Ancient Akrotiri Project

Dreamer's Bay excavation & survey, September 2015

Interim Report

Simon James & Vicki Score

UNIVERSITY OF LEICESTER

Contents

Introduction

From 10 to 22 September 2015 a team of six archaeologists from the School of Archaeology & Ancient History, University of Leicester, UK, conducted fieldwork at Dreamer's Bay, RAF Akrotiri (Figs 1 and 2). This work, conducted with the support of UK Ministry of Defence's Defence Infrastructure Organisation, was designed to investigate and record threatened archaeological remains along the shoreline at Dreamer's Bay. The remains comprised masonry wall foundations and scatters of pottery and other material at various points traced for more than 500m along the E-W shoreline. The work was conducted by University of Leicester staff Simon James (project director), Vicki Score (excavation manager), Steve Baker, Andy Hyam, Andy McLeish and Anna Walas, assisted by volunteer Kate Wilmot.

Figure 1: The location of Dreamer's Bay on the Akrotiri peninsula, Cyprus (Google Earth).

While the excavation was underway, scoping was also undertaken for further potential future work at and around Dreamer's Bay, considering the archaeological potential of remains both on land and offshore. With regard to the latter, two colleagues from the University of Southampton Department of Archaeology visited between 14 and 18 Sept to undertake a reconnaissance of the geomorphology of the ancient harbour area (Dr Ferréol Salomon), and of the underwater archaeological potential, especially in the bay immediately E of the known buildings, which includes an ancient artificial breakwater, anchors and apparent wrecks (Dr Lucy Blue). This reconnaissance (Salomon *et al.* 2015) was with a view to future marine fieldwork licence applications by Southampton. During their visit, Prof Stella Demesticha also visited the project, and discussions were opened regarding possible collaboration with the University of Cyprus, especially with regard to local ceramic expertise.

The Landscape context of Dreamer's Bay

Dreamer's Bay is on the southern coast of the Akrotiri peninsula (*akrotiri* meaning 'promontory': Fig. 1). The peninsula is a unique and, by comparison with much of the rest of coastal Cyprus, exceptionally well-preserved block of coastal land, famed for its wildlife. It also contains extensive and important archaeological remains, most famously the Aetokremnos site with pygmy hippo bones and the earliest evidence of human activity on Cyprus (c.12,000 cal. BP: Simmons 2001 2013).

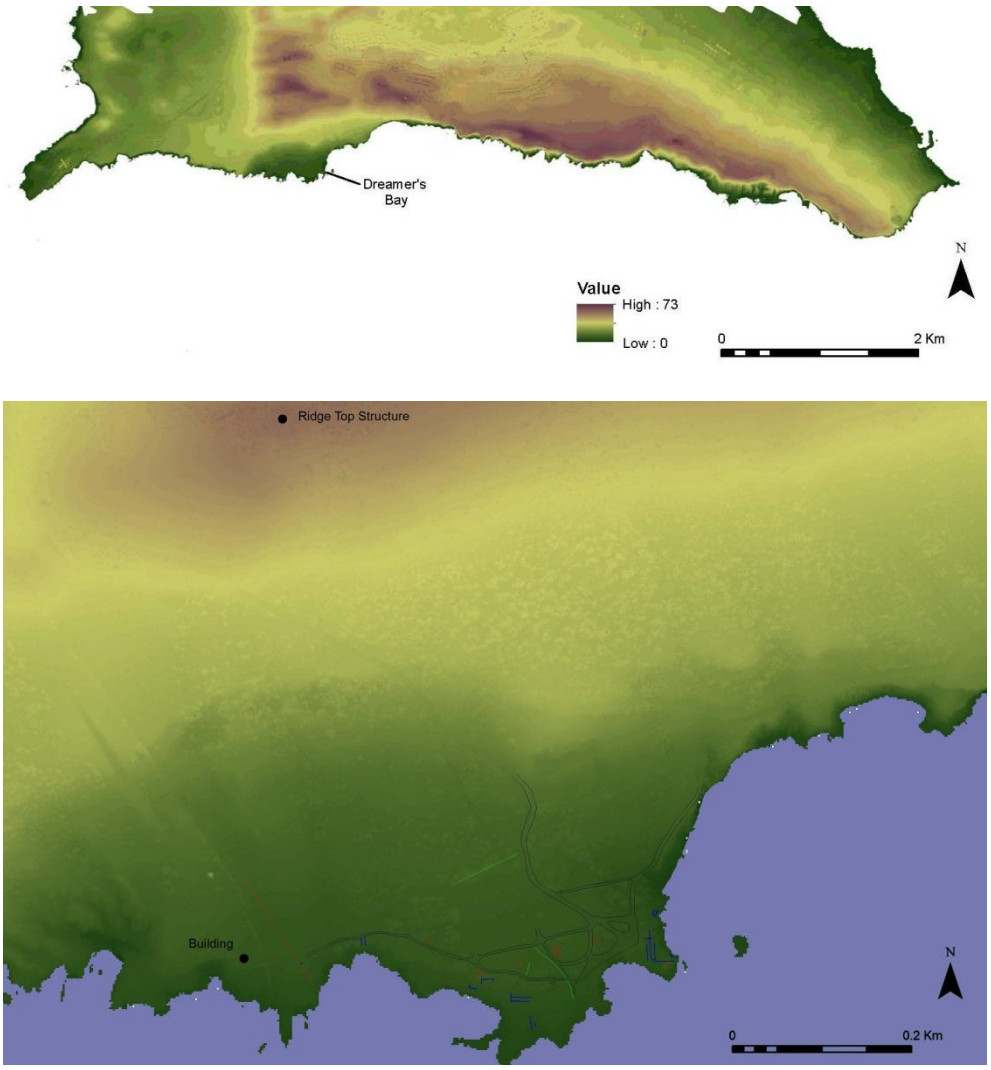

Figure 2: Digital terrain model of the southern part of the Akrotiri Peninsula showing the location of Dreamers Bay.

Since the Republic of Cyprus gained independence from British rule in 1960, under the Treaty of Guarantee Akrotiri has been part of the UK's Western Sovereign Base Area (SBA), one of two military base areas retained indefinitely (the other being the Eastern SBA of Dhekelia, E or Larnaca). The peninsula comprises a rocky former island, 9.6km long from Cape Zevgari in the W to Cape Gata in the E, and about 3.5km N-S. The land rises gently

from N to S, reaching only a modest 50m above sea level, and terminating on its S edge in cliffs, except for c.600m of low shoreline at Dreamer's Bay. Akrotiri is now connected to Cyprus proper on the W side by a massive tombolo beach of large pebbles, and on the E side by a broad sand beach which runs into the outskirts of Limassol. The beaches frame a salt lake, famed for its flamingos.

The southern coast (Fig. 2) consists of high cliffs or very steep eroding slopes except for one area about 600m long in the west, where a broad area of lower-lying land projects somewhat into the sea. Here, around Dreamer's Bay, the shoreline stands nowhere more than about 5m above sea level, with erode rocky ledges and inlets, some of which have accumulated tiny sandy beaches. In this area human communications between sea and land are practicable, especially as the bay immediately to the east formed a relatively deep natural anchorage, its use confirmed by the ancient artificial breakwater, anchors and other archaeology known on the sea floor.

