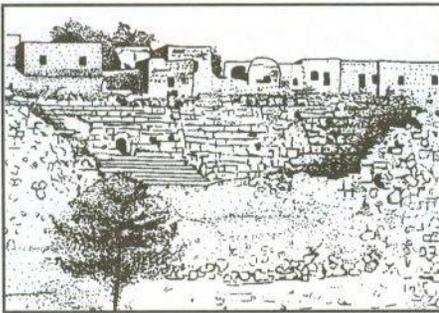


# OCCIDENT & ORIENT

Newsletter of the German Protestant Institute of Archaeology in Amman



## Jordan - Crossroads of Civilizations

The institute conducted two major projects during the past six months. It organized, together with the "Jordanian-German Project for the Establishment of a Conservation and Restoration Center in Petra (CARCIP)", a large exhibition entitled "Crossroads of Civilizations - More than 100 Years of German Archaeological Activities in Jordan". The exhibition was displayed at the Royal Cultural Center in Amman from November 12 to 28, and was patronized by H. R. H. Crown Prince Hassan, the Regent. The opening ceremony on November 18 was conducted by Mr Matthias Ohnemüller (deputy head of mission, German Embassy, Amman) and by H. E. Mr Aqel Biltaji (Minister of Tourism and Antiquities). More than 250 guests attended the event. Special reports and more details on the exhibition can be found in this Newsletter.

In October an archaeological excavation was carried out at the Pottery Neolithic site of esh-Shallaf, which is situated near the Early Bronze Age city of Khirbet ez-Zeraqon, c. 10 km north-east of Irbid in north Jordan. The processing of the findings is underway, and a second and final season of fieldwork is planned for late March/early April 1999.

Also in October, and continuing into November, a major survey was carried out west of the ancient site of Gadara (modern Umm Qais) by Ms Nadine Riedl, M.A. (assistant director of the DEI-Amman, and research assistant at the German Institute of Archaeology, Berlin - Orient Section). This project, (the Umm Qais Hinterland Survey),

was conducted on behalf of the German Institute of Archaeology - Orient Section, which also financed the project. Logistical support was provided by the DEI-Amman. A brief



The 1998 'Lehrkurs' scholars in Petra.

report on this survey is included in this newsletter.

Furthermore, in September another German expert started work at Umm Qais. Ms Renate Barcsay-Regner, an architect, is supervising archaeological research and conservation work on the western theatre of ancient Gadara. It is the smaller but far better preserved theatre on the site. Built totally of black basalt, it dates from the Roman period, approximately to the early second century A.D. Ms Barcsay-Regner is working through the Department of Antiquities of Jordan. She came to Jordan on the Integrated Experts Programme which is offered by the Centrum for International Migration (CIM) in Frankfurt/Main (Germany). Within the scope of this programme, German experts are assigned to positions of importance for development in various institutions. Documentation work and research on

(continued on page 32)

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## German Archaeology in Jordan: An Exhibition on More Than 100 Years of German Archaeological Activities in the Hashemite Kingdom

**By: Hans-Dieter Bienert, German Protestant Institute of Archaeology in Amman (Jordan), and Helge Fischer, CARCIP, Amman (Jordan)**

For the first time in more than a century of German archaeological activities in Jordan, an exhibition has been prepared to give an overview of the wide spectrum of these German activities in the Hashemite Kingdom of Jordan. The exhibition has been jointly organized by the German Protestant Institute of Archaeology in Amman (DEI) and the Jordanian-German Project for the Establishment of a Conservation and Restoration Center in Petra (CARCIP). It was held at the Royal Cultural Center in Amman from November 12 to 28. Mr Matthias Ohnemüller, deputy head of mission at the German Embassy, and H. E. Mr Aqel Biltaji, Minister of Tourism and

Antiquities, conducted the formal opening of the exhibition, which was attended by more than 250 guests.

Sixty large panels with texts and photographs informed the visitors about the different German projects. The field studies and archaeological activities undertaken by German teams span from the early Neolithic period (8th millennium B.C.), through the Bronze and Iron Ages, to the Roman and Byzantine periods, and further on to the Ottoman era. The activities have focused on two regions: Umm Qais, ancient Gadara, where archaeological excavations have been undertaken by Germans for the past 25 years, and the greater

Petra region. The first director of the German Protestant Institute of Archaeology, Gustaf Dalman, was one of the first scholars who thoroughly studied the monuments of Petra at the beginning of this century. German projects today not only deal with the earliest settlers in the region but also focus on a new aspect which has been introduced into the long-standing tradition of archaeological fieldwork: the care and protection of sites that are sometimes uncovered by generations of archaeologists, but often left exposed to the destructive elements of wind, weather, and environmental degradation. This issue is now being addressed through a project financed by the German Ministry for Economic Cooperation and Development (BMZ), and executed by the German Technical Cooperation (GTZ), and known as the Jordanian-German Project for the Establishment of a Conservation and Restoration Center in Petra (CARCIP). Now in its 6th year of implementation, the project is in the process of creating a Jordanian institution that can plan, supervise, and advise on conservation and restoration work on historical sites, not only in Petra but also throughout the entire country. It is being equipped with all the necessary tools, instruments, and testing and research facilities. It is also in the process of being staffed with highly skilled personnel, currently in the final stages of training, to execute demanding work that has to follow strict international guidelines established



Tourism and Antiquities Minister Aqel Biltaji (left) is briefed on an exhibition display by DEI director H.-D. Bienert (centre) and CARCIP director Helge Fischer.

by UNESCO, ICCROM (International Center for the Study of Preservation and Restoration of Cultural Property), and BLFD (Bavarian State Conservation Office).

The texts and photographs of the exhibition were prepared by the different directors of the German projects, whose participation is thankfully acknowledged. The exhibition could not have been carried out without their readiness to supply photographs, drawings and summaries of their work. The exhibition also covered the history and work of Jordanian partner institutions, such as the Department of Antiquities of Jordan, the Institute of Archaeology and Anthropology of Yarmouk University (Irbid), the Royal Institute of Inter-Faith Studies, and the Friends of Archaeology.

Thirty large photographs of excavations and a number of finds from sites of German archaeological activities enriched the exhibition and presented the cultural heritage of Jordan to a wider audience, and in so doing assisted efforts to understand the past in order to preserve it for the future.

Four lectures held at the Goethe-Institute Amman accompanied the exhibition:

Monday 16th of November: Dr. Hans-Dieter Bienert: "A Historical Overview of More Than 100 Years of German Archaeological Activities in Jordan"; Tuesday 17th of November: Dr. Helge Fischer: "Principles and



The day before: preparing the exhibition panels.

Procedures in the Conservation and Restoration of Historical Monuments"; Monday 23rd of November: Prof. Dr. Zeidan Kafafi: "Jordanian-German Cooperation in Archaeology: Past, Present and Future"; Tuesday 24th of November: Dr. Ziad al Sa'ad: "The Evolution of Conservation Sciences in Jordan."

**Chronological overview of German archaeological activities in Jordan:**

1806: Ulrich Jasper Seetzen identifies Umm Qais with ancient Gadara and rediscovers Gerasa (modern Jerash) for the West. Reverend F. A. Klein discovers the Mesha stele.

1837: The German geographer Gotthilf Heinrich von Schubert visits Petra, accompanied by the artist J. M. Bernatz, who later publishes the first drawings of Petra in Stuttgart (Germany).

1877: Founding of the "Deutscher Verein zur Erforschung-Palästinas" (DVEP) which - since 1878 - has issued the periodical "Zeitschrift des Deutschen Palästina-Vereins".

1886: Gottlieb Schumacher undertakes first investigations (survey) in Gadara (modern Umm Qais) and presents his results in 1890 in the monograph "Northern Ajlun".

1896 - 1902: Gottlieb Schumacher carries out a cartographical recording of northern Jordan, published from 1908-1929 in 10 sheets (maps of East-Jordan). C. Steuernagel, Der Adschlun, 1927.

1897-1898: R.E. Brünnow, A. von Domaszewski, and J. Euting carry out a registration-project for ancient monuments in southern Jordan. Their results are published in three volumes: "Die Provincia Arabia", 1904-1909.

1900: Founding of the "Deutsches Evangelisches Institut für Altertumswissenschaft des Heiligen Landes" (DEI), at the Eisenacher Church Conference in Germany.

1902: Equipping and furnishing the DEI in Jerusalem.

1903: Official inauguration of the DEI.

1902-1917: First director of the DEI was Gustaf Dalman. Of the many places he worked at, two were most important for him: Jerusalem and Petra.

1916-1917: Theodor Wiegand and Carl Watzinger work in Petra under aegis of the German-Turkish Command for the protection of historical monuments ("Deutsch - Türkisches Denkmalschutzkommando").

from 1921: Albrecht Alt serves as the director of the DEI, but with no permanent residence in Jerusalem; he works especially on historical subjects linked with geographical and topographical questions, from the early periods to the Roman-Byzantine era.

1963-1966: Siegfried Mittmann



The tourism and antiquities minister officially opens the exhibition.

starts a survey in northern Jordan, under the aegis of the DEI.

1964: Re-opening of the DEI in Jerusalem.

1964-1968: Martin Noth becomes the director of the institute. He devotes himself to historical, territorial, topographical, and archaeological problems, especially in eastern Jordan.

1965: The uncovering of a late antique bath in Umm Qais by Ute Wagner-Lux (assistant director at the DEI since 1964). Herbert Donner is appointed by the "Deutscher Verein zur Erforschung Palästinas" to restore

(Umm Qais), financed by the DEI and the German Research Association DFG under the directorships of Ute Wagner-Lux (DEI) in cooperation with K. J. H. Vriezen (University of Utrecht, Netherlands); S. Holm-Nielsen (Copenhagen, Denmark); Th. Weber (DEI); A. Hoffmann (German Archaeological Institute - DAI); P.C. Bol (Liebieghaus, Frankfurt); S. Kerner (DEI); Nadine Riedl (DAI- DEI).

1985, 1986 and 1989: Excavations at Ain Zara (Kallirrhöe) at the Dead Sea, conducted by A. Strobel (director of the DEI in Jerusalem) and Christa Clamer.

1984-1992: Excavations at Khirbet ez-Zeraqon conducted by S. Mittmann (University of Tübingen, Germany) in cooperation with the Archaeological Institute / Yarmouk University, Irbid. Since then a number of further archaeological projects have been conducted by German universities and institutions, often in cooperation with Jordanian counterparts,

e. g. Abu Sneseleh, Feinan, Balu'a, Ba'ja, Basta, Petra, the Aqaba region, and, most recently, at esh-Shallaf in Wadi Shellale.

1993: German institutions are also becoming more concerned about the preservation of the unique cultural heritage of Jordan. The German Technical Cooperation (GTZ) designed a project which was launched in 1993, and whose prime goal is the establishment of a center to undertake preservation and conservation work at Petra and to function as a key institution for such work in the whole country. The project is funded by the German government and implemented by the GTZ (project manager: H. Fischer). It will be entirely operated by trained Jordanian specialists and staff, whose objectives are to be able to independently plan, execute and supervise conservation and restoration work on historical monuments.

### Staff members of the exhibition:

Dr. Hans-Dieter Bienert (DEI-Amman), Dr. Helge Fischer (GTZ-CARCIP), Ms May Sha'er (GTZ-CARCIP), Mrs Nicola Gazzo (GTZ-CARCIP), Ms Nadine Tavitian (GTZ-CARCIP), Ms Simone Reinert (GTZ-CARCIP), Ms Nadine Riedl (DEI-Amman), Mrs Nadia Shugair (DEI-Amman), Mr Jamil Amira (DEI-Amman), Dr. Roland Lamprichs (Dresden, Germany), Mr John Meadows (La Trobe University, Melbourne, Australia)

### Sponsors and supporters

German Protestant Institute of Archaeology in Amman (DEI), Jordanian-German Project for the Establishment of a Conservation and Restoration Center in Petra (CARCIP), German Archaeological Institute - Orient Section, Berlin, Germany (DAI), Royal Institute of Inter-Faith Studies, Institute of Archaeology and Anthropology, Yarmouk University, Irbid, Department of Antiquities of Jordan, Goethe-Institute Amman, German Embassy Amman, and German Foreign Office, Bonn (Germany) and German Technical Cooperation (GTZ).

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BMW

Messe München International

Motor Trade Co. Ltd.

German Technical Cooperation (GTZ)



General view of the exhibition (in foreground holding paper, GPI assistant director Ms. Nadine Riedl).

the mosaic geographical map at Madaba (6th century). The project is financed by the Volkswagen Foundation (Germany) and directed by the Rheinisches Landesmuseum Trier [H. Cüppers (archaeologist) and H. Brandt (restorer)].

1960s: Manfred Lindner (Naturhistorische Gesellschaft Nürnberg, Germany) starts his research in Petra.

1966: Excavation of the so-called early Christian church in Madaba, conducted by Ute Wagner-Lux.

1967: Excavation of the Apostles Church in Madaba, conducted by M. Noth (inscriptions) and Ute Wagner-Lux (mosaics/church).

1968-1982: Director of the DEI: Ute Wagner-Lux.

