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## CBRL Officers and Committee Members




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# CBRL 2002

Newsletter of the Council for British Research in the Levant

## From the Chairman

The CBRL has had another productive year, albeit not without some turbulence. Applications for Research and Travel Grants showed a marked increase. It was particularly gratifying to have so many requests for travel grants from young scholars — our seed corn for the future. We have fared less well, despite better targeting, in attracting non-archaeological bids; this clearly needs further investigation. We have maintained our conference activity, organising one in Nicosia on *Early Neolithic Cyprus*, and co-sponsoring another on the *Fifth Millennium BC* in Liverpool. We are now working closely with the Jordan University of Science and Technology over the proposed conference on the *Conservation and Regeneration of the Traditional Urban Centres in the Islamic World.*

Our publication activity continues at a significant level. The past year has seen the appearance of Sylvia Auld and Robert Hillenbrand's *Ottoman Jerusalem;* David Kennedy's *Roman Army in Jordan;* Kay Prag's *Excavations by* KM. *Kenyon in Jerusalem 1961-1967 Volume V;* Denys Pringle and Richard Harper's *Belmont Castle* and Andrew Petersen's *A Gazetteer of Buildings in Muslim Palestine.* In the field, much good research work continues to be done by our own staff, Bill Finlayson and Alex Wasse. This year we converted the Amman Library and Computer Officer posts to scholarships so that the new incumbents, Charlotte Schriwer and Samantha Dennis, can spend half their time on research work and half on helping to run the Amman centre. We also reshaped the Assistant Director's job to give Alex Wasse more time for research activity.

The research work we sponsor in Jordan and Syria has prospered, and we are building a steady momentum of activity in Cyprus and Lebanon. But our Jerusalem work has faced difficulties. Joanne Clarke left us in early 2001, having to her credit secured a permanent teaching post at the University of East Anglia. Since then our operations in Jerusalem have been ably administered by Naomi Nobel, originally appointed by the Standing Committee. We are grateful to both for the help they have given in weathering all of the changes over the past couple of years in Jerusalem. One of Naomi's tasks this year has been to manage a building improvement programme at the old BSAJ building, in which we are now firmly installed, funded by a generous grant of £20,000 by the Foreign and Commonwealth Office. I am also pleased to record our gratitude for *50%* funding of a librarian post in Jerusalem for five years, which comes from the Altajir World of Islam Trust. Lesley Forbes of the Bodleian has just completed a consultancy report for us on the future of the Jerusalem library. The emerging plan is for Jerusalem to become a specialised library while being administered as one overall library with the Amman library, with co-ordinated book purchases, exchanges and accessions. But although we have taken forward our Jerusalem work in some areas, CBRL activities have unavoidably been affected by the continuing political crisis in the region. This has put a brake on our work and we are already noticing a fall-off in research grant applications for the future. Although we had originally hoped to appoint a permanent successor to Joanne Clarke, your Council eventually concluded that we could not go forward with this until the political climate improved significantly. We have therefore asked Brian Pittman, a research student, to take over from Naomi Nobel and act as Jerusalem Research Assistant for the time being,

I need to sound a cautionary note about our finances. We are finding it increasingly difficult to operate within our budget, In this, we are partly the victims of our own success. We are steadily developing a coherent wider regional programme but are still, in effect, operating on the old Amman and Jerusalem budgets. The annual increases we receive from the British Academy are linked to the UK inflation rate, and thus take no account of the effect on our overseas operating costs of local economic and fiscal changes. We need a new dialogue with the British Academy on this issue,

In conclusion, I am delighted to have this opportunity to thank the CBRL's officers, members of our Committee, and our UK and overseas local staff for their hard work and dedication during the last year. A particular word of appreciation must go to our UK Secretary Christine Holder, who has now largely accomplished the gargantuan task of restructuring the UK support services we inherited from the BIAAH and BSAJ. I am also pleased to acknowledge, as ever, the support we receive from host governments and organisations in the Levant and from our patrons in Jordan, HRH. Prince Hassan and HRH Princess Sumaya. All these are the key to the success we achieve.

*Adrian Sindall*

**Stop Press.** As those who were at the AGM will know, Mark Whittow decided that, because of growing scholastic pressures, he must stand down as Honorary Secretary. Our warmest thanks to Mark for all he has done for us, and a very warm welcome to Denys Pringle who has taken over as our new Honorary Secretary.

*UK Minister Ben Bradshaw visiting CBRL Jerusalem at a reception introducing local leaders to the newly renovated building - made possible by the FCO and Consul General-Jerusalem*

# From the Director

It is rather difficult to try to pick out a few highlights from the year, which again seems to have gone by at breakneck speed. The current round of CBRL research and travel grants is supporting research throughout the Levant, and keeping up with all the new developments means that much time is spent travelling, usually with little time for anything other than tightly focused missions.

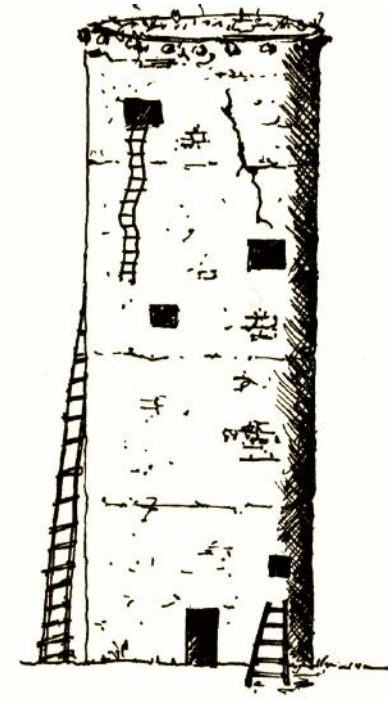
I seem to have attended and given papers to quite a number of conferences over the last twelve months. I don't know if the number would have appeared so significant if they had been mostly in one country, or even one continent. 2000 finished with a conference on Ancient Trade and Trade Routes, part of the 25th anniversary of the German Protestant Institute of Archaeology in Amman. 2001 started with the British Association of Near Eastern Archaeologists meeting in Liverpool, where I tried out some ideas on the social origins of the Neolithic. I made my first ever trip to Turkey in the early summer, driving with Ian Kuijt (my co-director from Dhra[1]), Berndt Muller-Neuhof (the Assistant Director from the German Institute in Amman), and Charlie Schriwer from the CBRL, to the Neolithics conference held at Nigde. Charlie of course was on the trip to look at Ottoman architecture, as our journey took us through Aleppo and Urfa (see page 31). This slightly long way round was so that we could visit the Pre-Pottery Neolithic site of Gubeckli Tepe with Klaus Schmidt, director of excavations there.

In mid summer I made my first trip to Australia for the Studies in the History and Archaeology of Jordan conference organised by Alan Walmsley, where I had for some reason promised to talk about religion in the Pre-Pottery Neolithic. Qantas provided an opportunity for an extended meeting with members of the Department of Antiquities by adding 56 hours to our return trip. This left only three hours in Amman before going back to the airport to fly to Crete to meet the family on what they thought would be an escape from work and archaeology. The internet put paid to that idea. Finally I made it to the CBRL Cypro-PPNB conference at the end of summer, to talk about island colonisation. This gave me a rare opportunity to combine work in Jordan with my research in the Hebrides.

The period covered by this newsletter includes the end of one financial year and the beginning of another, which may explain why I had two field seasons. The first, in spring, was the final season of our current programme in Wadi Faynan, the second, in summer, was the first at Dhra[1] (see below for research reports). Whatever the logical explanation for two field seasons, it is not to be recommended. It left me with much to write, much to catch up on in the office, heat exhaustion, and a fine collection of intestinal parasites.

Lesley Forbes, a librarian from the Bodleian library, came out to visit both the library collections in Amman and Jerusalem, so that she could provide advice on how we maintain these two sites. Her report has arrived just as the Newsletter is being prepared, so we have not yet had time to digest it fully. However, it appears that she believes that the general strategy we were trying to develop, of maintaining two sites, and developing specific collecting policies at each, is achievable. One thing that is clear is that the successful implementation of this plan is going to involve a considerable amount of effort, and that we are going to need a professional librarian to run a project which may last several years.

This brings me to a very important initiative for the CBRL. The BASIS grant remains our single most important source of funding. However, the value of the grant has only just reached the combined value of the grant to the former BSAJ and BIAAH. The CBRL has not followed the course expected at the time of merger, and continues to operate two research centres in the region, albeit only one administrative regional office. This has clearly been seen as necessary, all the more so now that the peace process which would have made a full merger more feasible has been effectively at a standstill for over a year, but it does have significant cost implications. What is more, the paper value of the grant does not take into account the enormous relative decline in value of the pound against the Jordanian Dinar (our principal foreign currency), nor the steady increase in the local cost of living and the introduction of new taxes. At the same time we are encouraged to increase the range of subjects supported, and to become a more genuinely regional organisation. All of this we claim great success in achieving, especially in the regional approach, where we are clearly more than the sum of our two forebears. However, as will be clear, we have had to squeeze our budgets more and more tightly each year. The CBRL urgently needs to broaden its funding sources.



*'The Tower'. Though this is possibly a rather fanciful reconstruction drawing of a four storey Neolithic house it provokes questions about how much we do not know. How far can we let our imagination go? See article by Samantha J. Dennis on pages 6-8*

Our first step is to launch an appeal to raise funding for the library. There are two elements to this. The first is to implement the results of Lesley Forbes[1] review. We will be applying for grants to help with this, but believe that it is necessary to try to raise some of the funds through an appeal. The second element is to raise funds to increase our overall library budget. The basic library costs for administration and so on will continue to be met from our core funds, and we will continue to have a book-purchasing budget. However, if we seriously wish to keep two libraries up-to-date with current literature, and to make these focused collections truly useful, we will have to raise additional funds beyond the BASIS grant. The sums for this need not be huge. Just a few thousand pounds a year will make an enormous difference, but we can no longer squeeze any more resources towards the library from our core funds.

*Bill Finlayson*

# NEWS

## News from Jordan

Despite the various political and security problems faced during the year, research teams have continued to come out and carry on their work based from Amman. Research reports for many of these are included in this Newsletter. We have worked hard at continuing to develop the research atmosphere in Amman. The lunch-time discussion groups continued. A new and regular participant was Sam Smith, who has commenced a PhD on use-wear analysis of Pre-Pottery Neolithic A flint points. Sam is based at Reading University, but he is jointly supervised by Professor Steven Mithen and Bill Finlayson and spends half of his time in Jordan. Being in Jordan for extended periods has allowed him to get to grips with the material in a way that would not otherwise be possible. We see this type of long-term resident research and close collaboration with a UK University as a very positive step, and would be happy to hear any similar proposals.

We also hosted a number of the European salon meetings which were held in the dining room. Our current review of space and library provision is likely to lead to the conversion of this room into a multi-purpose reading and meetings room, with the kitchen being used as the day-to-day dining room and the current dining room only being used occasionally for formal events. The European salon has changed somewhat as the result of changing faces in Amman. Ina Kerhberg is no longer based at the Institut Français d'Archéologie du Proche Orient; indeed, she is no longer a full time resident of Amman, and as she was a main driving force behind the salons her departure has led to changes. The Director of the Institut Français d'Archéologie du Proche Orient in Amman, Jean-Pierre le Brun, left at the end of the year and has been replaced by Dominique le Conte. Hans-Dieter Bienert left the German Protestant Institute at the end of March this year and was replaced by Roland Lamprichs. We wish the departed directors all the best in their new jobs, and welcome the new.

We have begun a process of asking people actively involved in research to provide us with material for display, either in the form of pre-prepared posters, or as images and text that we can assemble. This is not restricted to projects undertaken in Jordan, but from throughout the Levant. If you haven't been contacted yet, this is simply due to pressure of time — please don't hesitate to volunteer posters! Related to this we would like to run an occasional lecture series on current research. The benefits of this are clear, in addition to showcasing work and providing direct input back into the local research community, UK based teams can obtain much useful feedback from other scholars working in the region.

*Bill Finlayson*

**CBRL Library, Amman**

Over the past year, the CBRL library in Amman has seen a few changes. As of the 1st of January, it became a reference-only library, thus (hopefully) reducing the risk of unreturned or stolen books. The maps are now back in the library after spending some time upstairs in the research area — this provides easier access for readers, and also allows for better control over who uses the maps and which maps are being used, as the cabinets are now always locked. We have acquired several new sets of maps: a full set of 1:50,000 maps of Lebanon, a new full set in Arabic of 1:50,000 topographic maps of Jordan (1997 edition), as well as making a start on the 1:25,000 maps (1997 edition) of Jordan.

A visit from the Consultant Librarian, Ms Lesley Forbes, in September has provided the CBRL with an idea of the task that lies ahead in joining the CBRL Amman and Jerusalem libraries. The general idea is that the Amman library will focus on the periods from prehistory to Roman, while Jerusalem will focus on the Biblical and medieval Islamic periods, particularly related to Palestine. The final details as to the facilities of both libraries have yet to be discussed, but it appears that at least two to three years will have to be allotted for the successful implementation of the final plan,

In addition, I have been given more library responsibilities, reducing the administrative tasks of the Assistant Director, Accounts and ordering, apart from signing of cheques and credit cards, are now my responsibility, under the supervision of the Assistant Director and Director.

*Charlie Schriwer*

**Computer Officer/Research Assistant**

My initial year here at CBRL as Computer Officer and Research Assistant has been packed with projects, problems and potential. I am progressively learning to keep up with the computing needs of research teams, the latest software available, hardware problems, and how to archive data so that it is safe and virus-free. Over the past year we have added a scanner, colour printer and a zip drive to the list of available computer resources, making it easier to transfer data and create images. We have also bought a new and more powerful computer for research use to help deal with the increasingly larger files and databases. Hopefully this means the end of the eternal crashing!

Over the past year as Research Assistant I have worked in the field supervising and soaking up the heat at Wadi Faynan and Dhra', both Pre-Pottery Neolithic sites in southern Jordan co-directed by Bill Finlayson. Subsequently I have been working through post-excavation material and working on illustrations from the projects.

In the forthcoming year, I hope to complete the face-lift on the exciting new CBRL web pages, which will include new links, more images, and more updates on research projects. As Research Assistant, I will be continuing work on the material from Wadi Faynan and Dhra[1] in preparation for the next seasons,

*Samantha J. Dennis*

# News from Israel and the Palestinian Territories

**CBRL Jerusalem Building Renovation**

The former British School of Archaeology in Jerusalem, scholars,
recently renamed the CBRL Building, Jerusalem, was founded shortly after the First World War to provide a research and operations base for British archaeologists, as well as Biblical and other scholars working in Jerusalem and the Holy Land. In February 1919 the first director, Professor John Garstang, was duly appointed. In the 83 years since then, the School has been an important address for numerous scholars and their publications, the most recent being *Ottoman Jerusalem*, whose launch is described below. In 1998, the CBRL was created to support the interests of British scholarship in the region, bringing the British School of Archaeology in Jerusalem under its aegis, and extending its focus to other areas of the humanities.

With a generous grant from the Foreign and Commonwealth Office through the HM Consul General Jerusalem, the CBRL immediately proceeded with the first phase of an exciting renovation and refurbishment programme. Supervised by Naomi Nobel, the CBRL's representative in Jerusalem, the contractor, Tareq Ghosheh of AllControl Ltd, was given a list of 105 jobs and specifications. Despite the many challenges of conducting the work during the current political situation, the commitment of Mr Ghosheh and his staff prevailed and the first phase has been completed.

In addition to improving the safety of the building's electrical, mechanical and security features, careful attention was given to restoring much of the original architectural style of the building, while at the same time incorporating modern working areas for research, study, lectures, meetings and conferences. To date, the building now offers a private conference/ meeting room for 16, a spacious lecture/ exhibition/ reception hall, an extension to the library, a computer room, three indoor work areas for post excavation research, new study space, and an additional entrance linking the external post-excavation work areas directly to the administrative office. The electrical system has been updated to allow for satellite reception and teleconferencing.

The Hostel has been replaced by a small Scholars' Residence in the first floor east wing. An agreement with a neighbouring facility has been secured to accommodate dig teams, student groups and visiting CBRL members who can reside in close proximity to the resources of the CBRL Jerusalem Building during their visits. Despite the difficult circumstance in Jerusalem and surrounding areas during the past year, the CBRL Building — Jerusalem has continued to receive students and

**The Launch of Ottoman Jerusalem**

*Ottoman Jerusalem: The Living City 1517 - 1917.* Edited by Sylvia Auld and Robert Hillenbrand; Architectural Survey by Yusuf Natsheh. Published on behalf of the British School of Archaeology in Jerusalem by Altajir World of Islam Trust

With great pleasure CBRL Jerusalem welcomed Dr Sylvia Auld and her husband Professor Graeme Auld to participate in a week of events organised to launch the publication of *Ottoman Jerusalem: The Living City 1517-1917.* Representing the Trustees of Altajir World of Islam Trust, Dr Auld embarked on a schedule of press interviews, book presentations, a special lecture sponsored by CBRL Jerusalem and attended by both Israelis and Palestinians, and a reception hosted by HM Consul-General in Jerusalem, Robin Kealy. Despite the closure of the Haram al-Sharif to non-Muslims, the Administration of Waqfs and Religious Affairs arranged a reception for Mr Kealy and the Aulds, where copies of the book were presented in recognition of the close co-operation between the organisations. The programme to mark the launch included visits to Palestinian universities on the West Bank, whose representatives were unable to travel to Jerusalem due to the political situation. Accompanied by the HM Consul-General in Jerusalem, Dr Auld delivered complimentary copies of *Ottoman Jerusalem* to the libraries of Birzeit University, Birzeit and Al Najah National University, Nablus, on behalf of the Director and Trustees of Altajir World of Islam Trust,

The launch of *Ottoman Jerusalem* generated a good deal of interest from the local community. The Ottoman Jerusalem Project had begun under the auspices of the former British School of Archaeology in Jerusalem and the Administration of Waqfs and Religious Affairs, sponsored by the predecessors to Altajir World of Islam Trust (the World of Islam Festival Trust). A new project on the history of Ayyubid Jerusalem, also funded by the generosity of Altajir World of Islam Trust, in now under way. The CBRL in Jerusalem gained added respect as a result of the publicity which increased local recognition of its role as the key organisation in the area supporting British-based scholarship and research,

*Naomi Nobel*

# News from Cyprus

**Cyprus American Archaeological Research Institute**

The Cyprus American Archaeological Research Institute (CAARI) in Nicosia offers a range of services to scholars and students of Cypriot archaeology, history and culture that are unobtainable in the rest of the island. In addition to its hostel, where economical accommodation is available, the Institute has a well-stocked library covering the past not only of Cyprus but all the surrounding areas as well, a computer network, and other facilities for carrying out studies in the island. CAARI is open to *bona fide* research workers of all nationalities, and can give residents and members help and advice on local conditions and requirements.

