyses of the middens are available at xxx.) Micromorphology revealed that the deposits that make up the midden accumulated through a series of separate episodes with standstills between. Domestic waste burned at low temperatures was a major component of the midden, accompanied by coarse and fine minerals. Some of the latter had been heated to low temperatures but there were also numerous traces of high temperature heating to levels characteristic of metalworking. There were no remains of fuel (such as wood, peat, turf or animal manure), suggesting that the heated minerals came from hearths.

[Figure 11]

Analysis of sediment samples from both middens revealed traces of domesticated cereals and (from Midden A) a bird ulna and a sheep-sized rib fragment. Fish bones were present in both middens together with fish scales in Midden B. Small potsherds were recovered from both middens, especially Midden B. There was, however, no briquetage.

A single limpet shell was taken from each midden and submitted for radiocarbon dating. The results indicated that Midden A was the earlier of the two with a calibrated age of 380 to 160 cal BC (2370±40 BP: Beta-240180). Midden B is a more recent deposit: 790 ±40 BP (cal AD 1300-1450: Beta-240181) (calibrations INTCAL04 adjusted for local reservoir effect with MARINE04 calibration database). Taken together with the evidence from Trench A these middens indicate recurrent and possibly continuous settlement activity on the northern coast of Jethou since the late pre-Roman period. The presence of limpet shells and fish bones in both middens indicates the exploitation of marine resources. The barley rachis from Midden A and the wheat grain from Midden B may indicate that these crops were cultivated on Jethou at the respective periods although it is equally possible that they were imports to the island.

Visual inspection of the cliffs around the rest of the coast of Jethou failed to reveal any further midden exposures of this kind. This gives further weight to the argument

that the relatively sheltered coastline close to the present house has always been the preferred location for settlement on the island.

Excavations on the summit of the island

Three small trenches were excavated within the open area on the summit of the island. Two of these (B and C) were intended to explore anomalies revealed by the geophysical survey, while the third (D) was positioned at the base of the standing stone in order to determine whether it was *in situ* and whether there were associated prehistoric features. A fourth trench F was excavated against the foot of the wall of vertical granite blocks of megalithic dimensions.

[Figure 12]

Trench B

Geophysical survey revealed a trapezoidal anomaly measuring approximately 35m north-south by 10m east-west in the central part of Area A (Figures 3 & 5). The strength of this anomaly was consistent with deliberately placed igneous blocks, possibly part of a megalithic monument. Trench B was located across the western edge of this anomaly to determine whether it was an anthropogenic or a geological feature. The trench began as a 4m x 2m rectangle (4m east-west by 2m north-south). Removal of the turf revealed a dark gritty soil with some flints, in which a Guernsey coin bearing the date 1830 was discovered at a depth of 10cm. Bedrock – an orange, gritty, decayed granite – was reached at a depth of 20-25cms. The only features revealed were two shallow soil-filled depressions near the southwest corner of the trench (Figures 13 & 14).

[Figure 13]

[Figure 14]

The first of these, feature 205, was situated approximately 1m from the western and 75cms from the southern edge of the trench. Excavation showed it to be a hollow some 15cms in depth and c.65 x 50cms across at the surface. The sides were gently shelving and were marked by granite fragments embedded in their surface; notably on the eastern side where four conjoined fragments appeared be parts of a single cracked piece of *in situ* granite, giving a rounded profile to this edge of the hollow. A further *in situ* stone formed the western side of the pit. The fill was a loose brown soil, containing one flint flake.

The second feature (207) lay 15cms to the southwest of 205, measuring 45 x 30 cms across at the surface and 23cms deep, and was more rectilinear in shape. One of its longer sides, together with its floor, was formed by a single large granite block embedded in the eroded granite surface. The junction between vertical sidewall and sloping floor formed a right angle. A further *in situ* granite block was embedded in the steeply sloping southwest face of the feature. There were no finds in the loose brown fill.

The southern corner of feature 207 was truncated by the trench edge and an extension measuring 2m east-west by 1m north-south was excavated in order to obtain a complete plan and to ascertain whether further similar features lay in line with these two. The only new feature revealed in this extension was a shallow scoop in the surface of the eroded bedrock, in line with 205 and 207, but incorporating no further embedded granite blocks (Figure 15).

[Figure 15]

Features 205 and 207 appear to represent the bases of natural earth-fast granite blocks or boulders that had been removed, probably when this part of the island was cleared to allow cultivation. The topsoil and subsoil contained a variety of recent material including the 1830 coin, an iron nail, white-glazed pottery, a fragment of glass bottle, tile, coal and three pipe stems. These indicate recent cultivation of the soil though the cultivation itself may have begun much earlier. The discovery of flint flakes and fragments in the subsoil is significant in that this material, of poor flaking quality and derived most likely from beach cobbles, must have been brought up to the top of the island and would not have occurred here naturally. Together with similar discoveries in Trenches C, D, E and F it indicates a moderate level of prehistoric (probably Neolithic) activity across the whole of the top of the island.

The possibility that features 205 and 207 are humanly dug sockets for standing stones can be rejected on a number of grounds. The blocks embedded in their sides and bases show no signs of having been intentionally placed and the sharp angles in 207 follow natural cleavage lines with no marks of intentional working. It remains possible, however, that the stones removed from these features were incorporated in neighbouring field boundaries (such as that explored in Trench F).