1975: Founding of the Amman office of the DEI.

from 1975: Excavations and surveys by different teams start in Gadara

## Panels Displayed at the Exhibition

### Subject

### Compiled by

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Overview of German Archaeological Activities since 1806:</li> <li>• Biography of Gustaf Dalman:</li> <br/> <li>• History of the DEI:</li> <li>• History of CARCIP:</li> <br/> <li>• History of the Orient Section of the DAI:</li> <li>• History of the Department of Antiquities:</li> <li>• History of the Royal Institute of Inter-Faith Studies:</li> <li>• History of the Institute of Archaeology and Anthropology, Yarmouk University, Irbid:</li> <li>• History of the Friends of Archaeology:</li> <li>• Madaba: Excavation of the Church of the Apostles, 1967, and Excavation of the Church of al-Khadir, 1966:</li> <li>• Madaba: The Mosaic Map of Madaba:</li> <li>• Umm Qais: Ancient Gadara:</li> <li>• Umm Qais: The Large Terrace:</li> <br/> <li>• Umm Qais: Several other excavations:</li> <br/> <li>• Umm Qais: The Tiberiade Gate, the Tomb of the Demoniac, and the Five-Aisled Basilica:</li> <li>• Umm Qais: Transportation of a Goddess:</li> <li>• Umm Qais: Domestic Quarters:</li> <li>• Umm Qais: Water System:</li> <li>• Umm Qais: The Hellenistic City Wall:</li> <br/> <li>• Umm Qais: The Hellenistic Sanctuary:</li> <br/> <li>• Umm Qais: The Monumental Gate extra muros of Gadara from the Late Roman Period in the Context of Urban Development:</li> <li>• Petra: Petra Proper and Greater Petra: The Activities of the Naturhistorische Gesellschaft Nürnberg, Germany:</li> </ul> | <p>DEI and CARCIP</p><br><p>Prof. Dr. Julia Männchen (Ernst-Moritz-Arndt-University, Greifswald, Germany) and Dr. Thomas Neumann (University of Halle, Germany)</p> <p>Dr. Hans-Dieter Bienert (DEI-Amman, Jordan)</p> <p>Dr. Helge Fischer and Ms May Sha'er (CARCIP, Amman, Jordan)</p> <p>Prof. Dr. Ricardo Eichmann (German Archaeological Institute, Orient Section, Berlin, Germany)</p> <p>Staff members of the Department of Antiquities</p> <p>Staff members of the Royal Institute of Inter-Faith Studies</p><br><p>Staff members of the Institute of Archaeology and Anthropology, Yarmouk University, Irbid</p> <p>Staff members of the Friends of Archaeology</p> <p>Dr. Ute Wagner-Lux (Basel, Switzerland)</p><br><p>Prof. Dr. Herbert Donner (Kiel, Germany)</p> <p>DEI-Amman staff</p> <p>Dr. Ute Wagner Lux (Basel, Switzerland) and Dr. Karel Vriezen (Utrecht University, Netherlands)</p> <p>Dr. Ute Wagner-Lux (Basel, Switzerland) and Dr. Karel Vriezen (Utrecht University, Netherlands)</p> <p>Dr. Thomas Weber (University of Mainz, Germany)</p><br><p>DEI-Amman staff</p> <p>Dr. Susanne Kerner (Free University of Berlin, Germany)</p> <p>Dr. Susanne Kerner (Free University of Berlin, Germany)</p> <p>Prof. Dr. Adolf Hoffmann (German Institute of Archaeology, Berlin - University of Cottbus, Germany)</p> <p>Prof. Dr. Adolf Hoffmann (German Institute of Archaeology, Berlin - University of Cottbus, Germany)</p> <p>Dipl. Ing. Claudia Bührig (German Institute of Archaeology, Berlin - University of Cottbus, Germany)</p><br><p>Dr. Dr. Manfred Lindner, Nürnberg (Germany)</p> |
|--|--|

- Petra: Palaeo-environmental Investigations in the Greater Petra Area: Hans Georg K. Gebel, M. A. (ex oriente e. V. / Free University of Berlin, Germany)
- Petra: The Gods of the Nabataeans: Prof. Dr. Helmut Merklein and Dr. Wenning (Bonn University, Germany)
- Petra: Petra Stone Preservation Project: Dr. Helge Fischer and CARCIP staff (Amman)
- Petra: The River Tunnel in Petra: Dr. Klaus Grewe (Bonn, Germany)
- Basta: A Joint Archaeological Project: Prof. Dr. Hans Jörg Nissen (Free University of Berlin, Germany) and Dr. Mujahed Muheisen (Yarmouk University, Irbid, Jordan)
- Ba'ja: Early Neolithic Settlers in the Petra Mountains: Dr. Hans-Dieter Bienert (DEI-Amman) and Hans Georg K. Gebel, M. A. (ex oriente e. V. / Free University of Berlin, Germany)
- Aqaba: Archaeological Survey and Excavation in the Maqass and Wadi Yitim Area: Prof. Dr. Ricardo Eichmann (German Institute of Archaeology, Orient Section, Berlin, Germany) and Dr. Lutfi Khalil (Jordan University, Amman)
- Khirbet ez-Zeraqon - A City of the Early Bronze Age (3000-2500 B.C.), Excavation Project 1984 - 1994: Prof. Dr. Siegfried Mittmann (University of Tübingen, Germany), Prof. Dr. Moawiyah Ibrahim, and Prof. Dr. Zeidan Kafafi (Institute of Archaeology and Anthropology, Yarmouk University, Irbid)
- Khirbet ez-Zeraqon: The Underground Tunnel System
- Esh-Shallaf - A Pottery Neolithic Settlement in Northern Jordan: Dr. Klaus Grewe (Bonn, Germany)
- Abu Snesleh: A Prehistoric Site in Northern Jordan: Dr. Hans-Dieter Bienert (DEI-Amman) and Prof. Dr. Dieter Vieweger (Kirchliche Hochschule Wuppertal, Germany)
- Tell Johfiyeh: First steps towards an archaeological investigation of the Iron Age in northern Jordan: Dr. Reinhard Bernbeck, Dr. Susanne Kerner, Dr. Roland Lamprichs, Dr. Gunnar Lehmann (Free University of Berlin, Germany)
- Feinan: Early Copper from Feinan, Wadi Arabeh: Tracing Ore and Metal Export by Modern Analytical Methods: Dr. Roland Lamprichs (Dresden, Germany) and Dr. Ziad al-Sa'ad (Institute of Archaeology and Anthropology at Yarmouk University, Irbid)
- Fidan 4: Excavations at Wadi Fidan 4: A Fourth Millennium Complex in the Copper Ore District of Feinan: Dr. Andreas Hauptmann (German Mining Museum and Institute of Archaeometallurgy, Bochum, Germany)
- Balu'a - An Iron Age Settlement in the Lands of Moab: Dr. Hermann Genz (University of Tübingen, Germany) and Dr. Russell Adams (University of Bristol, U. K.)
- Balu'a - An Iron Age Settlement in the Lands of Moab: Dr. Udo Worschech (Friedensau, Germany)

# Splendid Exhibition Reviews Wide Range of German Archaeological Projects in Jordan

By: Rami G. Khouri, Amman (Jordan)

In 1806, nearly two centuries ago, the German scholar Ulrich Jasper Seetzen visited Jordan and 'rediscovered' for western scholars the Greco-Roman cities of Gerasa (Jerash) and Gadara (Umm Qais). He documented some of the antiquities in the detailed and methodical manner that is the hallmark of modern German scholarship — and ever since then the land of Jordan has welcomed a long and fruitful procession of German scholars who have explored different and increasingly fascinating dimensions of the antiquities of Jordan.

To coincide with the visit to Jordan of the German president, a splendid exhibition was arranged that reviews the work of German scholars in Jordan during the past century and more. The exhibition simultaneously captures the technical marvels of the many German scholarly projects in Jordan, the increasing relevance of archaeology to the Jordanian economy and well-being, and the ever-present mysteries and puzzles from the past that make the antiquities sector so fascinating and enjoyable.

The exhibition, entitled "Crossroads of Civilizations, more than 100 years of German Archaeological Activities in Jordan", was on display at the Royal Cultural Center in November 1998. It was organized by the German Protestant Institute of Archaeology in

Amman and the German-managed and -financed Petra Stone Preservation Project, in cooperation with the Jordanian Department of Antiquities.

The exhibition, logically organized by project, was primarily composed of large, well printed and designed panels with text, photos and drawings. Interspersed throughout the

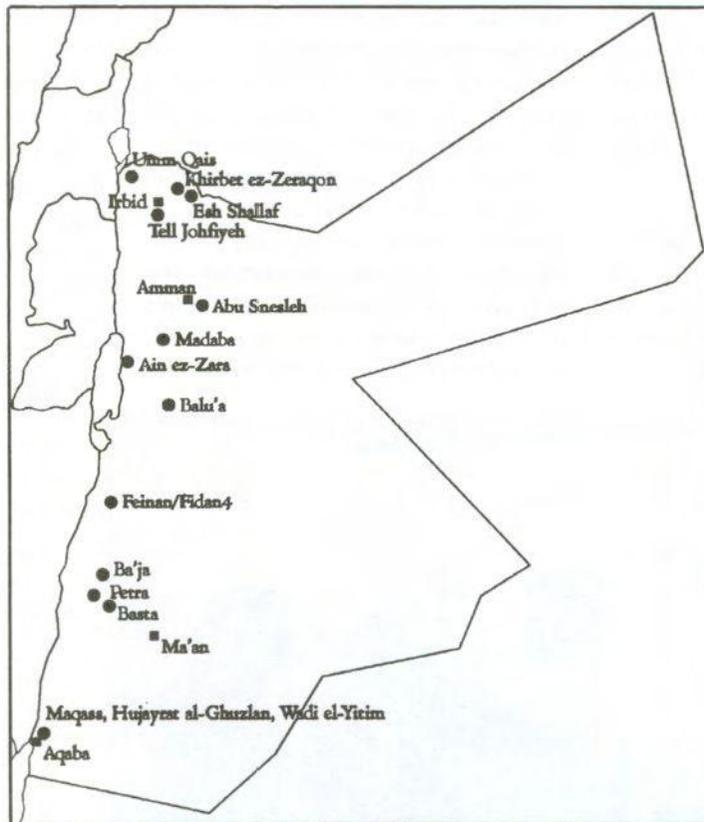
discovered this year at Khirbet Darieh, south of Wadi Hasa, were on display for the first time ever.

The first few panels by the Department of Antiquities and the German Protestant Institute revealed the very wide range of work underway in the antiquities sector, with increasing attention being paid to

restoration and conservation of ancient sites, along with the excavations. A photo of the newly restored North Theatre at Jerash also reminds us that ancient sites can be used for cultural and economic purposes today, and that the sites themselves are constantly changing and evolving under the hand of modern civilization and the handiwork of archaeologists.

Pioneering work was undertaken in the 19th and early 20th centuries by such German scholars as Seetzen, Gottlieb Schumacher, Rudolph Brünnow and Alfred von Domaszewski, and Gustaf Dalman (some of Dalman's drawings of cultic niches at Petra

were on display). German scholarship in Jordan in the modern era was first conducted out of the GPI's Jerusalem office, until the Amman office was opened in 1975 under the directorship of Dr Ute Wagner Lux. She had initiated the modern German projects at Umm Qais in 1965, and successive



Sites of German archaeological activities in Jordan.

hall are archaeological artifacts and black basalt stone sculptures that dramatically remind us of the people who produced these objects in antiquity — especially some striking busts of individuals and several handsome stone lintels and tomb doors. The new Nabataean stone busts

German teams have worked there ever since.

The exhibition reviewed some of the earliest modern German projects in the 1960s, such as Wagner Lux's work at Madaba and Herbert Donner's study of the Madaba mosaic map of the holy land, and covered all projects since the opening of the GPI's Amman office. Umm Qais is the largest and most continuous German project in Jordan, and its different aspects are all touched upon (excavations, surveys, reconstruction, museum displays, and others).

German efforts in the Petra region were fully displayed, including studies of the Nabataean water system, paleo-environmental studies of the greater Petra region in the 7th Millennium BC, and the major new Petra Stone Preservation Project headed by Dr Helge Fischer. This ongoing project brings together the best of German scholarship and technological prowess, for it aims to develop the technical and human expertise in Jordan to operate a permanent center for the conservation of stone. The first efforts underway comprise the development of an artificial mortar that mimics the properties of the Nubian sandstone at Petra, from which the

existing monuments were carved thousands of years ago. This is a fascinating example of how Petra today — as in ancient times — continues to evolve and develop under the influence of the combined efforts of indigenous Jordanians and their colleagues and partners from Western civilizations.

The unspoken but clear lesson of this exhibition, perhaps, is that the principles that gave birth to the ancient cultures of the land of Jordan are still valid and operative today — most notably the principle of close cooperation with the people and expertise of other cultures.

One of the striking dimensions of this exhibition was the wide range of projects undertaken with German cooperation. German assistance to Yarmouk University's Institute of Archaeology and Anthropology is one reason the institute has been able to carry out so many field projects (30 of them are identified on one map). A major German-Jordanian project near the university is the dig at Zaraqon, where a major Early Bronze Age town has been unearthed. The large system of underground tunnels at Zaraqon is nicely explained — and the visitor can try and figure out the

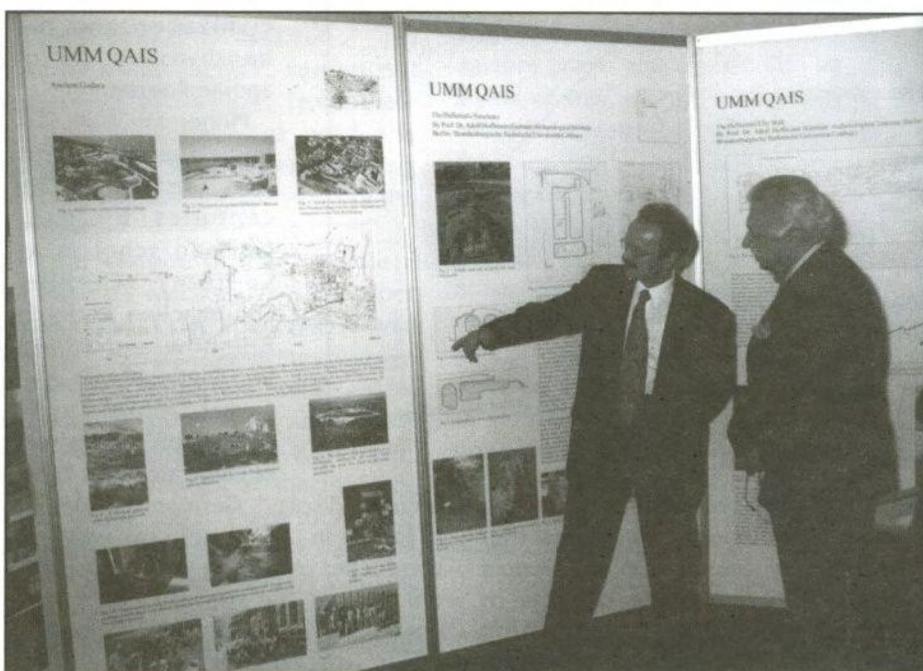
exact dates of the system, for the scholars themselves have not yet been able to determine when the tunnels were dug and used.