Over the last decade there have been gradual shifts in the focus and nature of archaeological activity in Cyprus. Concentration on the Bronze and Iron Ages has been replaced by renewed interest in the Stone Age, particularly the Neolithic Period, and in the Byzantine, Medieval and Modern periods. This has been accompanied by a reduction in the number of excavations in favour of study seasons and publication programs, as well as survey projects. CAARI and the Archaeological Research Unit

of the University of Cyprus will jointly be organising an international conference on 'Egypt and Cyprus in Antiquity' in Nicosia from 3 to 6 April 2003. Information can be obtained from Mrs Vassiliki Demetriou, Archaeological Research Unit, University of Cyprus, P.O. Box 20537, CY-1678 Nicosia, Cyprus (vasiliki@ucy.ac.cy).

Up to date information on CAARI's services and events connected with the study of Cypriot antiquity can be found at the Institute's Website <http://www.caari.org>.

*Robert Merrillees*

## News from Britain

### UK Secretary

As the UK Secretary for the CBRL, I've had a very hectic but satisfying year. Just before the year began, the two former UK Secretariats had been merged into one office, and moved to Oxford. As a result, much of my time has been spent organising and consolidating the offices and procedures. In March, we experienced yet another merger when the Standing Committee for the British School in Jerusalem formerly stepped down. More boxes needed to be moved, membership lists sought, bank accounts merged and closed.

It is easy to see how all of this effort is paying off. Having just one UK office has allowed us to simplify and improve procedures. One of my first projects was to redesign and update the CBRL membership database. Being able to keep better track of our members, payments, donations and funded projects has allowed us to be more proactive in many respects. We have undertaken a membership drive to invite former Friends of the BSAJ to become CBRL members, and lapsed CBRL members to renew their memberships. This has led to a 13% increase in members over the last year. In addition, we also experienced an increase in donations from individual members.

I also worked hard to streamline the management of our publications this year. By moving all of our older stock to Oxbow, improving the system of reporting with them, and increasing our advertising, our sales have experienced a spectacular increase. This, in combination with the very successful launch of *Belmont Castle*, has provided the CBRL with an income stream that was above our earlier estimates.

We are working hard to consolidate our financial accounting systems in Jerusalem, Amman and the UK. Over the past year, I have attended seminars with our auditors, Inland Revenue and most recently, one-to-one training on the accounting software package SAGE, with the aim of improving our methods of record-keeping and reporting. By the end of the year, all of our accounts will be recorded on SAGE, and hopefully lead to not only more accurate and timely reports, but a reduction in our audit costs.

The highlight of my year was the visit I took in June to our offices in Amman and Jerusalem. It was the first time that I had seen our overseas facilities, and I was both hugely impressed and encouraged by them. Full of visiting scholars, they allowed me to see, at last, what the CBRL is really about: facilitating research. I had not previously realised what a tremendous resource they are in terms of equipment, books, research space, and just good advice. On top of that, everybody was extremely friendly and made me feel very much at home,

While all of this work did not leave me with very much time to devote to my own research, the CBRL did grant me leave this summer which allowed me to complete my MLitt at the University of Oxford on time. The research consisted of an analysis of how archaeologists write about and find evidence for 'collapses', using the end of the Bronze Age in the Aegean as a case-study. Sixty sources were analysed and the results were very provocative, to say the least,

*Christine Holder*

**Crystal Bennett Memorial Lecture**

Tuesday, 12 March 2002, 5.30 pm at the British Academy, London.
Dr Katherine Wright (Institute of Archaeology, London) will lecture on
*'Dress, Personal Ornaments and Social Identities in the Neolithic of the Near East'*

### List of Donors to CBRL Library, Amman

Dr Ian Kujit
Dr Ian Hodder
Dr S. Ireland
Sam Smith
German Protestant Institute of Archaeology in Amman
Jane Taylor
Dr Graham Philip
Dr Douglas Baird
Dr Bill Finlayson
Dino Politis
G.E. Mendenhall
Brian Kuhn
American Center of Oriental Research
Institut Français dArchéologie du Proche Orient
British Institute of Archaeology at Ankara

# FEATURE ARTICLES

## 'Beidha late than never': Presentation and Conservation of Prehistoric Sites in Jordan

*Samantha J. Dennis (CBRL, Amman)*

In southern Jordan, Neolithic sites show a range of attitudes towards site presentation, interpretation and preservation. So far I have examined the state of preservation of Neolithic sites such as Beidha, Basta, Wadi Faynan and Dhra'. The majority of these sites do not cater for tourism, are left exposed to the effects of weather and livestock, and are not protected from vandalism. To help draw attention to the importance of these sites before it is too late, I am exploring the potential for using reconstructions as a means of interpretation and presentation.

Reconstruction is a term commonly used to refer to both illustrations and scaled structures. The term is synonymous with 'reconstitution, simulation, restoration, recreation, replication, interpretation, projection and realisation' (Adkins, *Archaeological Illustration).* I am using the term to refer to both illustrations and scaled structures, but acknowledge that, despite common usage, the term erroneously suggests that reconstruction involves the rebuilding of understood structures. In reality, the reconstructions are conjectural, based on the limits of the archaeological data. Peter Reynolds working at Butser Ancient Farm in Hampshire has stressed the need for physical testing. At Butser the structures are based on archaeological evidence, usually surviving in the form of negative evidence, and it is only through experimental construction that scientific models can answer the whys, hows and what ifs of early settlements. This approach is crucial in the study of prehistory, where the archaeological evidence can be very poor. Therefore all hypotheses and subsequent reconstructions offered here must be viewed with this in mind. It should be seen as a form of experimentation and as a way of confronting ideas and interpretations.

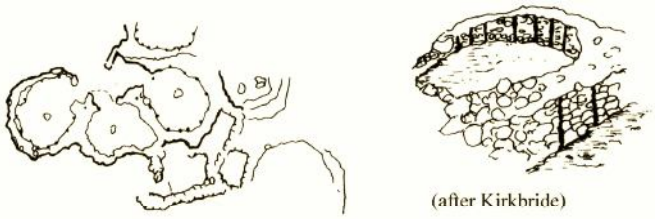
Over the past year I have visited Butser Ancient Farm in Hampshire and Lemba in Cyprus to assess the use of reconstructions. Both projects have shown that reconstructions can provide a successful scientific environment, as well as providing an attraction for tourists and an interactive means of education. They show that visual representations are easier for tourists, locals, and schoolchildren to understand, and therefore they are more popular and leave a longer-lasting impression. This is increasingly important with the drive towards better ways of presenting the past to the public. These reconstructions also force project members to challenge a multitude of assumed details concerning design, materials and labour. At both sites, work is continually carried out on the structures in the form of repair and renovation. Roofs at both sites, for example, needed repair after storms, and thereby demonstrated the labour required not only in the building phases but also in maintenance.

In the months to come I hope to put into practice this past year's research on conservation and presentation by building several Neolithic structures at the site of Beidha. The Neolithic village of Beidha is located a few kilometres north of Petra, and was first excavated in the 1960s and 1980s by Diane Kirkbride. Subsequently, despite various collected efforts, the site has been left exposed and is rapidly deteriorating. In a joint project with the CBRL and the Department of Antiquities, and specifically with the kind assistance of Dr Mohammad Najjar, I hope to improve the site presentation and prevent further deterioration taking place. This project has multiple phases, and initially we will be repairing fences, delineating pathways, consolidating structural elements, and adding new signs. The plan is that once the site has been cleaned up and preserved, the reconstruction of early Pre-Pottery Neolithic structures can start. The designs for these structures will be based on the archaeological evidence that exists *in situ,* as well as evidence extracted from the numerous interim reports from the 1960s and 1980s, post-graduate theses, and specialist reports. To supplement this evidence I have used ethnographic data and data on similar Neolithic structures located within the Levant,

The series of drawings below gives an idea of the thought process involved,

**The Evidence**

Diana Kirkbride described these structures as follows: 'Arranged in separate clusters like cells in a honeycomb, these semi-subterranean buildings are at present unique...

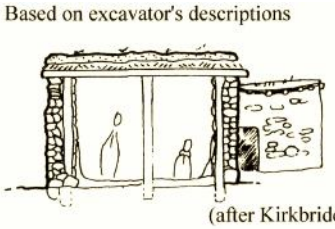


(after Kirkbride)

Essentially circular in plan, the individual rooms within a cluster were erected round an inner skeleton of posts and beam... The total effect is of a wide, circular wall with its inner face scarred at intervals by vertical slots which had held the posts... The rooms within a cluster share party walls along the converging arcs of their circular plans.' (Diana Kirkbride, Beidha 1965: An Interim Report. *Palestine Exploration Quarterly* 1967).

**So the story goes...**

Diana Kirkbride's description in her interim reports continues: 'Stout posts, dug into the perimeter of the floor ...




(after Kirkbride)

were united by beams to a strong central post. Then a wide stone wall was added with short, straight segments of its

inner face hugging the posts so closely that they still outline the original shape, slant or branch junction of the wood... But this is not necessarily the appearance of the inner face when the rooms were inhabited, for in some cases floor and wall were plastered and in addition the plaster was carried across the fronts of the post-slots, thus giving the appearance of an unbroken circular wall face... It seems that ceilings were also plastered below the beams, while above the latter brush or reed were laid at right-angles. This construction supported a thick clay roof/ (Diana Kirkbride, *Beidha 1965).* This description is slightly misleading within her report, because it is not set aside from the archaeological evidence and care should be taken in this interpretation.

**Take a look around...**
Tent sites in southern Turkey share several characteristics in their plans with the archaeological remains from Beidha.

Tent site in southern Turkey (after Cribb)

The typical floor plan from these short-term tent sites consists of a substantial stone wall with slots for timbers, stone platforms, bedding platforms, and two hearths: an internal hearth for brewing tea and baking bread, and an external one for heavy cooking. Studies of ethnographic sites also provides an ideas on the use of space, the life span of sites, and an indication of seasonality patterns (see pages 17-18).

**It's been done before**-There is a general reluctance amongst archaeologists to publish reconstruction drawings, despite the fact that images can be critical in descriptions and in conveying ideas.

Other Neolithic Reconstructions

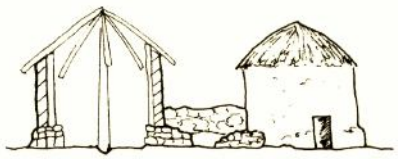
Khirokitia, Cyprus (after Dikaios)

Nahal Oren (after Stekelis and Yizraely)

Perhaps scholars believe that pictures will compromise their academic credibility, or perhaps it appears unscientific. On the contrary, reconstruction drawings should form an integral part of excavation reports, and should not be mere afterthoughts. Dikaios at Khirokitia and Stekelis and Yizraely working at Nahal Oren boldly proposed possible interpretations to support their finds during excavation.

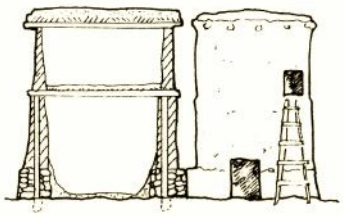
**Location, location, location...**
These three drawings show possible interpretations for the Neolithic structures at Beidha:

(a). Here I have incorporated a pitched roof which echoes farm huts from Sub-Saharan Africa. The circular dwellings of approximately 4 to 5 metres in diameter would be constructed of stone walls, made with very little earth, and with lengths of vertical timbers to support the roof. Each structure would have a separate function including ones for cooking, sleeping, storage, and craftsmanship.



(b). I have based this design on beehive structures seen today around Aleppo in Northern Syria. A circular stone foundation supports the dome made of a timber framework, upon which layers of reeds, twigs, and finally mud are added.

(c). Perhaps the stout posts supported an upper floor?

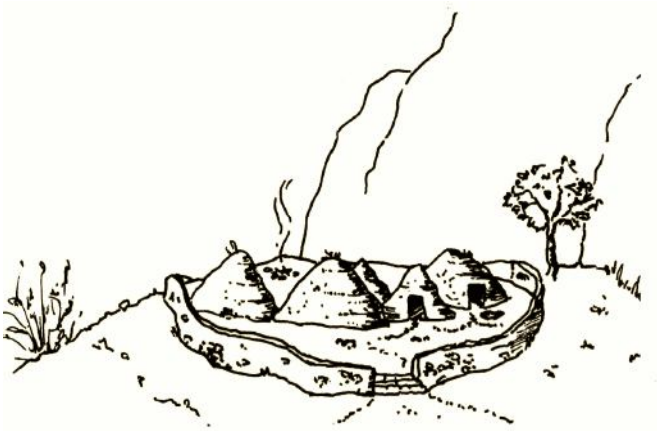


**Talking to tourists**
Tourism is one of the driving forces behind the presentation and conservation of archaeological sites, so one reconstruction will serve as a visitor's centre as well as being an archaeological experiment. Therefore I have begun some market research by going out to talk to some of the tourists. This will help me determine the current range of publicity that Beidha receives, ascertain the popular level of knowledge about the Pre-Pottery Neolithic, and also will address academic attitudes towards conservation and presentation.

So one sunny autumn day I stood outside the Petra gates awaiting the unsuspecting, exhausted sightseer to emerge from the Nabataean city. But at times I felt like I was back on the streets of Britain as I watched people catch a glimpse of my clipboard, desperately avoid eye contact, and take a couple of side steps in a vain attempt to miss me. Saying that, many tourists were extremely helpful. As yet my data pool is still relatively small, due largely to the unfortunate drop in tourists recently, but some major trends are already starting to emerge. For example, 70% had never even heard of Beidha, despite it being only 5 km away from Petra. And 60% knew absolutely nothing about the Neolithic Period, despite the important changes that occurred during this phase. Though one dear lady was able to tell me that the Neolithic period was before the Nabataean!

It's not that tourists are ignorant. On the contrary, many seem very keen to soak up as much information as possible, and to see as much as possible in a short amount of time. But it is not surprising that Beidha receives so few visitors when guidebooks claim that 'to the untrained eye there is not a great deal to see here'. And possibly worse than that is providing incorrect information, such as getting the archaeologist's name wrong: 'The site was first discovered by the archaeologist D Kilbride in 1956, and although extensive work has been done on it over the years, the excavations are far from complete.' *(Footprints Guide to Jordan, Syria and Lebanon,* 1998)

I hope that my research will contribute to the debate arising from the increasing concern shown in Jordan for its cultural resources. This growing concern was evident at a conference that I attended at Yarmouk University earlier this year. The central theme was 'Conservation and Management of Cultural Resources: Reality and Ambition'. My paper was admittedly the only one to focus on these issues in relation to prehistory, but was amongst many papers given by both Jordanians and Europeans concerned with the future of Jordan's cultural resources. The desire to conserve Jordan's cultural resources is emerging; better late than never.



*From a bird's eye view, this drawing shows the spatial arrangement of structures based on the archaeological evidence. It also sets the village in a landscape*

## Diana Kirkbride-Helbaek: An Appreciation

*Tim Strickland*

I first met Diana when I was twelve years old. It was the late summer of 1956,1 was with my parents in Jordan and Diana had been working for Gerald Lankester Harding, on clearance schemes at Jerash and Petra. In 1958 the British returned to Jordan in immediate and close support of King Hussain. Into Amman went my father, as Military Adviser to HM King Hussain. I learnt later from James Ingram of the Tenth Hussars, then with a Squadron HQ in the hills to the east of Petra, that he and his officers entertained and were most impressed by an intrepid and commanding British woman archaeologist who drank all their gin — who else but Diana, then in her first season at Beidha. They were concerned for her safety, quite unnecessarily, but as with so many people whose lives were touched by Diana, they never forgot her.

The King leased a house for my parents just below what in years to come would be known as the First Circle (the Rainbow Cinema was being built that year), and one day in the summer of '59, when I was out in Jordan for a school holiday, Diana arrived en route for an Audience with the King. She ran up the stairs, two steps at a time, shouting 'Mike! Barbara!'. To me, at fifteen, she seemed, indeed was, tall, slim and strikingly good-looking with a much larger-than-life presence and personality; and she was full of exciting talk about her expeditions to Rum and Risqa, then still well off the beaten track and only frequented by Bedouin. How my sister and I took to her! I also remember well our concern for her when we saw her off on the train to Ma'an on discovering that she was travelling on her own. This remains a strong memory, rendered all the more so by the vivid picture of train and platform thronged with pilgrims enroute for Mecca.

In the early'60s we saw Diana in Surrey on a number of other occasions, and the Jordan connection was maintained; not only by Diana, for His Majesty King Hussain and Sir John Glubb (Glubb Pasha) restored their friendship in my parents' house, and Sherif Nasser, the King's uncle, also visited — invariably hours later than planned or completely without warning! But it is conversation with Diana that I remember so well. There was a whiff of adventure, excitement and romance about her activities, and I remember the first time Diana regaled us with her adventure on the road to Jerusalem; how, in a storm, her much loved Volkswagen Beetle had been blown off the road and down a steep embankment. Diana had been badly knocked about and recovered to find that she had lost her shoes. By the time she had scrambled up the embankment her feet were badly cut and bloody and her clothes were torn. It was quite late, there were few travellers and those there were refused to stop for the wild-looking lone woman gesticulating from the roadside! In the end, and still without her shoes or handbag, she had to walk several miles towards Jerusalem before a policeman in a passing patrol-car spotted her and gave her a lift. She was questioned for some time by the police until they believed her story. With stories like these it was not long before I decided I wanted to be an archaeologist. Perhaps this was due to Diana. I like to think so. The fact that my interest in the world of Ancient Rome was so different from the specialisms which were to bring her fame seemed not to matter at all and I remember enthusiastically showing her Roman roads I had discovered, on Sunday afternoon walks! She it was who gave me the Ordnance Survey Map of Roman Britain which I treasure still,

At this stage in my life the Army beckoned and the next few years flitted by so quickly. But in the summer of 1965 I was, at last, working as a site-supervisor on Kathleen Kenyon's excavations in Jerusalem. It was my luck that Diana turned up one day when I was there and I took the chance to ask her if I could join her at Beidha. After her initial surprise at seeing me, she agreed. And so, after a short stint with Peter Parr at Petra, I walked across one evening in the late summer of 1965 to join her at last,

I remember being very impressed with the ordered camp which met my eyes — lines of tents, pathways properly

demarcated with stones, an efficient Heath Robinson device for a shower and, above all, Afternoon Tea. I could see the determined hand of Diana everywhere — even in the Mess Tent, where Mohammad produced wonderful meals on primus-stoves from behind some packing-cases. Youthful hunger is almost impossible to satisfy but meals in that tent certainly satisfied mine!