201	turf & topsoil	slate pipe stem glass coin 1830 glazed pottery coal tile worked flint x 2
202	subsoil: mid-brown loose gritty soil	slate x 2 pipe stem x 2 glass bottle fragment white glazed pottery iron & iron nail coal x 2 tile pottery x 2 flint x 2
203	fill of feature 205: mid-brown loose loamy soil	flint
204	bedrock (eroded granite)	[none]
205	pit-like feature	[none]
206	fill of feature 207: mid-brown loose loamy soil	[none]
207	pit-like feature	[none]

Trench C

Trench C (like Trench B) was positioned to investigate a feature revealed by the geophysical survey. This had shown two irregular positive magnetic anomalies some 15m to 20m apart, running northwest/southeast across the southwestern corner of the eastern field (Figures 3 & 5). Attention focussed on breaks in both anomalies, which appeared to be roughly in line with each other. A weak negative magnetic anomaly at right angles to these positive anomalies ran exactly through these breaks. The survey concluded that the two positive anomalies might be geological (magma-filled fractures or fissures) but could be anthropogenic in origin (substantial structures of deliberately placed blocks of stone). The alignment of the positive anomalies with the prominent sea-cave on the adjacent southeast coast of Jethou suggested that, on balance, a geological explanation was more likely, but Trench C was opened to place the matter beyond doubt and to explore the nature of the weak positive anomaly, which the geophysics report suggested might have been a trackway.

The initial trench measured 4m east-west by 2m north-south. Removal of turf and the 30cms of subsoil (a loose brown-red loam) revealed a yellow band forming a kind of low bank and running obliquely north-south through the western end of the trench (context 303) (Figure 16). Further excavation to the east of this bank encountered the eroded granite bedrock (context 308) at a depth of 40-45cms. Within the lower part of the subsoil (302) were found two potsherds of possible Iron Age date plus a flint blade.

[Figure 16]

The bank was sectioned by removal of its southern half in order to reveal its internal stratigraphy (Figure 17). This showed it to be made of yellow earth with some medium-sized stones. In the northern half of the trench it appeared to rest on a light brown soil that overlay the eroded granite bedrock. In the southern half of the trench, however, the light brown soil overlay not bedrock but the loess fill of a sharply defined feature whose edge ran obliquely along the length of the trench from northwest to southeast.

[Figure 17]

[Figure 18]

The loess-filled feature was suspected to be of geological origin, and to verify this an extension 2m north-south by 1.7m east-west was opened in the southeastern corner of the trench (Figure 18). Below the turf and topsoil was a subsoil (context 312) of light brown silt similar to that in the main body of the trench. In this layer and in the underlying deposit 318 were three Neolithic potsherds, two of them with projecting ‘boutons au repoussé’ (Figures 19 & 20). This decoration places them in the Middle Neolithic I period (second or third quarter of the 5th millennium BC) or possibly early in Middle Neolithic II: ‘boutons au repoussé’ are especially characteristic of the Pinacle-Fouaillages group c.4600-4300 BC (Marcigny *et al*. 2010, 148). The first of these decorated sherds was found in context 312 at a depth of 28 cms below the ground surface; the second in context 318 (a pit-like feature against the western section) at a depth of 53 cms. An undecorated body sherd and worked flint were also discovered at this level. The underlying layers encountered in this extension (contexts 314-317, 319) were sterile of archaeological finds.

[Figure 19]

[Figure 20]

When excavation reached a depth of 60cms the southeastern extension was narrowed to a deeper sounding 1m in width, leaving a 70cm wide step on its eastern side. Ten centimetres below this level, a jagged bedrock edge (context 320) was revealed running north-south through the trench (Figure 21). This bedrock edge is clearly a significant geological fault, and must be the anomaly detected in the geophysical survey. Excavation continued for a further 40cms in the deeper sounding, revealing variations in the loess fill. A branching gully ran irregularly west-east across the floor of this deeper sounding (context 319). As already observed, these deeper layers were archaeologically sterile, and excavation was halted at this point. The bottom of the bedrock fissure was not reached, nor its western edge.

[Figure 21]

Hence in Trench C we appear to have the intersection of two bedrock faults running orthogonally to each other at different levels (Figure 22). The upper of the two is marked by the edge of the eroded granite bedrock surface (context 308) cutting obliquely east-west across the main area of the trench and running beneath the bank (context 303) at its western end. The second and lower fault is marked by the dramatic saw-tooth edge (context 320) running north-south through the deeper sounding.

[Figure 22]

The distribution of archaeological material through these deposits indicates a generally lower density than in Trench B with none of the modern material encountered in the latter trench. The topsoil and subsoil contains some worked flint and pottery including the potentially Iron Age sherd from context 302 (Figure 23). The Neolithic material from layers 312 and 318 is the oldest material so far recovered from Jethou, and its stratigraphic position within Trench C demands some comment. The uppermost sherd lies within the subsoil and will have been disturbed by cultivation. The context of the lower sherd, 318, appears to be a poorly defined pit or natural hollow directly above the gravelly fill of the gully (context 319) that cuts through the loess fill from west to east. It is probably safest to assume that 318 is a natural feature and that the rim sherd and flint from this context were in fact derived from material originally lying at a higher level. Thus no Neolithic structures were present in Trench C, although the decorated Neolithic pottery indicates 5th millennium BC activity in the vicinity.