Near Zaraqon is the latest German project at esh-Shallaf, where GPI director Hans Dieter Bienert last year started excavating a Neolithic settlement dating back over 7000 years.

At the other end of the country is the German work at Feinan, in south Jordan, which has stressed the examination of ancient mining and smelting of copper. My personal favorite panel in the exhibition was the one in which German scholars show how the Nabataeans portrayed their deities. Drawings and photos of niches, stone god-blocks, niches and sanctuaries bring this subject to life, and reveal new areas of scholarly investigation where German individuals and institutions are active in Jordan.

Other projects covered in the panels include the study of the Chalcolithic and Middle Bronze Age small villages at Abu Snesh, south of Amman, and German work at Tell Johifiyeh, Balu'a, Ba'ja, Zara, Basta, and the Aqaba area. The German Archaeological Institute has also worked closely with the GPI in some cases, and their projects in other countries (Lebanon, Syria, Yemen) are mentioned in one panel.

The exhibition was accompanied by four lectures at the Goethe Institute in Amman, and was organized with the support of the German Embassy and German Foreign Office, the Department of Antiquities of Jordan, and several individuals and other international archaeological institutes in Amman, with support from several German and Jordanian companies. ■



H.-D. Bienert explains an aspect of the Umm Qais display to the minister of tourism and antiquities.

## German President Visits the Hashemite Kingdom of Jordan

President of the Federal Republic of Germany Prof. Dr. Roman Herzog and Mrs. Herzog visited the Hashemite Kingdom of Jordan from November 17 to 19, 1998. The visit to the Kingdom was part of a Mideast tour which also took him to Israel and Palestine. H. R. H. Crown Prince al-Hassan and H. R. H. Princess Sarvath received the German president and Mrs Herzog on behalf of H. M. King Hussein.

The talks between the Crown Prince and the German president focused on future developments in the Middle East and "what is conceivable once the peace process stabilizes". According to official figures, Jordan is the largest recipient of German aid per capita. Both the Crown Prince and the German president emphasized the fact that Jordan and Germany enjoy close relations, "not only on the diplomatic level but also in terms of the network

of contacts between us", as the president stressed during his address.

The German president's agenda included the inauguration of a wastewater treatment plant at Wadi al-Arab, in the northern governorate of Irbid. He was also decorated with the Al Hussein Ben Ali Medal and received an honorary doctorate from the Jordan University of Science and Technology (JUST) in Irbid.

The president and Mrs Herzog also visited the Roman city of Gerasa (modern Jerash) where they were guided by the Department of Antiquities and the German Protestant Institute of Archaeology in Amman. ■



President and Mrs. Herzog at the Oval Plaza in Jerash.



The president's party enters Jerash through the South Gate.



The president and Mrs. Herzog are briefed by GPI director H.-D. Bienert during their visit to Jerash.

## "Towards Wider Understanding of the Babylonian Civilization"

By: Hans-Dieter Bienert, German Protestant Institute of Archaeology in Amman (Jordan)

The Iraqi National Commission for Education, Culture and Science invited a number of foreign scholars - mainly from Europe - to participate in an international conference on the "Ziggurats and Temples of Babylon and Borsippa", which was held in Baghdad from September 15 to 20, 1998. The aim of the conference was to bring together scholars whose research focuses on the ancient civilizations of Mesopotamia.

For most of the foreign guests it was not easy to find their way to Baghdad. The UN embargo still in place, they had to drive by car for c. 900 km to reach Baghdad. However, the border checks on both the Jordanian and Iraqi sides were very smooth, and after a 10-hour journey most colleagues reached the Iraqi capital. The conference was

inaugurated under the auspices of the Iraqi Deputy Prime Minister, Mr. Tariq Aziz. The initial lecture was delivered by Prof. Dr. Ricardo Eichmann (German Institute of Archaeology -

dealt with different subjects, such as "Archaeology in the Near East - A Brief Historical Survey", the "Historical Role of Soil Salinization in Ancient Mesopotamia", and the "Early Neolithic Period in the Middle East".

The Iraqi colleagues were pleased to see a large number of colleagues in their country, as almost all archaeological field projects have been halted for years by the military conflicts in the region. Even personal contacts between archaeologists have been difficult to maintain. Therefore, the conference was a good opportunity for discussions on archaeological and historical matters and also for renewing contacts.

The conference was followed by three days of excursions. A daytrip was organized to visit the ancient cities of Kish, Babylon, and Borsippa. A two-day excursion was undertaken to sites in the north of the country, such as Nimrud, Tell Nimil, and Eski Mosul, where, at the latter, two Iraqi archaeologists were conducting archaeological excavations. At the end of the conference the Iraqi colleagues were thanked for their hospitality despite the difficult situation under which this conference was held. Most participants expressed their hope that relations in the region will improve soon and new archaeological fieldwork can resume in a country which is regarded as the birth-place of the early civilizations. The next conference is scheduled for 2001, in an Iraq which they hoped would not suffer from sanctions anymore. ■



Speakers during the conference in Baghdad.

Orient Section). Most of the contributions to the conference focused on the Ziggurats and the history of Babylon. Some papers also



The conference participants in a group photo in Baghdad.

# A Large and Impressive Piece of Scholarship on Mt. Nebo

*Mount Nebo, New Archaeological Excavations 1967-1997*

By *Michele Piccirillo and Eugenio Alliata*

*Studium Biblicum Franciscanum*

*Jerusalem, 634 pp., illustrated.*

*2 volumes (text and plates)*

*Reviewed by Rami G. Khouri*

Perhaps it is due to the academic tradition of their Franciscan order; or the important place of the Prophet Moses in biblical tradition and the three Abrahamic faiths; or the very dramatic and always moving setting and views at Mount Nebo. Whatever may be the reason, the authors of this large and impressive piece of scholarship have produced a work of nearly biblical proportions, in all senses of the word. The large physical size, the comprehensive sweep of the material covered, the temporal and spiritual nature of the subject matter, and the profound, definitive quality of the scholarship all make this a most fitting second volume in the series that was inaugurated a few years ago with the single volume on the Franciscan excavations at Umm er-Rasas (biblical Mepha'a).

The summit of Siyagha, as Mount Nebo is known in Arabic, was granted into the perpetual care of the Franciscan Custody of the Holy Land in 1932 by the late King Abdullah, thanks to the enterprising efforts of brother Jerome Mihaic, a Croatian who was based in Jericho. Father Sylvester Saller, an archaeologist, first visited the site in late 1931 and recognized that it could be the site of the Memorial to Moses that had been described by early Christian pilgrims starting in the 4th century AD.

The first excavations were inaugurated in July 1933. For the past

66 years, excavations, surveys and scholarly and theological studies of the site of Mt. Nebo have taken place almost without interruption. This publication represents the latest manifestation of the tremendous amount of work that has gone into the scholarly investigations of this holy mountain, made famous primarily by the account in Deuteronomy 34 of Moses' death on the summit of Mt. Nebo and his burial in a nearby valley.

This volume on the 1967-97 excavations will be followed up with a second book on the large monastery on the summit, and a third volume on the regional survey that has been carried out by a Danish team.

The authors mention "the windy summit of this mountain" in their preface, and some 640 pages later the reader is left dazzled by a tour-de-force of new information and analysis on the many different dimensions of this famous peak. The book starts with a few valuable background chapters on the exploration of the mountain in the past two centuries, its place in biblical tradition (including non-biblical references, the Mesha Inscription from Dhiban, the historicity of the Moses traditions and their theological significance), the question of the grave of Moses in Jewish literature, and early pilgrims' texts starting from the 3rd and 4th Centuries AD.

The next three chapters commence the more technical archaeological analysis, reviewing the prehistoric periods, the Bronze Age and the Iron Age, the edifice at Rujm el-Mukhayyat, and — one of the most fascinating chapters for the general reader — the rediscovery and documentation of the Roman road between Esbus and Livias (Hesban and the south Jordan Valley).

The bulk of the book reports on the excavations of the Memorial of Moses. This comprises the complex

of churches and chapels that developed on and near the main site throughout the early Christian centuries, the associated monastery, and related sites in the vicinity. The successive monastic complexes in the area are systematically reviewed, from the 4th to the 10th centuries AD, giving us a more comprehensive perception of the revered nature of this site throughout the first Christian millennium.

## Churches and mosaics

Mt. Nebo's churches, mosaics, funerary practices, and liturgical installations and furniture are reported on in depth in the next six chapters, including a fascinating short study of iconoclastic and iconophobic traditions that are visible today in the scrambled or defaced images of human and animal forms in Byzantine or Umayyad era floor mosaics. More than one-third of the 149 churches in Jordan with ancient mosaic floors show signs of intentional iconoclastic damage.

The combination of concise, well organized text, many black and white and color photographs, fine drawings and plates, and an especially valuable collection of aerial photographs make these central chapters of the book useful for both scholars who want technical details and laypeople who may be more interested in a touristic visit to this holy mountain.

The section of color photographs of the mosaics is particularly valuable, because it is comprehensive, up-to-date, and beautifully reproduced; it allows readers to enjoy some stunning mosaic floors that are not otherwise accessible because they have been re-buried or removed for storage. The full-page close-ups of the Persian, Negro and other hunters and their animals are almost haunting in their capacity to connect us with human beings who lived in this land nearly a millennium and a half ago.

Readers interested primarily in the religious and liturgical dimension of Mt. Nebo will find plenty to keep them reading, especially in the details of the liturgical installations and furniture excavated in the many churches (such as altars, relics and reliquaries, pulpits, and benches and seats, among others).

A relatively long and richly illustrated chapter on the Greek inscriptions also provides a glimpse into one aspect of the excitement of archaeological research, as scholars use individual words (and sometimes single letters or numbers) to try to piece together the facts of the past.

The book ends with several chapters of detailed information and many photographs and drawings of objects and coins excavated at Mt. Nebo, and a chapter on the new architectural surveys at Siyagha. The last brief chapter appropriately offers ideas on how to protect the entire area around Mt. Nebo, which is so rich in

antiquities and religious significance for followers of the three monotheistic faiths.

Only one aspect of this publication occasionally falls slightly short of the very high quality of the overall work, and this is the smoothness of the English language. The work was rightly translated from Italian into English, making it accessible to a far wider audience than would have read the Italian version only.

The separate volume of plates (many large maps folded into two pockets) is valuable for both the scholar and the lay person. The large size of the plates, for one thing, makes it easy to study individual monuments, in many cases showing individual stones in walls and other structures. For another thing, some of the plates help us to appreciate the evolution of the site over the centuries. The color plate showing the development of Mt. Nebo from the 4th to the 8th Centuries AD is a gem, as is the plan of the

Memorial of Moses today. The publishers should consider making these plans available to visitors in a slightly smaller form, and selling them on site to raise money for the maintenance of the Memorial.

On the point of money, one of the many impressive aspects of this publication is that it was financed by several Italian private sector companies, whose donations were tax-deductible according to Italian law (a good example of how the private sector and the government can work together to protect antiquities and make them more easily understandable by the public). The sponsors of this publication are Ballestra SpA; Brevitours, Nebo Tourism, Testco; Massolini SpA; Opera Romana Pellegrinaggi; and, Salini Costruttori, whose generous and thoughtful contributions should be acknowledged with thanks. ■

# "Men of Dikes and Canals"

## Conference on the Archaeology of Water in the Middle East

The German Protestant Institute of Archaeology in Amman (DEI) and the Orient Section of the German Archaeological Institute (DAI) are jointly organizing an international symposium on the "Archaeology of Water in the Middle East". The Mövenpick Hotel in Petra will support the conference and a number of other institutions have shown interest in sponsoring it.

Water has always played a dominant role in the Middle East, in the past as well as in the present. Growing demands of rapidly growing populations will result in the exploitation of all available sources. However, also ways of dealing with this scarce resource will have to be developed. Studying ancient water installations, and the way water was

collected and stored, could offer ideas for handling the emerging water crisis. The international symposium will try to link past and present in this matter. Therefore lectures will discuss ancient as well as current themes.

Archaeologists, historians, geographers and hydrologists are invited to participate in the conference, which will be held at the Mövenpick Hotel in Petra (Wadi Musa). It will comprise three days of lectures and two days of excursions, of which one day will be spent in the greater Petra region to visit water installations of the Nabataeans and to be briefed on projects conducted by different teams in the region. Another excursion on the final day of the conference will lead the participants along the Dead Sea to the Baptism site and on to Amman.

A farewell reception will be held at the German Protestant Institute of Archaeology in Amman. The details of the conference as well as the precise schedule will be finalized soon.

For further information, please contact one of the organizers:

Germany: German Institute of Archaeology - Orient - Section, Podbielskiallee 69-71, D-14195 Berlin, Tel.: 030-83008-0, Fax: 030-83008-189, email:orient@dainst.de.

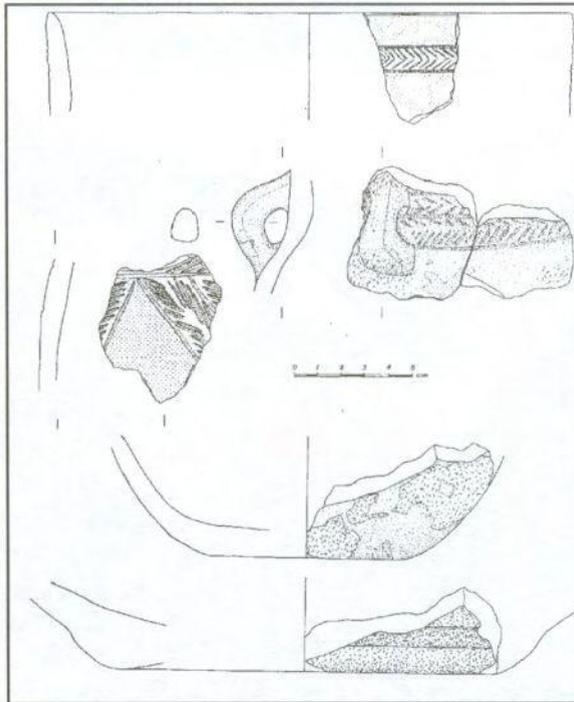
Jordan: German Protestant Institute of Archaeology, c/o German Embassy, P. O. Box 183, Amman 11118, Jordan, Tel.: 00962-6-5343924, Fax: 00962-6-5336924, email:gpi@go.com.jo.■

## Esh-Shallaf - a Pottery Neolithic Site in Wadi Shellale

By: Hans-Dieter Bienert, German Protestant Institute of Archaeology in Amman (Jordan) and Dieter Vieweger, Kirchliche Hochschule Wuppertal (Germany)

The Pottery Neolithic period in Jordan (5500-4500 B.C.) is still not very well known. Gösta Ahlström described it as "in a sense the Dark Age" of the region's prehistory (Ahlström 1993, 103). The number of sites dating to that period is still very small (e. g. Abu Thawaab, Ain er-Rahub). While the settlements of the preceding Pre-Pottery Neolithic B/C period (PPNB/C, 7600-5000 B.C.) covered areas of up to 15 ha, the sites of the Pottery Neolithic were much smaller and far less developed.