This part of the southern coast has been protected by its location within the UK RAF base security perimeter, but in an area away from the main airfield complex and residential zone. With the exception of a few recent and current vehicle tracks and surface features, it is largely undisturbed. However, its location on the coast and the soft sandstone bedrock has resulted in erosion and many of the walls are visible in wave-scoured surfaces and cliff edges eroding into the sea. These remains were the target of the fieldwork.

Previous work at Dreamer's Bay

Remains of masonry buildings along the shoreline at Dreamer's bay were reportedly first exposed during heavy rains *c.*1973-4 (Heywood 1982**,** p.167).

In the 1980s, in the cliff-lined bay E of the known shoreline buildings, a submerged artificial breakwater, built on an existing area of reef, was spotted from the air, and subsequently captured by aerial photography. It was also subject to preliminary survey work by local avocational archaeology workers. Ancient anchors and ceramic concentrations thought to attest wrecks were also identified (Leonard and Demesticha 2004). The breakwater remains undated, but is thought likely to be Hellenistic (Leonard *et al.* 2007), and may have been initially built from the stone in the cliff-top quarries above, material apparently well suited to the purpose and perhaps also exported from here to build other harbour works elsewhere. The breakwater likely continued to help provide an anchorage sheltered from westerly winds for centuries after construction.

Since 2000, survey work conducted by John Leonard and Stella Demesticha (Leonard and Demesticha 2004) led to a wider US/Canadian project at Dreamer's Bay. This was unfortunately cut short due to funding problems and the tragic early death of Danielle

Parks, leaving it to Brad Ault of the University of Buffalo to complete (Leonard *et al.* 2006; Leonard *et al.* 2007; Ault 2010; Ault and Leonard forthcoming). Work at the site was largely confined to cleaning and recording of some of the remains, limited experimental geophysical survey work, and a start on survey of the submerged archaeology. Examination of the onshore evidence indicated that the buildings appeared to be associated with extensive quantities of overwhelmingly late Roman/early Byzantine ceramics, although some Hellenistic and earlier Roman material was also identified. The structures were identified as probably warehouses (*horrea*) rather than residential. The Buffalo project effectively ended in 2010, and subsequently the fieldwork licences were relinquished.

Motivations for, and objectives of the 2015 fieldwork

Archaeological remains inside RAF Akrotiri and the wider UK Sovereign Base Areas in Cyprus are the responsibility of the Sovereign Base Areas Administration, and are monitored by DIO's archaeology team, specifically Philip Abramson. His inspection of the exposed shoreline remains confirmed they are under immediate threat, due to intense rainfall runoff and waves during winter storms eroding them into the sea. He identified elucidation and recording of the remains as an urgent cultural heritage management requirement, a view endorsed by Eleni Procopiou of the Department of Antiquities.

The School of Archaeology & Ancient History has broad expertise in Mediterranean archaeology, although not previously in Cyprus. It has also for several years been in partnership with the Defence Archaeology Group which runs Operation Nightingale, a programme to help injured UK Service personnel and veterans recover through engaging them in archaeological fieldwork. Following a request from Maj Gen Cripwell, the then commander British Forces Cyprus, for an Operation Nightingale exercise in the SBAs, the School entered discussions with DIO regarding undertaking the urgent archaeological rescue work at Dreamer's Bay as the potential first stage of a wider university research fieldwork scheme on the peninsula (the Ancient Akrotiri Project). This, following successful participation of injured personnel on Eleni Procopiou's nearby Byzantine church excavation at Katalymata ton Plakoton (Department of Antiquities 2014), is intended also to form the context for an Op Nightingale exercise. On this basis, application was made to the Sovereign Base Areas Administration for a fieldwork licence for April 2015, which was granted.

Logistical difficulties obliged postponement, and an initial pilot season, comprising professional archaeologists only, was rescheduled for September 2015 and a modified licence for this was granted. The objectives were to undertake as much of the urgent rescue work as possible before the damage of a further winter, and to lay the groundwork for larger-scale fieldwork, with Op Nightingale participation, from 2016.

The Excavation and Survey: programme, methodology and results

Fieldwork programme

Scoping, cleaning, survey and selective excavation of the Dreamer's Bay shoreline remains were conducted over ten working days starting on Friday 11 Sept and ending on Tuesday 22 Sept 2015, working every day except Sunday. Strike action by local workers resulting in picketing of RAF Akrotiri's gate resulted in loss of a day at the start. Weather conditions during the project were also challenging: it was unusually hot and humid for the time of year, approaching 40°C on the first working day, and never dropping below the low 30s, at times ameliorated by sea breezes or, on occasion, strong winds driving clouds of dust across the site. These circumstances slowed progress somewhat, while it was also rapidly established that the remains were significantly more extensive than previous work had indicated. During the course of the fieldwork Philip Abramson visited to monitor it for DIO and SBAA, and to discuss progress.

The work was primarily funded by a £5,000 Research Development Fund grant from the College of Arts, Humanities and Law, which paid for team travel, insurance, and core equipment. An overseas expedition on such a modest budget was made possible by the active support of DIO which provided accommodation and meals for the team; the RAF which flew much of our kit to Akrotiri, and the RAF station which, through the agency of Maj Steven Smith lent a tent, tables and chairs; and Maj Frank Garrod of the WSBA Archaeological Society who lent other key equipment, generously shared local knowledge and by no means least provided access to very cheap vehicle hire.

Methodology

The study area comprised the coastline between Dreamers Bay and the rifle range perimeter fence. This area was first walked by the archaeology team to identify and assess areas of archaeology. Three main areas were identified that contained sections of walling - all three areas had been previously identified by the Buffalo project in 2006-2010. These were cleared as much as possible, photographed and surveyed (Fig. 3, Areas 1, 2 and 3).

The survey was done with a Leica TCR705 total station. As no detailed CAD mapping was available for the area a site grid was established with 14 survey stations located in a closed circuit across the area. Three of them already existed – two survey points sunk into two of the four concrete bases and a survey point established previously by the Buffalo Project in 2006 (Station 9 = Buffalo Station 3). The UoL survey was then overlain on the Buffalo Project's survey to obtain grid references (Latitude, Longitude using UTM Coordinates).