[Figure 23]

301	turf & topsoil	pottery
302	subsoil: light brown loose gritty soil	flint pottery pottery (Iron Age?)
303	possible bank	[none]
304	medium-brown soil with stones; upper fill of E-W geological fault	flint pottery
305	light yellow fine gritty soil with stones: half-section though bank 303	flint small potsherd
306	loose light brown soil with medium to small stones: surface below bank 303	[none]

307	medium-brown soil with stones; upper fill of E-W geological fault below bank (equivalent to 304)	[none]
308	eroded granite bedrock (northern half of trench)	[none]
309	dark loamy soil with stones: fill of E-W geological fault	[none]
310	dark loamy soil: box section through E-W geological fault	[none]
311	turf & topsoil (trench extension)	[none]
312	subsoil: light brown loose gritty soil	flint debitage decorated rim sherd (Middle Neolithic I) undecorated body sherd (Neolithic?)
313	medium-brown loess with stones: upper fill of N-S geological fault equivalent to 304	[none]
314	yellow-brown loess: fill of N-S geological fault	[none]
315	grey-brown loess: fill of N-S geological fault	[none]
316	light yellow loess: fill of N-S geological fault	[none]
317	dark brown loess: fill of N-S geological fault	[none]
318	dark brown loess with coarser material and some gravel: gully or hollow within fill of N-S geological fault	flint flake decorated rim sherd (Middle Neolithic I)
319	sandy yellow with gravel: fill of gully within N-S geological fault	[none]
320	solid granite bedrock	[none]

Trench D

The third trench investigated in the open area on the summit of the island was placed against the foot of the standing stone on its northern side. The standing stone is the only prehistoric monument on Jethou that has been securely identified. It is a granite monolith rising some 1.15m above current ground level but with oblique intersecting facets on its upper surface. These facets are the result of damage and indicate that the stone was once taller than it is today. An indication of the age and intention of that damage is provided by the roughly incised cross carved into the surface of the north-eastern facet. The motif measures 7.1cms long and 4.6cms wide, with arms set slightly obliquely to the vertical shaft. The Christianisation of standing stones (as an alternative to their destruction) is a well-attested phenomenon, and can include both the carving of motifs and the addition of stone crosses socketed into their summits. In the case of the Jethou standing stone, it is tempting to associate the carving of the cross with the damage to the upper part of the stone – as if, having broken off its upper part, the Christianisers finished their work by carving a cross on the remaining stump – but it is also possible that the destruction and the carving represent two separate interventions. The date of the carving is impossible to fix, but could relate to the construction of a church or chapel on the summit of the island, or to the donation of Jethou to the abbey of Mont-Saint-Michel in the 11th century. Christianisation of standing stones did however continue into more recent periods, as demonstrated for example by the 17th century crucifixion scene carved and painted on the menhir of Saint-Uzec in northern Brittany (Marchat & Le Brozec 1991, 44-47).

[Figure 24]

The excavation of the Jethou standing stone focused on the northern side of the monument, in order to avoid disturbing the two modern dogs' graves against its southern face. The trench measured 3m north-south by 1.5m east-west, the long western side of the trench passing through the centre of the stone to provide a cross-section of its emplacement (Figures 25 & 26).

[Figure 25]

[Figure 26]

The stratigraphy encountered in this trench was similar to that in Trenches B and C. Turf and topsoil were followed by loose mid-brown subsoil that directly overlay the gritty surface of the granite bedrock. The disturbed character of the subsoil, like that in Trenches B and C, and the glass, metal and clay pipe fragments within it, suggest that recent cultivation had come close to the foot of the stone. It was noted, however, that the soil was darker and deeper on the western side of the standing stone, and that the surface of the bedrock sloped down on this side. Given the friable nature of the eroded granite surface, and the likelihood that its current level has been fixed by the depth of recent cultivation practices, this deeper soil may reflect more intensive cultivation to the west of the stone.

The standing stone was supported in place by a ring of packing stones (Figures 27 & 28), though there was very little trace of the socket dug to receive them. The top of the tallest packing stone, a globular granite cobble placed directly against its northern face, lay immediately below the current topsoil and only 5cms beneath the surface of the turf. Within the excavated area four packing stones were exposed plus three smaller fragments (one of them disappearing into the section); it is likely that they are part of a complete ring around the foot of the standing stone.

[Figure 27]

[Figure 28]

• packing stone A: a shaped block 21cms x 17cms, truncated by a break at either end; standing 12cms high at its highest point

• packing stone B: a cuboid block lying partly on its side, measuring 14cms long by 12cms wide and 7cms thick

• packing stone C, the largest of the series, a sub-spherical stone measuring 30cms by 21cms, pecked into a smooth rounded top, and rising 26cms above the eroded bedrock surface

• packing stone D: a naturally weathered stone, flatter in shape with a natural break along its east side, measuring 25cms long by 15cms wide and 6cms thick.

The socket in which the standing stone had been erected survived as a shallow irregular depression in the bedrock, only 1-3cms deep, with gently sloping edges (Figure 29). Even under close observation it was very difficult to trace the edges of this cut in the overlying earth, despite that fact that the trench had been specifically positioned so as to provide a cross-section. To the east of the stone, a slight colour

change was visible between a dark subsoil beyond and a lighter subsoil within the socket, the boundary between the two represented by a faint oblique line some 32cms from the foot of the stone. The edge of the cut was even more difficult to observe on the western side, though with the eye of faith, and guided by the lip of the depression in the bedrock, a very slight change in soil texture could be detected some 30cms from the foot of the stone. Observations were hampered by strong sunlight and the dryness of the ground, but dampening the section did not significantly improve the visibility of these colour changes.

[Figure 29]

Modern material (glass, slate, tile, pipe stem, iron) was scattered through the topsoil and subsoil, indicating extensive recent disturbance. Close to the western end of the trench at a depth of 40cms a sherd of prehistoric black-faced micaceous pottery was found, resting on bedrock; another was encountered in a similar position to the east of the standing stone, and a third came from an unspecified location within the same context (404). A cluster of worked flint was associated with a small spread of broken stone within the subsoil close to the north-west face of the standing stone, immediately above the packing stones; this included a small flint spall and two cortical flakes. This once again indicates a general spread of prehistoric activity across the top of the island, though (despite the presence of three potsherds within a relatively restricted area) it is not notably more abundant in the vicinity of this standing stone than it is in Trenches B and C.