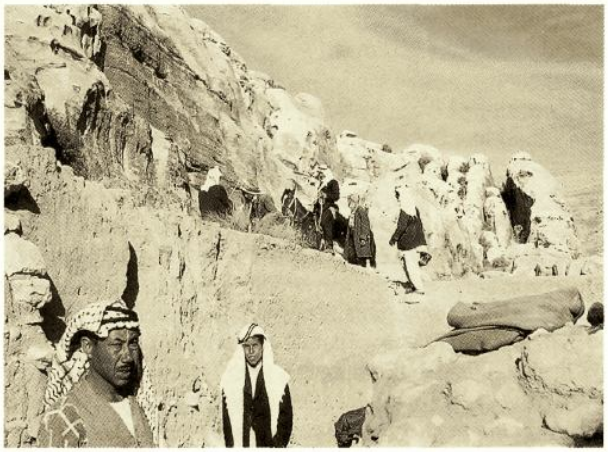
Insofar as her disciplined daily regime and the demands of the site allowed, Diana was very kind to me. Afterwards, I came to realise that she was very fond of my father — a friendship which stemmed from visits to him when he had been C O of Second Armoured Car Regiment at Deir Shiraf, on the hill of Sebasteh, in the earlier '50s when Diana had been working with Kathleen Kenyon at Jericho. I was still very 'green' but keen to learn. She introduced me to the site, its historical significance and reason for its being located there beside the Seyl Aqlat. There were sessions with stone and bone implements, their manufacturing processes and functions. On walks in the area and lengthy discussions at Happy Hour I was introduced to the season's strategy and given responsibility for supervising the work in the northern area of the site. This included the largest building on the site which, as Diana explained, surely represented the residence of the Chief or Head Man and his family. Alongside it, was a group of tiny round-houses whose masonry was, as we often agreed, exactly like Cotswold walling.

There were some memorable 'extracurricular' activities. Amongst these were parties, usually held in one of our tents, where Diana and her supervisors gathered in the evenings to music played on an old wind-up gramophone. In addition, there were evening visits to the nearby *Siq El Band* (known today as Little Petra) and the almost ceaseless taking of opportunities to scamper up all the nearby hills and rocky outcrops, visits to the ancient spring on the Jabal Sharaa (and glimpses of shy Bedu women beating one's clothes to death on a rock!); camel rides to remote wadis frequented only by our friends the local Bedouin; wild parties with the Bedouin on certain evenings which included endless Dabka-like dancing and firing Browning automatics into the night sky; watching the family of golden eagles to whom the Seyl Aqlat area appeared to belong, as early each morning they rose gracefully on the thermal currents to heights far beyond our vision, only to descend again each evening; endless talk about and watching for the wild animals which still frequented the area — ibex, sand-grouse, quail, foxes, jackals, coneys and wolf, not to mention snakes and scorpions.

Up on the Sharaa, there were also gazelle and hyaena and even, it was reputed, an occasional leopard (this was confirmed when one was shot near Tafileh the following year). There was, too, the great excitement one evening when Fayez Tarowneh, who had been talking to the Bedu up near El Barid, rushed down to my tent shouting 'Come quickly! There is a strange animal, striped like a tiger!' Up we went immediately only to find it was a badger, which, sadly, someone had just killed. Diana was rightly furious that this had happened and, chastised sharply by her, the Bedu were somewhat remorseful. Not that this stopped them from continuing thereafter to shoot anything that moved!

Talking of shooting, I remember one short interval when Diana had to go to Jerusalem and, in her absence, the tremendous fun we had firing an astonishing collection of rifles (British Lee-Enfields, heavy Russian copies of them, German Mausers and a strange Turkish weapon which had once been a flintlock) at tin cans during mid-morning breaks. These weapons were still easy to come by and widely sported by the Bedouin. It was said you could buy a .303 in Wadi Musa for £9,

I will always remember the occasion when Diana's tent-pole snapped and, whilst the rest of us were up on the site, she had arranged for it to be replaced. In Diana's defence I must add that she had assumed naturally that a new pole would be brought out from Wadi Musa and, when the new one was erected, the fact that the wood looked very new and somewhat uneven went unnoticed. She was not to know that the last suitable tree of any size for miles around had been cut down by the Bedouin in the process. Not until, that is, a Forestry Commission official turned up the next day on horseback, clad remarkably in a uniform of Lincoln Green, and fined the Bedouin collectively for perpetrating this tragedy!



*The Forestry Commission official arrives at Beidha*

Diana was also well aware of the fact that all the water for the camp was brought down every day in jerry cans from the spring on the Jabal Sharaa. In an effort to improve matters, she arranged for the clearance of one of the ancient rock-cut cisterns nearby, had the steps into it repaired and a new railing of scaffold-poles erected. Sure enough, when the first rainstorms came up on the Sharaa the resulting flash-floods soon filled the cistern. At season's end shortly afterwards, Diana returned to Jerusalem in the belief that at least the Bedu women would have a more convenient supply of water,

I rejoined Diana at Abu Dis the following spring (1966) to draw as many of the Beidha small finds as possible. This involved trips down to Beidha from time to time to collect more artefacts from the cave lock-up. On some visits we walked from Wadi Musa to the site and Diana would observe that she was not as fit as she had been! On one of these visits we discovered that the water-cistern which had been restored the previous autumn was choked with mud and other debris, the railings had been removed and the remaining water rendered completely unfit for human consumption. The Bedu had had their livestock in it and Diana was furious with them!

Late that spring we departed for the Lebanon to conduct surveys of Neolithic sites in the Bekaa valley. This project involved taking some of the famed 'Jericho Men' with us. I will never forget their astonishment at the sights of central Beirut, then still the nearest thing to a fully developed and thriving western city which any of them had ever seen. Our work in the Bekaa continued for several months, the whole

*Diana with her supervisors at Beidha, 1965 Tim Strickland at left. Diana third from left. Frances James next to Diana. Peter Mortensen third from right. Brian Johnson and Gayez Tarowneh at right*

interlude coming to an end with a pleasant voyage home with Diana that Christmas.

In the spring of 1968 Diana wrote to me at Oxford and asked if I would like to help her with the Beidha small finds that summer. She was able to pay my expenses and I planned to join her in early July. However, we had to contend with new logistical difficulties mostly arising from the fact that a few months previously the Israelis had taken and remained in occupation of East Jerusalem and the West Bank. This would mean entry, for the first time, to Israeli territory and the inevitable need for two separate passports. In due course we returned to the Abu Dis regime, with Diana working in her room and me in mine, meeting on the verandah when she needed help in photographing finds for publication and/or lecture purposes.

At about this time my own archaeological career began to develop in England but our paths continued to cross when she came over on her annual jaunt from Denmark — mainly to coincide with Wimbledon fortnight. On one of her last trips to London in 1996 Diana and I and Brian Johnson met up to discuss the logistics of helping her to conduct another season at Risqa. Brian and I could see the difficulties to be surmounted but did not want to hurt her by advising her not to try. She also asked us for advice about the publication of Beidha. She asked me if I had any photographs of my times with her since, she claimed, all hers had been taken (sic!) by Brian Byrd! I recall advising her not to worry about these things but to concentrate instead on telling her life-story and how she found Beidha. I told her that this was a remarkable story which the world would be interested in and that she could 'write' it via dictaphone which I would be happy to provide. From the look in her eyes on one occasion I could see she was intrigued with the idea and I nearly booked a flight to help her in Denmark. But it was not to be, and she died at Aarhus in 1997.

How to conclude? As I write this, just over a year after her death, so many thoughts about Diana tumble through my mind and it is not easy to unravel them. She will, of course, long be remembered in Jordan, whose land and peoples she early gave her heart to, and nowhere more so than with the Amarin and B'dool of the Petra area. They still give great respect to her memory and do what they can to look after the site at Beidha, which gave her fame.

But what of her personality and character? She was certainly larger than life, single-minded, decisive, determined, fiercely patriotic and of firm and loudly stated opinions. Some of these qualities could, it is true, make her difficult, or even embarrassing, to live with, but she was also very broadminded. And, if my own experiences are anything to go by, she was good with young people (though not with small children!) and fun to be with. She had a marvellous sense of humour and, as I know well, could laugh loudly at herself — in retrospect! Certainly, my life with her never lacked for excitement.

She was undomesticated to a degree but this was an inevitable result of what she had had to do in life and not for want of interest. She had very great organising ability and, within the professional context of her day, was a very gifted field archaeologist. Her weakness was in a failure to get to grips with the full publication which Beidha deserved and she suffered as a result. The frustrations which followed, especially when others 'pipped her to the post' on subject matter best known to her, could lead to anger — perhaps tinged with envy. But Diana was by no means unusual in this and one can think of a number of her contemporaries, some of them even more well-known, whose publication-records were scarcely better and often a lot worse!

I wonder at times if she was ever at heart really meant for her chosen world of Academe. As sometimes happens — and here I risk treading on thin ice against political correctness — marriage, children and the family life she may well originally have been suited to eluded her when she was young. From comments she made to my mother and to me in later life I think she felt this within her. Then came the demands, priorities and diversions of the War after which, as she once said to me, at the age of 30 she had to 'get on with life'. And then, one thing led to another and she was 50 before the opportunity came again, but by then it could not be the marriage she had hoped for earlier. I wonder, too, if the academic world she entered could produce for her the sort of man — and life — she would originally have been most at ease with. Was it this which explained her devotion to my father, a debonair cavalry colonel on the hill of Sebasteh when she first met him, and the very visible way in which she unwound in the presence of my parents? Could it be that it was easier for me than for some because I represented and shared with her a strong connection with the world in which she had grown up. My relationship with her may, of course, also have been made easier by the fact that I never represented academic competition for her! But she treated me as a loved nephew — and as the son of someone she had always admired. I am very proud to have known her and to have been close to her and I will always remember her with gratitude and affection.

# Land and Nature in Postcolonial Israel — A Study of Past and Present

*Hadas Yaron*

*'We came to this country in order to live in it and not to die. They believed that burial in the country would purify their sins and make them closer to heaven. But we don't believe in the rolling of the dead underground from their graves for the resurrection in the Holy Land. Our absolution is the cultivation of the land and in making our graves there. Our absolution is the ploughing. We will purify our souls though hard labor.'* (Meir Shalev, *Russian Novel)*

**Place and time**

'Land and Nature in Postcolonial Israel' is a PhD research project that deals with the process of the formation and construction of the physical surrounding. My intention in this research is to explore how places are made, shaped, transformed, planned, imagined and thought about in a past and present context. I examine the process of the inscription and erasure of presence and the different senses of attachment. Hence, I stress the relevance of the past in the present: the things that people do, think and imagine about their surroundings, and the relevance of different notions of time for place (both natural and made) and place for time. I refer to the different sorts of landscapes, notions of time and narratives; considering the real and the imagined landscape, the landscape that existed in the past, the one that people carry from afar and the one encountered, the land that is buried underneath and the one that is above, the spoken and not spoken about, the visible and invisible, the remembered, lost and forgotten.

And so the issues I address include the relevance of past ideas, perspectives, mechanism and practices to the present policies which have formed the environment in Israel, the present perception of people's relation to the land and its relation to the past (both known and unknown) and to the 'other' (Jewish-Israeli, Palestinian-Israeli). This encompasses the presence of the past in place: its different forms of appearance and influences, and also the place of different groups and inter-group relations in the making of the environment, including ignorance and dialogue which are formed and articulated through places.

**The Valley**

I am conducting this research in the valley of Jezreel, situated south-east of Haifa and west of the Sea of Galilee. I chose this specific site because of the rich possibilities it provides, with its different forms of settlements and populations, and its important role and long past in the process of Zionist settlement. The opportunity to purchase vast areas of land in the same place created the first large-scale territorial continuity, and established a sort of Jewish national sphere during the first quarter of the twentieth century. Ever since, the valley has become a metaphor for the Zionist creation and used to be and, indeed, still is the subject of many poems, plays, and novels. 'The Valley' ('Emek'), in the context of Israeli literary jargon, refers to the valley of Jezreel.

The valley is an agricultural area, except for the city of Afula, although agriculture is not the main source of income of the people there, both Jews and Arabs. Nevertheless, it is also a complex site in terms of the type of settlements, populations, narratives and histories. In the valley there are cooperative and non-cooperative settlements, Jewish Ashkenazi (European) and Jewish Mizrahi populations (Middle Eastern, North African), Israeli-Palestinian and Bedouin villages, and also nomad Bedouins. Therefore, although the focus of my research is the Jewish Israeli population with which the valley is normally identified, it is in the context of differences, marginality, complexities and tensions.

I live in Kibbutz Gevat in the valley (one of the pre-state settlements), and there I explore agricultural practices, people's ideas and memories. In order to learn the past and the present, I use different materials, sources and research strategies, including archival material in England and Israel, oral accounts of different people in the valley, observations of agricultural practices, and conversations. My idea is that this integration of methods and materials could also allow me to compare different accounts in order to locate gaps, tensions and silences. I therefore adopt the investigation of the surroundings as a form of 'archaeology of the contemporary past'. Archaeology in this context positions material reality not merely as something passive: although 'things' are not essential, materials can *produce* memories as well as recalling them. In terms of this research, the material reality could point to absent presences, to the invisible, forgotten and lost that could not be reached through the spoken. One such example is the lost landscape of the Palestinians. In this context, the archival material, documents, maps and photos can reach the hidden, and introduce the non-spoken or non-constructed past into the present.

*Cooperative Labour Association, Building the Afula–Nazareth Road. Public Record Office: PRO 30/69/1663*

I decided to look for photographs both of the valley and also of agricultural practices in the different parts of Palestine/ Israel. I managed to locate photographs from different parts of the area and from different periods of time such as fields and vegetation from the end of the nineteenth century, the Balfour forest (from different dates), and an Arab horseman fording the Kishon River near Haifa taken at the end of the nineteenth century. I also found photographs of Arab villages and of Jewish settlements in the area and of people in the fields. I discovered photographs of harvesting and ploughing that give me an idea of the agricultural tools used, methods of cultivation, the sort of animals involved in the process, the division of labour and the agricultural landscape.

**Land and settlement**

An important issue in the mandate policy was the process of mapping and ordering. The mandate authorities aimed to map the land (to measure and survey) and, in addition, to close the gap between the titles and area on paper, and the actual rights and area on the ground. According to the archival documents of the time, actual owners were not necessarily the ones noted in the records, and the size of plots, due to differing interests, were not recorded in a truthful manner. The process of mapping and ordering of rights therefore was intended to make the land 'legible', to create individual, visible plots, according to uniform criteria. Land was demarcated and divided, and boundaries drawn. It is a process that is understood as crucial to the formation of policy and development, such as the formulation of forestry schemes. Hence, precise information is perceived as the condition for management and control.

In the case of water and irrigation, rights and ownership seems to be crucial for the introduction of new methods and for changes in use. In addition, it is about the regulation of natural paths of irrigation into artificial instruments and channels. The mandate policy further aimed to reinforce the connection between land and water as complementary resources. Therefore, rights and use of water was thought to be a matter of location; the place in which water is situated.

The issue of rights and titles is also related to notions of attachment and to conceptions of the land. Additional ordinances and law amendments reveal different and even conflicting notions. I found that there is a tension between the idea of land as a commodity, the abstracted and alienated and, on the other hand, the inalienable property. I also found that there is a tension between the lawful owner and possession. Hence, according to the land settlement process, tenants could become owners in the absence of lawful owners.

Nevertheless, the process of the abstraction of land was also reinforced through the abolition of tithes and the later formation of land tax policy. The collection of tithes focused on the product, the crops. In Ottoman times, the products were left outside till inspected and then determined and paid according to the inspection. However, the idea behind the introduction of tax was that land and ownership should be part of the payment and not the specific crop at a specific moment. It also stressed the role of both the owners and the cultivator.

Another issue in the context of resources is that of the conflict as a constitutive element in the concept of development. I found in the reports of the different commissions the conception that resources were limited, and that there was insufficient space to provide for both Jewish immigrants/ settlers and the local Arab-Palestinian population. Therefore,

*Villagers at Jezreel, by Major RFP Monckton. American Colony Lantern Slides of Palestine and Transjordan, circa 1920. Middle East Centre, St. Anthony's College, Oxford (PJ 2545)*

development, the efficient use of resources through the introduction of new methods of cultivation, irrigation and the search for more resources aimed to make more space for more people. It was thought that development could take part in the resolution of the conflict.

I also found interesting issues that are related to the general conception of space. I found that the idea of 'resettlement' has an important role. It is the idea that the Jews were 'resettled' on the land of Palestine similarly to other resettlement projects in Europe. In an article entitled 'Revisiting Palestine' published in the 'New Palestine' (21.1.27), J.M. Kenworthy described his impressions of the Jewish settlement in Palestine and states: 'We had some experience with settling urban dwellers on the land in England after the War. I am glad to say the mistakes then made have been avoided in Palestine'.

However, this process of resettlement caused the uprooting of Arab-Palestinian peasants and semi-agriculturists, and so the mandate formed a policy (partly implemented) of the resettlement of Arabs on state lands as tenants. Nevertheless, following the political instabilities and acts of hostility and violence, separate homogenous spaces seems to become the idea for a solution and the mode of life for the two populations. Homogenous spaces further required the exchange of lands and populations, expropriation and resettlement.

All of these issues are part of my past and present investigation. I plan to learn the current policies and conceptions about space and resources. I intend to look into the current laws regarding forms of ownership (of land and water) and the status of tenants and cultivators. I will examine the concept of development and its relation to ideas about lack and conflict and to the place of ideas about separation and resettlement. I also plan to look for ideas about attachment and about land as alienable and inalienable property. I hope, in this way to introduce the 'then' into the 'now' and to identify the non-articulated past ideas and practices that still live through the present.

# RESEARCH REPORTS

## Research Reports from Jordan

### The Dana-Faynan Ghuwayr Early Prehistory Project

*Bill Finlayson (CBRL) and Steven J. Mithen (Reading University)*

Spring 2001 saw the final field season of this part of the Wadi Faynan project. Previous seasons have all been in the summer, and it made a very pleasant change to be in Faynan when the weather was not so hot. The main objectives of the 2001 season were to complete some recording, excavate a series of test trenches to establish the limits of the site, and to continue the field walking survey.

We were fortunate that Dr Wendy Matthews (recently appointed to a post at Reading University) and Dr Roger Matthews (the former Director of the Ankara school) were able to come out and make an assessment of the sections for micro-stratigraphical analysis. The apparently rapid accumulation of deposits within the complex sequence of structural and functional modifications on the site mean that a detailed examination of the sediments should prove invaluable. A PhD student has now been appointed at Reading to pursue this research.

Stephen Crowther led the survey team, walking numerous 30 x 30 m grids across the landscape, and recording their position with GPS. This continuation of survey work

*2 x 2 m test square*

continued to reveal the same pattern as had emerged in previous seasons. There is a substantial Middle Palaeolithic presence attested in the area — and remarkably little material that can be clearly be attributed to more recent periods. So far we have still not found any incontrovertible evidence for Upper or Epi-Palaeolithic occupation, or indeed much evidence for the Pre-Pottery Neolithic (PPN) away from the sites already identified.