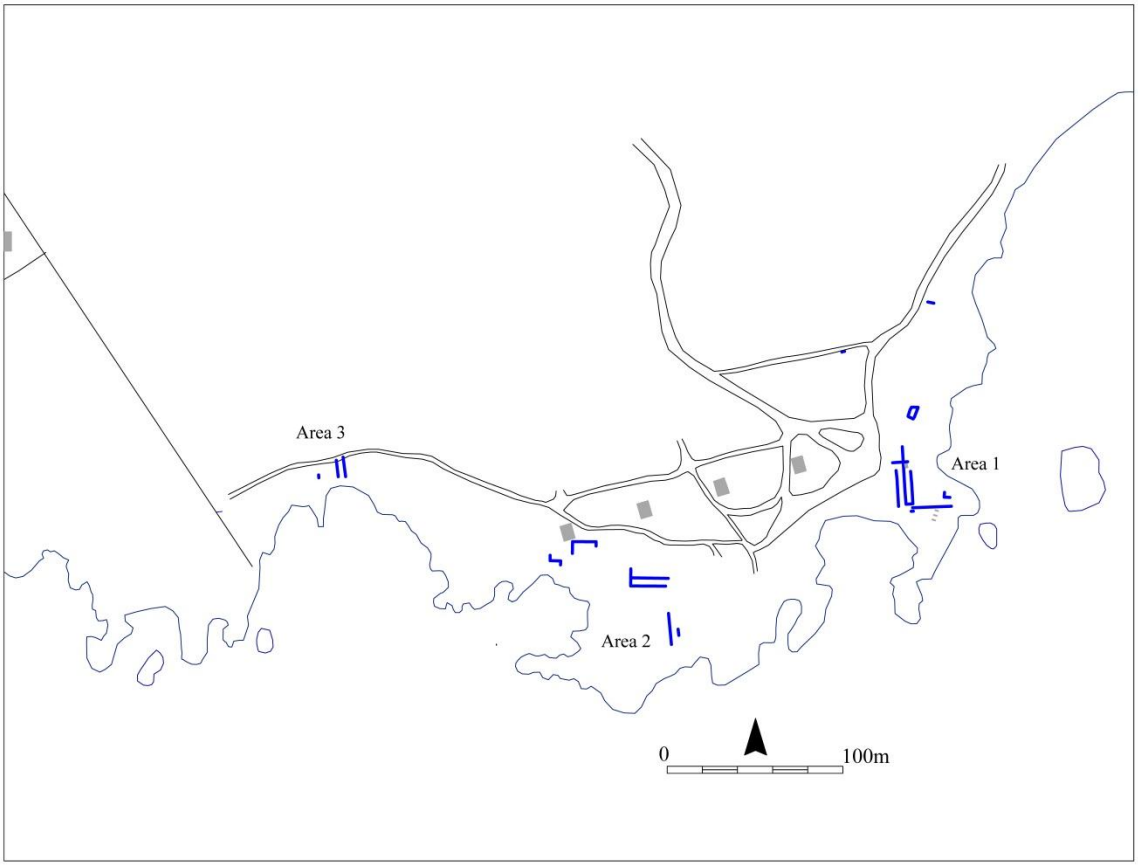

Figure 3: Detail of Dreamers Bay showing the three main areas of archaeological deposits.

Concordance with the Buffalo Project's survey was generally good with enough common points to be confident in the transformation. The survey and site drawings were processed in Autocad. The data was then imported into a GIS using ARCGIS 10.3 and overlain onto the LiDAR data and a GIS map of the coastline and RAF Base Area (provided by the military, and using decimal degrees as units). Again there was good concordance with these surveys. This GIS will provide the Base Plan for the Project and any future work.

Objectives

The main objectives were to identify and record areas of archaeology, in particular areas that were in danger of erosion and disturbance. The Buffalo Project and subsequent observations by DIO and others had shown that erosion is a major problem on the site and the identification, recording and excavation of these areas was the main priority. Other aims were:

- To identify archaeological features and elucidate as far as possible their nature, form, function, date and condition

- To determine the best methods and equipment for further survey and excavation of the area
- To collate previous work undertaken in the area into a useable and accessible format
- To provide a report and archive of the results

Archive

The site archive is held by University of Leicester under the site code ADB.2015 and comprises the following:

- 62 context sheets
- 3 A2 Drawing sheets
- High resolution digital site photos and working shots.
- 1 x environmental sample and 3 pottery grab samples (retained at the stores in Cyprus)
- 3 x boxes of pottery and 8 small finds (retained at the stores in Cyprus)
- Survey data processed into a CAD drawing.

LiDAR data

2m-resolution LiDAR data from 2013 (DSM format) of the Akrotiri coastline was provided to the project by DIO, as ARCGIS raster tiles. The tiles for the area of the southern coast were merged into a single file and a DEM model in both 2D and 3D was created. Although the 2m data is too coarse to identify archaeological features, it shows the general topography of the area including the fact that Dreamer's Bay lies in a shallow depression on the southern coast (Fig. 2).

Excavation and Survey Results

Three areas were looked at during the two weeks (Fig. 3, Areas 1, 2 and 3). Excavations focussed on Area 1 which is a favourite coastal spot for bathing, picnics, barbeques etc. and is becoming eroded not just by the weather and coastal erosion but also by vehicles. Other modern disturbance within the study area is limited to three small concrete bases on the SE edge (that previously held a sign), a concrete plinth and bench in Area 1, as well as four flat concrete bases between Areas 1 and 2 and numerous vehicle trackways (Fig. 3).

Area 1

The main archaeological feature in this area is a rectangular structure orientated north-south. This, here called Structure 1, was identified by the Buffalo Project (Leonard *et al.* 2006) as the 'East Warehouse'. The area was cleaned and it soon became clear that there were more walls and associated archaeological deposits in this area than previously

recorded. Sample excavations were undertaken to determine an accurate form for the structure(s), find evidence for its construction and date and any possible associated surfaces.

Structure 1 was a long narrow structure orientated north-south, approximately 4m x at least 24m long—possibly considerably longer than hitherto thought (Fig. 4; Fig. 5 walls 15, 17, 39, 41). A second parallel wall lay 4m to the west (38). There was no evidence to suggest that wall 38 joined with walls 15/39 to the east, although the southern area was badly eroded. However, a small line of stones to the south suggests that this wall runs further south and perhaps once joined an east-west wall, 2m south of wall 39 (03). Wall 03 runs to the edge of the coast line to the east where it appears to end (rather than be eroded away, Fig. 6). The land to the east rises forming a mound on the south-east corner of the coast; much of this area and the eastern part of the wall was buried beneath rubble and soil. Excavation through the wall in this area produced large building stones and it is possible that this mound represents the demolished rubble from another building, perhaps a tower of some kind (Fig. 6).

Figure 4: Building 1 after cleaning looking north (Scale 2x 2m).