[Figure 30]

401	turf and topsoil	glass iron flint
402	topsoil	glass flint
403	subsoil (southern end of trench): mid-brown silty soil with fine sand	glass flint
404	subsoil (remainder of trench & continues below 403): light brown silty soil with fine sand	glass iron slate x 2 tile ceramic (modern) pipe fragment shell chalk pottery x3 (prehistoric) flint
405	stone deposit below 402/above 404	glass corroded iron or iron pan flint x 4
406	packing stones around foot of standing stone	[none]
407	base of socket (shallow cut in bedrock surface)	[none]
408	fill of socket for standing stone 407: dark earth; some root disturbance	[none]
409	eroded granite bedrock	[none]

In an attempt to establish the date of erection of the standing stone, a core was extracted from the underside of packing stone A for luminescence analysis (see Appendix). Unfortunately luminescence characteristics of the quartz and feldspar crystals proved unsatisfactory for reliable estimation of the age of burial of the stone surface. A sample taken from the immediately underlying sediment was more successful, however, and gave a luminescence age estimate of c. 2200 BC. Assuming a typical uncertainty of +/-10% in the OSL age, this 3rd millennium or earlier 2nd millennium date is entirely within the expected range, albeit towards its lower (more recent) end. It indicates that the standing stone may be as much as two millennia younger than the Neolithic material discovered in Trench C.

Why this standing stone was left in place when other natural granite blocks were removed in recent times, as evidenced in Trench B, is unclear, though its size may have been a factor.

Trench F

The wall of upright megalithic blocks that forms the boundary between the open summit of Jethou and the wooded area to the east is a striking feature of the island. It was remarked upon by the Société Guernesiaise when they visited Jethou in July 1922: "the component stones were of large size, set upright as Menhirs are, averaging about 3 feet above ground, in fact they resembled a row of the sacred stones at Carnac, except that they were continuous" (Carey Curtis 1922, 87). The blocks that comprise this wall are of various shapes but several have a size and morphology that would be consistent with the notion that they were, or had originally been, standing stones. Two features were especially worth consideration. In first place, the wall forms the boundary between the stone-free area to the west and the stone-scattered area under the trees to the east. It appears likely that the wall was built of stones that were cleared from the area to the west. The natural boulders that had been removed from the sockets revealed in Trench B may have been incorporated within this wall. It is also possible that one or more standing stones were displaced during the same process. The second feature, which the excavation was targeted directly to explore, was the possibility that the wall had been built by a process of infilling, connecting up existing standing stones to form a continuous screen. Trench F was excavated to determine whether the megalithic blocks of the wall were founded at the same level, or were set at different levels in the subsoil, and hence whether they were likely all to have been erected at one time as part of a single operation.

The trench measuring 4m north-south by 2m east-west was opened against the western face of the wall close to its central section, where the stones are particularly large and the wall itself well-preserved (Figures 31 & 32). Beneath topsoil and a thick carpet of pine needles, the subsoil appeared, sealing a surface of eroded granite bedrock (identical to the bedrock surface in Trench B, C and D) at a depth of 30 cms. Cleaning of the section against the bases of the stones revealed that were bedded on the surface of the subsoil. It is likely that the wall was constructed simply by hauling the stones upright and manoeuvring them into line. None of them was set in a socket or rested on the bedrock. The impression was of a structure of relatively recent (and certainly post-prehistoric) date. A core was drilled for luminescence dating from the base of one of the stones a short distance to the south of the trench. This failed to give

a reliable measurement, but a sediment sample from immediately beneath the stone gave a low-precision result consistent with a medieval age for the wall (see Appendix). The wall may hence be part of the reorganisation and agricultural improvement of the island during the period when it was a possession of the abbey of Mont-Saint-Michel.

[Figure 31]

[Figure 32]

600	topsoil	[none]
601	subsoil: light brown loam	pottery (prehistoric) flint debitage flint cores
602	eroded granite bedrock	[none]

A small potsherd of probable prehistoric date was discovered in the subsoil, along with several flint cores and debitage (but no finished artefacts). This suggests that a knapping site existed in the vicinity. The flint is testimony once again to the general scatter of Neolithic activity traces across the summit of the island.

[Figure 33]

The rectangular structure (Trench E)

On the highest point of the island is an enigmatic stone structure. Prior to excavation, partially overgrown and filled with leaf mould, it appeared to be a sunken feature of approximately rectangular form, edged by substantial blocks of stone. A conspicuous block of megalithic dimensions occupied the centre of the southern side, while the southwest corner consisted of an upright slab butted up against a short length of dry stone walling. There were traces of dry stone walling also along the northern edge. The sharp angles and flat faces of the larger blocks and the crisp right angle of the southwest corner argued for a late prehistoric or post-prehistoric date, though the possibility that this was a megalithic cist that had lost its capstone, as suggested by Johnston (1981, 119) could not entirely be excluded.

Excavation to determine its nature and date began by half-sectioning the interior along the long axis, removing 10-15cms of loose topsoil from its southern half. This revealed that the stones of the southern wall did not continue downwards but were bedded at a relatively high level, above the level of the subsoil in the centre of the structure. It was concluded that the original floor level had been dug away. The only finds in the superficial infill were small pieces of plaster or mortar, but they were too few to suggest that this was the remains of a stone and mortar structure, and no traces of mortar were found between the courses of stonework. Subsequent excavations confirmed that the structure was exclusively of dry-stone construction.

The excavation was extended to cover the whole of the visible remains up to a line 2m from their western end. It was initially considered that the large horizontally placed stone lying in the centre of the western wall might be a threshold slab that marked the location of the principal entrance (Figure 34). Excavations showed instead that the ‘threshold’ slab was merely a fallen block from the western wall, fitting exactly into

the gap between the walls flanking it to either side. The location of the entrance to the structure (assuming there was one) remains a mystery, but it may have lain at a higher level. The destruction of the interior makes it impossible to determine the level of the floor and of any doorway that would have led onto it from the outside.

