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Notes for contributors to the Bulletin

The success of the *Bulletin* depends entirely on the good will of its members and correspondents, for it is they who provide us with the news and articles that go into it. Your notes on news for inclusion in the next *Bulletin* should contain: 1. the title of the research project, 2. the name of the organising body/ university (if applicable), 3. the name of the director or researcher and his/her institutional affiliation, 4. a short description of the project, stating when and where it was conducted, its main objectives, and results, 5. whether or not the project is expected to continue in the future, 6. full details of recent and forthcoming publications. In addition, we welcome news items of general interest, ongoing and completed postgraduate research, news of upcoming conferences, meetings and special events, and ask that you give us the title or subject of the event, along with the name of the organiser, the date and the location. Submission by e-mail is welcome. HD disks in PC or MAC format preferred for longer contributions.

Transliteration of Arabic, where required, should follow the IJMES scheme. However, contributors may prefer to omit transliteration marks altogether. *Bulletin* questionnaires will be distributed in the summer, although information is welcome at any time for inclusion in the next issue of the *Bulletin*. Proposals for 'feature articles' should reach the Editor by August 1st. Contributions will be received up to 1 December for general material (but later for winter conferences and research reports).

Notice to applicants to conduct research in the Yemen

Applications to conduct research in Yemen should be made to the Society's sub-committee, BAMY, c/o The British Academy and addressed to its Honorary Secretary, Mr Peter Parr.

Grants in aid of research

Details under 'grants'. Applicants are advised to apply in good time before the deadlines of 31 May / 31 October.

Notice to applicants for official sponsorship

The Society will consider applications from expeditions and individuals to whom official sponsorship might be helpful in obtaining funds from other sources or permission from foreign governments. Such sponsorship will require the Society's approval for the academic content of the research project but will contain no element of financial support. Applications should be submitted on forms available from the Hon Secretary at address below, or to Dr Derek Kennet, Chairman Grants Committee, derek.kennet@durham.ac.uk., or download from website

www.societyforarabianstudies.org

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Cover photograph: *View in the south of Jabal Razih, north west Yemen, 1977, by Shelagh Weir*

BULLETIN OF THE SOCIETY FOR ARABIAN STUDIES

The Editor welcomes feedback from readers about what they like/dislike about the *Bulletin*; and what subjects they would like to see covered in more or less depth.

What do YOU want from your *Bulletin*? Please send your views to janpicton@ijnet.demon.co.uk

Bulletin of The Society for Arabian Studies

جمعية دراسات الجزيرة العربية

A message from the Chairman

It's not easy these days to write about the Society's activities in the field of Arabian studies when the region with which the society is concerned, albeit mainly in historical terms, is convulsed with the problems of war, terrorism, religious fervour, etc. The Society has always been firmly apolitical, concerned with historic Arabia, anthropological, geographical, architectural, literary Arabia, distancing itself as far as possible from contemporary issues. Yet 2005 has been a mournful year in many respects, relevant to all interested in the peninsula, for whatever reason, with the demise of an older generation of rulers (see Obituaries, p27) – King Fahd of Saudi Arabia, Amir Jaber of Kuwait, Shaikh Maktoum of Dubai. Their deaths cast a pall of uncertainty over the region; we offer condolences to their successors and our hopes for a more settled future.

In political terms there's nothing the Society can do or would want to do. What we can do, however, and this is an increasingly vital role, is publicise as widely as possible the history and culture of the peninsula. Ionis Thompson organises a programme of public lectures, generally well attended thanks to her efforts to bring other societies on board (fewer clashes, is the aim). Jan Picton produces an excellent Bulletin, this year with the help of Will Facey in augmenting the number of book reviews. Janet Starkey managed to produce in seven months the Proceedings of the second Red Sea Conference held in October 2004, and is now hard at work organising the third conference (see p10). Publications have become a significant part of the Society's activities, thanks to St John Simpson's and Derek Kennet's development of a series of monographs in conjunction with Archaeopress; this is a considerable achievement given the general reluctance of scholars to go into print (nothing new in this but frustrating nevertheless). We do need the back-up from our members in all this and we do need more members!

With the Society wholly dependent on subscriptions for most of its activities, however, it is difficult to play an active role in one particular aspect of Arabian history: the looting of sites which help to elucidate it. This is a particularly grave problem in Yemen, where the authorities are faced with the almost insuperable problem of guarding the many ancient sites, as well as with the insatiable greed of the art market *and* its clientele. Tourism can be part of the answer, particularly if governments can be persuaded to reserve some of the income thus generated for the protection of sites. We do urge you to go.

Sarah Searight, *Chairman*

Membership details from Ionis Thompson, the Hon. Sec., Society for Arabian Studies, c/o The British Academy, 10 Carlton House Terrace, London SW1Y 5AH UK. Membership renewals: contact the Treasurer, Douglas Stobie, address above, or e-mail: stobie@chiterne.freeseerve.co.uk

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Neolithic sites in Umm az-Zamul, SE desert of Abu Dhabi, UAE

Mark Beech, Heiko Kallweit, Richard Cuttler and Walid Yasin Al-Tikriti

Introduction

An outline is provided of recent work carried out in the south eastern deserts of Abu Dhabi in the United Arab Emirates by a joint team from the Abu Dhabi Islands Archaeological Survey (ADIAS) and the Department of Antiquities and Tourism in Al Ain, both shortly to become part of the newly established Abu Dhabi Culture and Heritage Authority (ADCHA).

New survey and excavation work has provided valuable new information concerning the Neolithic period in the Rub al-Khali or Empty Quarter, between around 9,000 to 6,000 years ago. This casts new light on the kind of activities undertaken by the pastoral nomadic communities who once lived within this now seemingly barren landscape.