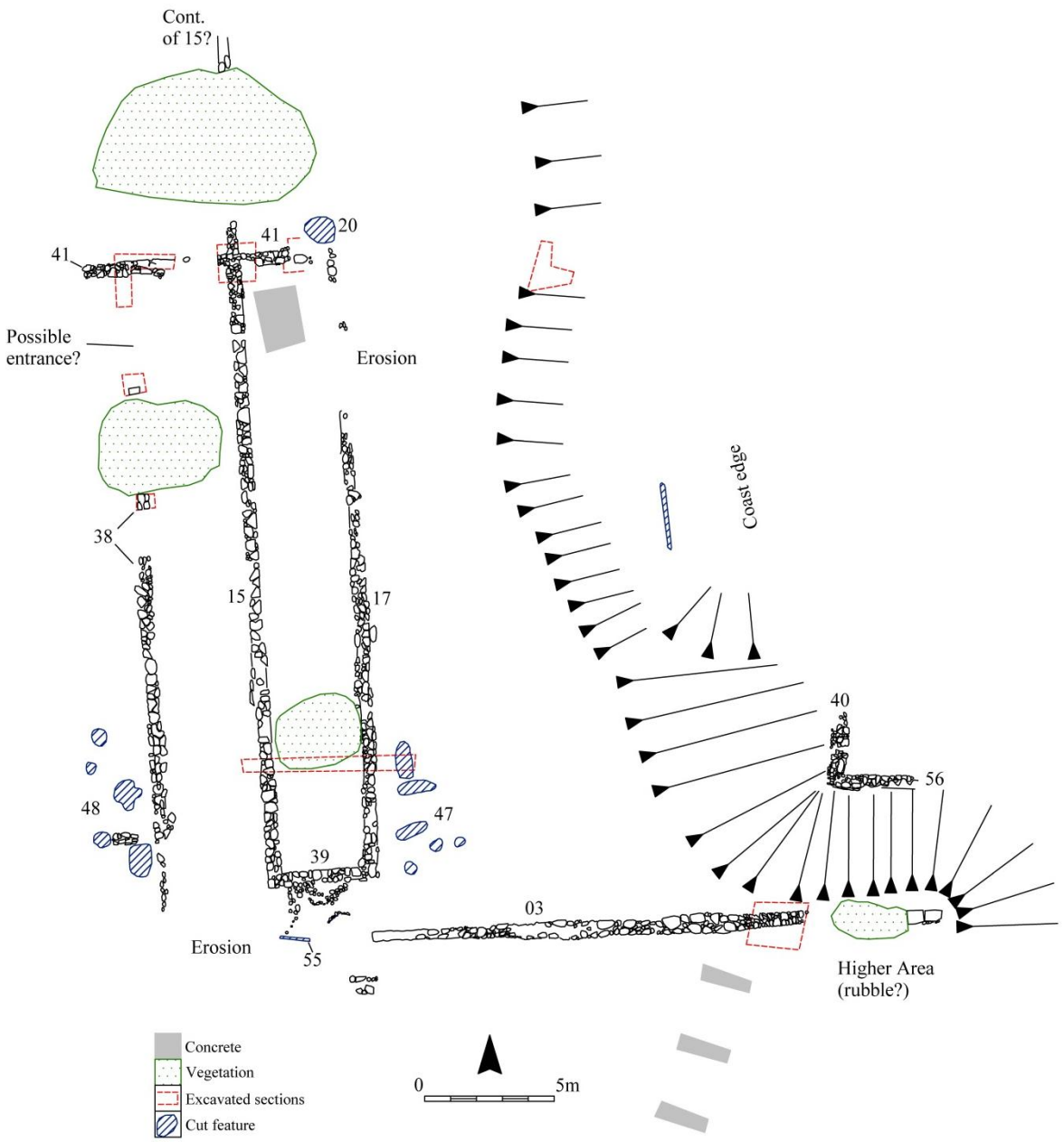

Figure 5: Structure 1 - composite plan of features.


Figure 6: ***Left****. Detail of excavated section of wall 03 looking south showing the rubble forming the mound on the south-west corner (1m scale).* ***Right****. Eastern end of wall 03 looking west (1m scale).*

To the north, cleaning and excavation of the east-west end wall 41 revealed that this was a more complicated structure than previously realised with wall 15 continuing northwards beyond wall 41 (Fig. 7). The vegetation made it impossible to trace further although a small area of stone 6m north of wall could represent a continuation. It is possible that wall 17 also continued; however, the coast here was too eroded to determine its form.

Figure 7: Walls 15 and 41 looking west. The end of wall 38 can be seen on the left hand side (See Fig. 9). Scale 1m.

Wall 41 continued to the west but there was no obvious corner with Wall 38. Instead it appeared to continue beyond the projected line. Wall 38 appeared to end with a square block creating an apparent gap of *c.* 4.3m in the north-west corner, possibly an entrance way (Fig. 8).

Figure 8: Northern end of wall 38 looking south (0.5m scale).

The uncovered walls comprised sandstone blocks of various sizes, making a dry stone construction within a soil matrix, and are presumably foundations. Much of the stone was soft and heavily eroded leaving only areas of pale sand to show the lines of the walls. Sections were excavated across wall 03 and walls 15 and 17 to look at the construction and to determine whether any flooring remained. There were no obvious construction cuts for the foundations. Instead, they appeared to be built onto the natural bedrock, with a fine layer of sand between the bedrock and the wall, probably a levelling layer for the construction.

Figure 9: Sections/profiles of walls, 15, 17 and 03.

No floor surfaces were identified. However, inside the walls the ground level immediately beneath the thin, loose, silty topsoil was very compact with pottery embedded in it. This was different from the ground in other areas and it is possible that this represents the remnants of a beaten earth surface. At the southern end of the structure a number of other stone features were identified, but unfortunately this area was too eroded and the features too fragmentary to determine their nature and form. A shallow cut feature identified as a possible beam slot was also recorded. This lies on the same line as wall 03 and could be associated with it.

A series of dark features were recorded to the east and west of Structure 1 and north of Wall 41. These were rounded and varied in size and shape (47, 48 and 20). Two of these pits were excavated; both were very shallow with a very dark grey silty sand fill containing charcoal fragments and pottery (Fig. 10). Although the fill appeared to contain burnt material, there was no obvious *in situ* burning. It is unknown whether these pits are associated with the structure or not, but they will be easily dated by the pottery from their fills.

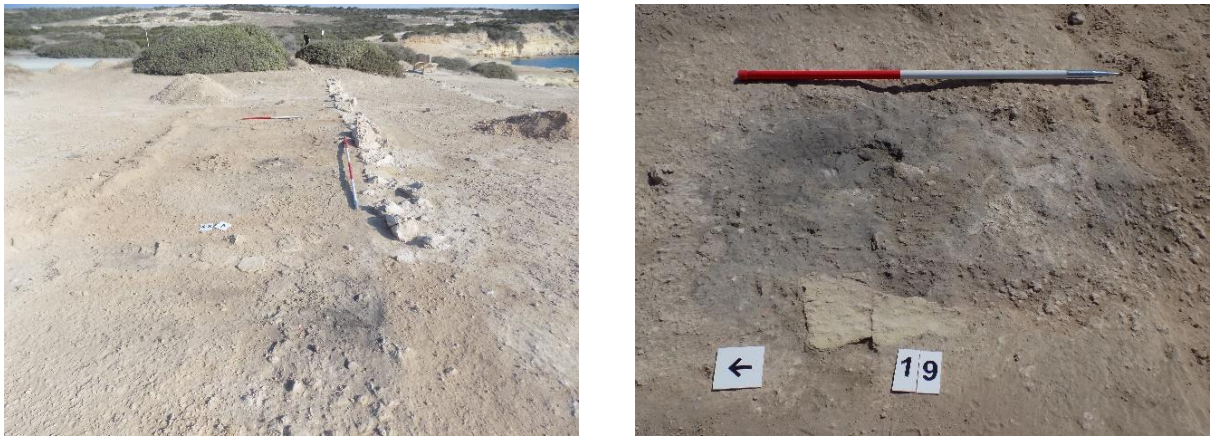

Figure 10: Detail of burnt pits (48) looking north and (20) looking east. Scales 1m.

To the east of Structure 1, on the coastal ledge, the remnants of two further walls were identified, their foundations being at a much lower level (c.2.5m below those of Structure 1). These comprised an L-shaped corner built into a cutting in the bedrock (40, 56); (Fig 11). Wall 56 narrowed as it ran east taking advantage of the natural bedrock, and both walls had lines of smaller stones pushed into the gaps between the wall and the side of the coast and it appears that these walls represent revetments of this section of the cliff. The construction of this wall was slightly different from that of Structure 1. It was also a dry construction, with a packed earth matrix, utilising blocks of several different types of stone and with a clear construction cut into the natural bedrock. Its purpose is unclear. It could represent the back walls of a building established at a lower level than the others, near the water's edge. Alternatively, it could be a revetment wall for terracing of the courtyard above this point.

Figure 11: Walls 40 and 56, built against the natural bedrock looking west (left) and south (right). The people are standing on wall 03.

Just north of these walls a second heavily eroded beam slot was identified. Although this hints at the possibility of other structures in the area, erosion makes it difficult to say anything else about it.

Structure 2

Another wall was identified on the eastern shoreline, 25m north of Structure 1 and cleaning of the area revealed a previously unrecorded rectangular structure at least 7m x 3.5m (only partially uncovered; Figs 12-13).