[Figure 34]

The plan revealed by excavation is that of a sub-rectangular dry-stone building incorporating megalithic blocks in its base, and fitted carefully into a space between rock outcrops and granite boulders. Substantial granite outcrops occur close to the southwest and northwest corners, with another in the middle of the northern side and three more along the southern side. These outcrops of solid grey granite sit within a granular yellow-brown eroded granite surface, equivalent to that encountered in Trenches B, C, D and F.

Five blocks of megalithic proportions are incorporated into the foundation, three along the northern side and two along the southern side (Figure 35). Of these, the largest (the central stone in the southern side, measuring 1.5m across) has a split face turned towards the interior. The western end of this block has also been pushed out of line (towards the interior) by tree roots. The structure has also suffered considerable disturbance from a large tree with extensive root system in its southeast corner. The three blocks of granite that form the western wall are of sub-megalithic proportions, and furthermore stand on edge. Unlike the southern, eastern and northern walls, where outer and inner faces enclose a rubble core, this western wall appears merely to be a facing, backed by the rising ground level. There is no evidence that further courses of horizontally-laid dry-stonework stood above these slabs.

[Figure 35]

The surviving dry-stonework consists of granite blocks c.25-40cms across with squared outer faces. It varies in quality of construction, though much of this variation may result from the degree of disturbance that the structure has suffered. In general, the eastern end is better built and better preserved than the western end. The southeastern outer corner was particularly well built, with two courses of squared stones resting on a carefully shaped cylindrical cushion stone or grounder. The surface of the degraded bedrock appeared to lap up against the edge of this grounder, indicating that the stone had probably been laid on the bedrock surface (i.e. in a foundation trench cut through topsoil and subsoil) but that later erosion of the exposed bedrock had been followed by some redeposition (Figure 36). This may be contrasted with the southwestern corner, where excavation against the outer face of the south wall between two granite outcrops revealed only a single surviving course of mixed blocks laid (somewhat irregularly) on the eroded bedrock surface (Figure 37).

[Figure 36]

[Figure 37]

In internal dimensions the structure measures 4.82m east-west and is trapezoidal, wider at the east (2.05m) than at the west (1.74m), although the position of the northern inner wall face at the western end is difficult to determine precisely. The east and west walls are not exactly parallel to each other but splay outwards towards the north. The superior quality of the eastern wall, which is more carefully and

systematically built than the other sides, is striking but may be due primarily to the absence on this side of megalithic blocks, so that the individual smaller stones articulate better.

It is also possible that the eastern end of the structure was the more important. The only internal feature that could be recognised was a line of blocks lying north-south across the interior and forming an edge 65cms from the inner face of the eastern end wall. In the middle of this cross-wall, two flat-faced blocks A and B, with a small gap between them, were backed by a bench or platform of yellow fill (context 514) that occupied the whole of this end (Figure 38). To the north of block A, a short length (c.80cms) of dry-stone walling 3 courses high may be the continuation of this same wall line although it had been disturbed by root action and appeared to have been pushed forward (westward) with the upper courses overhanging the lowest. A column sample taken through the yellow fill against the inner face of the eastern end wall was submitted to environmental analysis but proved to be sterile, although a corroded iron object was discovered elsewhere in this deposit. Excavation of the yellow fill was carried out by Philip de Jersey and Jenny Cataroche in September 2011. Removal was considerably hampered by tree roots, so that only small pockets of soil could be excavated. No further finds were recovered. In those areas not obscured by tree roots, the weathered gravelly natural was exposed; no features were identified.

[Figure 38]

500	leaf litter & upper topsoil (southern half-section)	glass
501	lower topsoil (southern half section)	lime or mortar
502	topsoil (south-west extension)	beach pebbles slate flint
503	topsoil (east of 502)	lime or mortar shell vitrified material
504	topsoil (east end of structure)	[none]
505	subsoil (beneath eastern half of 502)	pottery
506	subsoil (beneath 503)	pottery
507	topsoil (north of 505)	grinding stone
508	topsoil (east of 503/506)	glass
509	topsoil (north of 508)	clay pipe
510	topsoil (north of 504)	[none]
511	lower topsoil (part beneath 507 &509	lime
512	topsoil (west of 507)	[none]
513	topsoil	[none]
514	loose brown-yellow soil	iron
515	dark brown soil (emplacement of fallen western wall slab)	[none]
516	eroded bedrock	[none]

	(beneath fallen west wall slab)	

The cross-wall and yellow fill are in sharp contrast to the remainder of the interior where there was no trace of the original surface. The fact that the fill is fronted by a dry-stone wall and is only 65cms wide suggests that it is indeed to be interpreted as a bench rather than a separate room. Immediately in front of it, close to its junction with the north wall, was a white plaster-like deposit. Analysis by Chris Caple (Department of Archaeology, Durham University) identified this as lime (rather than mortar or plaster). It may have been an ingredient in the preparation of mortar, or lime wash for coating the interior or exterior of the building. The quantities recovered, however, were relatively small and were restricted to this one specific area. It should be noted that the limestone that had been burned to create the lime is foreign to the geology of the Channel Islands and the neighbouring regions of northwest France and must have been imported.

The remains exposed in Trench E present two interpretative challenges: first, the form and appearance of the structure to which they relate, and second, its age and purpose. The interpretation is hampered by the scarcity of associated artefactual material: although there was glass, slate, mortar and one worked flint (Figure 39) in the surface deposits, the only stratified material was two pre-modern potsherds from the area immediately outside its southwest corner, and a piece of corroded iron from the yellow fill (context 514). The latter was X-rayed and shown to be a highly corroded nail (X-ray courtesy of Chris Caple).