None of the outstanding architectural features of the PPNB are repeated in the Pottery Neolithic period. On the contrary, it seems that at some sites only semi-permanent dwellings existed. Roughly

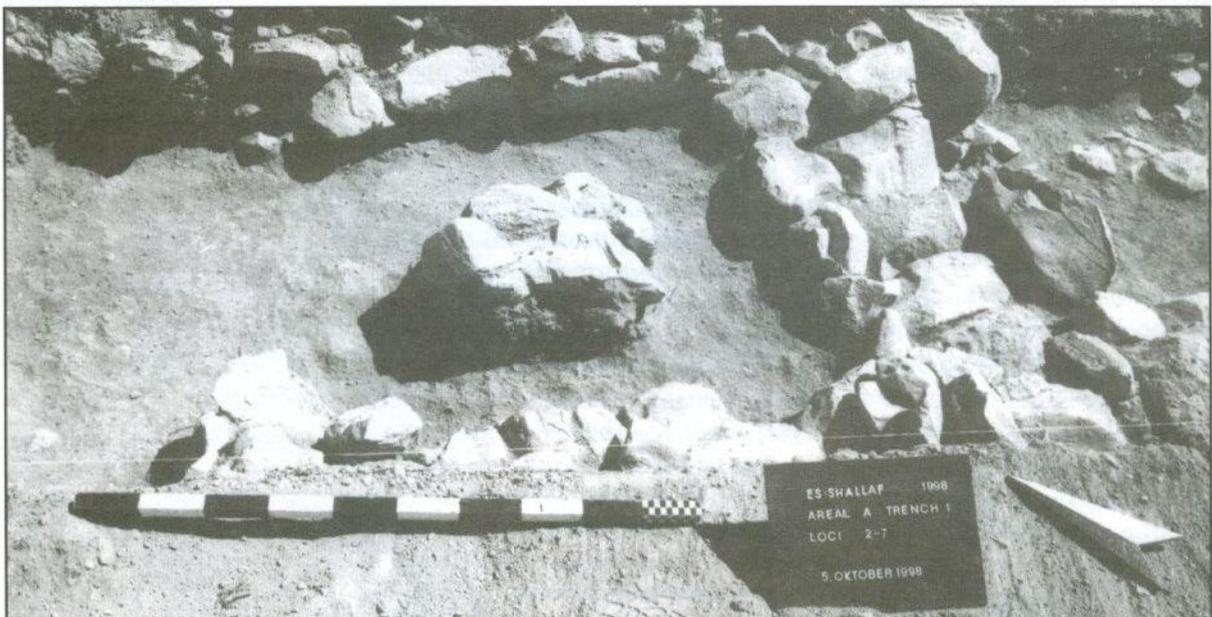


Pottery Neolithic ceramic sherds from esh-Shallaf, with characteristic herring-bone incisions.

made circular or oval-shaped foundations have been excavated, and support such a view.

In October 1998 a three-week season of excavations was conducted by the German Protestant Institute of Archaeology in Amman (DEI) at the Pottery Neolithic site of esh-Shallaf, in Wadi Shellale, c. 10 km northeast of Irbid. The excavations have been jointly directed by the authors of this report.

The Pottery Neolithic site of esh-Shallaf was discovered by Siegfried Mittmann (Tübingen University, Germany) when excavating at nearby Khirbet ez-Zeraqon (1984-1994) and surveying the region adjacent to the Early Bronze Age city.



One of the excavated foundation structures at esh-Shallaf.

From the pottery he collected on the surface of a wadi terrace in Wadi Shellale, it seemed that the site was a small village or hamlet, dating to the so-called Pottery Neolithic A (PNA, 5500-4500 B.C.). The material collected by the Zeraqon excavation team has been studied by Dr. Jens Kamlah (Tübingen University, Germany) and will be published as part of the regional survey conducted

remains of a small wall, the larger one (T1) revealed more architectural remains. So it was decided to open up five squares of 5 x 5 m and two squares of 5 x 2.50 m, all adjacent to trench T1. However, the excavated walls are rather fragmentary, as in most squares only the lower-most course of structures survives. It seems at first glance that structures at esh-Shallaf were built on semi-circular or

Australia). Most of the plant remains in these samples were badly fragmented, but it was possible to identify lentil, hulled barley, and a glume wheat (probably emmer). The most common seeds, however, were *Astragalus*, a typical steppe species which may have been used for fuel. The absence of any wood charcoal also suggests that the landscape in the Neolithic may have been as barren as it is today. It is planned to continue the excavations in 1999 with a second season, and to clarify the extension of the architectural remains.



Staff members of the 1998 season.

by Dr. Kamlah. Out of 118 pottery sherds, he could identify 96 as belonging to the Pottery Neolithic period. A few others date to the Early Bronze Age and the Roman-Byzantine period. The Roman-Byzantine sherds may be related to the nearby so-called Roman bridge. The research by Mittmann and Kamlah initiated the idea and interest to further investigate the site.

South of the so-called Roman bridge a test trench (T1) of 27 m in length and 1.5 m in width was opened to investigate the nature of possible architectural remains. Another test trench (T2) of 10 by 1.5 m was dug north of the Roman bridge. While the second trench (T2) only exposed

oval foundations, partly semi-subterranean. The upper walls may have been built of wood, reeds, or only tent-like material.

Most of the excavated pottery clearly resembles that of the so-called Yarmoukian period, with sherds bearing the characteristic "herringbone" incisions. A red polished ware and bigger quantities of a rough ware (storage jars and cooking pots) were also found. Only a very small quantity of animal bones was found; they still have to be analysed. Fifteen soil samples were taken during the excavation, mainly from Loci 17 and 19 in the deep part of trench 1. They are being analysed by John Meadows (La Trobe University, Melbourne,

Germany). We also extend our gratitude to Dr. Wajih Karasneh, Inspector of Antiquities Irbid, who helped us very much in organizing the logistics of the excavation. We also thank Mrs Lina Khreis, the local representative of the Department of Antiquities, for her help and support. All of them made this campaign a success.

### Reference

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# The 1998 Excavation Season at 'Ain Ghazal Neolithic Village

By: Gary O. Rollefson, Whitman College, Walla Walla, Washington (U.S.A.) and Zeldan Kafafi, Yarmouk University, Irbid (Jordan)

Due to a very limited budget and small crew, the objectives of the 1998 season were limited. The principal goal was to determine if several caves in the upper part of the East Field had been used by Neolithic residents of 'Ain Ghazal. Five caves were selected initially, although eventually only four were excavated (Caves 1, 3, 4 and 5); Cave 2 proved to be too shallow to have been used. If time permitted, excavation would also sample a wall whose top was just visible on the surface in the northern part of the East Field. Another objective was to continue excavating a house partially exposed in 1996.

Cave 3 was a small tubular opening, and bedrock was reached soon after work began. Although the tube continued into the hillside in two different directions, it was so small that human use at any time in the past seemed inconceivable, so the work here was suspended at the end of the first week. The crew was moved to Square G-29 to see if there was an extension of the house discovered in Sq. F-28 in 1996.

Cave 4 proved to have been used as a burial site for an adult and a child. Pottery was found with the burial, but it has not yet been possible to date the ceramics. Bedrock was also reached quickly, and the opening did not penetrate into the hillside for more than a meter, so work here also was ended in the 2nd week, and the crew moved to Square N-46/47 to examine a large wall emerging from the modern surface.

Cave 1 was relatively deep (more

than a meter of deposits), but because of the experiences in Caves 3 and 4, once bedrock was neared the work was suspended and the crew moved to Squares O-46/47 (adjacent to N-46/47) to work on the large wall. Cave 1 had a wall one meter high built at the entrance. It is not at all clear how deep into the hillside Cave 1



The courtyard cultic installation.

penetrated, and the presence of the wall indicates the probable presence of graves, although it is unlikely that the burials are Neolithic (see below, Cave 5).

Cave 5 provided numerous burials (a minimum of six, just from the 1.5 x 3 m area sampled by the excavation), but the associated pottery indicated that all clearly post-date the Neolithic period (but just how much later remains to be determined). All of the burials were very mixed, and much animal bone was mingled with the human remains. A bronze pin was recovered just above bedrock. Much of the cave remains to be explored, but this will not be an objective of the prehistoric 'Ain Ghazal project.

The expected extension of the house in Square F-28 (exposed in

1996) was not found in Square G-29. But a Late PPNB courtyard wall was exposed, as well as an associated LPPNB cultic arrangement of stones that indicates a small outdoor shrine, perhaps associated with family-level worship. This ritual arrangement consisted of a small circular stone surrounded by six others (the number of seven stones was also found in the two temples in the East Field in 1995 and 1996), all of which were located in a semi-circle of four standing stones about 40 cm high. South of the courtyard wall, a deep probe revealed more than 3 m of deposits down to MPPNB levels, and several caches of charcoal should provide a series of C-14 dates.

Small probes were sunk at the northern and southern ends of the western wall of a room cleared in 1996 in Square F28. These probes demonstrated that the house originally extended at least one more room to the west, although how far will never be determined since this part of the structure was destroyed by the sewer line and perhaps even earlier during the construction of the Hejaz railway.

The large wall in the northern East Field proved to be a terrace retaining wall. The wall was very irregular and appears to have been built in at least three different phases. The entire wall is ca. 1 m high and is slightly battered, leaning into the hillside. No associated architecture was found, but a series of courtyard surfaces were sampled. The wall appears to be LPPNB in age. ■

# Some Iron Age Sites South-east of Tell Johfiyeh: An Archaeological Description

By: Roland Lamprichs, Dresden (Germany)

Although more than fifty years have passed since Nelson Glueck stated that "the areas north of the Zerqa ... have by no means been exhaustively explored," his remark is still valid for some parts of the north Jordanian plateau during the Iron Age (c. 1200 - 586 B.C.). For the time being, appropriate written sources are not available and only a few excavations working on the Iron Age in this area have been carried out. Further archaeological investigations are still required.

A description of the Iron Age sites in northern Jordan in 1996 (see *Occident & Orient* vol. 1, no. 2) and 1997 (see *Occident & Orient* vol. 2, no. 2) focused on surface structures and surface finds at Tell Johfiyeh, a site situated some 7.5 km south - west of Irbid, and its immediate surroundings

to the west. In 1998, the description concentrated on archaeological sites situated south - east of Tell Johfiyeh: Muntar Zibdeh, Muntar Yarin, Zambut Meleik, Deir Burak and Khirbet Fara (Fig. 1).

The sites visited in 1998 have some common characteristics. They are all seriously endangered by recent developments in the area. Increasing domestic building activities and intense quarrying are the most serious threats to the sites. Some of them are already damaged in part.

The sites are generally built on spurs or hilltops in cultivated areas characterized by terrace farming. Most of them are of approximately the same size, shape and date. Due to their locations on spurs or hilltops, some of the sites are in sight of each other and some offer a panoramic view.

Except for Zambut Meleik (Fig. 2), their actual state of preservation is unfortunately rather poor, and only a few of the surface structures mentioned by earlier reports could be re-identified. Nevertheless, surface finds and remaining surface structures indicate that most of the sites may have contained some kind of "fortified building" dating (most likely) to the Iron Age, probably Iron Age I (Deir Burak, Khirbet Fara) or Iron Age I and II (Muntar Zibdeh, Muntar Yarin, Zambut Meleik). Potsherds also indicate earlier (Bronze Age) and later (Roman, Byzantine and Islamic period) occupational phases. Since none of the mentioned sites has been excavated, however, exact dates and functions are unknown.

Nelson Glueck suggested in the late 1940s and early 1950s that some of the sites (Muntar Zibdeh, Muntar Yarin, Zambut Meleik) were part of an early watchtower system, but this proposal was not supported by the 1998 observations. The sites may have had a fortification element, but this was certainly not their only function. The military characteristics of the sites appear to be mainly defensive, i.e., they sheltered the population of the immediate vicinity rather than providing a base for a military effort against outside threats. The distribution of the sites most likely follows natural geographical contours, characterized by the transition area between the Ajlun hills and the north Jordanian plateau, with no apparent lines or borders. No surface evidence of weaponry was noted.