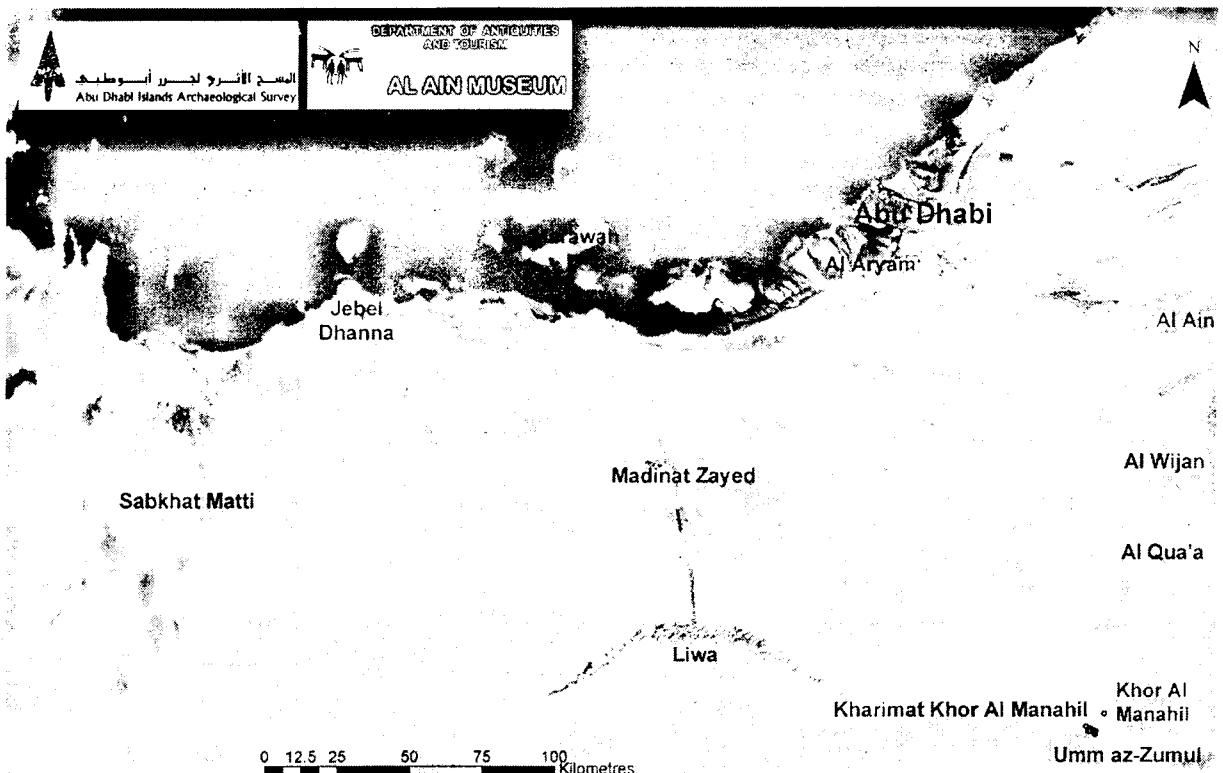
Previous Work

Lithic scatters in Kharimat Khor al-Manahil were first noted in 2003 by a team from the Terrestrial Environment Research Centre (TERC), part of the

Environment Agency – Abu Dhabi, EAD, (then known as the Environmental Research and Wildlife Development Agency, ERWDA). The TERC team was undertaking an ecological survey in the NW corner of the Kharimat Khor al-Manahil plain. This is located north of Umm az-Zamul in the SE desert of Abu Dhabi (Figure 1). Subsequently, in November 2003 the reported sites were revisited by Dr Mark Beech and Dr John Stewart from ADIAS, together with a team from TERC, and further lithic sites were recorded in the area.

The first season of work at Kharimat Khor Al Manahil and Khor Al Manahil took place between the 24th January and the 6th February 2004. The team comprised: Dr Mark Beech, Dr Heiko Kallweit and Dr Walid Yasin al-Tikriti. Work concentrated in three areas: Kharimat Khor Al Manahil (KHM), Sabkhat Bu Dab (SBD) and Khor Al Manahil (KAM). Lithic scatters first noted at KHM were revisited and then systematic mapping and collection of material was made. A total of 80 sites were mapped where there

FIGURE 1: Location of Khor al Manahil and Kharimat Khor al Manahil in the Umm az-Zamul region of Abu Dhabi emirate, UAE.



were significant clusters of worked flint and other stone material. In the KHM region these lithic scatters were spread almost continuously along the northern edge of the plain for more than 3km!

A second season of work was carried out at both KHM and KAM between the 29th December 2004 and the 23rd January 2005. The team comprised: Dr Mark Beech, Richard Cuttler, Dr Heiko Kallweit, Hamed Al Mutairi and Dr Walid Yasin Al-Tikriti. Work concentrated at KAM on the systematic collection and mapping of lithic material from the surface of the site. A detailed topographic map was made of the terrain so that the archaeological material could be seen precisely within its landscape context. Such an approach was also undertaken for the rich lithic scatter identified during the 2004 season at KHM0035. A topographic map was also made of the vicinity of the three stone structures, KHM0045 – KHM0047.

The most recent and third season of fieldwork at both KHM and KAM began on the 28 December 2005 and concluded on the 17 January 2006. The team comprised: Dr Mark Beech, Richard Cuttler, Dr Heiko Kallweit, Phil Glover, Suzan al-Mutawa, Hamed Al Mutairi, Roxana Linklater-McLennan, Ahmed Abdullah Elhaj and Dr Walid Yasin Al-Tikriti.

Methodology

The main aims of this third season of archaeological field work were:

1. To complete the single item pick-up at Khor al-Manahil, including the dense lithic scatter located in the interdunal depression known as 'Area 9'. Material was collected from this dense scatter by dry sieving the lithics-bearing layer within one metre grid squares using 1mm mesh hand sieves.
2. To complete the topographic mapping of Khor al-Manahil.
3. To investigate the new area south-east of the main lithic spreads identified during the second season 2004/5. This extended the mapped area by several hundred metres to include the newly discovered burnt mounds and additional surface lithic material.
4. To excavate selected stone structures, namely the main structure KHM0046 at Kharimat Khor al-Manahil.
5. To learn more about the process of preservation of surface lithic scatters.