[Figure 39]

The structure appears to be the foundation for a sub-rectangular building (Figure 40). There is no evidence that mortar was used, though deposits of lime within the north-east corner of the building may have been for lime-washing the internal or external walls. The walls vary in quality but in places appear well built. At the southeast and southwest corners (and perhaps elsewhere) the wall rests directly on the surface of the eroded granite bedrock, which implies that the topsoil and subsoil were stripped away to create a foundation trench. At the western end, the building was cut slightly into bedrock and facing stones were set against the cut. The eastern wall, the best preserved, is well constructed with three to four regular courses of squared granite blocks forming an inner and outer face to a rubble core. The employment of megalithic blocks in the base of the structure appears to have compromised its long-term stability but these heavy blocks had been carefully hauled into position along the northern and southern sides of the building.

[Figure 40]

The absence of a floor is testimony to the degree of degradation that the structure has suffered, but the manner in which the interior of the building (apart from the bench at the eastern end) appears to have been dug away, to a level below the base of the surrounding walls, is surprising. A number of hypotheses can be proposed, none of them entirely satisfactory. The digging-away of the floor may for example have been inspired by knowledge or rumour that valuables had been buried beneath it. Alternatively, the floor may itself have been of valuable material (e.g. tiles) that were systematically robbed and removed when it fell out of use. The latter does not

however explain why the digging appears to have continued some depth below the likely original floor level.

The character of the superstructure is entirely uncertain. The site was covered by a scatter of medium-sized stones, with two or three small stone piles in the vicinity, but this material, even if all of it had come from the building, would be insufficient to add significantly to its present height. It is possible that the superstructure has been robbed for use in buildings elsewhere on the island. It is also possible that the superstructure was of timber or half-timbered construction. That would help explain its total disappearance but sits ill with the use of megalithic blocks and the well-built double-skin character of the eastern wall.

If the original appearance remains enigmatic, the same must be said of its age and purpose. A number of arguments suggest that it may have been a chapel. First, it stands on the highest point of Jethou, in a position similar to that occupied by St Tugual's Chapel on the neighbouring island of Herm. Second, its orientation is almost east-west. Third, the incorporation of megalithic slabs in the foundations is a feature found in other medieval churches in the Channel Islands. Finally, and perhaps most convincingly, the internal bench at the eastern end of the building could be the remains of an altar. A papal bull of 1156 confirming the possessions of the abbey of Mont-Saint-Michel makes reference to a church on Jethou, and it is not impossible that the rectangular structure in Trench E represents the remains of that building (Société Jersiaise 1924, 17; Cataroche 2012, 47-50).

Alternatives must also be considered. The location of the building at the highest point of the island makes it an unlikely location for a farmhouse or a stable, although the possibility that it was an agricultural facility cannot be excluded. Given the prominence of its position, it is also possible that it is the foundation for a watchtower, such as the Napoleonic example at Le Guet on Guernsey (Cataroche 2012, 50-56). The use of unmortared dry-stone, the character of the construction and the absence of any documentary evidence for such a watchtower on Jethou, however, make this unlikely.

In seeking to establish its age, a luminescence core was drilled from the underside of one of the granite slabs in the upper course of the eastern wall, close to the southeast corner. As with the cores drilled from stones in Trenches D and F, however, the quartz and feldspar signals were insufficient to provide a luminescence age. A sample from the underlying sediment (from between the courses of walling) has however provided a date of AD 675±190 (see Appendix). This would suggest that the building is of early medieval date, which might be consistent with the hypothesis that it was a church or chapel.

Conclusion

The fieldwork undertaken on Jethou and subsequent analyses have provided information on the settlement of the island over a period of some 7000 years. The earliest diagnostic artefacts found in the course of this work are the potsherds with 'boutons au repoussé' discovered in Trench C and attributable to the Pinacle-Fouaillages group, equivalent to Middle Neolithic I of the north French sequence and is paralleled among the ceramic material from Les Fouaillages and the Royal Hotel site on Guernsey, from recent excavations on Herm, and from Le Pinacle on Jersey (Sebire & Renouf 2010, 369; Sebire 2011; Scarre & French 2013, 8). This material is

related to the Cerny-Barbuise of the Paris Basin and eastern Normandy, the Chambon of the Loire valley, and the Castellic in southern Brittany (Cassen *et al*. 2000, 443-445; Marcigny *et al*. 2010; Patton 1995, 135-144), which date to the middle centuries of the 5th millennium BC. The character of this early occupation on Jethou cannot be established since the sherds were discovered essentially out of context. We must also consider that the area on the top of the island although open today and recently in cultivation may during the 5th millennium have been covered by a mixture of woodland and granite outcrops. It is possible that a small farming settlement was established on the summit of the island; it is equally possible that these sherds were associated with funerary or ceremonial activities and with Neolithic monuments that no longer survive.

A second chronological anchor is provided by the luminescence date obtained for sediment sealed beneath the packing stones at the base of the standing stone in Trench D. In northwest France the erection of standing stones began in the 5th millennium BC and included both unmodified stones and others that had been painstakingly shaped and decorated (Scarre 2011). Radiocarbon dates place the origins of this tradition in the second quarter of the 5th millennium BC. It is clear that standing stones continued to be raised as late as the 2nd millennium BC; for example, the quartzite pillars erected on the Early Bronze Age mound of Château-Bû at Saint-Just (Briard 1995). The tentative age for the Jethou standing stone (2200 BC) would be consistent with the later part of that tradition.