Figure 12: Structure 2 looking north (left) and south (right).

The north wall (50) of the structure ran east-west on the same alignment as, and very similar in construction to, the walls of Structure 1. However, the remainder of the building was aligned more north-east to south-west, raising the possibility that Wall 50 had been reused and incorporated into a later structure. The opposite southern wall comprised a spread of tumbled stones rather than a definite wall (62) making it hard to determine the exact alignment although it was roughly orientated north-east to south-west. The eastern edge was cut into the natural bedrock and supplemented with stones at the north-east and south-east corners. A small notch had been cut a third of the way up the eastern side – possibly a slot for a post and potentially indicating a doorway. In front of Wall 50 the spread of stones (60) could be either tumble from the wall or possible an area of rough flooring. The western edge was buried beneath the vegetation and not recorded. However, along the western edge within the structure was an area of burning (51). The dark, silty fill was very similar to that seen in the burnt pits around Structure 2, but was very loose and full of broken and burnt pottery.

Structure 2 was recorded but not excavated further due to time constraints, and its date, nature, function and relationship with Structure 1 remain unclear.

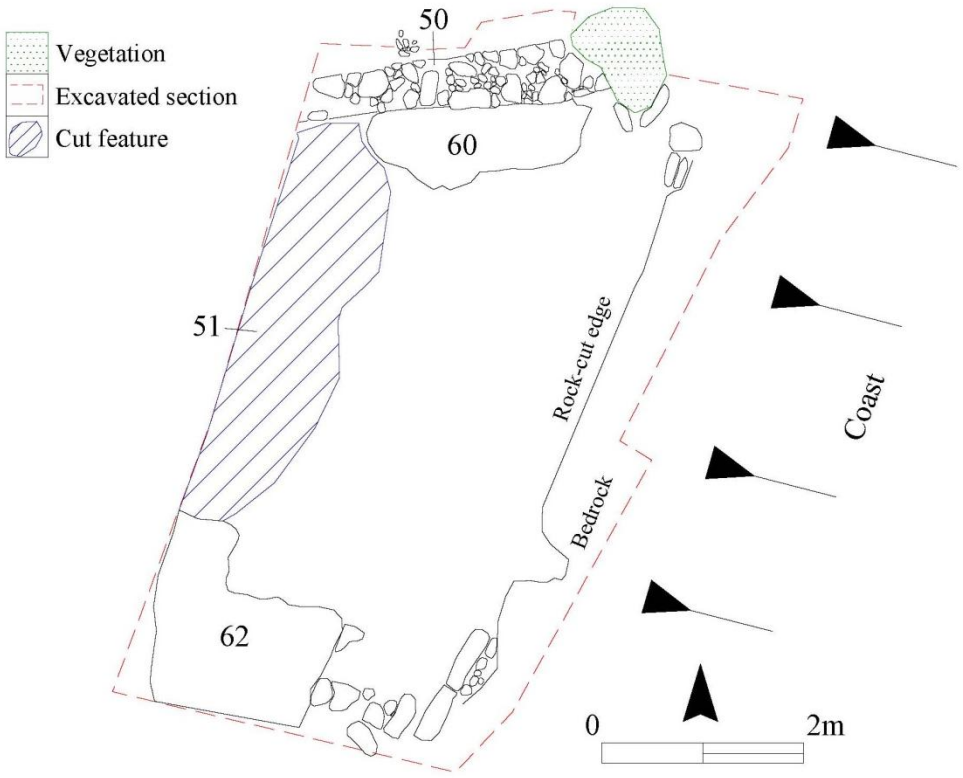

Figure 13: Plan of Structure 2

Area 2

A number of walls in **Area 2** were identified by the Buffalo Project in 2006. The walls visible during the 2015 survey appear to match those identified by Buffalo (Fig. 15). The visible walls identified in this area include the **West Warehouse** identified by the Buffalo project (Fig. 14, Walls 31-33; Fig 15). These three walls appear very similar in form and size to Building 1 in Area 1, comprising 2 units each approximately 4m wide, but in this case orientated east-west. To the south, fragments of two previously unidentified parallel walls just over 4m apart and orientated north-south could be another similar building (Walls 34 and 35; Fig. 16).

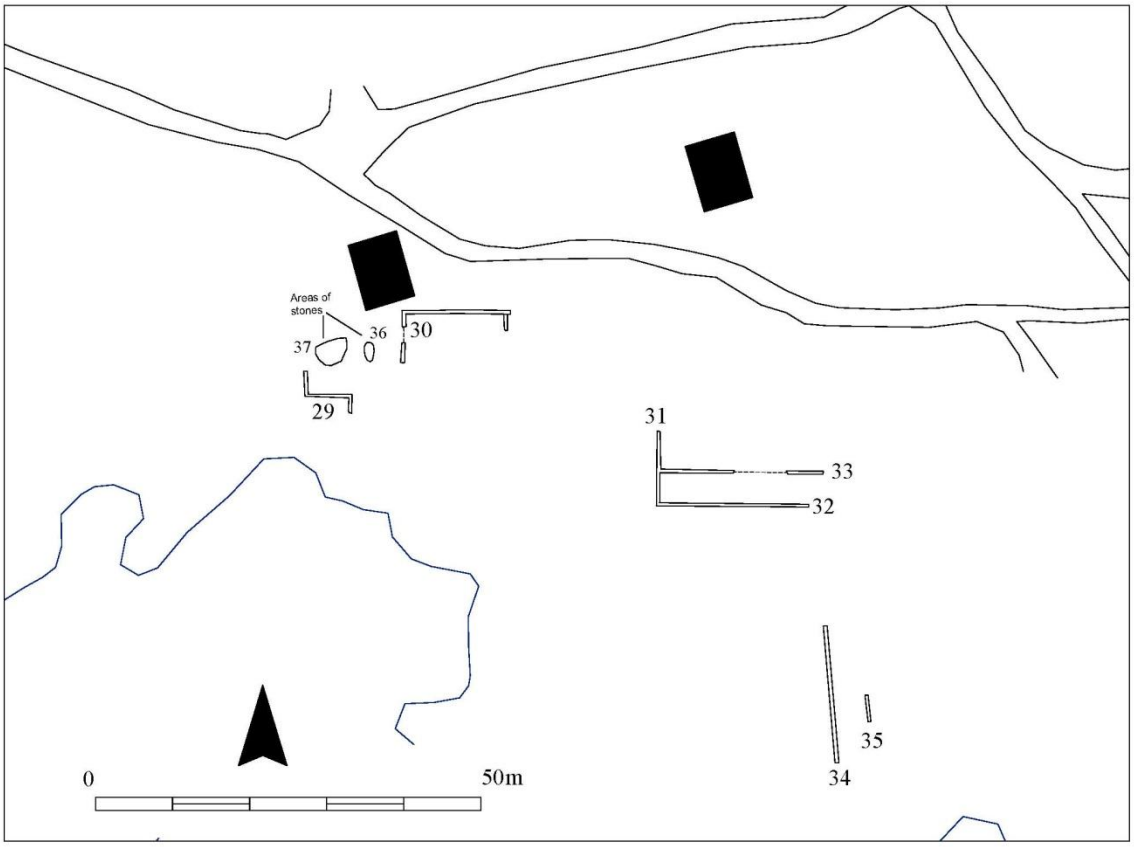

Figure 14: Plan of features in Area 2. The black rectangles are concrete foundations of abandoned modern military installations

North-west of these structures several other walls were identified. These include what appears to be a small rectangular structure approximately 14m wide (Fig. 14, Wall 30; Fig. 17), and three sections of wall in a zigzag pattern, approximately 5m wide across the east-west central section (Fig. 14, Wall 29). Two areas of stone rubble were also noted in this area (36 and 37; Fig. 18). These features appear to be different in terms of shape and size to the other narrow masonry structures in this area, although they are on the same orientation.