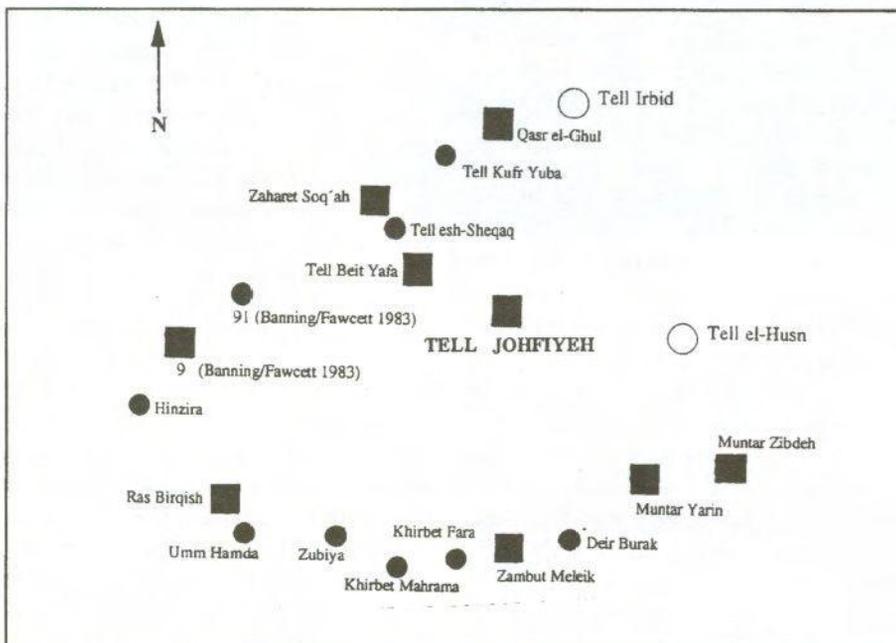


Fig.1. Archaeological sites south - east of Tell Johfiyeh.

In line with the observations made at Tell Johfiyeh and its surroundings to the west, an interpretation of the sites visited in 1998 as agricultural facilities or small clan settlements seems most appropriate for the time being. This domestic function, however, does not preclude a defensive function in times of emergency. Without further data, the line between private and public functions, or defensive or offensive, will remain unclear. It is hoped that future archaeological investigations at Tell Johfiyeh and a systematic survey of the region will

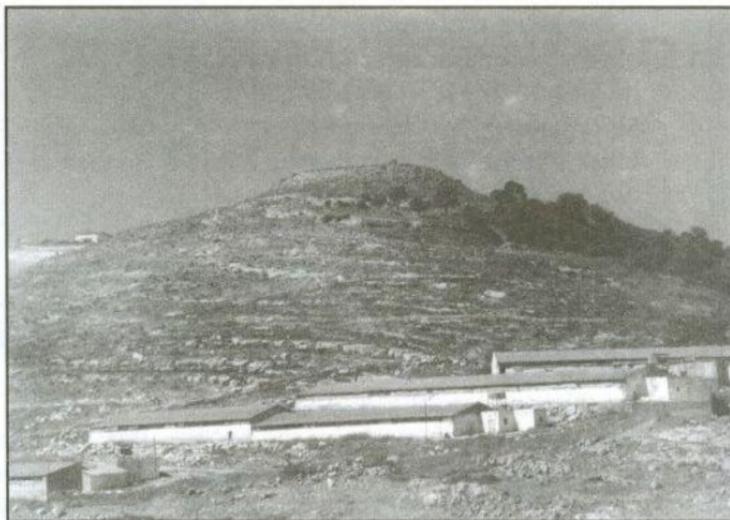


Fig.2. Zambut Meleik (looking west).

provide this data.

The investigations in and around Tell Johfiyeh are planned as a cooperative effort between Dr. Ziad al-Sa'ad from Yarmouk University (Irbid/Jordan) and

Dr. Roland Lamprichs from Dresden (Germany). Provided that sufficient funds are available, the first season at Tell Johfiyeh will take place in 1999.

#### **Acknowledgements**

I would like to express my gratitude to the Alexander von Humboldt-Stiftung for its support. Logistical help during my stay in Jordan (September to December 1998) was given to me by Prof. Dr. Zeidan Kafafi, Yarmouk University, Irbid, and Dr. H.-D. Bienert, German Protestant Institute of Archaeology in Amman. Thank you to all of them ! ■

# High Noon on Jabal es-Sela' 1998

By: Manfred Lindner, Naturhistorische Gesellschaft Nürnberg (Germany)

Since 1969 I had been on top of Jabal es-Sela' between Tafleih and Shobak in southern Jordan four times, and in 1980, I spent two days and an eventful night on the summit plateau. In 1980 I was 18 years younger than today, but still the mountain seemed to have grown and become steeper than before. In 1998, almost 30 years after my first visit, I wanted badly to see Khirbet es-Sela' again. The impressive mountain lies like a gigantic capsized ship between three higher massifs. The keel-less bottom slopes toward the south-east and is covered with hundreds of Ordovician hillocks, gorges and ditches. Besides a kind of romantic love, there was another very specific reason for the visit. Due to the discovery of an important relief, the place recently has made archaeological headlines. The rock-cut picture of a king ostensibly adoring his gods and, as has been assumed so far, proclaiming his deeds

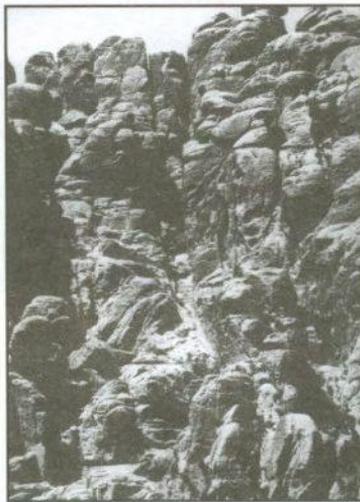


Fig.1. The "khandaq" leading up to the plateau of Jabal es-Sela'

in Assyrian script, was quickly identified with the Neo-Babylonian King Nabonidus, who conquered Edom in the 6th. century B.C. Nothing could have expressed that fact better than a relief at one of the Edomite

"eagle nests" not far from Buseirah, the capital of Edom, which he subjugated at the same time.

During the previous visits to Jabal es-Sela', the main difficulty was the descent from the village of es-Sela', high up on the plateau, several hundred meters down to the foot of the mountain. Arriving there with weak knees after crossing Wadi Hirsh, the same elevation again had to be climbed up. A staircase of nicely made but unfortunately high steps does lead to the summit plateau, but in the noon heat (one usually arrives around that time of day) it is like climbing in an oven (Fig. 1). In 1998 we were glad to see that a bulldozed road allowed driving down to the point of ascent. Mr. Jihad Darwish, head of the Department of Antiquities of Tafleih, had graciously consented to accompany the small group of Mr. Suleiman Farajat, Inspector of Petra,

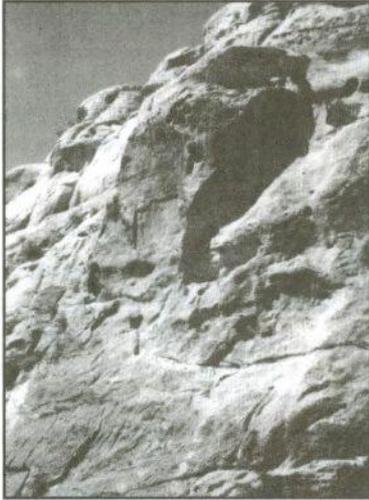


Fig.2. The relief, probably of King Nabonidus, at the rock wall of Jabal es-Sela'.

Prof. U. Hübner of Kiel University (Germany), Mrs. Elisabeth Schreyer, and myself, to the top and around the khirbeh. All seemed to be going well; however, the king lacked sympathy, and asked for a sacrifice. Elisabeth, who had been to es-Sela' before, slipped, fell down, broke her ankle, and was not able to see the king illuminated by the sun at high noon, looking majestically and godlike over the subjected Edom (Fig. 2).

Whereas Prof. Hübner allowed himself detours across the heights, to me the ascent was more strenuous than ever before. I appreciate the technically ingenious and admirable staircase that winds itself in small bends from the foot up to the gatehouse at the end of a defensible corridor (Fig. 3). A few old women or young boys familiar with the terrain might have defended the plateau. Why Nelson Glueck, who surveyed es-Sela' first, chose the term "khandaq", not known to the present population any more, for the staircase leading to the summit, is easy to answer. It was a military man, Commander of the Arab Legion in Transjordan, Colonel F.G. Peake, "Peake Pashah", who accompanied the archaeologist after the site had been seen from a plane, and he quite naturally used the military term for the narrow way up.

The plateau of Jabal es-Sela' was extensively described by the author in 1989/97 and 1992. Summarizing, beside the "khandaq" most astonishing are more than twenty large cisterns of one and the same kind on the plateau. They are pear-shaped, carefully plastered, about 3 to 5 m deep, and provided with round openings. Rock-cut channels conducted the water of winter rains into the reservoirs. In one case the rills made by the ropes to get water out of the cistern are still visible. Two deep cisterns are near a partly rock-cut and originally built house near the entrance to the khirbeh. It was published by Glueck in 1939 with a soldier standing at attention in front of it. The inside walls were plastered and painted in white and red. Stucco painted in other colours was seen by the author in 1980. Half rock-cut and most probably completed by masonry were a few



Fig.3. A gatehouse barred the entrance.

"towers" with steps leading to them. Their position at the rim suggests a defensive function, as does a rocky cone with added masonry watching over the entrance. A pear-shaped hole on its top with a rectangular opening looks rather like a cache than a cistern, which would have needed an extended building and roof above it to catch rain water.

One place on the summit plateau undoubtedly was of a cultic nature. Approached by a lane with empty

niches not reminiscent of Petraean enclosures for betyls, a rock with nine steps ends in the void (Fig. 4). A priest may be imagined, walking up the stairs and praying, but even this plausible explanation is pure conjecture. At another place, very cautiously I also suggest a cultic significance. A rock-hewn platform reached by a twice-turned staircase and two steps in front of a "tabula" similar to the "mensa sacra" of the Great High Place at Petra was inspected again in 1998 (Figs. 5 and 6). I wondered: was it a sanctuary or just the rock-cut foundation of an

important building with a similar one to the west of it, but without any other parallels on the whole plateau? Or was it also a catchment device to fill the large adjacent cisterns? I am ashamed to confess that I even thought it was the place where the dead were exposed to climate and animals before the bones were buried. The water in the cisterns, of course, would not be improved by such a custom.

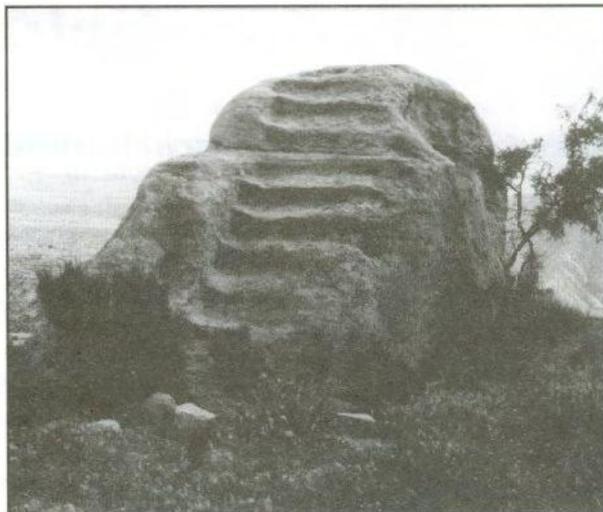


Fig.4. Nine steps end in a void.



Fig.5. A twice-turned staircase on the path to the possible high place.

Except for a few rock-shelters, there are only two artificial caves made by coarse tooling and without the refinery known from other Nabataean cave chambers. I slept in one of them in 1980, and in the other the observant Nelson Glueck had described a Dushara throne which was illuminated by the sun on November 17, 1937, but not on Easter 1977 when I looked for it. On closer examination I found a circle of twelve cupholes around a thirteenth one on the shoulder of the "throne" which might have been a bethyl after all (Fig. 7).

Unexpectedly there were no house ruins or traces of foundations to be found. In the middle of the plateau I noted a place with more cut or broken



Fig.7. Twelve cupholes around a bigger thirteenth one on the shoulder of the "Dushara throne".



Fig.8. Typical Iron IIC (Edomite) sherds collected from the surface on Jabal es-Sela'.



Fig.6. Cisterns, steps and a "mensa sacra" after the twice-turned staircase.

white stones which might have belonged to a built structure. Whereas nothing definite can be stated about the origin of the (possibly) cultic places, the cisterns are of exactly the same type as others at the Edomite sites of Umm el-Biyara, Ba'ja III, and Umm el-'Ala (es-Sadeh), the latter two discovered by groups of the Naturhistorische Gesellschaft Nürnberg under my direction. Iron IIC pottery was collected from es-Sela' by these groups and by S. Hart. To find three undeniable Edomite sherds from storage jars and from a large platter just by walking across the plateau was like receiving a greeting from the people living there around the 7th/6th Centuries B.C. (Fig. 8). Situated near the Edomite capital of Buseirah, an Edomite occupation of Jabal es-Sela' was not unexpected. After them, the Nabataeans did not need such a stronghold. According to Fawzi Zayadine, Jabal es-Sela' was referred to by some medieval historians as an early Mamluk place. That a few Early Bronze, Nabataean, Roman and Late Islamic sherds were found there does not indicate an extended

occupation during those periods. It seems logical to attribute the staircase to the same people who excavated the cisterns on the plateau.

The heat of the sun was hardly alleviated by the shade of the "khandaq" when the visitors left via the stairs, which Mr. Jihad will have repaired for interested archaeologists or even tourists. King Nabonidus was not illuminated anymore. Unlucky Elisabeth had been x-rayed,

diagnosed and scheduled to be operated on in the Islamic Hospital in Aqaba. High noon was over. Like in the famous movie of the same title, it ended with a definite decision. My climbing with younger men had not endangered the visit, only prolonged it. I was able to point out a few details they had not known before. But I found out it had to be my last climb up Jabal es-Sela'. The mountain is awaiting younger (and true) archaeologists to reveal its secrets.

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# Bawwab al-Ghazal: Prehistoric Hunting and Herding at the Azraq Qaa

**By: Philip Wilke and Leslie Quintero, University of California-Riverside (U.S.A.) and Gary O. Rollefson, Whitman College, Walla Walla, Washington (U.S.A.)**

Research at the prehistoric site complex of Bawwab al-Ghazal was undertaken in August 1998 as a joint project by the University of California - Riverside, and the 'Ain Ghazal Research Institute in Germany. The project is an integral part of investigations of the Neolithic use of the desert margins and documentation of early pastoral adaptations in Jordan that include research in the eastern desert region and the Jafr Basin. Bawwab al-Ghazal was initially located in the summer of 1997 within the confines of the Azraq Wetland Reserve. Cooperation with the Royal Society for the Conservation of Nature, which oversees the Azraq Wetlands, played a vital role in the research project.