For the late pre-Roman and Roman period the focus of the evidence moves away from the top of Jethou to the north coast of the island close to the present-day house. The earlier of the two cliff-top middens (Midden A) indicates the collection of marine shellfish (limpets) accompanied by hearths and possibly metalworking at some point in the 4th to 2nd centuries BC. It is difficult to determine the nature of this occupation from the limited cliff top exposure available for study. The chemically altered nature of the granite bedrock within this bay has made it vulnerable to coastal erosion and it is likely that the shoreline has retreated significantly, perhaps by several metres or more, over the past 2000 years. Midden A may hence represent the truncated remains of an originally more extensive occupation deposit, or be one of a number of small deposits that have been successively revealed and destroyed through progressive erosion. There was no trace of briquetage within the midden, though the possibility that this occupation was linked to salt extraction cannot be excluded. Salt extraction sites of this period are relatively numerous on the coast of northwest France and a briquetage deposit on the coast of Herm below Fisherman's Cottage was investigated in 1999. It yielded Roman pottery spanning the period 1st BC to 2nd century AD (Cunliffe & De Jersey 2000). As noted earlier, Kendrick, drawing on the Lukis archive, mentions two midden deposits with briquetage on Jethou although the precise locations are not indicated (Kendrick 1928, 221).

Roman activity on Jethou is represented by the single rim sherd of *Terra nigra* from Trench A. dating to the 1st century BC/1st century AD. Given that the adjacent sheltered beach provides the best landing place on the island it would be expected that earlier settlement had been focused in this area, close to the present house. Gallo-Roman maritime activity is well documented on Guernsey, notably by the wreck site in St Peter Port harbour and by sites within the town including King's Road, La Plaiderie and the Bonded Stores (Sebire 2005, 110-114). Roman pottery has also been recovered from Herm. It is likely that remains of Roman-period buildings survive

somewhere in the vicinity of the present house on Jethou, but the *Terra nigra* sherd from Trench A was not associated with any structure.

Evidence of medieval activity was found in the same part of the island. Trench A yielded a single sherd of Normandy gritty ware (11th-13th century AD), and Midden B, a stratified series of ash layers, hearths and limpet deposits, has been dated to AD 1300-1450. Once again, neither was associated with an identifiable structure or building, although the adjacent foreshore will have been the primary beaching point for boats visiting or leaving the island. The abbey of Mont-Saint-Michel which had possession of Jethou from 1070 to 1416 has been credited with the construction of the cultivation terraces on the south of the island and of the impressive dry-stone wall which encircles the summit (Johnston 1981, 112). The latter has been described as a 'soil conservation wall' (ibid) but may alternatively have been associated with management of livestock. The 'megalithic' wall which separates off the eastern third of the island summit may also have been built during these centuries; the provisional luminescence age of >800 years (Trench F) would be consistent with such a conclusion. Whether Jethou was permanently occupied during this period, or was visited only occasionally, remains unclear. The construction of the walls was however a major undertaking, indicating systematic exploitation of the island, and must have been accompanied by storerooms, barns or shelters, most likely in the area close to the modern house.

Christian impact on Jethou is also evidenced by the cross, carved into the broken upper surface of the standing stone, discovered in the course of the fieldwork in 2007. The carving of crosses on prehistoric standing stones is a widely observed phenomenon. An excellent Guernsey example is the standing stone in the Vale churchyard which carries both a large carefully inscribed cross and an early medieval inscription dated to the 8th to 10th century AD (Sebire 2005, 133-4). The cross on the Jethou standing stone is smaller and much less regular in form, and while it is tempting to attribute it to the monks of Mont-Saint-Michel it may have been carved at any time during the early medieval period or later.

The final element in this chronological pattern is the rectangular structure discovered in Trench E, on the highest point of the island. This has tentatively been identified as an early medieval chapel on the basis of its plan and orientation. The construction of medieval chapels on high points is a feature encountered elsewhere in the Channel Islands, as for example, the chapel of St Helier on the Hermitage Rock, Jersey, or St Tugual's chapel on Herm (Sebire 2005, 128). Both of these may be 5th century foundations although the surviving structures are of later date. As noted above, documentary evidence, notably a papal bull of 1156 confirming the possessions of the abbey of Mont-Saint-Michel, refers to a church ("ecclesia") on Jethou (Société Jersiaise 1924, 17). It is possible, though difficult to confirm, that the structure in Trench E is the remains of that church (Cataroche 2012, 47).

The prehistoric landscape of Jethou

At first sight, one of the surprising features of Jethou is the scarcity of megalithic monuments, by comparison with the numbers known from Herm and Guernsey. None are recorded in the records of the Lukis family, nor in the brief report by Oliver, nor in the short account of the Société Guernesiaise visit of 1922 (Oliver 1870; Carey

Curtis 1922). This is all the more remarkable given the prominence of the single surviving standing stone, which excavations described above demonstrated to be *in situ*.

A key objective of the fieldwork was to seek evidence that might establish whether other megalithic monuments had once existed on the top of the island. The 'megalithic' wall incorporated a number of blocks that could (from their form) have been recycled standing stones, pushed to the edge of the open area when that was cleared for cultivation. Traces of that clearance were revealed in Trench B where the stumps of sockets for two (possibly three) embedded natural boulders were revealed. This suggests that the surface of the island, before clearance, was littered with natural granite boulders and presented an appearance very different from the open area that we see today.

Further support for the hypothesis that other standing stones once stood on the top of Jethou was provided by a fallen granite block approximately one-third of the way down the steeply sloping northeast edge of the island (Figures 41 & 42). Broken at one end, the other end of this stone had a regular rounded form that appears to have been pecked into shape. Two smaller fragments nearby might originally have been part of the same stone. This is probably a fragment of a standing stone that was intentionally felled and pushed over the edge of the island when the surface was cleared for cultivation. We may assume that it was only the greater size of the standing stone in Trench D – too large to be easily manipulated – that saved it from a similar fate.