On-site, Samantha Dennis excavated a large number of 2 x 2 m test squares. These were excavated down to the first evidence for *in situ* archaeological features. This programme was successful in not only identifying the edges of the site, but in helping to show that the current topography of the knoll on which WF16 sits is in general terms much the same as in the past. Plaster floors were found on the slopes of the knoll which make this fairly clear. The only significant change is on the saddle to the south of the site, connecting

*Section of Trench 2 showing round structure and sequence of floor deposits*

the knoll to the hills beyond. Here it appears that the deposition of midden material, including quantities of flint, has infilled the saddle to a substantial depth. This has two implications: it reinforces the previous impression that the disposal of waste on the site was a structured activity; and it makes it clear that the knoll was more marked in the past. We know that some material has been eroded from the top of the knoll from the presence of superficial truncated deposits. Taken together the evidence suggests a highly visible site, situated very clearly on the top of a knoll above the wadi.

Richard Tipping returned to the project to collect more sediment samples for dating. His research so far has shown that the topography has been much more stable in the Holocene than had previously been thought. The new dating programme will allow him to provide a more detailed reconstruction of the relatively small recent events.

On our last night we were treated to a truly spectacular thunder and lightning storm, followed by torrential rain. The floods that followed were amazing — at one point filling the Wadi Faynan from side to side. It is easier to understand the process of boulders moving down the channels when you have seen it yourself. In the morning we had to dig a new road out and ferry equipment across the river in the CBRL landrover to the lorry waiting on the other side.

*Richard Tipping taking samples for OSL dating*

Progress towards publication is moving on steadily. Anne Pirie who has been working on the lithics has submitted her PhD, and we hope she will now be able to complete analysis of the Wadi Faynan material. Professor Steven Mithen hopes to be able to come out to Jordan in the early part of 2002 to work with Bill Finlayson on the main text of the report.

### Dhra' Excavation Project

*Bill Finlayson (CBRL) and Ian Kuijt (Notre Dame University)*

In May and June 2001 we commenced our first joint season of excavation at the Pre-Pottery Neolithic A (PPNA) site of Dhra'. Previous work by Crystal Bennet in the 1970s and by Ian Kuijt with Hamseh Mahasneh in the mid 1990s had established that a large PPNA settlement was located here, on the road to Kerak from the Dead Sea just at the foot of the mountains rising steeply to the plateau. Our decision to work together was largely based on having read each other's work and a number of conversations in 2000, when we realised we had numerous ideas in common. Not least of these was a concern about many of the common assumptions regarding the PPNA to do with chronology, the meaning of typological variation, settlement patterns, and the nature of PPNA settlements. These of course are critical to our understanding of the transition from hunter-gatherer to farming societies.

Central to some of these concerns is the current state of knowledge regarding the PPNA. The number of southern Levantine sites known remains small, but even within this small sample we have basic data problems to compound matters. Many sites are known only from small soundings, and of course one of the results of work at WF16 in the Dana-Faynan-Ghuwayr Early Prehistory Project has been to show how much PPNA settlements, and associated artefactual assemblages, vary across sites. Additionally, there have been problems with contamination from earlier Natufian layers, or from later PPNB layers. Excavation and recovery methods have also varied substantially, not least because of the long period over which excavations have been undertaken. As a consequence we decided that we would attempt to conduct a large open area excavation at Dhra', and that to facilitate comparison we would follow recovery methods employed at Netiv Hagdud, the only large open area excavation of a PPNA site that has been published.

In this first season we also experimented with magnetometer survey. Mike Schurr (also from Notre Dame) came out and tested sample intervals and processing filters and produced plots in the field showing various anomalies. One of these was tested as part of the excavation, and proved to be a very interesting feature, demonstrating that the magnetometer survey could both locate features and indicate their approximate depth. This, coupled with evidence that indicates that the Pottery Neolithic layers located by previous research are not so extensive or thick as had been believed, suggests that magnetometer survey can be used to both identify areas of interest and to identify the margins of the site.

Excavation in 2001 comprised the opening of a large trench (10 x 5 m, with a subsequent 2 x 2 m extension), the excavation of a number of small test squares, and making use of former military trenches to act as windows into various parts of the site. These last involved cleaning back to obtain a fresh section, and in both cases PPNA material was located, with no evidence for occupation from other periods.

*Dhra': General view of Area 1*

These and other trenches suggest that the site is large, about 6,000 square metres. We excavated a series of 1 m squares around some erosional gullies where large quantities of flint had been exposed. The squares were too small to assess the presence of structures, but showed enormous quantities of knapping debris apparently tipped off the side of the knoll where the site lies.

The main trench extended the area where Ian Kuijt had previously located a semi-circular stone structure, and brought in one of Mike Schurr's anomalies. Evidence for several structures was located, including a substantial mud built structure. This contained a number of stone uprights, apparently arranged in lines, and with notches cut into their tops. The most likely explanation appears to be that these held wooden beams supporting a raised floor. Considerable quantities of burnt material were found, possibly representing the remains of the floor, and this appears to have been the cause of the anomaly.

*Dhra': Mud walled structure with stone uprights. Samples being collected for soil micromorphology*

*Ian Kuijt (left) and Bill Finlayson in conference at Dhra'*

We made a very large collection of lithics (about 230,000 pieces), as well as collections of ground stone, and small collections of pottery, faunal and plant macrofossil material. Analysis of all this has commenced. We intend to return to the field in 2002 to continue work, and now that the site limits have been broadly defined, we will continue to expand the open area excavation of features to allow us to begin assessing the spatial organisation of a PPNA settlement.

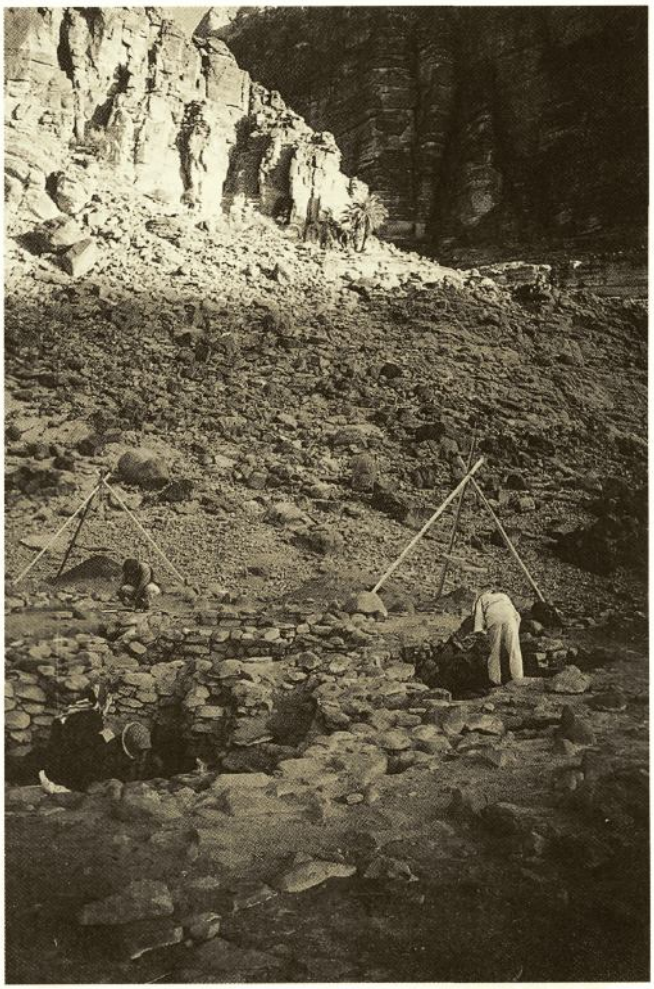
**Cognitive Reconnaissance**
*Michael Gregg*

My intention in travelling to Jordan this summer was to come up with a tightly-focused research question for my Masters dissertation. My original notion about how symbols generated and reflected social and psychological change now seems a little ambitious, but I did gain firsthand knowledge of the emerging agricultural villages in the Levant during the Epipalaeolithic and early Neolithic periods. I also believe I may have found a way to examine the role of symbols in forming a revolutionary new system of logic during this important period of human evolutionary development.

After some museum work in Amman and Irbid, I moved on to Wadi Rum. I was introduced to the late Pre-Pottery Neolithic B (PPNB) site of Ain Abu Nekeileh, and its excavator Donald Henry, by lithic analyst Seiji Kadowaki. Seiji and I had previously worked together at Hans Gebel's excavation at Ba'ja, and this season we were both spending five weeks in Wadi Rum before joining Bill Finlayson and Ian Kuijt at Dhra[1]. Ain Abu Nekeileh was discovered by Sir Alec Kirkbride and George Lankester in 1947, and identified as a PPNB site by Diana Kirkbride in 1960, and was now part of Donald Henry's ongoing investigation into the long-term human palaeoecology of the Wadi Hisma region. Contrary to the conventional wisdom that presumes that sheep and goat herding emerged only within sedentary Neolithic communities, Henry hopes to demonstrate that herding was developed by mobile Epipalaeolithic foraging groups occupying wild caprine habitats within an ecologically marginal zone.

Excavation team members included: lithic analyst April Nowell; faunal expert Rebecca Dean; botanical specialists Heidi Ekstom and Joy McCorriston; and micromorphologist Trina Arpin. Working with a team of twenty Bedouin workers, the excavations were divided into two operating units, one supervised by Seiji and myself, the other by Mike Harrower and Joel Judson. A debate between the units as to the symbolic and functional significance of 'shaft straighteners' provided a constant source of amusement. Most afternoons, GIS specialist Joe Beaver arrived as the sun was receding behind Jebel umm Eshrin, to carry out digital recording of the architecture uncovered that day, and to debunk many of my arguments.

Before moving on to our next encampment, we also hoped to visit Ba'ja and Beidha, and the early Natufian site at Wadi



*Ain Abu Nekeileh, a late PPNB excavation beneath the palms at one of the many 'Springs of Lawrence' in Wadi Rum*

Mataha near Petra. These were perhaps two of my most fruitful days in Jordan. Michael Chazan and Joel Janefsky took time from their excavations to explain what they had been doing at the site, and showed us many of the symbolic artefacts they had discovered. My Masters dissertation will examine the engraved artefacts from Wadi Mataha, and attempt to determine how these early symbols were manufactured. My analysis will employ the methodology pioneered by Francesco d'Errico in studying the symbolic artefacts of the Upper Palaeolithic in Europe. This technique involves manufacturing precise moulds of the artefacts, and comparison with a set of experimental reference artefacts, using both optical and scanning electron microscopes.

When we arrived at Dhra[1], Ian Kuijt immediately put us to work because many members of his excavation team were recovering from dysentery. This PPNA site is situated in a former Saudi Arabian tank emplacement from the 1967 Arab/Israeli War, overlooking the Dead Sea near Kerak. The density and quality of artefacts we uncovered every day was staggering, with the most prized discovery being a small figurine which Ian immediately recognized as sharing many similarities to the Netiv Hagud figurine, discovered by Ofer Bar-Yosef.

I believe this summer's cognitive reconnaissance was a success. My Masters dissertation is now underway, and I trust that I will be able to place the procedures used in the creation of the symbolic artefacts from the Natufian encampment at Wadi Mataha within the current debate as to why there are so few symbolic artefacts in the Middle East at the end of the Pleistocene, while there was a virtual explosion of representative art in Western Europe during the same period. My future research will map the interaction of mind and material culture during the Epipalaeolithic and early Neolithic periods in the Levant, and identifying the neural mechanisms involved in producing a system of symbolic reference. It is my hope not only to provide a little insight into how this newly-found cognitive capacity developed in our species, but also to determine why imagery remains such an important facet of modern human behaviour.

*Gary Rollefson at Ain Ghazzal*

## First Report of the Jerash City Walls Project: Excavations 2001

*Ina Kehrberg (CBRL, Amman) and John Manley (Sussex Archaeological Society)*

In October of 2000, the authors examined the foundations of the west Gerasa city wall north of the South Theatre. The interesting results, above all securely dating the wall foundation there to the early second century AD, have led to a new CBRL-funded project to examine the city wall foundations and their stratigraphy at various points along the circa 3.5 km long enclosure wall.

The results of this season in September-October 2001 were richer than anticipated. The first find was in fact not a foundation trench but a sealed hypogean tomb located under the foundation of the city wall. The doorway of the simple one-chamber shaft (straight sunken dromos) tomb was sealed by irregular blocks wedged and held in place by an earth-clay binder. The tomb contained a single burial, perhaps of a young. The ceramic and other objects in the tomb and the ceramic sherds in the dromos fill leave no doubt as to a date in the Hellenistic period, possibly late second or first century BC, confirmed by the one Hellenistic coin found behind a small sacrificial burnt offering at the feet of the deceased. The quality of the pottery models need not be stressed.

The main aim of the project however was to examine the stratification of the city wall and this was done for the 'tomb trench[1] west of the North Gate between towers 46 and 47 and two further soundings near the North Gate. All three trenches revealed the foundations of the city wall. In trench 100 the wall was founded on the rock-cut upper strata of the tomb, several layers above the tomb which was obviously not known in the Roman period. In trench 200 a trench had been cut into the 'Jerash Soil', virgin terra rossa, to place three courses of foundation blocks on natural sloping bedrock. In trench 300 the wall was on eight foundation courses placed in a trench into 'Jerash Soil'. This depth is due to a deep infilled wadi channel. The wall foundations clearly vary according to local conditions. The good quantity of pottery and the coins from trenches 100,200 and 300 provide dates of not later than early in the second century AD, with the foundation trenches clearly dating earlier in the 1st centuries BC and AD.

*Jerash: pottery models and other artefacts from a Hellenistic tomb under the city walls*

The results have been particularly interesting since they confirm the findings of the city wall trench north of the South Theatre. There also the foundation trench for the city wall was cut into a dense layer of first centuries BC and AD deposits, in that case consisting of a kiln waste dump. A detailed pottery study of the first excavation (South Theatre trench) and this JCWP01 season is in preparation and will be published together.

### Ancient and Modern Sedimentary 'Signatures' of Pastoral ism and Land Use

*Carol Palmer (University of Leicester), Helen Smith (Bournemouth University), John Grattan (University of Wales, Aberystwyth), Brian Pittman (University of Cambridge)*

As part of the Wadi Faynan Landscape Survey, directed by Professor Graeme Barker (University of Leicester), ethnoarchaeological research is being undertaken into pastoral campsites and recent land use in the Wadi Faynan. The ethnographic work has several components: the documentation of contemporary land use; the study of different types of pastoralist campsites and activities that go on in them; studies of artefact distribution across campsites; and the study of sediments associated with different activities at the campsites. Here we report on the aims and work in progress on the sedimentary samples, for which a CBRL grant was awarded.

The sedimentary research investigates the effect of different activities at campsites, for example the penning of animals and domestic activities (e.g. cooking, cleaning) on a microscopic level. As with all places where people live, space is created and used according to locally specific social norms, and the activities taking place at different parts of an encampment have the potential to be quite distinct. In terms of pastoral encampments, as well as areas where animals are corralled, the human living space inside the tent is divided into 'private' areas (kitchen and sleeping) and 'public' or 'men's[1] areas where guests are received. The different activities taking place in these areas are likely to leave different sedimentary 'signatures' in terms of the character, composition and content of the sediments. It is anticipated that no one single component within a sediment or aspect of it will be an indicator of a particular activity, rather that 'suites' of characteristics are likely to be most informative; that is, it will be necessary to consider all lines of evidence together.

*Part of the sieving process under way at the Wadi Faynan camp*

During the 1999 and 2000 seasons at the Wadi Faynan, over 70 campsites were investigated and recorded by Carol Palmer and Helen Smith. However, most of the sedimentary samples currently under analysis derive from the detailed study of four campsites studies during the 2000 field season. Sedimentary sampling was co-ordinated by Helen Smith. Bulk (large) samples were taken for the analysis of macroscopic remains (plant, mollusc, and bone) and spot (small) samples were taken to enable the investigation of physical and chemical properties of the sediments, as well as their microscopic contents such as plant phytoliths. Block samples were taken from floors for thin section analysis — microscopic examination of a small 'slice' of the sediment.

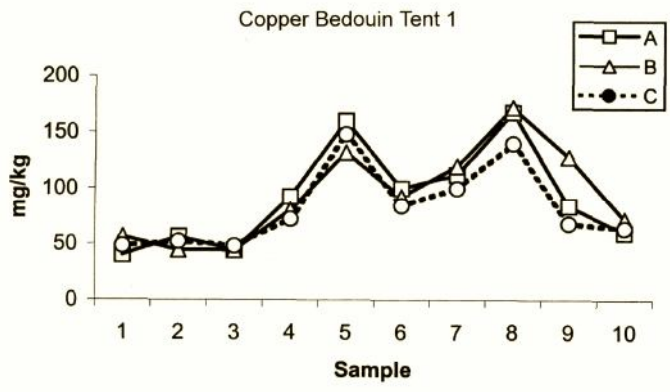
Brian Pittman has joined our team of investigators and is currently undertaking analysis of the microscopic plant remains and thin section analysis at the Charles McBurney Laboratory for Geoarchaeology, University of Cambridge. All the samples analysed have yielded phytoliths, and there is some preliminary indication that there is variation between activity areas. The results of the thin section analyses appear to tie in well with the phytolith analyses.

At Bournemouth University, under the direction of Helen Smith, analysis of the physical properties of the sediments is

*An early morning photograph of goats corralled in a tent at a spring campsite in the Wadi Faynan area. The use of metal grills is a relatively recent innovation*

due to commence shortly. Analyses to be undertaken include a range of techniques including the size of sediment particles, organic content and pH. The results will help to identify how different sediments have formed, the effects of those formation processes on the chemical and microscopic content of the soils, and the intensity and nature of human activity. For example, in the hospitality areas of the tents, some groups spread wadi gravel to keep dust contained, and this should be recognisable through the examination of the grain size of the sediment.

Analysis of the chemical content of samples is under way at the University of Wales, Aberystwyth, under the direction of John Grattan, who is also a member of the Wadi Faynan survey team. Geochemical analyses of an abandoned tent floor point to several pathways by which potentially toxic elements may be accumulated in living spaces and incorporated into people's diets. Contamination pathways appear to consist of the pre-existing ancient industrial contamination of the sediments on which the tent was erected, and the accumulation in the sediments of the cooking areas of fuel (wood and animal dung) and food waste that is enriched in absorbed metals.