A Nikon C100 Total Station with a data logger using Fast Map FM700 logging software was used for mapping. Local grid coordinates were used from stations which were fixed to national coordinates using a hand-held GPS. The survey comprised a 3D record of the location of each find collected plus a survey of the local topography in order to place the lithics within their current topographic location. This

also served to illustrate current dunes where no flints were recovered. Clearly this is important as these have the potential to mask areas of flint, and thereby explain any areas absent of debitage within the site.

As each find was collected an incremented number, provided by the logger, was used as the survey reference number for each find. Any other distinctive features were also mapped. To date the data has been processed using Geosite software which has provided a location plan of each find, plus a contour survey of the topography. This has also been processed in AutoCAD 2004 to provide a Digital Terrain Model. Once the lithic database is completed this will be combined with the topographic survey and exported to a GIS program (e.g. ArcView). This will enable the presentation of different flint types within the topography of the site.

Khor al-Manahil (KAM)

Work at KAM concentrated on completing the pick-up of lithics from the surface of the site, as well as completing the topographic map of the general area (Figures 2-3).

FIGURE 2: Map of Khor Al Manahil sites (All contours shown are in metre intervals. Area 9 = where lithics were systematically picked up and mapped, and where sample squares were sieved during the 2005-6 season. BM1-3 = burnt mounds 1-3).

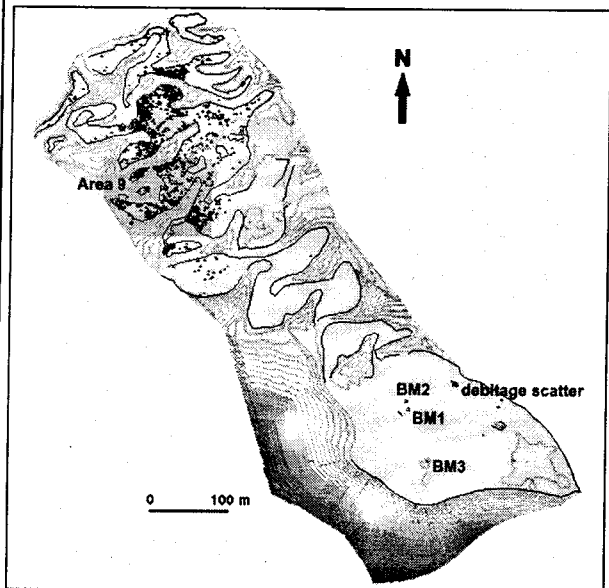
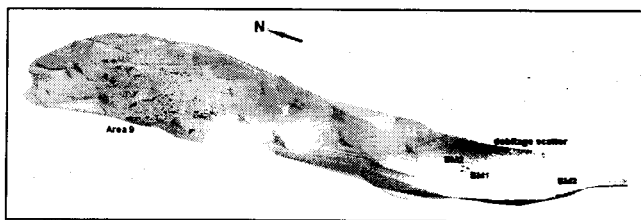


FIGURE 3: Rendered 3D digital terrain model of Khor al Manahil (points indicate lithics collected. Area 9 lithics were collected during the 2005-6 season).



Lithics collection

The greatest part of the work involved the controlled sieving by one metre squares of Area 9, an interdunal depression about 20 metres in width and 30 metres in length, which sloped towards the east (Figure 4). While a larger dune is aligned on its southern edge, the northern edge of the depression is marked by a flat and rounded dune corpus. The surface of Area 9 is dominated by the contrast between dark coloured patches of gravel in between areas of outcropping palaeodunes, marked by whiter strips and patches. The process of palaeodune weathering and the general evolution of the landscape on the site is

currently under study. Archaeological finds so far retrieved are exclusively comprised of flint flakes and tools scattered on the surface. Accumulations of these were observed in certain areas, selected for square sampling. The square sampling in Area 9 was set up along a north to south and east to west running baseline. A one-metre square frame was applied to mark single sample areas. All removed sediments were then sieved using 1mm mesh hand sieves. Interestingly, all the flints were found exclusively in the uppermost 2 centimetres of sand. The lower layers of sand were sterile down to the hardened surface of the palaeodune. Details about the flint finds are still to be studied, but a preliminary overview revealed no obvious differences with the composition of previous finds from the site (Kallweit *et al.* 2005; Figure 5). In addition to the material collected by sieving one-metre squares, single flint pieces in areas of low concentration were individually collected and mapped using the Total Station. The majority of the lithics material originally observed on the surface of KAM have now been collected and mapped. Each season when we have revisited the site some new material has, of course, been exposed by one year's worth of wind erosion. The 2005-2006 season, however, witnessed smaller quantities of material exposed across the main area of the site.

FIGURE 4: Map of Area 9 at Khor Al Manahil. (All contours shown are in metre intervals. Line indicates bottom of dune edge. Points indicate the location of collected lithics. Shaded blocks indicate areas which were sampled by dry sieving using 1mm mesh hand sieves within metre square units).