Figure 15: Walls 31, 32 and 33 forming a structure running east-west, looking north-east. 1m scale.

Figure 16: Walls 31, 32 and 33 looking west, 1m scale.

Figure 17: Rectangular structure 30 looking north, 1m scales.

Figure 18: Areas of stones 36 and 37. 1m scales.

A geophysical survey was undertaken on two areas here in 2010 by the Buffalo Project. The survey revealed anomalies that the survey team interpreted as long narrow buildings (20-30 m. in length, 5-10 m. wide), perhaps with internal divisions. The surveyors felt that these were likely to be additional warehouse structures similar to the others identified by standing walls. However, the geophysical anomalies are on different alignments (north-east to south-west and north-west to south-east) and when overlain on the survey appear to overlap the extant walls (Fig. 19).

None of these geophysical anomalies corresponded with features visible on the ground. This could be due to a number of reasons – the anomalies could represent structures that have been almost completely robbed out and are simply not visible on the surface without excavation. Alternatively, given the different orientation, the anomalies could simply be natural features – e.g. faults within the bedrock. If these anomalies are genuine archaeological features the overlap with the visible walls (which did not show on the geophysical survey) might indicate that these represent a different phase of building. Only further excavation in this area can determine their nature and date.

Figure 19: Survey of visible walls in blue, overlain on the Buffalo geophysical survey with anomalies identified as walls in yellow.

Area 3

Area 3 lies at the western end of the study area close to the fence bounding the rifle range. The coast is characterised by wide ledges that suggest extensive marine erosion in this area.

Three walls had been tentatively identified by the earlier survey (Leonard *et al.* 2007). In 2015 these were still visible on the very edge of the coastline, identified by spreads of pottery and stone eroding out of the edge of the coast (Figs 20-21).

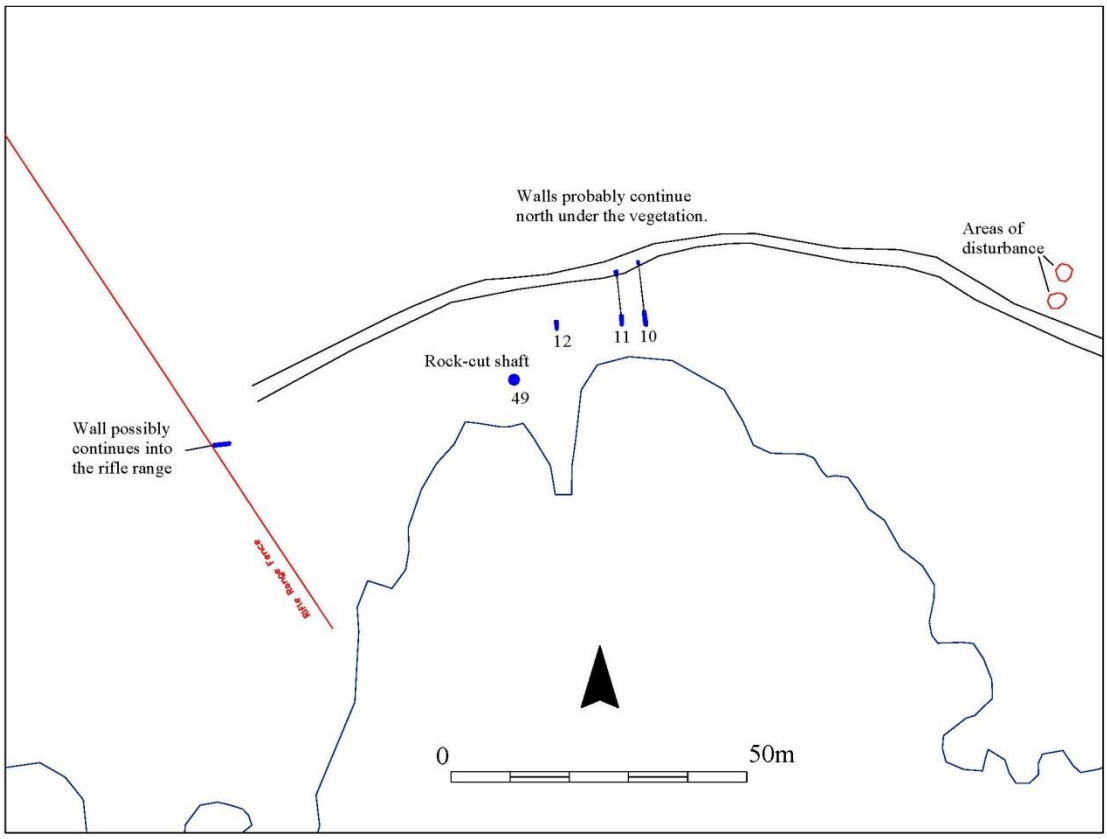

Figure 20: Plan showing walls in Area 3.

Once the walls were cleaned it was obvious that they were very badly eroded with little stone left. The soil to either side of the features was very fine and soft. The two walls to the east (Fig. 20, Walls 10 and 11) still contained stone at the very base, although only *c.* 0.05-0.1m of the very base of the features remained. Although the visible features lay beneath *c.* 0.35-0.4m of soil and scrubland, the stone from the walls and foundations appeared to have been mostly robbed out leaving a thin layer of degraded stone. The make-up of wall 12 was different – the sand to either side was so fine that it could be brushed away leaving the remains of what appeared to be the fill of a robber trench containing stone fragments upstanding (Fig. 21).