*Graph of copper concentrations in samples taken from a tent floor at metre intervals from three transects (A, B and C). There are increasing amounts of copper concentrations from the hospitality area (samples 1 to 4) to food preparation or kitchen areas (samples 5 and higher), where there is much more activity and disruption of sediments*

The subsequent possibilities for human ingestion of metals are obvious, but the most serious is actually the most simple; metal enriched dust from the tent floors may gather on people's hands and then be introduced to the body via the mouth, eyes and nasal cavities. There will, most likely, be health consequences of exposure to metals at these concentrations. The scale of this contamination in a modern bedouin tent suggest that ancient occupants of the Faynan area may have faced even more severe problems from their, presumably higher, exposure to metal contamination.

Analysis of the macroscopic plant remains is being conducted by Carol Palmer at the University of Leicester. In the archaeobotanical analyses, we are investigating, for example, whether or not there is any difference between contents of hearths in public and kitchen areas. In theory, hearths located in kitchens are more likely to use dung as a fuel source. The macroscopic plant remains are challenging because they not only include seeds, the traditional subject of archaeobotanical investigations, but also other plant parts that have passed through the gut of an animal. Molluscs, or snails, recovered from the bulk samples are being analysed by Chris Hunt, another member of the Wadi Faynan survey team, at Huddersfield University.

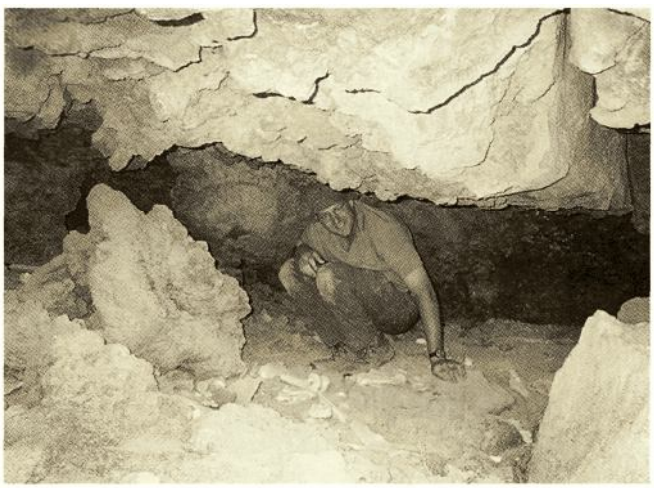
As well as establishing what physical, chemical and microscopic properties are useful indicators, or 'signatures', of different activities, part of the aim of this aspect of the project is to assess what will survive in arid, occasionally flooded, environments, such as that of the Wadi Faynan. Samples collected from archaeological sites examined by the Wadi Faynan team are also being analysed to determine whether different components survive or not, but also in the hope that it may be possible to determine whether or not some of the archaeological enclosures, for example, were used for the corralling of animals. The results of these analyses will be published in the Wadi Faynan Landscape Survey monograph, edited by Graeme Barker.

### The Food-Collecting Behaviour of the Striped Hyaena

*Brian Kuhn*

The study of the food-collecting behaviour of hyaenas is of great interest to both wildlife management workers and archaeologists. The accumulated fauna! remains in a hyaena den can give insight into how the animal is surviving today, as well as giving an ecological history of the region, assuming the hyaena has been scavenging from an assortment of the region's biodiversity. While it is the identification of species recovered from the dens that is most important for the wildlife management worker, it is how the hyaena processes the fauna! remains, the parts of specific animals and the identity of species that are of great interest to the archaeologist.

The initial season of the Badia Hyaena Project began on the 5th of May 2001 based at the field centre of the Badia Research and Development Program in Safawi. The initial plan was to survey three regions, Jawa, Dhahik, and Al-Arteen, locate as many dens as possible, log their coordinates into a GPS, and then collect the faunal remains from two dens in each region. All remains were labelled with collection technique (sieve or hand collected), den number and, in the larger dens, where in the den they were recovered. Prior to arrival at site we decided to survey and hopefully collect from the first two regions (Jawa and Dhahik); the third site was obtained using the drivers' intimate knowledge of the surrounding areas. At the end of the field portion of the research on the 31st of May, we had collected from a total of five dens, two each from Jawa and Al-Arteen and a single open-air den from Dhahik. All of the collected material was transported to CBRL-Amman for analysis and identification, which was done between 1-22 June.



*Alex Wasse in Hyaena Den 4 at Jawa*


*Bone deposit in Hyaena Den 4 at Jawa*

When looked at as a whole and over all three regions, the vast majority of faunal remains found within hyaena dens belongs to domestic species, and with few exceptions the teeth wear and fusion data indicates older domestic animals as well. The most commonly found species was that of camel, followed by animals grouped as sheep/goat, then dog, donkey, horse/donkey, goat, horse, hare/small fox-sized animals, gazelle, various birds, sheep, hedgehog, fox, hare, pig, Ruppelli's fox, cow, hyaena and possibly a single ostrich. The data indicate that hyaenas from all three regions are relying primarily upon domestic animals that have either died of natural causes (age), have been hit by vehicles, or were the remains of local people's diets (although there is no evidence of butchery on any animal used by the local populations for subsistence). It suggests that this animal plays an important role in keeping the countryside clean of various carcasses, both wild and domestic.

It is important to look at the taphonomy specific to carnivore activity. In addition to general gnaw marks, specific marks such as saw tooth, pitting (which includes punctures), scouring and acid etching were looked for, identified and quantified as a percentage of the total sample. There were no examples of acid etching as this usually occurs when a bone or bone fragment passes through the digestive tract of the animal in question, and no coprolites were sampled in this study. Combining the specific and general gnaw marks together they occur on 35% of the entire assemblage. Of the 35%, 11.3% of these have evidence for saw tooth, 10.6% show signs of pitting, and 12.1% have marking suggestive of scouring. Although these signature marks are only found on 35% of the bones collected out of a total of 3,755 specimens, when combined with other factor such as fragmentation patterns and prey choice, they are distinctive features for a carnivore (specifically hyaena) collection.

Archaeologically, the material collected from known hyaena dens gives great insight into the identification of hyaena dens compared to hominid sites in the archaeological record. Theoretically a cave or rock shelter that has only been used by hyaena should be void of cultural materials indicative of human habitation. This is indeed the case with this particular study as no cultural objects were recovered in any of the dens collected from. Surprisingly only two specimens of butchery were recovered as well. This is surprising since one would assume that hyaenas living in relative proximity to human habitation (both Jawa and Al-Arteen dens) would scavenge from the available refuse. The problem lies with archaeological sites that have been misidentified as just human habitation sites or perhaps as having hyaena occupation before or after human occupation. It is in these instances that the taphonomy attributed to carnivore activity, and especially hyaena activity, becomes most relevant.

The specific forms of modification left by the hyaena are the key to differentiating cultural and carnivore assemblages. Although it would be possible for a carnivore assemblage to have some of the attributes of a cultural assemblage, such as burning and butchery marks if the carnivore in question was scavenging from human habitations, it is the outright lack of these characteristics which indicate without a doubt that a given assemblage is indeed due to carnivore activity.

## The 'Aqaba Castle Project 2001

*Johnny De Meulemeester (Division du Patrimoine, Ministère de la Région wallonne, Belgium) and Denys Pringle (Cardiff University)*

*A* further three-week season of survey and excavation was carried out on the Mamluk-Ottoman castle of al-'Aqaba from 18 October to 13 November 2001 by a joint Belgian-British-Jordanian team (see CBRL 2001, pp. 19-21). The principal sponsors for the 2001 season were the Division du Patrimoine, Ministere de la Region wallonne (Belgium) and the CBRL. Equipment and logistical support were given by the Jordanian Department of Antiquities, 'Aqaba. The project was jointly directed by Professor Dr Johnny De Meulemeester and Professor Denys Pringle. Mrs Sawsan al-Fakhri represented the Department of Antiquities, and provided valuable advice and support.

The main aim of the field project in 2001 was to continue the archaeological assessment of the Mamluk castle in 'Aqaba, with a view to characterizing and dating its phases of structural development and occupation. Further work on the documentary sources by Denys Pringle since the 2000 season had made it clear that the Crusader castle in Ayla that fell to Saladin's forces in 1170, and was subsequently refortified by him, was located not on the mainland but on Jazirat Fara'un. This made it unlikely that remains of any Prankish fortification would be found on the site of the Mamluk castle, though it is still possible that the fort mentioned by Abu'l-Fida around 1320 might have been located somewhere in its vicinity. The early Islamic wall found below the castle by excavation in 2000 also indicated the existence of pre-Mamluk features, which required further investigation.

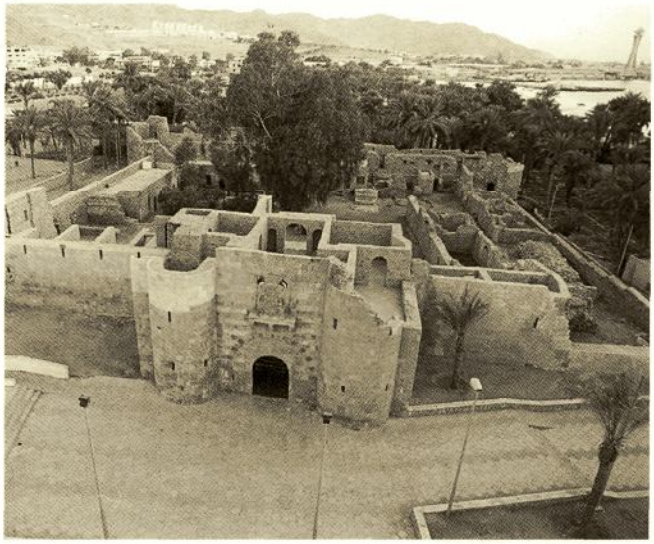
One result of this year's survey was to reveal just how much the castle has been rebuilt since the sixteenth century. It now appears, for example, that the rounded turrets and side walls of the Mamluk gatehouse were substantially rebuilt in the nineteenth century, at the same time as the inner iwan of the gate-passage subsided and was partially rebuilt. The same phase of rebuilding also seems to have included the refacing of the north-eastern and south-eastern corner-towers, which had the effect of altering their shapes from polygonal (as the former tower is represented on Leon de Laborde's engraving of the 1820s) to rounded.

The detailed analysis of the standing remains make it clear that the oldest standing parts of the castle, in particular the north range and gatehouse and the remaining corner-towers, are no older than the traditionally accepted Mamluk foundation of the fortress at the beginning of the sixteenth century (Qansawh al-Ghawri, 1500-16). At the moment, however, we can be fairly certain that the present castle covers at least some structures going back to early-Mamluk times and that the site was already settled in the early

Islamic period. The walls in this year's two trial trenches, lying parallel with or perpendicular to the standing walls of the castle, indicate that the builders of the Mamluk castle laid it out to have the same orientation as the structures that had existed earlier on the same site. As yet, however, it has not been possible to demonstrate any direct reuse of earlier walls by the Mamluk builders, such as might indicate reuse or adaptation of an existing fortification.

As far as the chronological evolution of the castle is concerned, it is for the moment difficult to recognise if there is anything left from the documented Ottoman building phases of the late sixteenth century or the beginning of the seventeenth. Some major changes, however, seem to have occurred in the nineteenth century. The de Laborde plan (published 1830) shows a regular khan with cells all around the central courtyard. The building apparently still fulfilled its original function as a khan for pilgrims on their way to or from Mecca. From 1831 to 1840, Egypt occupied Palestine and Syria; and, as is illustrated in what is known as the ' Aqaba incident', the frontiers of Mohammad Ali's fief were fixed by the Convention of London (1841), which left Egypt in possession of the Sinai peninsula and of a number of Red Sea garrison towns, including al-'Aqaba, in order to protect the Egyptian pilgrims' route to Mecca.

A catastrophic earthquake on 1 January 1837, which lasted some 15 hours and brought down twenty houses in Karak, is almost certain to have affected al-'Aqaba, even though its epicentre seems to have been under or near the Sea of Galilee. It seems possible that this Egyptian occupation of al-' Aqaba and damage caused by the earthquake could have been the reason for the reconstruction of the stronghold in its present form, adapted more to the needs of a military garrison.



*The Mamluk castle in al-'Aqaba, viewed towards the south from the minaret of the now-demolished mosque*

# Research Reports from Israel and the Palestinian Territories

**Diet and Dentition in the Prehistoric Levant**
*Patrick Mahoney (University of Sheffield)*

A CBRL Travel Grant enabled me to undertake research at the Sackler School of Medicine, Tel Aviv University, Israel. The purpose of my visit was to make casts of human archaeological dentition as part of a study into the relationship between past diet and microscopic features (microwear) on the dentition of prehistoric human populations from the Levant.

The Sackler School curates extensive human skeletal collections, all of which originate from archaeological sites within the Levant. These human remains span an extensive period of time and include examples of early anatomically modern humans (100,000 bp), hunter-gatherers from after the height of the last glaciation (18,000-10,000 bp) and Neolithic communities that date from the time of the introduction of farming and pottery (10-6,000 bp). My aim had been to take dental casts from the more recent hunter-gatherers and the early farmers and then investigate the relationship between their diet and dental microwear. However, after seeing the scope of the human remains and as a result of discussions with my supervisors at the University, I decided to also take dental impressions from the preceding and succeeding periods. In addition to my original aim this would allow me, for example, to investigate the relationship between the introduction of pottery and microwear on human teeth.

My working week soon settled into a routine. I shared the laboratory space with other PhD students, both visiting scholars and students based in the Sackler School, and each day was divided between preparing the teeth for casting, taking the dental impressions, and applying techniques that would allow me to estimate the age and sex of the skeletons (in order to provide a basis for standardising microwear variations between the populations). Nor was it all work. I received invitations to visit archaeological sites, such as Kfar Hahoresh, a large Neolithic mortuary site. I also spent several evenings socialising with the students who worked in the laboratory. One of the best of which was the midnight guided tour around the 'old city' of neighbouring Jaffa,

Now that I have returned to my home university I know that the study visit was an essential and valuable experience, because it provided me with the materials that I needed for my work and it has broadened my research aims. It was not however just an academic experience: the hospitality of the staff and students from the department have left me with good memories.

**Update on Field Work in *Gaza* — el-Moghraqa**
*Joanne Clarke (University of East Anglia) and Louise Steel (University of Wales, Lampeter)*

The Bronze Age locale of el-Moghraqa lies in an area of farmland and sand dune north of the wadi Gaza. El-Moghraqa, meaning swampy land, actually designates an area of land approximately 2 $km^2$ along the coastal strip immediately to the north of the wadi Gaza and delimited by Nizzirim to the north. Also located within this region are Tell el-'Ajjul and Tell el-Sakkan. The archaeological site that is designated el-Moghraqa was named such on the basis of its location in the heart of the el-Moghraqa region, and because the exact locale has no name according to local tradition. The site was discovered in 1996 following the

*Noël Siver conserving artefacts from el-Moghraqa, June 2000*

removal of sand dunes for agricultural purposes. Limited quantities of Late Bronze Age ceramics were recovered following ploughing.

The most significant cultural remains from el-Moghraqa were several fragments of terracotta cones stamped with the *praenomen* of Thutmosis III *(mn-kpr-ra).* Following conservation of the cones in 2000 by Noel Siver, two cone fragments were identified with the stamp *maat-ka-*.. .and ... *-ka-ra*, possibly the *praenomen* of Hatshepsut. Such terracotta cones are unique in Syro-Palestine. Typologically and technically they resemble the funerary cones typical of New Kingdom Thebes, though their precise function in the Gaza region remains enigmatic. A full report of the cones by Bill Manley (University of Liverpool) is in preparation.

Two distinct periods of occupation were identified during exploratory soundings at el-Moghraqa in 2000. These took place under the direction of Joanne Clarke (University of East Anglia), Louise Steel (University of Wales, Lampeter) and Moain Sadeq (Palestinian Department of Antiquities, Gaza). The uppermost deposits date to the beginning of the Late Bronze Age and the lower levels to the Middle Bronze IIb-c phases. Occupation of el-Moghraqa is therefore contemporary with that of the nearby settlement at Tell el-'Ajjul.

The Late Bronze Age remains were difficult to define in the very arid conditions during the excavation season. Cone

*Copper/copper alloy arrowheads from el-Moghraqa*

fragments, some with hieroglyphic signs, were found in a hard *kurkar* matrix, which comprised ancient sand dunes. Associated finds included several copper/copper alloy arrowheads apparently lying on a surface. Similar arrowheads were typical components of the Late Bronze Age burials in the 18th dynasty cemetery immediately to the north of the mound of el-'Ajjul. A possibility that remains to be explored is that during the Late Bronze Age el-Moghraqa was a repository of high status material for use in the 18th dynasty cemetery.

Although the Middle Bronze IIb-c matrix comprised decomposed mudbrick, no actual architectural remains were identified. However, the presence of a number of pits and *tabuns* (ovens) suggests that excavation was concentrated within a courtyard area. The associated material includes some slag, haematite, worked carnelian and mother of pearl, a number of utilitarian metal implements, and finished pieces of frit and jasper jewellery. These indicate that the site was possibly an outdoor industrial area.

A large pit was identified in the southern part of the excavated area. The upper levels of this pit were defined and sampled, but because of constraints of time and money excavation was not completed. An Old Assyrian cylinder seal was found in the upper deposits of Feature 310. A report by Dominique Collon (British Museum) is in press. Analysis of the pottery by Joanne Clarke indicates a consistent Middle Bronze IIb-c date. Although this is slightly at odds with the earlier date of the cylinder seal, it is possible that the seal had been kept in circulation, possibly as an heirloom. Certainly, the surface of the seal exhibited substantial evidence of wear in the form of scratches and abrasion. Other contents of the pit include faunal remains (meat-bearing bones), fine ware vessels including carinated bowls, and a burnt clay scarab sealing. Preliminary analysis of the pit suggests specialised deposition of specific classes of debris, with the concentration of high status socio-technical symbols in association with the apparent debris of feasting.

## The Palestinian Proto-State and the Water Issue

*Wilfried Bossier (SOAS, University of London)*

The purpose of my study is to analyse the Palestinian state, its power structures and decision-making process since the Oslo Agreements, and to examine the relation of the Palestine National Authority (PNA) to societal groups. The study will look at the PNA's policies, especially on water issues, in order to analyse to what extent this is a 'neo-patrimonial proto-state', as much of the recent scholarly literature calls it, and to look at how it effectively operates. For this it is necessary to analyse the strategies Yaser Arafat has developed in order to deal with all the old and new elites that have emerged over the years in the territories and in the Diaspora, and that are challenging his leadership.

The Palestinian proto-state that has emerged remains highly dependent on external factors, especially on Israel, in matters such as its future borders, the status of Jerusalem, the return of the refugees, the settlements, its revenue, and most water issues as well. As it lacks the necessary resources, it has effectively become a rentier state, according to many observers. Rex Brynen writes that the international donors, especially the World Bank, are literally 'buying peace'. For the signing of the Declaration of Principles in 1993, the bank had a $1.2bn cheque at the ready for Arafat. This process of state building is to be seen in a regional context and has a

long history, linking Palestine to Israel and to Jordan; all of these are riparians in the same hydrological basin.