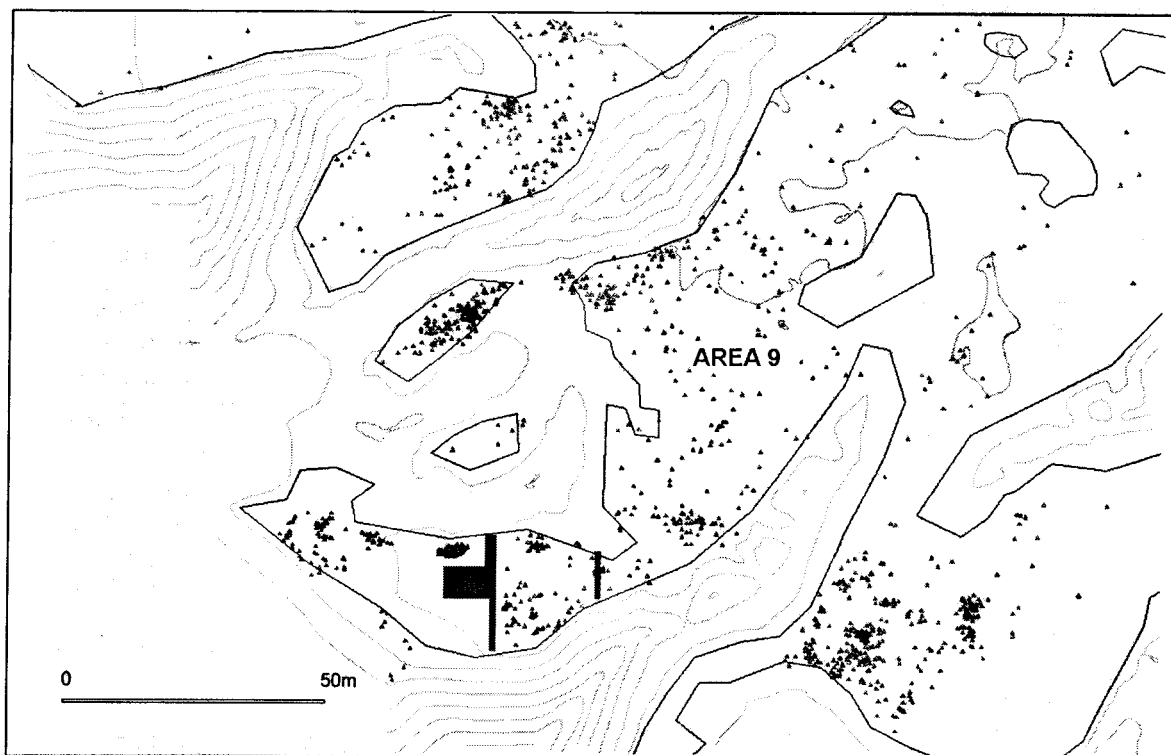
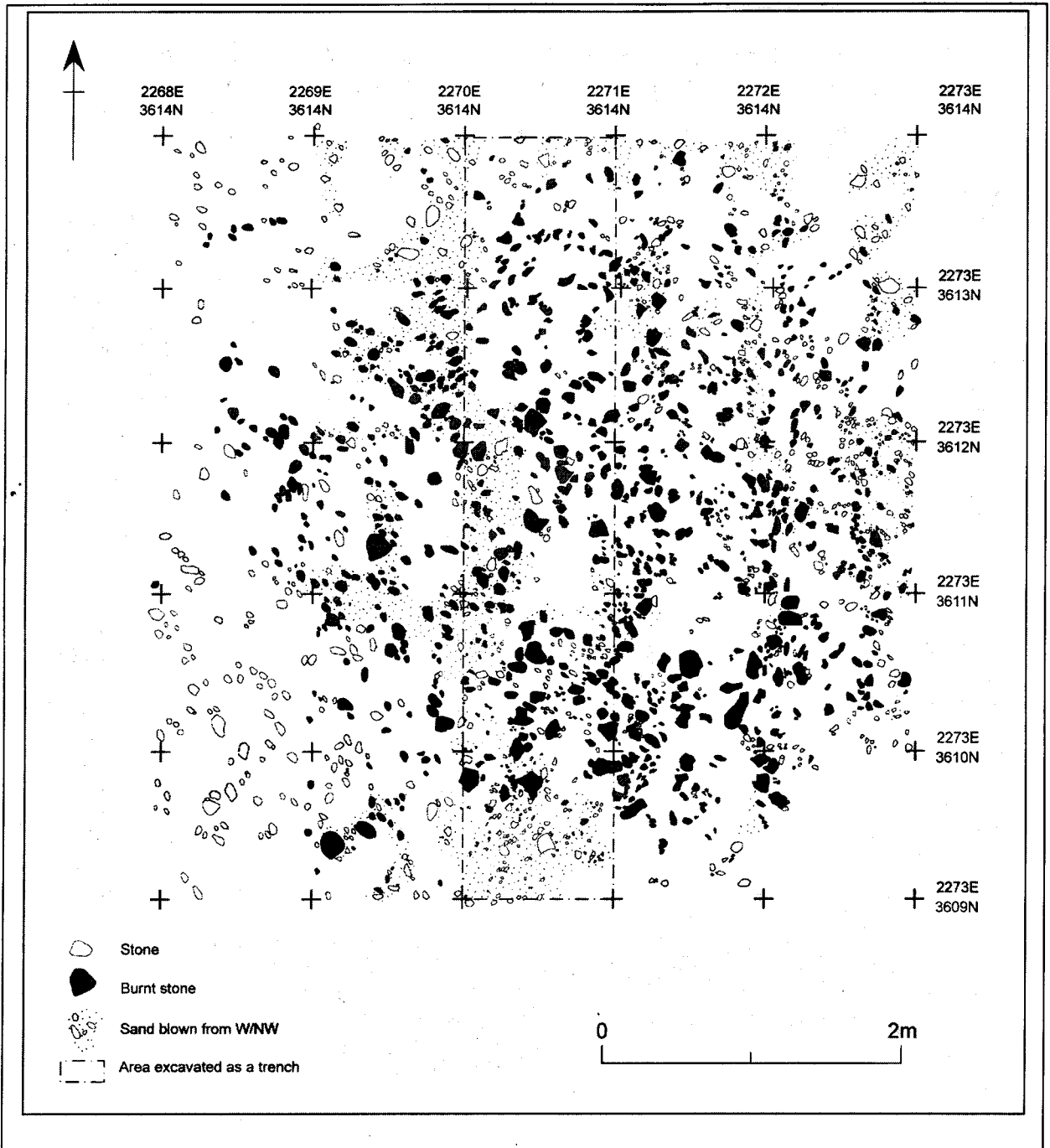


FIGURE 5: Some of the lithics found at Khor Al Manahil (1-5: bifaces; 6-9: arrowheads; 10: willow-leaf-shaped projectile point).