The site consists of a modest occupational mound, or "mini tell," in active silt dunes on the margin of an ancient slough that formed a portion of the now-dry Azraq Lake. Although absent today, relic wetland vegetation attests to the former presence of a marsh environment. The current springs and ponds of 'Ain Soda and 'Ain Qasiyeh are 3 km to the west. Initial observations of the site in 1997 noted extensive surface deposits of Late Pre-Pottery Neolithic B artifacts, including an impressive number of projectile points and stone beads. One subsurface probe from previous geological coring revealed a midden deposit nearly a meter deep that contained numerous animal bones, including bones of probable domestic goat or sheep, and lithic artifacts. Stone alignments were noted on the surface of the site.

Initial site mapping undertaken in August 1998 determined that the site covered an estimated 1.25 hectares,

and included Epipaleolithic and Middle PPNB material, and perhaps Early PPNB and Pottery Neolithic deposits as well. The densest surface distribution of artifacts was systematically collected (60 10x10-meter squares, or 6,000 sq. m.). This surface collection produced over 2,000 chipped stone tools and cores, and more than 220 beads made of green "Dabba marble", a red stone, white limestone (?), bone, and shell. The surface collections produced a very lopsided distribution of chipped stone tool classes: more than half of the tools were bifacially worked knives, perhaps reflecting a heavy dominance of butchering and hide processing. Projectile points themselves accounted for 17% of the tools, a figure that is more than double the percentage of points from the large permanent settlements like 'Ain Ghazal, for instance. A third of the tools comprised all the other possible types, although among this "other" group burins and drills were heavily represented.

Site mapping also revealed the presence of numerous stone alignments, most of them trending in a SW-NE direction (or perpendicular to the prevailing winds in the area). Many of these alignments appear to have been the foundations for temporary shelters, with locally available calcrete evaporite blocks serving as anchors for huts or windbreaks made of reeds and branches. One area of multiple stone alignments was selected for excavation, and some 7-8 sq. m. in one structure revealed low walls surrounding numerous superimposed surfaces or "floors" covered with abandoned lithic artifacts, rocky

rubble, and animal remains. The number of stone alignments suggests that there may have been multiple-family pastoral/hunting units using Bawwab al-Ghazal at the same time. The presence of several probable goat horn cores in these structures indicates that the inhabitants were maintaining herds of domesticated goats (and probably sheep) at this time, which, according to the associated artifacts, would date to the Late PPNB (6,500 - 6,000 B.C.).

Excavation also explored an isolated area of Natufian material near the eastern central margin of the site, next to a disturbed hearth feature. An 8 sq. m. probe was opened to sample this apparent campsite, which produced several hearth features and tool assemblages associated with animal remains. Some 40 lunates, many with Helwan retouch, indicate that this camp was used in the Early Natufian period, dating to ca. 11,500 - 12,000 years ago. Curiously, no later-period artifacts were found in this deposit, and they were rare on the surface. Additional Epipaleolithic areas were identified near the western margins of the site, but these were not tested during the 1998 season.

A deep excavation in the center of the site, dominated by the low mound of midden deposits, reached bedrock at a depth of one meter. The upper portion of the deposit consisted of heavily burned debris, including very abundant animal bones, sintered flint tools, burned calcrete stones, and pieces of basalt; occasional beads were also found in these layers. This portion of the midden, which evidently was repeatedly used as a dump after cleaning out nearby fireplaces, was especially rich in bird

bone. The maturity of the birds and identification of migratory species, and the high percentage of juvenile mammals (especially gazelle) may provide valuable information on the seasonality of use of the Bawwab area by hunting and herding groups. A goat horn core from this midden was associated with a late MPPNB/early LPPNB Byblos arrowhead (ca 6,700 - 6,400 B.C.), and adds considerable weight to the probability that the visitors to Bawwab at this time were pastoralists who hunted extensively to support themselves. In addition, the lower portion of the deposit contained an intact hearth feature and a bead-production assemblage consisting of numerous flint bead drills, stone bead blanks, and finished stone beads.

The presence of more than 200 beads and pendants throughout the Middle and Late PPNB deposits indicates that these temporary inhabitants of Bawwab engaged in bead production during their stay. This conclusion is supported by several factors independent of the numerous beads themselves: (1) many of the beads were obviously broken during the manufacturing process; (2) many bead blanks reached various stages of shaping before drilling began, but were then abandoned for unknown reasons; (3) many bead drills made on burin spalls were found; (4) several clusters of burins and burin spalls imply the production of spalls to be fashioned into narrow drill bits, many of which

were recovered in the surface collection and during excavation; (5) shells used for a large proportion of the beads were of gastropods locally

have come from the Mediterranean or the Red Sea. Nearly 20 fragments of obsidian blades indicate clearly some connection with Anatolia, more

than 400 km to the north, the probable source of the obsidian. No evidence was found, however, for on-site production of obsidian blades. Some distinctive macrocrystalline clinopyroxene pieces are known to occur 90 km north-east of Bawwab, as located by Betts in her surveys.

In summary, the 1998 season at Bawwab al-Ghazal greatly enhanced our appreciation of the use of this desert oasis area in prehistoric times. From the initial reconnaissance in 1997, it seemed probable that the site was used only in the LPPNB period (6,500 - 6,000 B.C.), but as a consequence of the 1998 work it is clear that the range of time represented by diagnostic artifacts includes the Early Natufian through the LPPNB, and even part of the Pottery Neolithic period (after 5,500 B.C.). The attraction for all of these people was the seasonably dependable water in the qaa and adjacent marshes, which in turn attracted local large fauna and migratory birds.

It is likely that this source of water also supported rich pasturage that encouraged use of the Bawwab environment by early pastoralists during the PPNB. Further work at Bawwab will be designed to clarify the relationship between the early pastoralist people using this resource and the permanent populations living at the major farming settlements in highland regions such as 'Ain Ghazal. ■



Excavation of LPPNB structure at Bawwab al-Ghazal.

available in the adjacent marsh, and some of the recovered specimens show shaping/cutting for bead production; and (6) much of the bead-production debris at the site consisted of "Dabba marble," a soft green stone, a source of which was discovered on the site.

The inventory of material from Bawwab reveals some long-distance contacts. One bead made of mother-of-pearl, a fragment of a large clam shell, and several cowry shells must

## Heliopolis - Baalbek: Discovering the Ruins, 1898-1998

By: **Margarete van Ess, German Institute of Archaeology - Orient Section, Berlin (Germany)** and **Hélène Sader, American University of Beirut (Lebanon)**

The German Archaeological Institute, together with the Lebanese Ministry of Culture and Higher Education and the 'Direction Générale des Antiquités du Liban' (DGA), designed and created a museum in Baalbek, which was inaugurated on November 7, 1998. This project was funded by the State of Lebanon, the German Ministry of Foreign Affairs, and the German Archaeological Institute in Berlin. Many

individuals and companies, both Lebanese and German, contributed to the event. The opening took place in the presence of the first lady, Mrs. Mona Hraoui, and Mr. von Hoessle, representative of the German government.

Exactly 100 years ago the German Emperor Wilhelm II visited Baalbek. He was so impressed by the magnificent monuments that he immediately ordered the excavation of the site. Since his visit German, French and Lebanese archaeologists contributed to uncovering the impressive ruins. In 1984 Baalbek was placed on the World Heritage List.

In order to commemorate the centennial of the German excavations in Baalbek, the DGA solicited the cooperation of the German Archaeological Institute in Berlin to create a site museum explaining Baalbek's history and monuments to the public. A bilateral agreement was signed and two areas of the ancient site were prepared to house the permanent exhibition: one of the underground galleries underneath the



Partial view of the ruins of Baalbek.

great courtyard of the Jupiter temple, and the southern tower of the Ayyubid citadel. In the gallery 20 statues, pieces of architecture and small finds are exhibited, and the scientific results of the excavations carried out during the past 100 years are explained using old photographs, reconstruction drawings, and excavation plans. In the Ayyubid tower Roman funerary objects found in the vicinity of Baalbek are displayed, and the Islamic-Medieval qalaa is presented.

A brochure-catalogue was published in four languages and information boards were set up in the ruins to guide visitors. The Orient Institut der

Deutschen Morgenländischen Gesellschaft also published a book entitled "Baalbek Image and Monument", which reviews the research in and around Baalbek and sheds light on the historical and social aspects of the fascinating monuments which have attracted visitors for centuries.

The Baalbek museum is the first of a series of site museums that the Department of Antiquities is planning to create. The German Archaeological Institute is proud to have helped in this first step. ■



Some of the organizers and participants at the inauguration of the Baalbek Museum.

# Umm Qais Survey 1998 - Landuse on the 'Ard al-'Ala

By: Nadine Riedl, German Archaeological Institute, Berlin (Germany) and German Protestant Institute of Archaeology, Amman (Jordan)

During October 1998, a survey was conducted on the 'Ard al-'Ala, a triangular plateau of about 6 km<sup>2</sup> situated between the Jordan Valley to the west and the city of Gadara (modern Umm Qais) to the east. Until now this area had only briefly been examined by G. Schumacher (1890) and S. Mittmann (1970). However, the plateau was of major importance in antiquity, due to its favourable climatic and topographical conditions. Therefore, the aims of the survey were to study the history of landuse in the *chora* of Gadara more intensively, to assess the relationship between city and hinterland, and to obtain information about possible pre-Hellenistic human activities in the area.

To cover the area as thoroughly as possible, sample squares were established within the borders of agricultural fields, as these were easy to locate on aerial photographs. The whole area was walked, and pottery was collected from sites as well as from 37 of a total of 116 fields.

Concerning the history of landuse on the plateau, the following preliminary results were obtained:

Along the northern and southern edges of the plateau two relatively narrow roads constructed of basalt stones were discovered. Although we found a definitely Roman milestone in its neighbourhood, the southern road turned out to be built probably during the British Mandate. Obviously, an old communications route had been re-used several centuries later. Along the northern road a group of

milestones was discovered one Roman mile from the city. According to an inscription the road was constructed or, more likely, repaired during the reign of Caracalla, like many other roads in the region.



Sounding at a military outpost overlooking the Wadi el-'Arab

As most of the stones had been cleared from the cultivated fields, only a few buildings are still preserved on the plateau. One of the structures is a strong square tower overlooking the Wadi al-'Arab. Probably constructed in the Hellenistic period, the structure could have served as an outpost to secure the hinterland of Seleucid Gadara. Another building was also situated on a commanding position

with a view over the Yarmouk Valley and the acropolis of Gadara. It belonged possibly to the type of fortified farmsteads which are characteristic of farms of the Hellenistic and Roman periods. A field tower which was located about 3 km from Gadara, on a low hill, was used exclusively for agricultural purposes.

Like other structures, many agricultural installations seem to have been damaged or covered as a result of recent landuse. However, two large wine presses were discovered in close proximity to the road and the city itself. One press had been established on the site of a former Roman cemetery, partly re-using graves as collecting basins and a tomb chamber as a store room. The wine press therefore can be dated to the Late Roman or, more likely, to the Byzantine period. Both presses indicate (by their size) wine production on a very large scale.

While limestone was available within the city limits, basalt had to be quarried outside on the plateau. Traces of basalt quarrying were found at different sites along the southern edge of the plateau.

A large basalt quarry is located at the western slope, about 3 km from the city. As far as pottery collected from the surface can tell, the quarry was used during the Roman and Byzantine eras.

The second aim was to obtain information on pre-Hellenistic human activities. While no pre-Hellenistic pottery was discovered on the plateau itself (possibly due to the deep layers of soil covering the fields) an Early

Bronze Age IV cemetery was documented at the western slope of the plateau. It consisted of more than one hundred shaft tombs, each with a single chamber cut into the soft limestone bedrock. Not far away (about 250 m as the crow flies) the site of Khirbet et-Tabaq was recorded. Its still standing basalt walls belong to a Mameluk or early Ottoman settlement, but the ceramic evidence also indicates an earlier settlement dating back to the Hellenistic period. Some sherds resemble the pottery finds of the Bronze Age cemetery, and indicate a connection between both sites.

### Acknowledgements

The project was financed by the German Archaeological Institute, Berlin (DAI). Logistical support was given by the German Protestant Institute, Amman (DEI). Members of the survey team were: Katrin Bastert-Lamprichs, Claudia Bührig, Thorsten Bunk, Christian Hartl-Reiter, Nasser Hindawi, Elke Posselt, Nadine Riedl, Isabelle Ruben. Our special thanks go to Ruba Abu-Dalu, the representative of the Department of Antiquities, for her cooperation and enthusiasm.

A second survey season is scheduled for the year 2000 to

examine the entire western slope of the plateau towards the Jordan Valley.

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# The Excavations Underneath the Church of the Redeemer in the Old City of Jerusalem, and the Authenticity of the Church of the Holy Sepulchre Site

By: Ute Wagner-Lux, Basel (Switzerland) and Karel J. H. Vriezen, University of Utrecht, Utrecht (Netherlands)

When Crown Prince Friedrich Wilhelm of Prussia travelled to the opening ceremony of the Suez Canal in the autumn of 1869, he also visited Constantinople. There he succeeded in convincing the Ottoman sultan to give him a piece of land in Jerusalem in order to build a church. He accepted the property on behalf of the King of Prussia, at a ceremony on the site on 7 November.

The site was the eastern part of the Muristan area adjoining the Church of the Holy Sepulchre to the south, and it contained the ruins of the crusaders' church of Santa Maria Latina, which was to be rebuilt for the evangelical community.

The foundation stone for the new church was not laid until 31 October 1893. It was placed on a large wall underneath the floor of the medieval church. The wall had been uncovered as rubble and debris were removed from underneath the floor along the axis of the church over the previous few years, and was assumed to be part of the so-called second city wall

city walls (cf John 19, 20: "... the place where Jesus was crucified was near to the city").

Not surprisingly, therefore, the route of the second wall has been a key question ever since the Old City became the site of archaeological investigation in the 19th century (c.f.