*Research questions*

- Is the draft Water Law, and all other new water policy of the PNA, to be seen as just another formal declaration about democratic governance and public services, equity, and economic and environmental sustainability, but with virtually no bearing on real politics and resource allocation whatsoever?
- How important/useful is 'water' for the power base of Yaser Arafat and his political elite?
- What is the role of the water issues in the process of 'inventing' the Nation, or 'constructing' a Palestinian national identity? To what extent is the process of 'imagining the community' in the West Bank and Gaza Strip effectively perceived as being 'finished'?
- How are these issues reflected in the Palestinian water discourse?

For a National Water Authority to mean anything, have any authority, and yield legitimacy, it needs to control water allocations effectively. One would normally expect that it would therefore also attempt to reconstruct the water discourse. In Palestine this is, according to many accounts, precisely what is *not* happening, notwithstanding the formal democratic framework, the pledges to the World Bank, and the promises of efficiency, accountability and equity. According to recent studies this is due to the perceived weakness of the state *vis-à-vis* the society. My study aims to question this 'received wisdom', claiming we need to gauge how effectively the state is using water and other vital resources as tools for political patronage. Its water policy might not be a sign of the weakness of the state, but rather of its autonomy and its capabilities, with the ruling elite forging strategic coalitions while reconstructing 'traditions' and controlling social relations in ways that allow the state-building process to continue while the effective monopoly and control of the current leaders remain intact.

Analysing water policy forces us to look closely at the ways in which the state, Arafat, Fatah and the political and economic patronage networks are operating, bringing out how they see water policy and use water as a political resource. The nationalist stance, reflected in the rhetoric about 'national water rights' and a sanctioned water discourse, appears to serve as a cover for a vast patronage network, together with the lack of transparency and accountability. This is not remedied by foreign aid, be it cash or projects.

Fieldwork is planned with the aim of gathering more information and a better understanding of the official water policy, the PNA's institutional structures and the water strategy in relation to general economic development. It is important to bring out how this formal state policy, which seems to a large extent addressed mainly to the World Bank and other donors, relates to the actual power relations, the political contentions, and the facts on the ground. Looking at official documents and reports, and conducting interviews with key actors, also allows us to register how the state, our key actor, tries to impose a 'sanctioned discourse'. In addition to that, one also needs to be attentive to the way countervailing forces in society react to the state, the official discourse, and to concrete policies and their outcomes. The views of dissenters, alternative political and social groups and their demands clearly affect the political process. It is key to address these, both within the ruling PLO factions and in the secular and Islamic opposition, the NGOs, trade unions, etc.

This is already in train. The fieldwork started during my first field trip, both in Palestine and Israel, in December 2000. Ten interviews are being processed, with the Israeli Water Commissioner, Israeli experts and policy advisors. In May 2001 some further networking was done, leading to contacts with Passia in Jerusalem, the Palestinian Hydrology Group in Ramallah, and with Taher Nassereddine, Director of the West Bank Water Department.

As a result of my first two fieldtrips and based on the expert advice of independent Palestinian scholars, I have selected villages and towns bearing in mind such criteria as representativeness and other parameters that are more linked to the specific context. The fieldwork in these local communities will involve trying to identify and document the politically relevant elites and groups, including opposition groups, the respective water users or stakeholders, and the water issues, both real and perceived. I will also examine the general hydrology, the supply and demand, the water quality and problems with the wastewater, but only to the extent that these bring out the 'polities' of water, such as the bargaining, competition, and power relations.

With the help of the CBRL travel grant, I have so far been able to do two short field trips at a crucial stage in my research. This has resulted in a much more effective research design, allowing me to raise more relevant questions, and a more 'hands-on' and informed understanding of what are the best avenues for the actual data gathering in the field.

# Research Reports from Syria

### Settlement and Landscape Development in the Horns Region, Syria 2001

*Graham Philip (University of Durham), Man/am Bshesh (Directorate General of Antiquities and Museums, Syria) and Anthony Beck (University of Durham)*

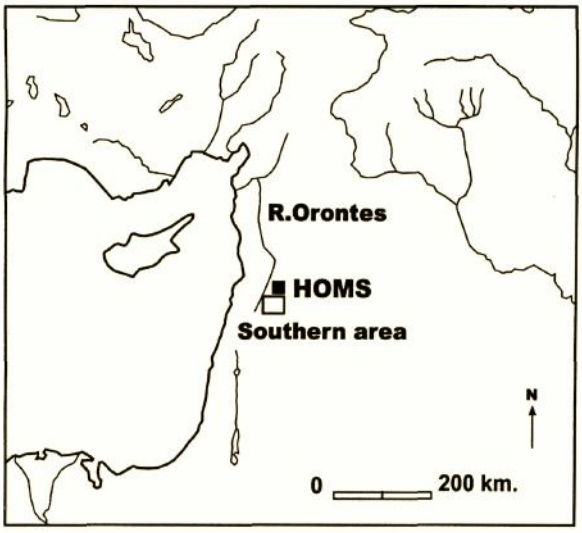
The project seeks to investigate long-term trends in human settlement and landscape development in an environmentally varied, but poorly documented region of Syria — the Orontes Valley around the city of Horns. 2001 was our third field season and ran from 26 August - 27 September 2001. The rationale behind our approach and fieldwork methods was described in last year's CBKL *Newsletter*. During 2001 we sought to focus our efforts upon the southern study area, which lies south and west of Horns. Within that area we sought to locate and collect samples of surface artefacts from a sufficient number of sites to begin to determine overall trends in human activity in the landscape.

*Exploring the satellite imagery*

In three seasons, the project has demonstrated that satellite imagery offers an effective means of identifying a wide range of, though not necessarily all, site-types. As the imagery records the light reflected back off the ground, there must be a difference

in the reflectance properties of on-site and off-site soils. Fieldwork in 2001 was able to demonstrate that on-site soils are easier to distinguish from off-site soils under the dry conditions characteristic of late summer and autumn, than under the wetter conditions of spring. This suggests that differential water retention plays an important part in the distinction.

In order to investigate those characteristics of archaeological and geological deposits which make them easy to differentiate in satellite images, we collected groups of soil samples taken from both on- and off-site areas. Laboratory analyses will establish exactly how the samples differ in their physical and/or chemical characteristics. The laboratory work also raises the possibility of identifying particular categories of site that might be hard to detect using imagery alone. For example, should it transpire that the distinctive reflectance properties of sites is closely linked to the presence of quantities of decayed mudbrick, then we might suspect that sites which do not contain much of this material (e.g. sites where structures were built mainly from stone or timber) will be less readily identified by this method, and will have to be located in other ways.




*Map showing Homs, the river Orontes, and approximate location of the southern study area*

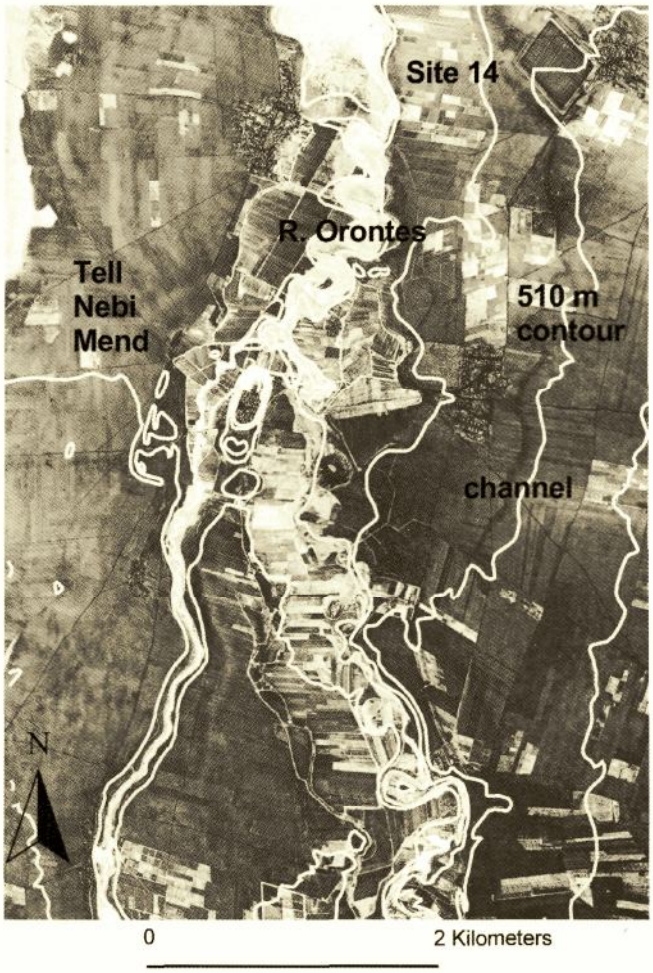
*Background scatter*

In some parts of the Mediterranean, rather than the landscape being composed of discrete 'sites' with 'spaces' in between, there is what has been described as a 'carpet' of artefactual remains, within which concentrations of human activity are best recognized by differing artefact densities. During the 2000 season we had walked a number of transects radiating out from sites and had gained the impression that 'off-site' artefact densities were very low. This was confirmed by the walking of some 60 sample transects placed to include all the major parts of our study area. The transects established that although Palaeolithic flint artefacts occurred in most areas, the level of pottery finds fell into two broad categories — hundreds of sherds per hectare on identifiable sites, and levels of 10 or fewer sherds per ha in other areas. A significant proportion of the transects produced no pottery. We believe therefore that the very low levels of background pottery will make it relatively easy to identify small sites, such as may escape detection on satellite imagery, on the basis of localised concentrations of ceramic material.

*Noah's Ark*

The massive rectangular site of Tell es-Sefinet Nebi Noah (Noah's Ark, Site 14) with its huge rampart and external ditch continues to fascinate. Not only is it the largest site in our study area, this Bronze/Iron Age site is also one of the most unusual. Even its location is something of a mystery. It lies only a few kilometres from the more famous site of Tell Nebi Mend (generally identified as ancient Kadesh), thus making the two largest sites in the area very close neighbours. Moreover, unlike most other large tells, Noah's Ark lies not on the river, but is around one kilometre to the east.

If the ditch was filled with water it would have made a formidable barrier. But how could this be done? The answer, according to our satellite imagery, appears to lie in a clear linear feature that runs southwards from the south side of the ditch. The fact that this feature follows very closely the twists and turns of the 510 m contour suggests that it is not a natural watercourse, but the result of human intent. Although its southern end is lost, there is a definite suggestion that the feature was heading towards the Orontes river, several kilometres upstream from the site itself, and that it represents a channel carrying water to the site. In that case there may have been a dam on the river to raise the water sufficiently to provide a good gravity flow towards the site. Although the channel has been known to us since we first studied the CORONA data, it was only in 2001 that we were able to confirm its existence on the ground. Using *GPS* and advice from local farmers we found that (where visible) the channel takes the form of a band of grey silty soil, which contrasts clearly with the red-brown natural soils.




*Map showing Site 14 and the channel feature*

*Results*

Palaeolithic artefacts occur throughout most of the area. Lower Palaeolithic artefacts include various hand axes and choppers, while the Middle Palaeolithic is mainly represented

by Levallois cores. So far, few Neolithic sites have been recorded. While this may relate to the nature of Neolithic occupational material, and the possibility that it does not appear readily on satellite imagery, it is also possible that Neolithic occupations are either buried deep under later tell sites, or lie along the margins of ancient wadi systems where they are concealed by recent wadi fills. Bronze/Iron Age occupations appear to be concentrated upon tell sites. However, we will not have a full picture of settlement in these periods until we have conducted a programme of systematic field-walking in sample areas in order to identify any categories of site not detected using satellite imagery.

A much larger number of sites appear to date to the Roman and Islamic periods, suggesting a significant reorientation of settlement at this time. There are a number of early Roman sites, although there is less evidence at present for later Roman and Byzantine activity. There may well be a connection between the apparent expansion of rural settlement in the early Roman period, the development of Horns (ancient Emessa) as a major urban centre and the construction of the Horns dam.

At present we lack clear evidence of early Islamic occupation, although this may be partly explained by our poor understanding of the dating of local coarse wares. However, we currently have no evidence for the kind of glazed pottery that is generally associated with Abbasid period occupations in the Euphrates valley. On the other hand there is good evidence for the presence of numerous settlements dating to between the 12th and 14th centuries AD, when the rural economy appears to have undergone a significant expansion. Evidence for Ottoman period settlement on the other hand appears to be very limited, although it is possible that a search for sites of this period will require more work within the boundaries of present-day villages.

## Dayr Mar Elian: *A* Monastery of the Qalamun

*Emma Loosley and Daniel Hull (University of York)*

The monastery of Dayr Mar Elian ash-Sharqi is located on the western edge of the oasis village of Qaryatayn, 75 km south-east of Horns, and 120 km north-east of Damascus. Historical references suggest the site was probably established by the 6th century AD, but perhaps as early as the 4th century. Whilst Dayr Mar Elian was abandoned by its community at some point in the 18th or 19th centuries, it has remained an important centre of pilgrimage, equally revered by both the Christians and the Muslims of the village.

A recent development programme at Dayr Mar Elian by the Syrian Catholic Church has enabled the initiation of an archaeological project which seeks to contribute to our knowledge of how and why such institutions were founded where they were, as well as how they continued to exist within the broader social and geographical context in which they were situated — and in many cases still are. The project seeks to combine archaeological survey of the monastery and its environs, geophysics and excavation to gain an impression of the expansion and contraction of the monastery from its foundation until the present day. In addition, a programme of oral historical research will attempt to ascertain how the monastery has been used and regarded by the local community in more recent times.

## Syrian-British Excavations at Horns Citadel, 2000-2001

*Geoffrey King (SOAS, University of London)*

Horns Citadel, the town's most important and largest antiquity, lies on the southern side of Horns in central Syria. It stands on an archaeological tell whose oldest levels go back to the 3rd millennium BC, but so great was the transformation of the site when it was fortified in the mediaeval Islamic period that the earliest strata are now inaccessible in most places, because of the remains of a thick glacis still in place over much of the face of the tell.

As with other contemporary Islamic fortifications at Hama, Aleppo and Qal'at Ja'br, the building of the Citadel at Horns must have entailed the destruction and levelling of earlier remains. Our excavations at the Citadel since 1997 have suggested that whatever preceded the Islamic fortifications around the perimeter of the tell was levelled when the Ayyubid walls were built. That there was a Roman and Byzantine occupation of the Citadel in earlier times is indicated by the finds retrieved in our excavations, but the only probable evidence of the survival of a structure from this general period is provided by the lower part of a well shaft and staircase in brick that cuts down through the centre of the tell to a depth of some 30 m. Horns Citadel was severely damaged in the 19th century by Egyptian forces led by Ibrahim Pasha, and whatever state of destruction to which the fortifications were then reduced was still further exacerbated by demolition on a vast scale by the French Army which occupied the Citadel in the Mandate period. Most of the finds excavated in the 1997 and 1999 seasons have come from fill redeposited by the French army.

In the course of the 2000 season of excavations and the recently completed 2001 season, the Syrian-British team exposed a series of interrelated Islamic period rooms on the south side of the tell, extending the excavations that had commenced on that side of the Citadel in 1997. These rooms were built against the curtain wall of the Citadel and have massive internal dividing walls, indicating that their vanished superstructure was of great weight. Masonry with simple relief moulding and an arch curvature had apparently faced parts of the rooms' walls at some date.

The discovery of 16th century Chinese blue and white porcelain in the 2000 season in a late floor shows that at least one of the southern rooms remained in use in the Ottoman period. The presence in the floors of the same rooms of llth-12th century Tell Minis ware is far more significant, however, taken in conjunction with the Ayyubid dating of the northern walls provided by epigraphy. Remarkably, outside one of the southern rooms, we found river stones, still carefully stacked and which we took to be the ammunition for a catapult.

The British archaeological team from SOAS, University of London, excavating at Horns in 2000 and 2001 received support from the CBRL, the Max van Berchem Foundation and The Seven Pillars of Wisdom Trust, all of which we very gratefully acknowledge.

# Research Reports from Lebanon

## Anti-Lebanon Highlands Archaeological Project: 2001 Field Season

*Alex Wasse (CBRL Amman)*

The first field season of the Anti-Lebanon Highlands Archaeological Project took place to the south and east of the Lebanese mountain village of 'Arsaal between 14 July and 14 August 2001, funded by grants from the CBRL, Wainwright Fund and University College London. The Project is a collaborative venture between the CBRL and the new Musée de Préhistoire Libanaise at Université Saint Joseph in Beirut. Special thanks are due to the director and staff of the Musée de Prehistoire Libanaise for their enthusiastic involvement in the Project at all stages. Thanks are also due to the director and staff of the Directorate General of Antiquities of Lebanon for granting permission for the Project to carry out this research and for their continued interest in its work. The team comprised twelve individuals, with Australian, American, British, Canadian, Jordanian and Lebanese nationalities represented.

The principle aim of the Project is to investigate the potentially important role of the Anti-Lebanon uplands in the late Pleistocene to early Holocene transition from hunting and gathering to crop cultivation and animal herding in south-west Asia: the so-called 'Neolithic Revolution' of V Gordon Childe. The Anti-Lebanon uplands appear to have been one the few areas of the Levant which supported substantial populations of wild goats and possibly wild sheep during the late Pleistocene and early Holocene. These species were the earliest major domesticates of the 'Neolithic Revolution', and do not appear to have been present elsewhere in the region in large numbers at that time. An extraordinary richness and diversity of wild grasses and cereals persists in the Anti-Lebanon uplands to this day, and there is archaeological evidence from the nearby Damascus basin for some of the earliest sedentary farming communities in the Levant. All of these factors suggest that the Anti-Lebanon uplands could have played an important but hitherto little-known role in the transition to crop cultivation and animal herding in south-west Asia.

The focus of the Project's activities is the Ard el Kichek plateau, situated more than 2000 m above sea level in one of the highest parts of the northern Anti-Lebanon uplands, approximately halfway between Ba'albek and Yabroud. The area is snowbound for up to four months of the year, with drifts remaining at the base of north-facing crags until well into May. The presence of moisture from snowmelt delays the drying out of vegetation until late in the summer, thus providing seasonal plant resources for humans and animals during what is traditionally one of the leaner times of the year. Today much of the area is given over to arboriculture, with numerous cherry and apricot orchards dotting the landscape, although chickpea and barley cultivation continues on a smaller scale. The area is also seasonally exploited by bedouin from the Syrian steppe, who graze their flocks on the summer upland pastures when little grazing remains at lower elevations. Other traditional activities, such as smuggling and illicit cultivation, continue to thrive in this remote, mountainous area straddling the Lebanon-Syria border.