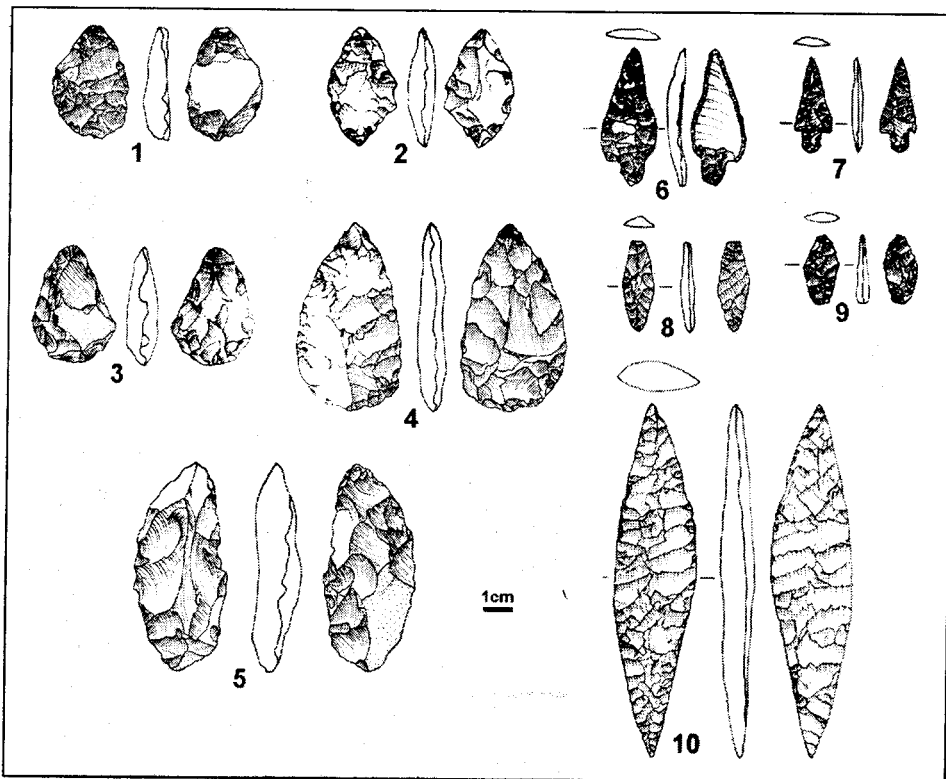


There are now 2681 lithics find spots from Khor Al Manahil, of which 600 represent material collected this season, plus a large quantity of material from this season's sieving of squares from Area 9, as well as earlier material collected by GPS. These all now await further detailed study.

Burnt mounds

At the end of the 2004-2005 season three interesting features were recorded to the south-east of the main lithics scatter at KAM. These consisted of concentrations of burnt limestone fragments measuring up to a maximum of 20cm and circular in plan.

FIGURE 6: Plan of Burnt Mound 1 at Khor Al Manahil.



The largest of these (burnt mound 1) was 4.5 metres in diameter (Figure 6) and measured only about 15cm in height. Its surface was littered with burnt limestone fragments. Close observation of the surface of each of these limestone fragments revealed a consistent pattern of weathering from the prevailing wind direction from the north. This suggests that the burnt mounds are of some antiquity.

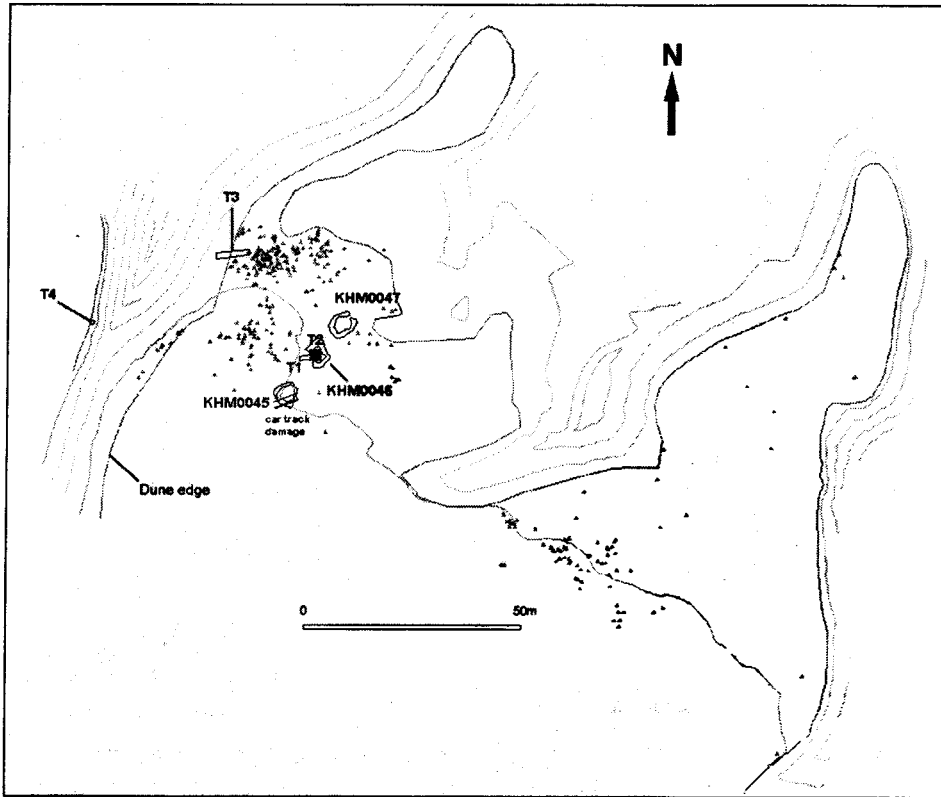
About 7 metres to the north a second, less-well preserved, burnt mound was also recorded. This appeared to be more deflated, the stones being dispersed over a flat area about 3 metres in diameter. A third much smaller concentration of burnt stones (burnt mound 3), was recorded approximately 70 metres south of burnt mound 1. This was only about 1.5 metres in diameter. The original sediments associated with these two smaller concentrations of burnt stones had largely been dispersed by subsequent erosion.

A decision was made, therefore, to investigate the largest well-preserved of these features by excavation in the hope that archaeological material or samples of ash or charcoal might be obtained suitable for radiocarbon dating. Following the planning of burnt mound 1 by Phil Glover, a team comprised of Dr Mark Beech and Phil Glover excavated a trench 5 metres long by one metre wide. This trench was oriented north-south through the centre of the mound (Figure 6).