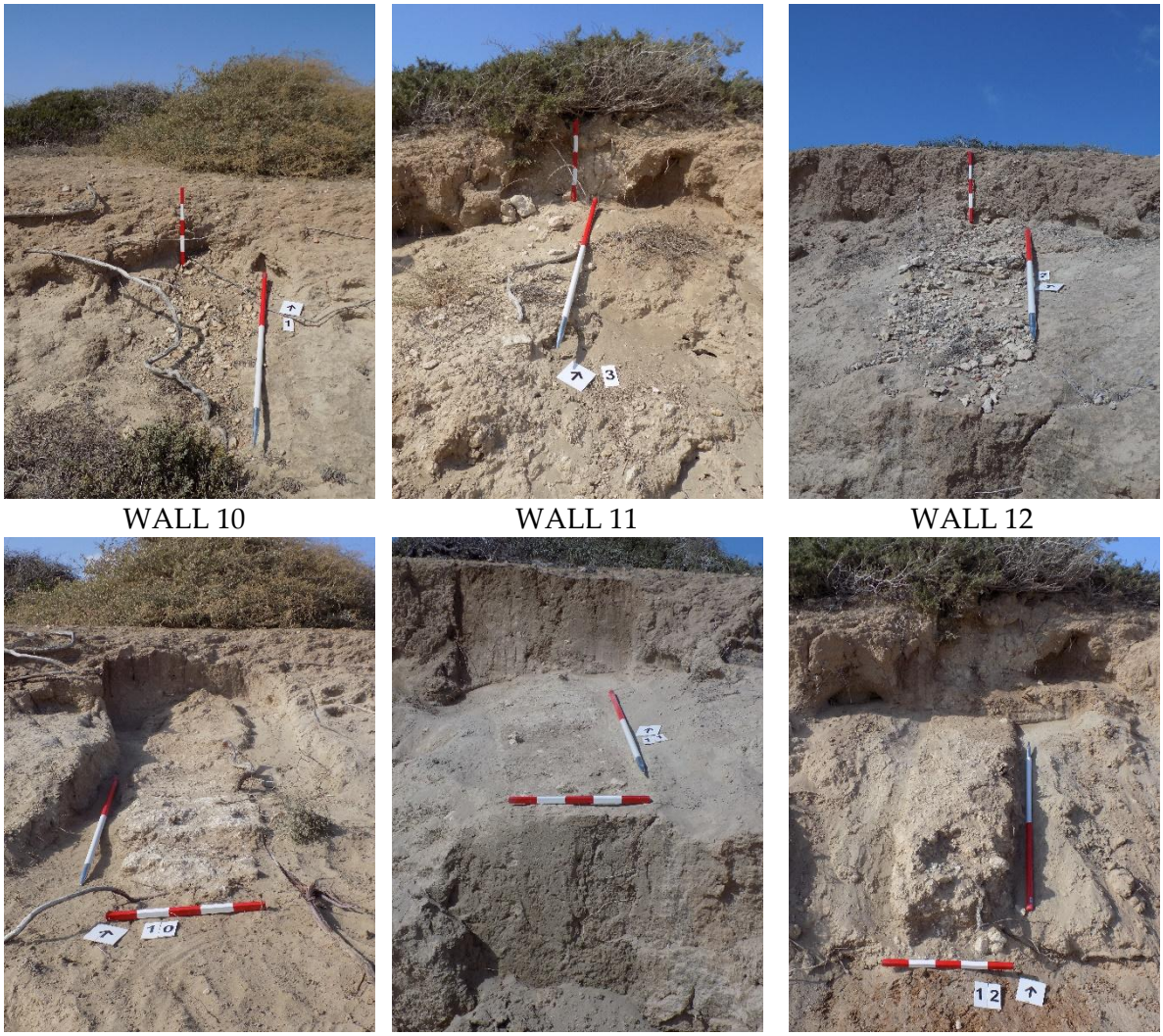

Figure 21: Walls 10, 11 and 12 prior to cleaning (above) and after cleaning (below). 1m and 0.5m scales.

Excavation of areas on the alignment of the walls revealed the continuation of walls 10 and 11 (but not 12) across the modern vehicle track just to the north, preserved approximately 0.4m higher but still showing a high degree of degradation. It seems likely that these walls form continue into the scrubland to the north and although the walls appear to be robbed, features could be better preserved in these areas where they have been covered and not exposed.

The identified walls suggest another structure. Although only a small fragment was uncovered, the structure appears to be similar to those in Areas 1 and 2. The distance between walls 10 and 11 is *c.* 4m, the same distance as between the walls of Building 1 and similarly orientated north-south. To the west a short stretch of wall was identified on the surface right by the range fence, possibly running westwards into the range area, where further buildings are known and yet more walls also observed (see below).

A rock-cut shaft was also recorded in Area 3 (Fig 20, 49). This part of the ledge is undercut and there was access by sea to the base of the shaft. However, the upper areas had obviously been heavily eroded and it is possible that this lower area had also been eroded by the sea and was not originally accessible (Fig. 22).

Figure 22: Rock cut shaft looking south-east (left) and the undercut ledge that allows access to the shaft from the sea looking north.

The mouth of a 2nd shaft or more likely cistern was also recorded to the north of Area 1, fenced off, and filled with barbed wire. A third shaft was identified on the shoreline to the north-east. Possibly still containing cultural deposits, this last may repay excavation.

Modern Features

Besides the concrete plinths in the south-east corner and the bench in Area 1, four flat concrete bases were recorded in a line between Areas 1 and 2. Each was approximately 6.5m x 8.8m long with a concrete conduit running to the north-west (Fig. 23). These are almost certainly the remains of abandoned military installations from earlier in the life of RAF Akrotiri, their nature and purpose yet to be established, but they may be anti-aircraft gun emplacements. They appear associated with an area which had been bulldozed flat, leaving a debris bank to the N.

Figure 23: Concrete base 3 looking south-east and 1 looking west.

Post-season securing of site and archive, and storage of finds

All excavated areas posing any safety hazard were backfilled before leaving. The paper and digital archive was discussed above. Finds have been bagged, boxed and placed in secured storage belonging to the WSBA Archaeological Society pending further study.

Reconnaissance of the environs of Dreamer's Bay

In addition to the shoreline fieldwork, the team also scoped the environs of the site as an aid to understanding the remains, and also with regard to potential for future work. As noted above, inspection of the land immediately behind the shoreline, especially in the W close to the rifle range perimeter fence, identified wall lines visible on the surface and in wheel ruts.

Inside the range area: further buildings, and rock-cut necropolis

Permission was also obtained to reconnoitre the adjacent land within the fenced range area, where Buffalo had previously identified and examined a building (Ault and Leonard forthcoming). Examination of the surface relocated this, and identified a number of other walls and ceramic scatters, indicating that ancient masonry structures existed the entire length of the shoreline in the low and relatively flat area now bisected by the range fence.

Continuing onto the rising ground to the W, led by Maj Frank Garrod who knows the area intimately, we also gained an initial idea of the substantial scale of the known but unrecorded necropolis of rock-cut tombs overlooking the Dreamer's Bay port area. These are under tall and dense scrub, much of it growing out of the tomb fills. Potential future work here could initially comprise a survey to locate the individual tombs and plot the location and extent of the cemetery from surface indications, as a contribution to heritage mapping of Akrotiri. Dating the cemetery would require excavation of some tombs. They may all have been robbed in Antiquity, but there is a very good chance that some datable material from the original interments, such as pottery, may have been missed or discarded.

Hilltop structure north of the Dreamer's Bay shoreline buildings

The Buffalo project conducted initial investigations of remains comprising part of one room of a substantial masonry building on the crest of the hill rising N of the Dreamer's Bay shoreline structures. Reportedly this had been accidentally revealed by training soldiers creating a sangar in the 1980s. Its location commanded views not only over Dreamer's Bay, but also to Cape Zevgari and NW across the bay to Kourion. Today the site lies in a disused, fenced rubbish dump. It was inspected during the fieldwork, Buffalo's activities being easily located. Elucidating the scale, date, nature and purpose of this building is an important potential objective for future work in the Dreamer's Bay environs.

Southampton's underwater recce & the area east of exposed buildings

E of the site, the shoreline turns NE and rises into a bay lined with tall cliffs. As outlined above, this bay contains a submerged artificial breakwater, anchors and ceramics indicating a significant ancient anchorage some hundreds of metres away from the low shoreline and its buildings (Salomon *et al.* 2015, 10; Leidwanger and Howitt-Marshall 2006; Leonard and Demesticha 2004). However, to understand the likely interrelation of the dry land and submerged components of the archaeological evidence, a better idea of the conformation of the landscape, shoreline and adjacent sea floor is needed. This is especially important as many of the strata below the level of the known buildings are extremely soft and appear to be rapidly eroding.