The Ard el Kichek plateau was selected for investigation by the Project largely because of the previous work carried out in the area by Dr Bruce Schroeder of the University of Toronto during the late 1960s and early 1970s. Dr Schroeder identified numerous late Pleistocene and early Holocene sites in the Ard el Kichek area, including the well-known PPNA site of Nachcharini Cave which he partially excavated, but was unable to continue his research there owing to the outbreak of the Lebanese civil war in 1975. Dr Schroeder kindly agreed to return to the Ard el Kichek plateau with us to pass on the benefit of his experience. His participation in the field was of inestimable value to the Project, without which we would have achieved far less in the limited time available.

The Project had three objectives in summer 2001: firstly, to conduct intensive survey of selected areas for sites of all types and periods to gain a basic understanding of landscape use through time; secondly, to relocate and re-record late Pleistocene and early Holocene sites originally identified by Dr Schroeder in the late 1960s and early 1970s; and thirdly, to assess the potential for continuing excavations at Nachcharini Cave itself. A fourth objective unfortunately emerged following the start of fieldwork: to sieve the spoil from extensive robber pits which had been dug at Nachcharini Cave during the course of our fieldwork and to record the sections thus exposed.

The Project was based in a rented house in the mountain village of 'Arsaal which, although only 10-15 km from the Ard el Kichek as the crow flies, necessitated over two hours' driving to and fro each day on rough tracks. Overflow accommodation was provided in a bedouin tent, imported from southern Jordan, which was pitched in a field of grapes adjacent to the house. The long drive to and from the Ard el Kichek each day was at least partially compensated for by the considerable local colour of 'Arsaal itself: mule trains being led through the village at dusk; the return at dawn of the paraffin smugglers in their custom-built tankers; and the surprising juxtaposition, for anyone more used to the laughter of the Jordanian countryside, of magnificent hospitality with the taciturn and unsmiling inhabitants of the village.

By the end of the season 39 new sites and features, ranging in date from Middle Palaeolithic to Ottoman, had been discovered in and around the Ard el Kichek area, and 17 late Pleistocene and early Holocene sites originally identified by Dr Schroeder had been re-recorded. By combining information from several of these sites it should be possible to reconstruct a detailed archaeological sequence for the area dating from the Epipalaeolithic to the PPNB, precisely the period during which the transition from hunting and gathering to crop cultivation and animal herding took place. Most significantly, the Project's preliminary investigations of the enormously rich and well-preserved archaeological deposits at Nachcharini Cave demonstrated that, despite the best efforts of looters, the site has the potential to enhance significantly our understanding of the PPNA in a hitherto little-known upland area of the central Levant. Efforts are therefore currently being made to raise funds to excavate at Nachcharini Cave in spring 2002.

## The Western Cyprus *Geo*-archaeological Survey: Establishing a Chronology for Landscape Evolution

*Katleen Deckers (University of Edinburgh)*

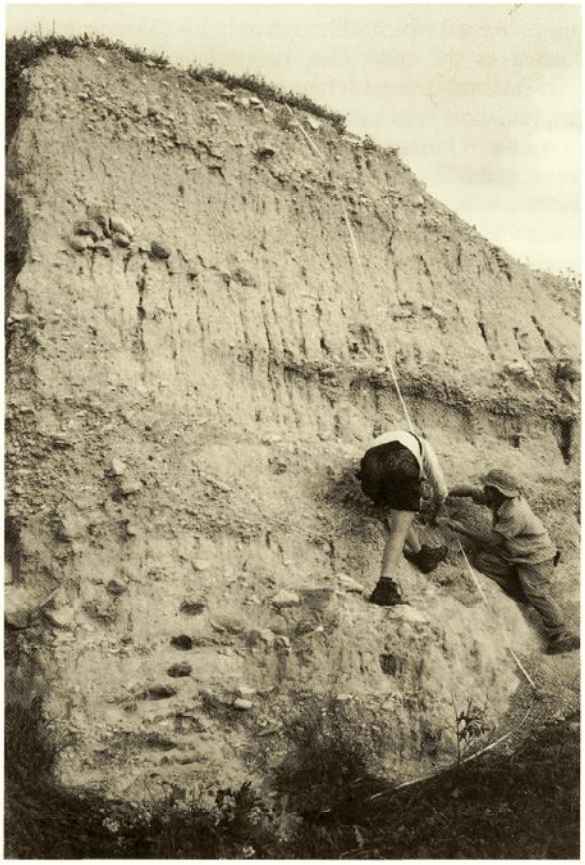
The Western Cyprus Geo-archaeological Survey aims to reconstruct former Cypriot landscapes in order to understand the relative impact of humans, climate, sea-level and seismic events on the landscape through the study of river terraces. Several problems initially hampered the establishment of an alluvial chronology. However a first chronological insight was achieved by using a relatively simple, approximate thermoluminescence dating application on sherds. Quite a lot of recent sediments have been discovered in the river valleys of Western Cyprus (post 5th, post 16th, post 17th and post 18th century). There might be evidence of earlier sediments, post-dating the 4th millennium BC and the 2nd century BC. But at present these sections need further precise dating by optically stimulated luminescence on sediments.

### *Aims of the project*

Alluvial research can offer a variety of information for archaeologists on Cyprus. Firstly, it can deliver information on site locations. Secondly, we cannot make meaningful interpretations of settlement patterns on Cyprus before we fully understand the limitations that geological processes impose on the archaeological record. Some sites will have been destroyed by river activity, while others might have been covered by metres of alluvium.

Finally, alluvial research will make it possible to create landscape reconstructions and broaden the scope of understanding. This will allow us to pass from rather limited site-oriented archaeology towards a more detailed understanding of the Cypriot past.

*Dhiarizzos at Kithasi: 2 m of alluvium deposited around or after the 7th century AD*



*Dhiarizzos at Souskiou: more than 4 m deposited around or after the Byzantine period. Tate Paulette and Rachel Gamble (archaeology students – Edinburgh university)*

The Western Cyprus Geo-archaeological project took place in April and August 2000. Two small teams with archaeology students investigated river terraces in Western Cyprus along several drainages in Western Cyprus: the Stavros tis Psokas; the Ezousas; the Xeropotamos; the Dhiarizzos; and the Agriokalamos. Many hours were spent in the fields cutting back sections, describing sediments, looking for datable material in the sections, and sampling. About 30 sections were recorded, and about 300 sediment samples were taken for futher laboratory investigations.

### *Problems in establishing an alluvial chronology*

Having collected all this data, one of our main objectives was to establish an alluvial chronology to understand when these landscape changes occurred. However, several problems hampered the dating. First of all, there was a mapping problem caused by severe landscape destruction. River terraces were often bulldozed, and this made it impossible to follow them along the river. Older, contemporary and younger terraces along the same river could not be correlated properly by mapping, and this made their chronology even more obscure.

A second problem was that organic material that can be used for radiocarbon dating only occurred in the upper, recent layers of the sediment sequences. Lastly, there was a lack of datable artefacts. As all geomorphological work was undertaken off-site, sherds were rarely found. Sometimes it took hours to find some pieces of pottery which were mostly unidentifiable by typological means because they were so worn by river action. Only three sherds were datable by typology. It is therefore clear that other means to date the alluvial sections are necessary.

### *A solution: a thermoluminescence application on sherds*

A simple thermoluminescence application seemed appropriate to achieve a preliminary insight into the chronology of the river terraces in Western Cyprus. This application varies from the normal thermoluminescence dating method and gives only an approximate date. First the natural thermoluminescence in the sherd was measured. Then the zeroed samples were radiated with a dose of 5 Gray, which equals the accumulated energy over about

*At the mouth of the Xeropotamos: 2 m of sediments post-dating 1700 AD. Rachel Gamble (archaeology student, University of Edinburgh)*

2,000 years in the Mediterranean. Next the ratio of the natural thermoluminescence over the 5 Gray glowing curve was plotted. The measurements on the 5 Gray glowing curve could be used where the ratio of natural thermo-luminescence over the 5 Gray glowing curve formed a plateau, normally around 300 to 350°C. The two subsamples of each sherd were then averaged.

Fifty sherds were dated in this way. The subsamples of 34% of the sherds had a standard deviation of less than 100 years. The results of some of the subsamples are remarkably similar, which indicates quite a precise measurement and dating. There are however measurements which are quite different. We are suggesting here that the oldest date should be used. This is because if sampling failed because it was retrieved from the outside as well as from the inside of the sherd, the outside of the sherd might have been exposed to light and this would have reduced the signal.

***Results and discussion***

A quick glance at the dates highlights the fact that the archaeological record has been seriously affected by erosion, as pottery from sites of all periods ended up in alluvial sediments. However off-site sherds used for dating alluvial sediments are often difficult to interpret in chronological terms with any precision. Dating the sherds does not necessarily provide us with a precise date for the deposition of the sediment. In fact, the sediment can be much more recent than the pottery occurring in it. Also, the older the sherds are, the greater the *post quern* period was and the easier it is to make mistakes in the interpretation. Hence we can be more certain of the dating of sediments with recent sherds than of those with very old sherds.

Despite these limitations, however, this dating programme clearly demonstrates the difficulties involved with using sherds as chronological markers in alluvial deposits. Too often, if a couple of sherds of the same period are found in an alluvial sediment, the sediment is wrongly assigned to the period of the sherds.

Artefacts in alluvial sediments are in fact often the last evidence of sites lost by erosion, rather than being chronological markers. In particular, the section at Prastio along the Dhiarizzos with an inversed stratigraphy indicates that a Byzantine site in the neighbourhood has been lost by erosion. Three pieces of pottery were found throughout this 2 m deep section. At the bottom of this section a sherd was dated to about 1200 AD. In the middle of the section was a sherd dated to 1080 AD and at the top a sherd of about 720 AD. The inverted stratigraphy suggests erosion of a Byzantine site with the disappearance of several archaeological strata. Consequently, if we want to understand fully settlement patterns of any period in Cyprus we have to understand the geological processes imposed on them.

Insight was gained as to when these archaeological sites were eroded and when these alluvial sediments were deposited. Unfortunately, the dating programme on the sherds resulted in some negative conclusions, due to difficulties in using potsherds to date the sediments. However we gained a good insight into the chronology of the sediments because a lot of relatively recent alluvial deposits were found. A section at Kannaviou-Potamos along the Ezousas river indicated that more than 2.5 m was deposited sometime after the 12th century. Along the Dhiarizzos under the village of Souskiou there is evidence of more than 4 m sediment deposition approximately post-dating the 5th century AD. At Prastio, more than 2 m of sediment were deposited sometime after the 14th century. Only about 500 m westward from this section, 2 m of alluvium were found, post-dating 1200 AD. At Kithasi also along the Dhiarizzos evidence exists of about 2 m of alluvium deposited after the 7th century. At the mouth of the same river, at Kouklia *Lakkos*, more than 3 m of sedimentation took place after the 16th century. Also at the mouth of the Xeropotamos we found evidence of 2 m of alluvium that was deposited sometime after the 18th century AD.

The evidence for older deposits is more suggestive due to the use of sherds and so terminus *post quern* dating for the sediment. These sections should be investigated further as the old sherds could have been deposited quite recently. There is a section along the Agriokalamos with evidence of Chalcolithic and Neolithic sherds. Despite the difficulties in using sherds as chronological markers for the deposition of the sediment, it is suggested that the sediment in which these sherds were buried is prehistoric as there were several palaeosols above this layer.

***Acknowledgements***

The dating application was undertaken at SURRC, East Kilbride laboratories. The method was suggested by Dr D Sanderson. The dating aspect of the project is funded by the CBRL and a Small Projects Grant from the University of Edinburgh for which I owe my sincere thanks. Fieldwork was supported by the Belgische Stichting Roeping, the Abercromby Fund, the Prehistoric Society and a Cyprus Grant. Research was conducted under a grant from the Student Award Agency for Scotland and a Belgian Benevolent Society Award. The Department of Antiquities Cyprus kindly permitted us to export the sherds.

## Excavations at Prehistoric Kissonerga Mylouthkia (Skourotos)

*Paul Croft*

Mylouthkia is an extensive prehistoric site located on the seaside margin of gently sloping lowlands atop steep coastal cliffs, some 5 km north of the major tourist resort of Paphos in southwestern Cyprus. The site has been the subject of previous investigations, conducted intermittently over the past 25 years by the University of Edinburgh's Lemba Archaeological Project (LAP). This work has mainly revealed

evidence for settlement during the Early Chalcolithic period (earlier 4th millennium BC), but it has also established that there exists at Mylouthkia a far more ancient component, dating to early phases of the pre-pottery Neolithic.

The LAP investigations were drawn to a close several years ago, and a major report is to be published imminently. Ironically, just as this report and a series of important articles concerning the site are appearing and the great significance of Mylouthkia is coming to be widely appreciated by archaeologists, destruction of the site by tourist development has recommenced after a decade's respite. Coastal Mylouthkia is a prime locality for such development in an already highly developed coastal strip, and the destruction of the archaeological remains shows every sign of escalating to an alarming degree in the near future, as local farmers aspire to become holiday resort owners.

In spring of 2000, large-scale earthmoving commenced in a previously untested area of the site called Skourotos, where the recently completed Paphian Sun Holiday Village now stands. Machine-watching and limited rescue excavation at this time identified and sampled numerous archaeological features, and the Cyprus Department of Antiquities acted to preserve some of these features for subsequent investigation. This investigation is the broad objective of the present project, sponsored by the CBRL and the Jennie S. Gordon Foundation. The second season of excavation, concerned with a pair of water wells which seem likely to date to the 9th-8th millennium BC, is currently in progress (October 2001). The first excavation season, which took place earlier in the year, concentrated on an Early Chalcolithic ditch system. The timing of this excavation was designed to take advantage of moist, pre-summer soil conditions, since from the onset of hot, dry summer conditions and into the wet season quite colourful clayey ditch fills would become rock-hard and appear homogeneously grey in colour. By contrast, the siltier fills of deep, narrow well shafts remain workably moist throughout the year, so it was judged best to undertake the excavation of the wells once the heat of summer had abated, but before wet weather set in.

The most characteristic features at Mylouthkia are pits and, in particular, large hollows filled mainly with ashy midden material, often very rich in finds, dating to the Early Chalcolithic period. Substantial ditches, apparently broadly contemporary with the pits and hollows and most probably enclosing the settlement, are features of a distinctly different sort and were, due to their unique nature, partially preserved for investigation. These ditches seem to form part of an extensive ditch system, and since earthworks on such a large-scale are otherwise unknown in prehistoric Cyprus they constitute a focus of interest for the present project.

Three sections were cut through two of the ditches which are located 15 m apart, aligned north-south, and run parallel to one another and to the coast, which lies about 100 m to the west. A third ditch, now partly destroyed and built over, ran from the vicinity of these two ditches towards the sea and had been subjected to limited investigation during the spring 2000 rescue work. Two new sections were cut through the western, seaward ditch, a third section having been cut during the spring 2000 rescue work. The ditches have asymmetric profiles, the western sides of both sloping gradually in the upper portion but vertically in the lower portion, their eastern sides being nearly vertical for their entire height. The parallel orientation and closely similar conformation of these ditches suggest that they are part of the same complex, very possibly a double-ditched enclosure. That earthen banks would have fringed the ditches seems particularly likely in view of the absence from Cyprus of wheeled transport or draught animals at this time.

The many substantial stones found in these ditches suggest that banks may have been retained in place by revetment walls. The ditch profiles seem designed to invite would-be intruders approaching from inland to hop down into the bottom of the ditch only to find themselves confronted by the vertical seaward side of the ditch, probably surmounted by the revetment wall and bank, towering metres above their heads (and this not just once, but twice if is really was a double-ditch system); formidable defences indeed! Substantial linear earthworks of this sort, apparently intended to enclose not merely a relatively small nucleated settlement but rather an extensive tract of land, are quite without parallel in prehistoric Cyprus. They imply not only a perceived need for defence during a period which has hitherto yielded no evidence of strife or competition for resources, but also the existence of social mechanisms for the mobilization of labour to undertake large-scale public works. Clearly, our ideas about the nature of life and society in this period now stand in need of reconsideration.

**Ceramics and Social Change in mid 2nd-Millcnium BC Cyprus**

*Lindy Crewe (University of Edinburgh)*

The site of Enkomi (a substantial Late Bronze Age town located on the east coast) is extremely important to our understanding of the latter part of the Cypriot Bronze Age. The site has been excavated by a number of archaeologists, beginning at the end of the 19th century and continuing through to the 1950s. Investigations of the tombs were undertaken at different times by the British Museum and the Swedish Cyprus Expedition, but it was not until a joint project by the French (Professor C. F. A. Schaeffer) and the Cypriot Department of Antiquities (Dr P. Dikaios) that the settlement remains were excavated.

The pottery from Dikaios' excavation of the settlement (Areas I and III) provides the only intact, well-stratified ceramic sequence dating from the end of the Middle Cypriot through the Late Cypriot periods (c.1750-1000 BC). The results of Dikaios' excavation and subsequent publication, although extremely professional and thorough, are a reflection of an earlier tradition of research priorities and level of archaeological knowledge. At this time it was thought that Aegean or Levantine colonists had brought technological innovations to Cyprus during the Late Bronze Age, and this was taken as evidence of migration of a dominant population, rather than an internal political and social development by the indigenous population. Investigation of locally manufactured ceramics was not a priority, and focus was upon the imports (mainly Mycenaean). The local Cypriot wares have never been studied in detail.

Fortunately, all the sherdage (including non-diagnostic material normally discarded) has been retained at the Larnaca District Museum. I have just completed recording this material, and intend to use the data to conduct an investigation of the stylistic, technological and typological sequence of the pottery wares in detail, which has not previously been done from a settlement from this period in Cypriot prehistory.

It is my aim to trace the development of technological aspects of the ceramic industry on Cyprus during the Late Bronze Age. This is a dynamic stage of Cypriot prehistory. Cyprus moves from the isolation of the Early and Middle Bronze Ages to extensive participation in the wider eastern Mediterranean sphere. There are new developments in architecture, changes in settlement size and location, the establishment of trade networks and the adoption of a new politico-religious ideology. One of the developments is the introduction of the fast potter's wheel — an innovation that occurs much later on Cyprus than in other areas in the region. The appearance of wheelmade pottery in archaeological assemblages is generally held to be an indicator of increasing craft specialisation and social complexity, and so my aim is to examine the ceramics within the broader context of social change.

One of the problems inherent in studying the introduction of the fast potter's wheel is that pots which may appear, superficially, to be wheelmade may be hand built and finished on a turntable. This creates horizontal striations, which cause the pot to appear wheelmade but are, in fact, an intermediary stage of slow wheel finishing. This technological stage has only been identified in archaeological studies within the last 20 years. Some of the sherds which I have examined at Larnaca, classified as wheelmade by Dikaios, are in fact coil-built and smoothed. There are also positive examples of true fast wheel manufacture. One of my goals is to establish a sequence from hand-building, through slow wheel finishing, to true wheel throwing on Cyprus.