The natural bedrock was encountered at a depth of approximately 0.32m. This was sealed by a layer of small limestone fragments which was cemented with coarse sand in a hard gypsum-rich layer approximately 0.3m in depth. The burnt limestone fragments (Figure 6) lay directly on this surface, which was also sealed by a layer of fine windblown sand. The sand appeared to be of recent origin, and it would seem that the heavier burnt limestone fragments had immobilized the sand leaving a deposit approximately 0.02m in depth. Unfortunately no archaeological finds were retrieved and no traces of ash or charcoal were evident.

It seems likely that erosion and weathering have caused deflation of the mound removing traces of the original sediments. The original function of these burnt mounds remains enigmatic, although it is possible that they represent ancient cooking hearths. Their location is of some interest. All three features are located close together on the surface of an exposed limestone outcrop. About 70 metres to the north-east of burnt mounds 1 and 2 an interesting flint debitage scatter was noted. This demonstrates that the area was an occasional focus for activities during the Neolithic period. It may be that this 'cooking and processing area' was located close to a nearby water source for the inhabitants of the site. Immediately to the south of this exposed limestone outcrop is a large sand dune about 75 metres in height. Beyond that lies

FIGURE 7: Map of sites KHM0045-47 at Kharimat Khor Al Manahil. (All contours shown are in metre intervals. Points indicate lithics collected during the 2005-6 season. T1-T4 = Trenches 1-4. T2 - Trench 2, excavated during the 2005-6 season, is shaded).



the main interdunal plains which criss-cross the Umm az-Zamul region oriented north-west to south-east between the major dune fields. Terracing observed within some of these plains may be indicative of an ancient ?Miocene period lake (UAE University 1993; Glennie 2005: 142 and 144, Fig.9.27), which may have also held water, at least seasonally, during the climatic optimum in the Arabian peninsula between about 9000 to 6000 years ago.

Kharimat Khor al-Manahil (KHM)

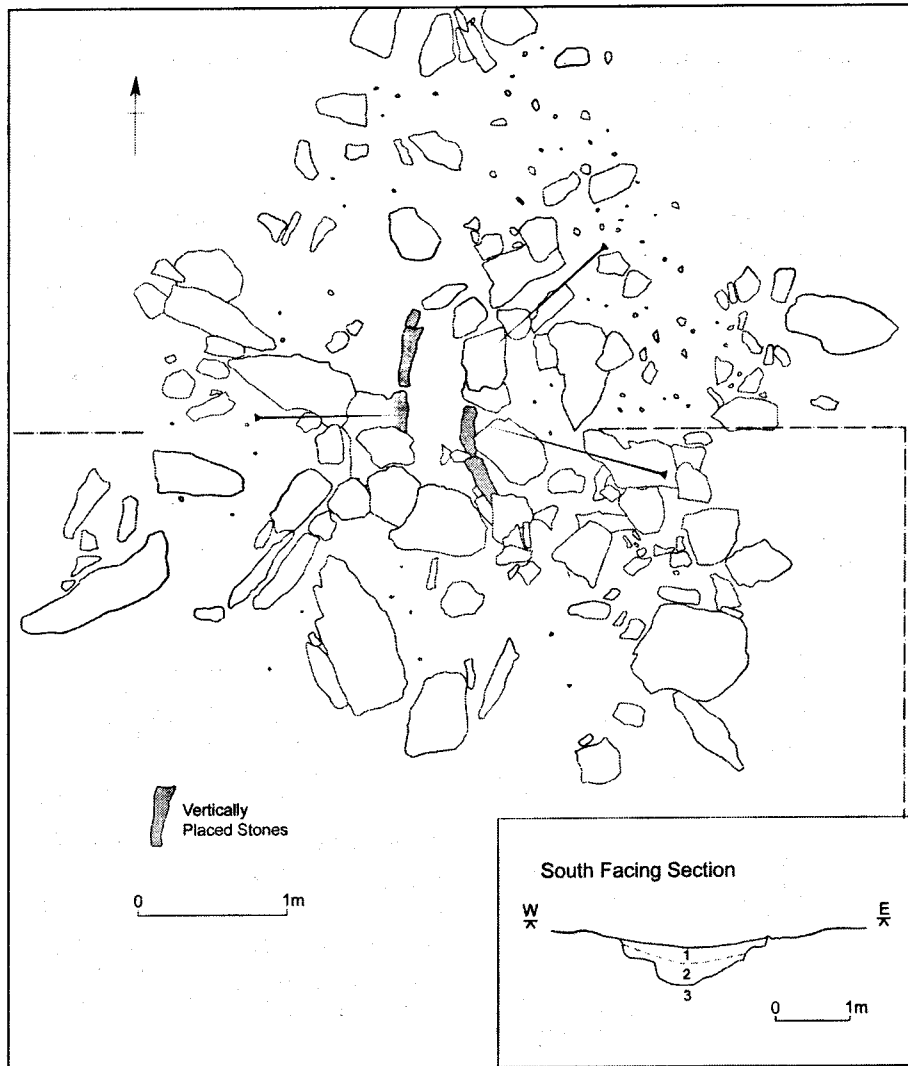
Work at KHM concentrated on the group of sites known as KHM0045-KHM0047, three sub-circular structures on a northeast-southwest alignment, each approximately 5.5m in diameter, with a distance of approximately 3.5m between each of the structures (Figure 7). The northeast and southwest structures were evident as low mounds, each with a central shallow depression. Located between these was a more substantial structure which was comprised largely of degraded limestone, which appeared to be anthropogenic in origin. Large, fragmented limestone blocks were evident on the surface of KHM0046 forming a scatter approximately 6m across that was roughly square in plan. The blocks varied in size from 0.2m to nearly 1m across.