[Figure 41]

[Figure 42]

To conclude, there is evidence to suggest that before systematic clearance of agriculture, the surface of Jethou was littered with natural granite boulders. The centre of the island may also have been covered by woodland. Within this setting, a number of standing stones or other megalithic monuments could have existed. Of these, only one survives today *in situ*, but a second probable standing stone lies fallen down the northeast slope and still others may have been incorporated in the 'megalithic' wall. The clearance of the area for cultivation may hence have entailed the removal not only of natural blocks and outcrops but also of prehistoric monuments. Similar processes have radically reduced the number of surviving megalithic monuments elsewhere in the Channel Islands (Hibbs 1986), and it is unlikely that Jethou is an exception in that respect.

Appendix: Luminescence dating of granitic and sediment samples from Jethou

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We outline below the main results of the exploratory luminescence dating work undertaken with the Jethou samples, a more detailed description of which is included in a full technical report produced by the laboratory. The sampling performed during the fieldwork was primarily focused on buried granite surfaces, obtained as cores

drilled from blocks of stone *in situ*, but samples that had been taken of sediment in contact with these surfaces were also tested for their dating potential.

Cores were extracted by drilling from the surfaces of granite blocks of three features on Jethou: the rectangular structure (Trench E: Location 1); the megalithic boundary wall (adjacent to Trench F: Location 2); and a packing stone at the base of the *in situ* standing stone (Trench D: Location 3). These granite cores were investigated using optically stimulated luminescence (OSL) procedures, drawing upon developmental work by Greilich *et al*. (2005) and Vafiadou *et al*. (2007). Blue light stimulation was applied to stimulate OSL in quartz and feldspar minerals and infrared stimulation was applied to selectively stimulate infrared stimulated luminescence (IRSL) in feldspars.

Luminescence signals of sufficient intensity for dating samples of less than *c*.10,000 years age were detected in the granite matrix associated with feldspar minerals, whereas that from quartz was judged too weak. The OSL analysis was performed at two depths from each of the cores taken from the three locations: a) at the exposed surface that may have been exposed to sunlight prior to burial, and b) from an inner layer at sufficient depth to have been previously unexposed to daylight. Comparison of results obtained at the two depths indicated that in the case of Locations 1 and 3 (Trenches E and D) the surface material had been exposed to daylight before the original construction of the monument. It should be noted, however, that this may not have led to full zeroing of the trapped charge before burial.

At Location 2 (the megalithic wall) the exposure of the minerals in the surface of the granite appears to have been only slight, and the results indicate that any estimate of luminescence age would be related to environmental rather than to anthropogenic activity. At Locations 1 and 3, approximate age ranges of ~8500 – ~13000 years are obtained using typical values for the dose rate if it is assumed that the surface samples had been effectively zeroed. However, since the archaeological evidence from adjacent regions of northern France indicates that the standing stone was most likely to have been erected between the 5th and early 2nd millennium BC, these tentative age estimates suggest that the 'zeroing' of the feldspar minerals in the granite surface of the packing stone before erection had been incomplete.

The luminescence results obtained with quartz grains extracted from the soil provided better evidence for zeroing before burial, in particular the sediment sampled below the packing stone in Trench D, and in sediment trapped between the stone courses of the rectangular structure in Trench E. This permitted a tentative age to be calculated for the burial of the soil beneath the packing stone in trench D (c. 2200 BC) and, with the addition of further measurements, an OSL date estimate of AD 675±190 to be calculated for the last exposure to daylight of the sediment trapped between the building courses of the structure in Trench E, and hence for its construction.

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Captions to Figures

Figure 1. Map of Jethou showing locations of Trenches A to F excavated in 2007, and of the fallen standing stone ('fallen menhir' FM) and cultivation terraces (CT)

Figure 2. Geophysical survey: location of areas A and B

Figure 3. Geophysical survey: greyscale images of results

Figure 4. Geophysical survey: trace plots of results from areas A and B

Figure 5. Geophysical survey: interpretation of results

Figure 6. Locations of Trench A and middens A and B

Figure 7. Trench A: plan and sections

Figure 8. Terra nigra from Trench A context 105 and Normandy gritty ware from context 110 (drawings: Yvonne Beadnell)

Figure 9. Coastal midden exposures investigated and sampled in 2007

Figure 10. Midden B: section through deposits

Figure 11: a) Midden B: detail of the burned deposit; B) Midden A showing limpet shells

Figure 12. Summit of Jethou showing locations of trenches B to F

Figure 13. Trench B: northern section and plan showing location of features 205 & 207

Figure 14. Trench B: plans and profiles of features 205 & 207

Figure 15. Trench B showing features 205 (right) and 207 (left)

Figure 16. Trench C: north and south facing sections (before extension of trench)

Figure 17. Trench C showing section excavated through bank (feature 303)

Figure 18. Trench C: plan including southeastern extension, showing bank (context 303), loess fill of bedrock fault (context 304/313), bedrock (contexts 308, 315 & 320) and loessic fills within deep sounding (contexts 314, 317 & 319)

Figure 19. Trench C southeastern extension: western section showing loessic deposits

Figure 20. Trench C: Neolithic pottery with 'boutons au repoussé' from contexts 312 (right) and 318 (drawings: Yvonne Beadnell)

Figure 21. Trench C southeastern extension: edge of north-south bedrock fault

Figure 22. Trench C: intersection of bedrock faults

Figure 23. Worked flint from Trench C (drawing: Yvonne Beadnell)