Ferreol Salomon's work is only in its preliminary stages, but based on his direct observation of the site, and provisional examination of the sea floor using LiDAR data kindly procured by DIO, at certain points the shoreline is likely to have been significantly different in Classical and late antique times. Notably, he provisionally suggests that the small island just E of Area 1 was in antiquity connected to the land by a spit from the NW (Salomon *et al.* 2015, 13 and fig. 18). This implies land NE of Area 1 projecting 10-30m beyond the current shoreline, potentially supporting more buildings now lost to the sea. The eroded ends of walls and other archaeological deposits along the shoreline up to 50m N of Building 1 are consistent with this. The Leicester team also identified what appears to be another ?well shaft close to the modern water's edge around the bay, some 350-400m NE of building 1, mentioned above. This may suggest the built-up area originally extended that far further E (Fig.24), beyond which the rising cliff made building impracticable. If so, the Dreamer's Bay installations or settlement covered an area even bigger than previously thought.

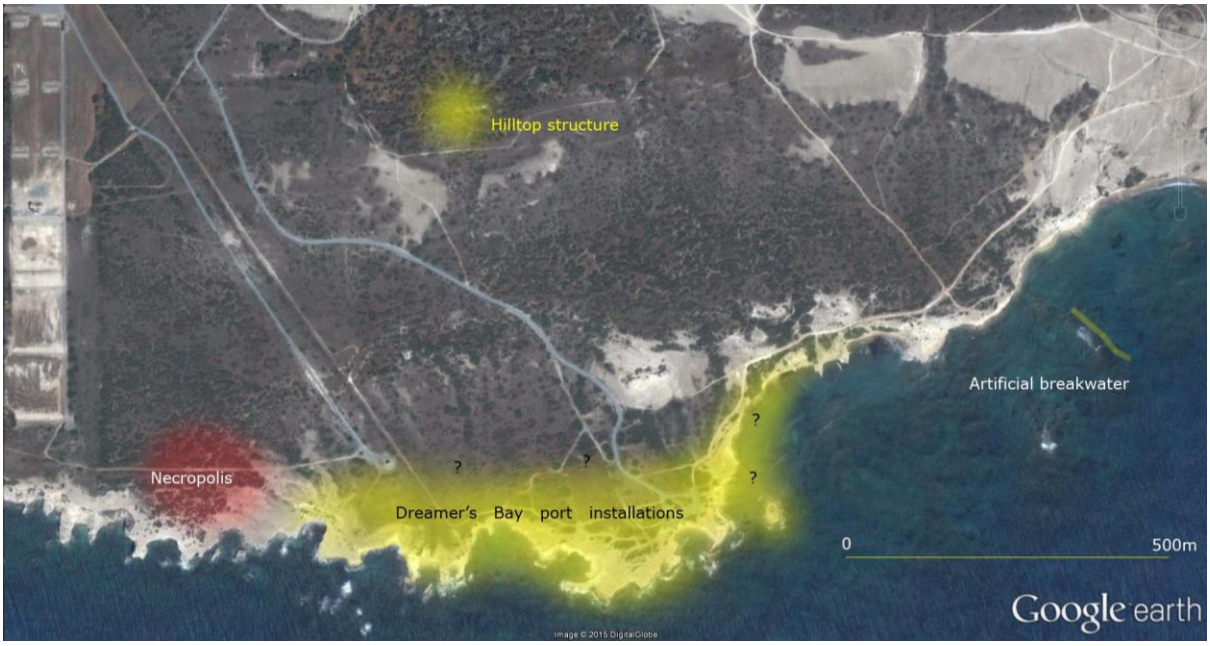

Fig. 24: hypothetical extent of the port facilities at Dreamer's Bay, and nearby features.

Conclusions and prospect

The short expedition to Dreamer's Bay was very successful. As the task proved larger than previous work had suggested, and time was lost to local industrial action at the outset, we were not quite able to meet all of our stated objectives. However, we accomplished most of what we set out to achieve and, in important ways, more than we had expected.

We are starting to get some idea of how the port was organised, and functioned. Cleaning and, for the first time, substantial excavation of the structures, particularly in Area 1, suggests that these features are more complex than previously thought. There is as yet little evidence for the nature of the buildings themselves although finds including fragments of ridge tile and possible gypsum plaster with wood impressions suggest they could have been partially timber structures with plastered walls and tiled roofs.

The excavations have also identified a number of other discrete features including pits of burnt material and pottery and beam slots, as well as a previously unknown building that could be later in date, utilising an existing wall and cutting into the natural bedrock.

At least in Area 1, it seems that the putative warehouse structure— still the most plausible hypothesis, if remaining unconfirmed—was associated with a walled courtyard, apparently facing onto what at the time was probably a small inlet. This may well have been suitable for, e.g., rowed lighters moving people and goods between the shore and sea-going ships in the anchorage to the east.

However, the most striking new finding arose from the overall survey of the visible remains. This revealed that, despite the highly irregular modern (and likely ancient) course of more than half a kilometre of shoreline along which they were built, almost all the walls recorded so far share a common orthogonal alignment, pretty much on the cardinal points. It is too early to say whether they were laid out according to a surveyed modular grid, but this is a distinct possibility. Common, or at least closely similar alignment converges with the similarities in size, layout and construction of the buildings seen so far, to suggest the visible pattern of buildings at Dreamer's Bay does not represent organic growth of a settlement over time, but was a unified conception, built as a single phase.

That said, the project also identified possible indications of other phases of construction at the site. These are stratigraphic in area 1 where at the end of the excavation possibly superimposed features on different alignments were encountered. In area 2, the striking lack of correspondence in the positions and alignments of the walls visible on the ground, with features interpreted as walls in Buffalo's 2010 geophysics, could also suggest two or more phases of construction.

As with the site phasing, much work remains to be done on dating. However, on a provisional look at the pottery recovered so far, Eleni Procopiou confirmed that it still appears to be overwhelmingly fourth to sixth century material (pers. comm.).

These encouraging discoveries and observations generate specific research questions and objectives for anticipated follow-on work, to complete the exploration of the erosion-threatened structures, and to try to establish how far the port settlement extended back from the current shoreline. The relatively flat ground in this area would facilitate a far larger built-up area than current surface indications suggest, currently hidden under scrubland.

While the extent of the settlement and its developmental sequence remains to be firmly established, so does its chronology. The dense surface scatters of pottery across the area of exposed buildings has suggested they date to the Late Roman/Early Byzantine period (5th – 7th centuries), but more work, especially on stratified pottery which began to be recovered during the season, is needed.

Further work on the Dreamer's Bay settlement, inside as well as outside the range fence, should help not only to elucidate the nature and extent of the structures, but also their relationship with other nearby sites, such as the ridge top structure excavated by Buffalo in 2007, and perhaps the necropolis to the west.

During the fieldwork we were also able to advance planned research collaboration with the University of Southampton, which we hope will lead to a campaign of research on the submerged port remains to the east of the settlement. We were also able to open discussions with the University of Cyprus about potential future collaboration. At the same time, the University team developed a close working relationship with the WSBA Archaeological Society, and undertook valuable discussions with HQ British Forces Cyprus and RAF Akrotiri about potential accommodation and logistics for future seasons involving Op Nightingale. These discussions will now be continued and developed by Defence Archaeology Group.

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We were also delighted to welcome our University of Southampton colleagues, Drs Lucy Blue and Ferréol Salomon, for their initial reconnaissance to Dreamer's Bay, and look forward to future collaboration with them.

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