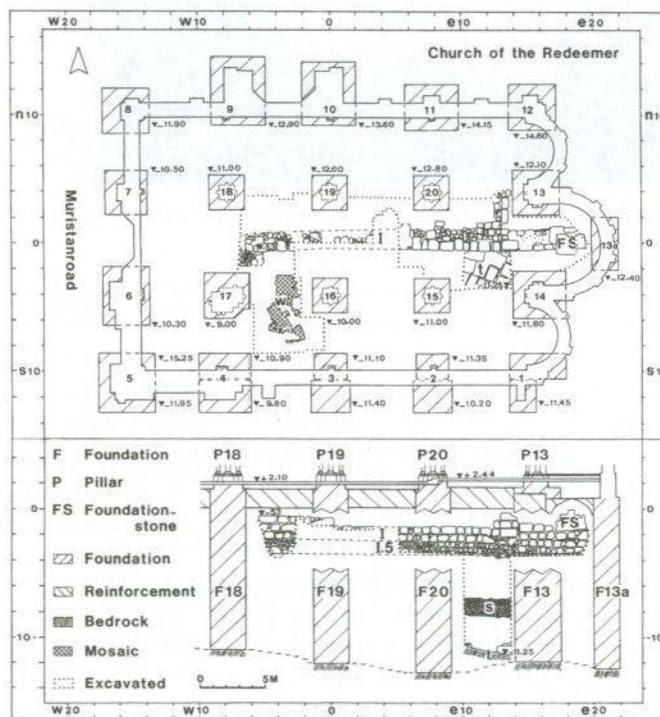
writes in his *De bello iudaico* (The Jewish War), which deals with the first war between the Romans and the Jews in 66-70 A.D., that Jerusalem was fortified with three walls to the north (Bell. Iud. 5,136).

The first wall enclosed the southern part of the present-day Old City and the adjoining land to the south as far as the Hinnom and Kidron Valleys. Its north side ran between the Citadel and the Temple Mount on the slope to the south of David Street (Bell. Iud. 5,142-145). It would have been built in about 100 B.C.

In the 1st Century B.C., Jerusalem was extended to the north with the building of the second wall. Josephus states in his brief description (Bell. Iud. 5,146) that it began at the "Gennath" Gate, which was part of the first wall, enclosed the northern part of the city, and ended at Fort Antonia. He does not state its route in detail, and many different alternatives therefore have been suggested; not all of these place the site of the Church of the Holy Sepulchre outside the city walls (cf the plan on p. 233 of K.M. Kenyon, *Digging up*

Jerusalem, New York 1974).

The third wall was begun by Agrippa I, a grandson of Herod the Great, in 41-44 A.D. It was not completed until shortly before the outbreak of war in 66 A.D. (Bell. Iud. 5,147-159), and ran either close to the current northern



Groundplan and side view of the excavations underneath the Church of the Redeemer

of ancient Jerusalem. The second wall formed the northern boundary of the city at the time of Jesus, and was very important in authenticating the location of the Church of the Holy Sepulchre. According to the gospels, the crucifixion took place outside the

work carried out by C. Warren (U.K.), H. Vincent (France) and C. Schick (Germany)).

But what do we know about the walls that surrounded Jerusalem in the first century A.D.? The historian Flavius Josephus (37/38 A.D. - c. 110 A.D.)

wall of the Old City or about 450 m further to the north.

The new church, named Church of the Redeemer, was consecrated at a special service on 31 October 1898, in the presence of their imperial majesties of Germany. So, just recently its centenary was celebrated.

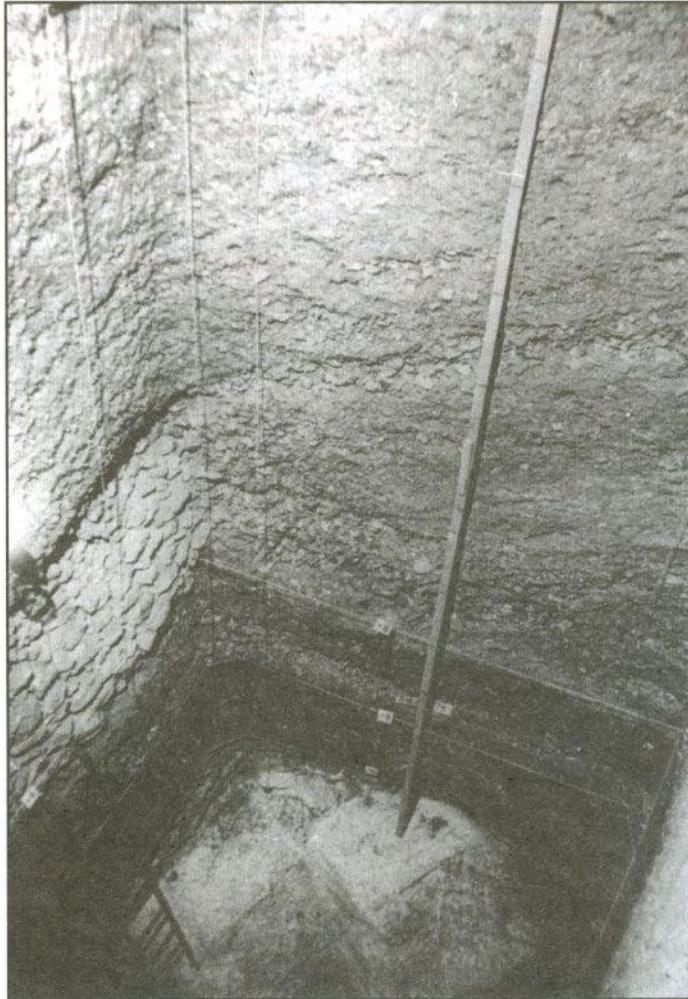
### The excavations

The architect Ernst W. Krueger carried out extensive restoration work between 1970 and 1973. In the summer of 1970, while the foundations were being examined in connection with this work, the large east-west wall and foundation stone were rediscovered in the eastern part of the church beneath the apse of the nave. This provided an opportunity to investigate the route of the second city wall again. While the restoration was taking place, from November

1970 to June 1971, the "Deutsches Evangelisches Institut für Altertumswissenschaft" carried out excavations on the site. These were led by Ute Wagner-Lux, with the architect Ernst W. Krueger providing technical support and carrying out the surveying.

In the autumn of 1972, while a heating plant was being installed, floor mosaics were found about two metres below the western half of the southern side-aisle. The institute continued its excavations and carried out another four campaigns led by Karel J.H. Vriezen, an assistant at the institute from 1972 to 1975. These took place between November 1972 and November 1974, and largely focused on the western part of the church.

A section of the top and south side of the large wall, about 14.50 metres



Northeastern corner of the area between wall (I) and pillars 14 and 15 with bedrock (t).

long and an average of 1.60 metres wide, was unearthed under the eastern part of the church. The upper layers of this wall (I) were made of reused dressed building stones, and the lower layers (I.5) were composed mainly of fieldstones.

In a limited area (3.60 x 2.80 m), the excavation was continued down to bedrock. Here, it appeared that the wall was preserved to a height of 2.00 to 3.50 metres, and was built on a fill of between 5.00 and 5.50 metres deep, most of it sloping away to the north. Underneath, an east-west wall of fieldstones (s) was built on horizontal layers of rubble and earth down to bedrock. The bedrock itself (t), which at this point is 13 metres below the current floor level, shows clear signs of quarrying.

A large part of the mosaic floor (w)

was uncovered underneath the western part of the church, and particularly under the southern side-aisle. It consists of tesserae, 1 to 3 cm large, mostly grey and white with some black and red, and small marble slabs. However, under the nave the mosaic had been completely destroyed by pits, dug deep into the subsoil. In the fill of the pits fragments of the mosaic were found, including a fragment of a marble slab bearing a Greek and Arabic inscription.

In the western part of the nave a 2.75-metre-long section of the large wall (I) was wholly excavated, and a further 4.60 metres was partially unearthed. Just above the wall, the remains of two plastered basins were discovered. And northwest of these, a small stone- and plaster-clad waste trench (1.80 x 0.98 m) was found, dug next to a finely built wall that had been partially destroyed by the 19th Century foundation

of Pillar 18. Various other small traces of wall were also found on the western edge of the excavation area.

### Results of the excavations

The site on which the Church of the Redeemer now stands has a long and eventful history. The architects who built the new foundations for the church and archaeologists earlier in the 19th Century reached the bedrock, found traces of quarrying, and realised that this area was a huge artificially filled-in valley running from west to east. But it was not until the British archaeologist Kathleen M. Kenyon excavated underneath the courtyard of the Martin Luther School in 1961-1963, south of the Church of the Redeemer ("Site C"), and reached the bedrock at a depth of 16 metres, that a better understanding was gained of

the early history of the Muristan (Kenyon, *Digging*, p. 226-235).

Originally, this was an open rocky valley used mainly as a quarry. From the First Century B.C. onwards, the bedrock was covered by horizontal layers of rubble and earth, suggesting that it may have been used as an area of gardens fenced with walls of fieldstones (cf. s). There is evidence in the New Testament that gardens existed in the area of the Holy Sepulchre at the time of Jesus; John 19, 41 states: "But there was a garden at the place where he had been crucified, and in the garden a new tomb." Josephus (Bell. lud. 5,146) makes indirect reference to an area of gardens by mentioning the "Gennath" Gate in connection with the second wall; the Jewish Aramaic *ginnet* means "garden".

After 70 A.D., the 100-metre-wide valley was filled with rubble and earth to a depth of eight metres. These came from the area of the city to the south of the Muristan, which was completely destroyed when the Romans conquered Jerusalem in 70 A.D.

It looks very much as though this huge amount of land filling was connected with the construction work carried out by the Roman Emperor Hadrian (117-138 A.D.), who rebuilt Jerusalem as a pagan city and called it Aelia Capitolina.

In the 2nd Century A.D., the lower part of the large wall (I.5) running under the nave of the church was built on top of this deep fill and probably functioned as a terrace wall. In the 4th Century the upper part of the wall (I) was built, and it may have formed part of a supporting or terrace wall of a forum to the south of the Church of the Holy Sepulchre. So this is definitely not part of the second wall which enclosed the city at the time of Jesus!

If the wall sections excavated by the Israeli

archaeologist N. Avigad, roughly in the middle of the northern part of the first wall, can be linked with the "Gennath" Gate, which marked the starting point of the second wall (N. Avigad, *Discovering Jerusalem*, Oxford 1984, p. 69), then the second wall did run east of the Muristan and the Church of the Holy Sepulchre (cf Kenyon, *Digging*, p. 233). This would mean that the location of the Church of the Holy Sepulchre may reflect historical reality.

Apart from various smaller walls, the remains from the subsequent Byzantine and early Arab periods include those of the two basins.

Tradition has it that an early medieval building actually stood on the site of the crusaders' church, but no traces of an earlier church have been found.

The next finds from underneath the Church of the Redeemer date from the time of the crusades, in approximately the second quarter of the 12th Century, when the Church of Santa Maria Latina was built. This included the mosaic floor under the current south side-aisle. Similar mosaic fragments were found during the restoration of the cloister and refectory in 1972-5.

After the crusaders' church fell into disrepair, a process which seems to have begun soon after Jerusalem was conquered by Saladin in 1187, the ruins were used as housing. There are numerous remains indicating that this was the case until the site was transferred to Prussian hands, including the walls of houses, a courtyard, and various pits.

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Mosaic floor (w) of the crusaders' Church of Santa Maria Latina between pillars 16 and 17

# The 1997 Quailibah/Abila of the Decapolis Theater Excavation Probe

By: W. Harold Mare, Covenant Theological Seminary, St. Louis (U.S.A.)

The Quailibah/Abila of the Decapolis Special Excavation was conducted May 26 to July 4, 1997, Dr. W. Harold Mare, Director, and Covenant Theological Seminary as principal investigators, under the auspices of Dr. Ghazi Bisheh, Director General of the Department of Antiquities of the Hashemite Kingdom of Jordan, with the cooperation of Mr. Sultan Shureidah, Irbid District Inspector of the Department of Antiquities.

The objectives for the 1997 Quailibah/Abila of the Decapolis

altered by wholesale removal of the seats, aisles, and exits, and the construction within it of a large Umayyad palace/fort, and also the construction of an extensive Byzantine street laid down running northeast-southeast over an earlier Roman street/plaza, at the orchestra area, just in front of the theater itself.

Our first probe, conducted with the assistance of Sultan Shureidah and the help of three workmen, was made at the eastern, outside edge of the theater, starting from the top, down

ca. 4 m wide, extending back into the hillside. We excavated a large quantity of this fill material (its pottery was Early and Late Roman, Early and Late Byzantine, Umayyad and some Abbasid), about 2.50 m. down to a finely-cut floor cut into the limestone bedrock. We excavated here west 3 m just behind the theater, exposing a large cavity (like the exits in the western and northern theaters at Umm Qeis (Gadara)); this cavity was also carefully and laboriously filled with this rubble debris, supported at two points by well-built, well-cut basalt columns to help hold together the packed rubble fill. We could not remove any more of the fill debris farther west into the cavity, due to the fractured nature of the surrounding limestone bedrock which was held in place by the packed rubble fill. The material uncovered here suggests that originally the large cavity was dug to serve as part of the exit system of the theater, but in subsequent centuries, severe earthquake activity greatly fractured the bedrock of the exit, making it unsafe for further usage and leading the citizens of Abila to fill in the cavity to protect the theater from further damage and the theater-goers from injury.

A probe made across the semi-circle just outside and to the south-east of the theater produced no architectural features which would help further define the overall nature and function of the theater complex.

We made another major effort in our endeavor to better understand the theater complex by investigating a two-level series of large stone blocks perched on the hillside on the western-northern edge of the theater,



A general view of the theater excavation at Abila.

Special Excavation Project included the following: to investigate the outer limits of the theater cavea (which faces north/northeast) at Quailibah/Abila and the semi-circular archaeological depression just to the south-east of the theater cavea, and to uncover any additional archaeological evidence to help us interpret properly the theater. In past centuries and in the present its physical features have been greatly

the steep slope. In the probe near the top of the slope we uncovered a fairly extensive section of mosaic pavement with crisscross design (ca. 1 m wide by 4 m across), which was bordered on its western side by a thinly plastered wall, all of which suggests wine press activities.