Excavation of KHM0046

An initial test trench (Trench 1) was excavated through KHM0046 in January 2004 by Dr Mark Beech, Dr Heiko Kallweit and Dr Walid Yasin Al-Tikriti. This was five metres wide east to west, and one metre north to south. This trench was positioned to bisect the western side of the structure and to provide a chance to examine the deposits lying both within and outside the structure. This successfully demonstrated that the limestone boulders were set on a soil matrix different to the loose sand covering the surface. This layer was more compacted with traces of calcareous concretions, and comprised fine-grained brownish sediment. The limestone appeared to be identical in terms of texture and colour to samples collected from local natural outcrops in the vicinity. The test trench clearly demonstrated that this was no natural outcrop and that the stones had been intentionally transported to the site.

As the precise function of structure KHM0046 was still not clear, it was decided to undertake a larger open area excavation during the January 2006 field season. Initial hypotheses about the three adjacent structures suggested that they might be some form of house-type structures (Kallweit *et al.* 2005).

FIGURE 8: Plan and south facing section of site KHM0046 at Kharimat Khor Al Manahil (Shaded stones are vertically placed).



The results of the new excavations modified our ideas and suggested a new explanation for the function of these sites.

A new trench (Trench 2, Figure 7) approximately five metres squared was excavated at KHM0046 between the 13-16th January 2006. This was undertaken by Dr Heiko Kallweit and Richard Cuttler. Excavation largely concentrated on removing the wind-blown sand from the shallow depression free of stones located within the centre of the structure (Figure 8, Layer 1). Below this was a more compact sandy layer containing fragments of the degraded limestone (Layer 2).

The major discovery of the brief excavation season at KHM0046 was the discovery of a subterranean construction with a rectangular-shaped stone cist about a metre below the modern ground surface at the centre of the structure (Figure 8). The cist was about

1.5 metres long and about 0.5 metres wide. A detailed record of the spread of the collapsed stone slabs (Layer 3) around the preserved superstructure displays an almost squared space. This is altogether an unusual result, representing a unique type of construction not previously recorded in the UAE.

Whilst there was unfortunately not sufficient time available this season to complete the excavation of the entire structure, the appearance of the cist strongly suggested that KHM0046 is a form of tomb with a subterranean burial with a megalithic construction built on top of it. The mobility and looseness of the upper layers at the site meant that it was not possible to empty the cist to check for any possible human skeletal remains or grave goods. Future excavations at the site must open a sufficiently wide area to ensure that the foundations of the structure can be carefully examined and recorded in greater detail.

layers, and it is possible that the 'depression' in the middle of each of the features (KHM0045-7) represents a later intrusion, i.e. the tombs may have been robbed. However, on a more positive note, if these are tombs there are a number of other low mounds adjacent to KHM0045-7 that could represent undisturbed tombs. Work for January 2007 might also consider sampling one of these mounds to test the nature of the feature.

Lithics collection at sites KHM0045-KHM0047

A systematic pick-up of all lithic material in the vicinity of sites KHM0045-KHM0047 was undertaken. The precise location of each individual piece was mapped using the Total Station.

There appeared to be a clear concentration of lithics about 10 to 20 metres to the west and north-west of the three structures. A further concentration of lithics was noted some 60 metres to the south east (Figure 7).

The lithics material included debitage material as well as completed and semi-completed artifacts, including projectile points. Mapping of all these artifacts included the completion of further topographic mapping of the dunes in the area around the sites.

A total of 388 lithics find spots were collected and mapped during the 2005-6 season. This material, plus earlier material collected by GPS, now await further detailed study.

Shell beads

Besides the lithics collected in the vicinity of KHM0045-KHM0047, an earlier visit to these sites discovered two shell beads lying on the ground surface adjacent to these structures.

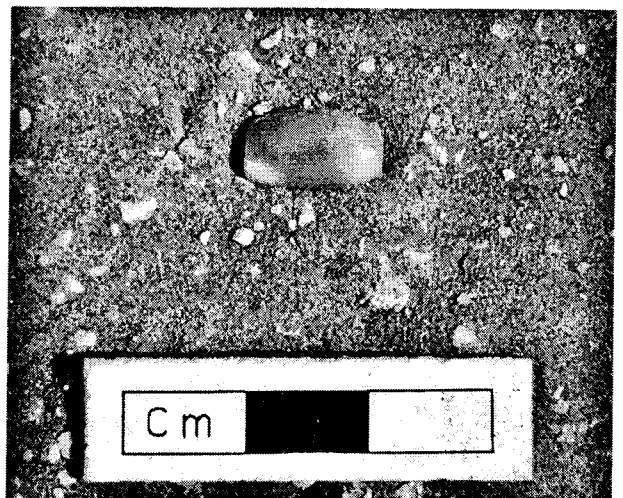
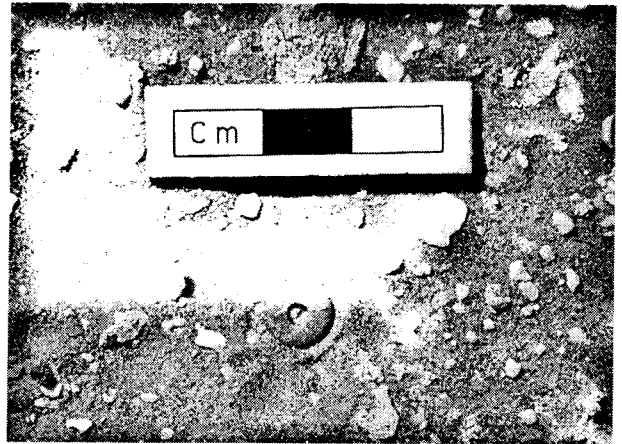
Dr Mark Beech together with the Abu Dhabi branch of the Emirates Natural History Group visited the area on the 11th February 2005. Two shell beads were found approximately five and ten metres west of KHM0046 (Figure 9).

The first example was a typical flat round disc-bead, about 7mm in diameter, with a hole about 2mm in diameter drilled through it. It had been manufactured from a marine bivalve shell, possibly from a species like *Cardiidae: Acrosterigma maculosa*, as traces of its distinctive parallel grooves were still visible on its uppermost surface. This species is present in both the Arabian Gulf and Gulf of Oman in sandy offshore habitats (Dance 1995: 246, no.1090).