The Enkomi material offers a rare opportunity to examine the development of ceramic technology sequence, and may shed light on the processes of adoption of new technologies. One of the few methods of establishing whether a pot is wheel thrown or merely finished on a turntable is to X-ray the sherds. The Department of Antiquities has given permission for me to attempt this, and Dr Chrysostomou, a radiologist in Larnaca, has very kindly offered his facilities and assistance.

At this stage of my analysis, I have almost completed the examination of the stratified pottery (approximately 700 trays of sherds), and will now begin to create a database of the occurrences of the wares in the different periods and areas of the site. This will allow me to quantify the patterns of distribution of types and wares and examine change through time.

## Troodos Archaeological and Environmental Survey Project

*Michael Given (University of Glasgow)*

The Troodos Archaeological and Environmental Survey Project (LVESP) carried out its first full season of field survey in June-July 2001. T/ESP is working in the northern Troodos Mountains in Cyprus, in an area that includes fertile valley floor, pillow lava foothills, and part of the Troodos mountain range. The team included 28 specialists and students from ten countries, and the project is co-directed by Dr Michael Given (University of Glasgow), Dr Vasiliki Kassianidou (University of Cyprus), Professor A Bernard Knapp (University of Glasgow), and Professor Jay Noller (Oregon State University).

We are grateful to the Director of the Department of Antiquities of the Republic of Cyprus for the survey permit, and to our funders: CBRL; Institute for Aegean Prehistory; Carnegie Trust for the Universities of Scotland; National Science Foundation, USA; and the Society for the Promotion of Roman Studies. During the season our base was in the village of Tembria, where the community very generously gave us the use of their splendid village school as our headquarters.

***Lagoudhera Valley (Team East)***

In its middle reaches the Lagoudhera River has cut deeply into the copper-rich pillow lavas of the Troodos foothills, as well as creating occasional fertile alluvial terraces. One such area of terraces is Xyliatos *Mavrovouni*, which contains an ancient slag heap and large quantities of Roman pottery. The team's survey units showed that there was a clear concentration of 4th-5th century AD pottery immediately south of the slag heap, with a sufficiently wide range of storage vessels, cooking wares and fine wares to suggest a settlement. On the far side of the slag heap, there was a striking drop in densities of Roman pottery. Instead there was a general spread of Medieval, Ottoman and Modern material, which together with the impressive terrace walling (up to 2.5 m high) suggested long agricultural exploitation of this fertile river terrace.

***Asinou Valley (Team Central)***

The Asinou Valley is famous for its 12th-century church dedicated to Panayia Phorviotissa, now a UNESCO world heritage monument. Team Central's aims in this area were to put this church into its landscape context, and to investigate all aspects of human activity in this mountainous zone. The three survey transects crossing the valley were extremely challenging in terms of difficult terrain, navigation and ground visibility. It does, however, seem clear that the pottery is concentrated towards the valley bottom, outside the forest boundary imposed by British colonial forestry officials in the late 19th century to exclude goatherds and woodcutters.

***Karkotis Valley (Team West)***

The rich agricultural and mineral resources of the Karkotis Valley have clearly stimulated large-scale settlement and resource extraction for at least 4,000 years. Team West walked three east-west transects 500 m apart across this valley, in the vicinity of the villages of Kato Phlasou and Pano Phlasou. Preliminary analysis of the pottery indicates that while all periods from the Prehistoric Bronze Age to the Modern period are represented, sherds from the earlier periods are too few and dispersed to pinpoint the presence of early settlement. There is a significant increase in the Roman material at the eastern end of the transects, and an interesting range of 15th-19th century fine wares, including several imported pieces.

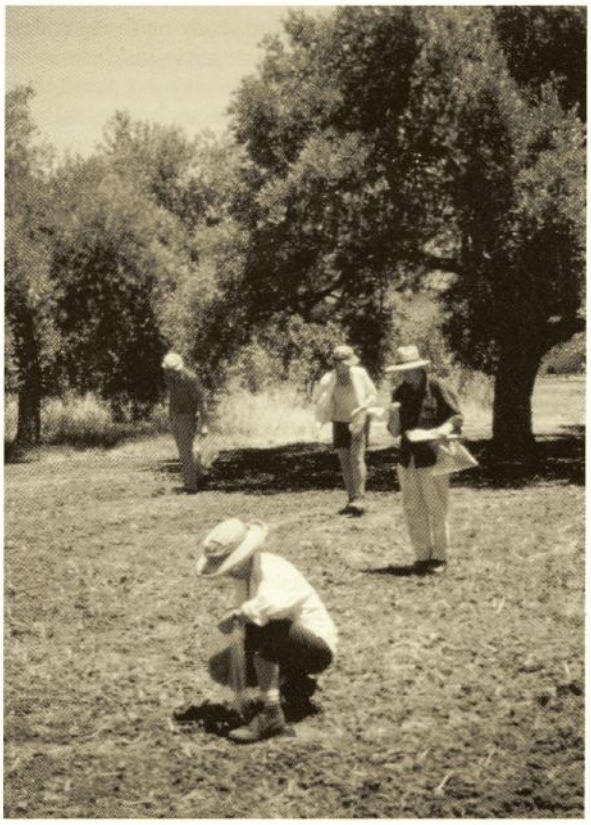
Over much of the central Karkotis Valley, by contrast, the pottery shows very few distinct concentrations of particular periods. This anomaly may be due to geomorphological processes. Our preliminary mapping has revealed as many as six Holocene floodplain terraces, with broad flood chutes and bars on the lower floodplain. Flooding of the river can deposit material, which would bury earlier deposits, and also erode material, which would then be redistributed downstream. The high numbers of modern sherds across the centre of the valley, and the restriction of earlier material to the valley edges is easily satisfied by just such a flooding hypothesis.

*Conclusion*

As well as this archaeological and geomorphological fieldwork, our methodological studies also progressing. The

**TEAM EAST**

'Are we really supposed to count it all?' asked a dubious fieldwalker. The team leader looked at the little blue-black chunks of Roman copper slag which littered the field. 'Yup/ he answered. For half an hour the ploughed field ticked like a clock shop with the walkers clicking the little tallies which counted the slag. When they finished the unit they sat under an olive tree at the edge of the field, one of the fieldwalkers doing little sums in her notebook. '3,720 slag fragments', she announced; 'I guess we're near the slag heap'. 'Just think how good it'll look on the density map,' said the team leader encouragingly. There was a quiet chinking sound from under the olive tree as the fieldwalkers sorted through their sherds and chucked duplicates back into the field. A distant rattle of stones marked where the geomorphologist was scrambling up her seventeenth rubble heap of the day.



**TEAM WEST**

The team's perfect disposition five metres apart across the smoothly ploughed and harrowed olive grove was interrupted by the sudden appearance of a farmer on the terrace above. The team's Greek speaker was instantly dispatched to explain about intensive survey and the value of small, anonymous sherds. By the time the farmer had heard all about the survey — and in turn explained all about his olive crop — the rest of the team had finished the survey unit and were sitting against the terrace wall. 'Lots of glazed stuff, they said to each other as they sorted through their mounds of pottery, and 'Isn't this 16th century?'. The Greek speaker came back and finished off his share of the survey unit, while the navigator and the geomorphologist went off to find the next one. The team recorder counted the 143 sherds and 3 lithics that the team was collecting, while the notebook keeper quizzed the Greek speaker on the state of his friend's olive crop.

**TEAM CENTRAL**

'Slope: 28°,' wrote the geomorphologist on her form. 'Land use: Forest. Stability: unstable'. She looked back over her shoulder, where the rest of the team were toiling up the mountainside, dodging trees and rocks as they tried to keep five metres apart. Turning back to her own patch of hillside, she planted a row of pin flags to show the team where to finish their survey unit at the break of slope. Ten minutes later they arrived and sunk exhausted to the ground. 'Survey unit 373', one of them wrote on the form. 'Ground visibility: 20%. Sherds: none.' The navigator looked up at the pine trees and down at her aerial photograph, trying to pick out an identifiable tree so she could draw the outlines of the survey unit they had just done. The team member in charge of bagging and labelling the finds stretched out under a pine tree. He had been having an easy day.

first results of our sherd seeding programme described in last year's issue of the *CBRL Newsletter* suggest that surface pottery typically represents 18% of what is in the plough zone. Specialist research includes the geomorphological mapping, artefact study and GIS analysis that supports the work of the field teams, but we have also recorded water mills and other structures, begun a historical archaeology research programme, and completed a land use map of the area based on satellite imagery.

We had one other notable achievement this season, namely the good will, hard work and cheerful cooperation of our team of students and specialists. This was partly due to the wonderful meals produced by our cook Annie Evans, and the warm welcome we received from the village of Tembria. Mostly, however, it is due to the commitment and enthusiasm of our participants, and the project is grateful to them all.

For more information see <http://www.tasp.arts.gla.ac.uk/>

# Research Reports from the Levant Region

### Lebanon, Syria and Cypriot comparisons

*Naomi Hamilton (University of Edinburgh)*

The CBRL awarded me a travel grant to visit Lebanon and Syria in the spring of 2001. The purpose of my trip was to familiarise myself with the material remains of Levantine cultures which may have influenced the development of Cypriot culture in the 2nd and 1st millennia BC. With limited time at my disposal due to fieldwork commitments, I embarked on a rapid dash around all obviously relevant sites as well as a few extras, travelling by private taxi, national bus, or local minibus as appropriate or essential. The result was a fascinating exploration which fulfilled all my hopes and has left me determined to return as soon as possible. I was fortunate to be accompanied by my partner, whose companionship, general body-guarding, and sharing of costs as well as experiences made the whole trip both more feasible and more pleasurable.

Landing at Beirut in the afternoon of 22 May we went straight to Jbeil where we stayed at a hotel close to the site of Byblos. We spent the whole of the following day exploring Byblos and stumbling upon unexpected features such as the staggering sarcophagi in the royal tombs. The next day, we returned to Beirut to spend a morning in the national museum, recently re-opened and with a superb collection, exceptionally well-presented. During the afternoon we visited the extensive and long-lived religious Phoenician and later site of Eshmoun before returning to Beirut for the night. Here we felt obliged to sample the nightlife on offer in this vibrant city returning to normality at last, and were not disappointed.

Next stop Syria. We travelled to Latakia by taxi via the astonishing Phoenician walled island of Arwad and the temple site at Amrit where the tombs offered interesting comparisons with Cypriot examples. The following day was devoted to investigating Ugarit, where I noted many parallels with sites in both Cyprus and Turkey. This was certainly a highlight of my trip — a site I have wished to visit for many years, finally accomplished and living up to expectation in every way.

Day 6 already when we left Latakia and headed for Aleppo, a city I fell in love with and must return to. We had time only to visit the museum the following day before setting off again to Ebla. Aleppo museum held some most interesting material for querying the dating of certain sites in Cyprus, as well as housing many of the finds from Ugarit, and was certainly well worth visiting.

Leaving our Aleppite taxi at Hama, we went by bus to Horns and then by hair-raising minibus across the desert to Palmyra in the company of a group of youths attending the final concert of the Palmyra festival. Despite our misgivings at the bus station, where tickets were purchased at a folding table cluttered with various types of merchandise and an assortment of small boys, and where the minibuses looked progressively less roadworthy at the minutes passed, this was certainly the right way to approach the site if camels are not available! Arriving at dusk, we found the site teeming with people, almost a living city again, rather than deserted as all previous sites had been. A great bonus. We spent the whole of day 8 exploring Palmyra fairly thoroughly. Camels were indeed available once we had arrived, but we chose to travel on foot. The tombs were the most unexpected and intriguing feature for me, and the survival of silk from this time very surprising.

On day 10 we returned to Lebanon by taxi, and spent the afternoon at Baalbek. I don't think anything can prepare one for the massive size or the stunning preservation of the temples there. It was simply astonishing. Somehow the journey there through the Bekaa valley in a local slow coach among military roadblocks and anti-aircraft batteries, and the nail-biting return ride to Zahle with the most manic minibus driver I hope ever to encounter, suited the extraordinary nature of the remains at Baalbek and made it altogether an unforgettable day.

My visit to Lebanon and Syria was both a wonderful experience and a success in terms of research. I managed to see all the sites and artefacts most important for my work, as well as a few extras, and I made my first acquaintance with these two countries after working for many years in neighbouring Turkey and Cyprus. I am extremely grateful to the CBRL for awarding me the travel grant that made this possible, and the generous amount given allowed us to travel by private taxi at times when public transport would have taken so long that the number of sites visited would have had to be cut down. The second phase of this research, in Cyprus, will begin in the autumn funded by the Tweedie Exploration Fund, and I hope to make a preliminary report on that work available soon afterwards. If results are promising, as I believe they will be, it is my intention to develop this into a larger research project with a substantive publication as the end product.

### Cultural and Ethnic Identity in the Ottoman Period Architecture of Cyprus, Jordan and Lebanon

*Charlie Schriwer (CBRL Amman)*

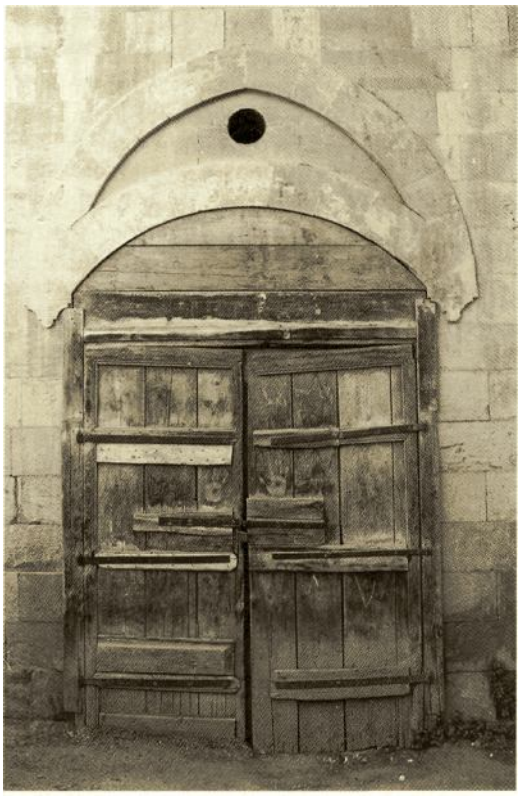
The goal of my research was to see if there was a relationship between ethnic and cultural identity and domestic architecture within certain regions of the Ottoman Empire. The study of the material culture, such as architecture, of the Ottoman period has recently highlighted many new and sensitive issues and questions regarding archaeology and history. The

absorption of cultural elements and consequent adoption of architectural styles through conquests and occupation of different ethnic areas probably made the Ottoman Empire one of the most diverse empires in world history.

This is particularly significant to the history and politics of the Middle East today, particularly in the Levant, where in some countries the recent past has been ignored for political, idealistic, ethnic and cultural reasons. Its diversity, which is reflected in the structures of the modern nations left as an aftermath of the division of the Ottoman Empire has posed one fundamentally important question to archaeologists and historians: who does the recent past belong to?

In Levantine countries such as Lebanon, Jordan and Cyprus, which all experienced more than three centuries of Ottoman rule, the Ottoman presence has been denied its place in history for various reasons, particularly cultural belonging and ethnic identity. In Lebanon, for example, the Phoenician and Classical past has been lauded and preserved through the conservation and restoration of many architectural features; meanwhile, the more recent Ottoman architecture has, and still is, being torn down at a rapid pace. Cyprus has similar problems, perhaps mainly due to cultural and political tensions since the Turkish occupation of the northern part of the island in 1974. Jordan has also seen a cultural emphasis on its Classical heritage, underplaying the roles of the Islamic periods, thus disassociating itself as a country from its more recent past.

This study considered 18th and 19th century domestic structures, largely private homes, in urban contexts of the areas being studied — Cyprus, Jordan and Lebanon. The study, which included studies and perceptions of both Turkish and non-Turkish scholars, concentrated on a comparative analysis of house/structure 'types', architectural features and decorative styles, plan and layout, and how the domestic structure related to its immediate environment. An example of this last would be a house in what was designated to be a



*Doorway of 19th century domestic building. Salt, Jordan*

*19th century house. Salt, Jordan*

Christian quarter or town, compared to a house in a Muslim quarter or town.

The results of this analysis were compared to elements of the domestic architecture in various towns and cities of Turkey, to determine the relationship between the differences and similarities, and whether this relationship was based on an ethnic principle within the architecture (such as 'Arab', 'Lebanese', Turkish', 'Cypriot' identity). These examples of typologies were used to demonstrate the difficulty in determining ethnic or cultural elements, particularly in domestic buildings, and the use of the terms 'Ottoman' and Turkish' as labels, and their relationship to non-Turkish areas of the Ottoman Empire.

The similarities between the elements of architecture examined in this study led me to believe that this domestic architecture is not a marker of ethnic identity. That there is an identity is undeniable; for example, in the urban domestic architecture of Cyprus, the *kiosk*, the *hamman* and the *iwan* are all characteristic features, as they are in Anatolia as well as in Jordan and Lebanon. The fact that they are frequently described as Cypriot, Turkish, Arab and Lebanese features respectively only emphasises the argument that these variations and differences are indeed regional and cultural, rather than ethnic.

In contrast, looking at some of the modern architecture present in, for example, Cyprus today, markers of ethnic identity were easily distinguishable: Greek flags fluttering at the entrances of houses; entrances with the pointed architrave typical of Greek Classical architecture; the words *archontiko* carved above the entrance in the Greek script. Likewise some of the more modern post-independence houses in Nicosia displayed crescent moons and the date of the house written in Arabic numerals over the doorway. However, these 'identity markers' appear to be a modern phenomenon, and in the 18th and 19th centuries these markers appear to have borne a weak ethnic relationship with the people who once lived in them

# Grants

The CBRL usually has funds each year to support research projects in the Levant. Travel grants are also available to help students conduct smaller research projects in the region. Applicants are invited from either British Citizens or those ordinarily resident in the UK. Application forms are available from the CBRL Secretary from the end of August each year and completed forms should be returned no later than 15 November (research grants) and 15 January (travel grants). The CBRL also supports a Joint Partnership Postdoctoral Fellowship. This is awarded every three years and is designed to support a three-year programme of post-doctoral research. The project can be concerned with any aspect of humanities and social sciences research relevant to the countries of the Levant.

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Front cover picture: *Dhra': General view of area 1.*
Back cover pictures: top - *Mid-morning High Tea in Wadi Rum.* Centre - *Cypriot Sgraffito from the late 14th to 15th centuries.* Bottom - *Dhiarizzos at Kithasi, Cyprus: 2 metres of alluvium post-dating the 7th century AD.*
Picture on spine: *Hypothetical reconstruction of the Neolithic village of Beihda (Samantha J. Dennis).*