The second example was an almost complete small marine gastropod, *Olividae: Ancilla cf. farsiana*, whose apex had been cut off to facilitate it being threaded as a bead. This species is present in both the Arabian Gulf and Gulf of Oman in intertidal habitats as well as sandy offshore habitats (Dance 1995: 145, no.604).

Identical examples of both types of bead are known from the Neolithic cemetery of Jebel Al-Buhais 18, located in Sharjah emirate in the UAE (Kiesewetter *et al.* 2000: 140 – Fig.3; 142; 144 – Fig.10 and Table 1). The discovery of these two shell beads represents the deepest penetration of items which must have originally been produced by coastal communities into the desert interior of the UAE. It demonstrates the mobility of the Neolithic pastoral nomadic communities who must have regularly come into contact with coastal communities as part of their annual cycle.

FIGURE 9. Two shell beads found on the surface just to the west of sites KHM0045-47 at Kharimat Khor Al Manahil (Top: a shell disc-bead. Picture taken in-situ. Bottom: a pierced bead made from an *Ancilla cf. farsiana* shell. Note that the apex has been removed. Picture taken in-situ).



Protection of sites KHM0045-KHM0047

It is clear that sites KHM0045-KHM0047 are of great importance. These types of sites are unique as far as we know within Abu Dhabi emirate and the United Arab Emirates. A decision was therefore made to offer them some protection in the form of a fence. Dr Walid Yasin and a team from the Department of Antiquities and Tourism in Al Ain visited the sites in late January 2006 and arranged for the entire area around the structures to be fenced. Posts were driven in and concrete had to be used where the ground was too hard to fix the posts. Fencing wire was then used around the posts to prevent any vehicles from driving across the site. This measure will hopefully help to protect the sites and will ensure that they are not interfered with in the future.

Dating the sites at Umm az-Zamul

All the lithic tools collected to date have been examined by Dr Heiko Kallweit. According to his preliminary analysis the sites all date to the Neolithic period, i.e. between around 7500-6000 BP. The tools all belong, typologically speaking, to the techno-complex of the so-called 'Arabian Bifacial Tradition' (ABT), or, more closely to the 'Rub al-Khali-Neolithic', as first defined by Christopher Edens in 1982 (Edens 1982).

The problem of absolute dating of Neolithic sites within inland desert environments is that in most cases, no suitable layers or organic matters are preserved; therefore we do not have any suitable material for dating the sites. This is also the case for the KAM and KHM sites at Umm az-Zamul. Our recent excavations of burnt mounds at KAM and of the interesting structure at KHM0046 have so far failed to yield any ash, charcoal or other suitable stratified datable material.

Dating can, however, be carried out using a technique called Optical Stimulated Luminescence (OSL) on quartz grains within the sediment. In April 2005, a team comprised of Dr Anja Zander (then based at the Geography Department in Marburg University in Germany), Dr Heiko Kallweit and Dr Mark Beech, visited the Umm az-Zamul region to obtain suitable samples for OSL dating. Various locations within both plains and dunes were visited at both Khor Al Manahil and Kharimat Khor Al Manahil. An attempt was made to solve the problem of dating the archaeological sites by dating the sediments above and below the archaeological horizons. The results of this dating will be discussed in more detail in a forthcoming publication (Beech *et al.* in prep.; Kallweit *et al.* in prep.).

Conclusion

The third season of archaeological investigations at Umm az-Zamul has provided valuable new information concerning the interpretation of the sites

already discovered. Whilst work has been largely completed at Khor Al-Manahil in terms of mapping the main site area, much work still remains to be done at Kharimat Khor Al Manahil.

We now have three full field seasons of lithics awaiting detailed study. It is planned that the databasing, illustration and photography of this material will commence shortly in Abu Dhabi. Dr Heiko Kallweit will soon begin the detailed recording of all the lithics material from the Umm az-Zamul sites.

The plan for the fourth season, scheduled for January 2007, will be to undertake the detailed excavation of structures KHM0045 – KHM0047, plus sampling one of the other low mounds adjacent to KHM0045-7 that could represent undisturbed tombs. Some additional mapping will be undertaken of lithics sites located within the north-west corner of the plain. Further surveys will also be undertaken in some of the adjacent plains to develop our existing knowledge of further sites in the region.

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References

Beech M., Kallweit H., Zander A. and Al-Tikriti, W.Y. (In prep.) 'New insights into the Desert Neolithic of South-East Arabia: Recent work at Kharimat Khor Al Manahil and Khor Al Manahil, Abu Dhabi, United Arab Emirates'. Paper to be presented at the International Colloquium to celebrate Prof. Hans-Peter Uerpmann's 65th birthday, 31 Oct-1 Nov 2006, Tübingen, Germany

Dance S.P. (ed.) 1995. *Seashells of Eastern Arabia*. Motivate, Dubai

Edens C. 1982. Towards a Definition of the Western ar-Rub'al-Khali Neolithic. *Atlat* 6(3): 109-124

Glennie, K.W. 2005. *The Desert of Southeast Arabia*. Gulf PetroLink, Bahrain

Kallweit H., Beech M. and Al-Tikriti W.Y. 2005. Kharimat Khor al-Manahil and Khor Al Manahil — New Neolithic sites in the south-eastern desert of the UAE. *PSAS* 35: 97-113

Kallweit H., Cuttler R., Beech M. and Al-Tikriti, W.Y. (In prep.) Neolithic Tombs, Burnt Mounds and Flints in the Desert: Recent Work in the Umm az-Zamul Region of Abu Dhabi Emirate, UAE. *PSAS* 37

Kiesewetter H., Uerpmann H-P. and Jasim S.A. 2000. Neolithic jewellery from Jebel al-Buhais 18. *PSAS* 30: 137-146

University of the United Arab Emirates. 1993. *National Atlas of the United Arab Emirates*. GEOProjects (UK) Ltd, Reading. 164 plates

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