In the next section of this probe down the slope we excavated an area of red soil and cobble and stone fill

hoping to find further evidence of the exit system of the theater on this side of the structure. In excavating the first set of stones, south, higher up the slope, we uncovered evidence of a paved area of some building, and two rows of wall on the surface, but no further evidence of a theater exit. Next, we excavated the north segment of stone here, located down the slope a few meters, where the second set of surface stones was observed.

Here we uncovered part of a house complex with a one-meter-deep square plastered fire pit with quantities of broken pottery of various periods (Early and Late Roman, Early and Late Byzantine, and Umayyad). Around and down below the north-south wall on the east side of the house structure, we uncovered below several meters of packed reddish soil and cobbles, with a fair quantity of pottery (Early and Late Roman, Early and Late Byzantine, Umayyad, and some Abbasid), material similar to the cobble fill (with the same pottery range) we found in excavating the

large exit cavity of the south-east edge of the theater.

A surprise greeted us when we were investigating the possibility of finding ruins of a small odeon on the east side of Abila, across the stream in a large semi-circular depression. Here on the surface soil we stumbled on two basalt architectural elements which we first thought might belong to an arch. In further excavating these elements, we discovered more of these basalt architectural blocks in situ, curving up in the form of a conch type shell (only some of the roof elements had fallen down due to earthquake activity). The structure is 3 m across and 1.50 m deep across the center. We investigated enough of the structure to make us think that this may be part of a monumental mausoleum or some other monumental structure. Could it be part of a nymphaeum complex? The pottery here was Late Roman to Umayyad. Further study of this structure will be made in the 1998 season.

In summary, we conclude that the

large cavity high up the slope, just behind the south-east edge of the theater, was dug out in ancient times as part of the theater exit system, but that in some later time, after severe earthquake activity had helped to fracture the limestone walls and ceiling of the cavity (like the severe earthquake of A.D. 747/748 which toppled the Area D church above the theater), the townspeople protected themselves from harm and the theater itself from further damage by filling the cavity with massive amounts of packed rubble. From the excavation of the slope on the north-west wing of the theater, our finding of the same kind of packed rubble with similar periods of pottery represented as found in the large cavity on the southeast side of the theater, suggests that there was a similar theater exit system here, although it is to be noted that as yet we have not found any specific evidence of a similar large exit cavity. ■

## The Finnish Jabal Haroun Project 1998

By: Jaakko Frösén, University of Helsinki (Finland) and Zbigniew T. Fiema, Dumbarton Oaks (U.S.A.)

The Finnish Jabal Haroun Project (FJHP), under the direction of Prof. Jaakko Frösén, has recently concluded its first, two-month season of archaeological exploration in the area of Jabal Haroun, a mountain located ca five kms. west of Petra. The primary goal of the project is to investigate the Byzantine and Early Islamic periods in Petra, both being among the most enigmatic and poorly known in this area. The main site of the fieldwork was a ruined architectural complex on the plateau situated ca 70 m below the mountain's summit which is crowned by the Islamic shrine. Additionally, an intensive survey was carried out in the environs of the mountain. Almost 30 scholars and students from the University of Helsinki and the Helsinki University of Technology participated in the project, including two scholars from other countries and two representatives of the Department of Antiquities.

The religious significance attached to the Jabal Haroun mountain derives from the Jewish, Christian and Islamic traditions which consider the top of the mountain to be the burial place of Aaron, brother of Moses. The presence of religious establishments at the mountain is already known from the Nabataean period via the Greek-Jewish historian Flavius Josephus (1st



General view of the site to the West, from the Islamic shrine on top of Jabal Haroun.



The outline of half of the central apse of the large tripartite basilica.

Cent. A.D.) and also from Byzantine and Arab sources. Furthermore, one of the documents from among the recently discovered Petra carbonized papyri dated to the 6th Century A.D. (inv. 6a) contains a mention of a "House of Our Lord Priest Aaron", which confirms the veneration of Aaron in the Petra area during the Byzantine period. Recent explorations considered the ruins located below the summit of the mountain to be a Byzantine monastery which contained a chapel.

The entire site of the monastery, ca 75 x 45 m, was intensively surveyed and mapped. Four excavation

trenches were opened which revealed extensive occupation of the site, dated from the Nabataean through the Islamic period, with the Byzantine period architecturally revealing at least three major periods of occupation. The center of the apse was occupied by a masonry pedestal, probably for an altar, which was empty inside, and thus probably was used as a repository of liturgical

accessories or relics. An important epigraphic find from the apse area was a fragment of the edge of a marble orthostat containing four well-engraved Greek letters which read  $\text{IAP}\Omega\text{N}$  (most probably the name of Aaron) at the end of the line. The major discovery were the remains of a large tripartite mono-apsidal basilica, ca 24.2 x 14.2 m, located directly south of the chapel. The

outline of half of the central apse of this church has been exposed in one trench. The other trench has revealed the westernmost portion of the south aisle of that church, with a secondary south-north wall dividing the church area in the middle into two equal parts. At least two major occupational phases represented by the floor levels could be distinguished in the exposed part of the aisle.

The archaeological survey of the environs of the mountain concentrated on its western side, including the Wadi al-Ruba'i, a major water catchment area there. Numerous agricultural and water-management related installations, such as barrages, slope terraces, dams, and channels, as well as threshing



The fully excavated half of the apse of the chapel with the masonry pedestal.

floors, lime kilns, and probable burials and simple dwellings, were all fully recorded. The collected lithic material indicates human presence in the area as early as the Upper Palaeolithic, but the ceramics were overwhelmingly from the Nabataean and Byzantine periods. Simultaneously, a detailed cartographic study of the mountain and its environs was conducted in a way so as to improve the three-dimensional model of the mountain which has already been developed by the FJHP. For this purpose the latest techniques in cartography were employed, including tachymetry, digital recording, and photogrammetry.

Even before the information coming

from the 1998 season is fully studied and interpreted, it is apparent that the excavated site should represent a Byzantine monastic establishment in connection with a major pilgrimage center, both related to the veneration of Aaron. At the same time, the survey results attest to long-lasting, intensive agricultural land-use, enhanced by extensive rainwater catchment and management structures. There is little doubt that the Jabal Haroun area was one of the major food supply areas for Petra during the Nabataean and Byzantine periods. ■



**Barrages of the water catchment and agricultural area on the western slope of Jabal Haroun.**

## "Olympic Ambassador" Arrives at the German Protestant Institute of Archaeology in Amman

In the middle of August 1998, Horst Schad (age 34) arrived on his bicycle at the German Protestant Institute of Archaeology in Amman, where he was welcomed by Dr. Hans-Dieter Bienert, director of the institute, and Nadine Riedl, assistant director. Having left Germany on May 2nd, 1998, he had reached another stop on his long trip to the Olympic Games in Sydney in the year 2000. Exhausted by the heat wave and covered with dust, he was glad to be invited to pitch his tent in the garden of the institute. "What a wonderful place to relax and to build up energy again," was one of his first comments after his arrival.

Working and travelling as an ambassador for the Olympic Games, Horst Schad is on a trip that is beyond the imagination of most people. Cycling from Germany to Australia, and using only your own strength sounds unusual, but as soon as you talk to him you realize that this is a

well elaborated project. ONE WORLD 2000 is the official title of the project, and stands for the conviction that all countries are part of the same world and that international cooperation and mutual understanding amongst nations are essential requirements for a positive future for our planet. That was one of the reasons why Horst Schad received support from different National Olympic Committees and the International Olympic Academy of

Olympia, Greece. He is also an official ambassador for the city of Olympia in Greece and for the Olympic ideal. By carrying an Olympic document from the mayor of Olympia, he takes the Olympic spirit symbolically from its historic place of origin in Greece to the coming Olympic Games in Australia.

Talking to him you can feel his strong dedication to this fascinating task. "I knew it wouldn't be easy, but with the right attitude and openness to foreign cultures and people I hope to succeed. It's a wonderful thing to cycle in a foreign country, to get in contact with people and learn about their life", he explains, revealing his motivation for travelling. Although riding a bicycle is hard work, Horst Schad regards it as a very good means of transport because it allows you to be in



Horst Schad, from Frankfurt, Germany, takes a break in Amman on his 50,000 kilometres trip to Sydney, Australia

close contact with people and nature.

During his weeks in Turkey, Syria and Jordan, he experienced how difficult cycling in this part of the world can be. Temperatures above 40 degrees Centigrade, combined with high humidity along the coast, proved to be a most demanding test of his abilities. His daily water consumption went up above 10 litres, and he had to protect himself from the burning sun. But whenever he was exhausted and "dried out", literally, it was always the people who gave him new motivation. "The hospitality in this region is just incredible. Wherever I arrive, people always offer me water and food. That's one of the reasons why I never feel alone here. Particularly in Jordan, I have been

overwhelmed by the friendliness and hospitality of the people," he enthuses about his time in Jordan.

The nature and scenery of Jordan also fascinate him. He was deeply impressed by his visits to the ancient sites of Jerash and Umm Qais, accompanied by Nadine Riedl, assistant director of the German Protestant Institute of Archaeology. "It's a shame that people in Germany know so little about this fascinating country," he says. And the best is still to come! The Kings' Highway, the ancient city of Petra, and Wadi Rum still await him. As soon as he gets his visa for Saudi Arabia, he wants to follow the old trade route southwards into one of the most impressive landscapes of Jordan.

Aqaba, the southernmost city of Jordan, will be a place for a short rest before entering Saudi Arabia with its vast desert areas. Going there on a bicycle in summertime is an adventure of its own and will be a unique experience," he says. There are even more demanding yet fascinating regions on his route. Isfahan, Meshed, and Samarkand are just a few of the many highly interesting cities ahead of him in Central Asia, where few tourists go. If everything goes well, he will follow the old Silk Road all the way to China. Then, after having crossed the Himalaya Mountains, the Indian subcontinent, and South-East Asia, he will finally reach Australia in Summer 2000 - insha'alla! ■

(continued from page 1)

the theatre's stage of preservation has already been conducted by Mr R. Guinée and Ms N. Mulder, members of the excavation team of Dr. Ute Wagner-Lux (Basel) and Dr. Karel Vriezen (Utrecht), and by the architect Mr Jan Martin Klessing from Karlsruhe (Germany). Mr Klessing's research project was initiated by the German Protestant Institute in Amman (at that time directed by Dr. Susanne Kerner) and financed by the German Foreign Office. A first report on Ms Barcsay-Regner's work at Umm Qais will be published in the next issue of *Occident & Orient*.

For 1999 the institute is preparing for another field season at esh-Shallaf in March/April, and a new project in the Ba'ja region (north of the Nabataean city of Petra). Here, in summer 1997 the institute conducted a month-long archaeological campaign at the early Neolithic site of Ba'ja II (see reports in *Occident & Orient* vol. 2, no. 1 and vol. 2, no. 2). This excavation had been jointly directed by Dr. H.-D. Bienert (DEI-Amman) and H. G. K. Gebel M.A. (ex oriente e. V. / Free University of Berlin, Germany). The new project will be directed by Dr. Hans-Dieter Bienert (DEI-Amman), Dr. Roland Lamprichs

(Dresden, Germany) and Prof. Dr. Dieter Vieweger (Kirchliche Hochschule Wuppertal, Germany); it will focus on the ancient sites of Ba'ja I (probably Iron Age, Mamlouk and Ottoman occupation) and Ba'ja III (Iron Age). Both sites have been discovered and briefly described by Dr. Dr. Manfred Linder (Naturhistorische Gesellschaft Nürnberg (Germany)). The project, which will start in late September, will be funded by the German Protestant Institute of Archaeology and the Thyssen Stiftung (Germany); logistical support will be granted by the Jordanian-German Project for the Establishment of a Conservation and Restoration Center in Petra (CARCIP), (director: Dr. Helge Fischer), Dr. Thomas Urban (Documentation of Monuments and Archaeology), Birkenwerder, Germany) and the German Institute of Archaeology - Orient Section (director: Prof. Dr. Ricardo Eichmann). A more detailed report on this research will follow in *Occident & Orient* vol. 4, no. 1, July 1999.

In summer the yearly "Lehrkurs" (a group of six scholars holding a travel scholarship from the DEI) spent three weeks in Jordan. They were guided to many archaeological sites by members of the DEI-Amman, and

enjoyed the assistance and support of the Department of Antiquities of Jordan, which helped in many ways to facilitate the stay of the scholars. The group also spent four days in Petra, studying the ancient Nabataean monuments, where they were also informed on the ongoing GTZ-Project (Petra Stone Preservation). They were also briefed by the German Ambassador to Jordan, H. E. Mr Peter Mende, on the current political situation.

In the past six months, three lectures were organized at the institute, in cooperation with the German Speaking Congregation of the Lutheran Church of the Redeemer Jerusalem-Amman. It is intended to continue with the series of lectures, and to start a forum for discussing touristic issues which involve archaeological sites. People interested in this subject can contact the institute for further information.

The overall situation of the institute's future seems to have improved enormously after almost two years of facing the danger of closure. Further projects ahead hopefully will help to consolidate the institute's future. ■

## Fellows in Residence and Associated Fellows (July 1998 - December 1998)

- Prof. Dr. Ricardo Eichmann, German Archaeological Institute - Orient Section, Berlin (Germany), post-excavation research on "German-Jordanian archaeological project in southern Jordan - archaeological survey and excavation in the Yitim and Maqass Area."
- Ms. Isabel Herkommer, University of Tübingen (Germany), "Temporary trainee at the GTZ - Arabic language studies at Jordan University, Amman."
- Dr. Ute Wagner-Lux, Basel (Switzerland) and Dr. Karel Vriezen, University of Utrecht (Netherlands), "Research on finds from archaeological excavations in Umm Qais (Church and Church Terrace, parts of the Decumanus, southern Basilica)."
- Dr. Roland Lamprichs and Ms Katrin Bastert-Lamprichs M.A., both Dresden (Germany), "Preparing for an archaeological excavation at Tell Johfiyeh and research on Iron Age sites in the vicinity."
- Mr Jan Scheithauer, Berufsakademie Frankfurt/Main (Germany) "Temporary trainee at the GTZ office."
- Ms Renate Barcsay-Regner, Center for International Migration (CIM)/Department of Antiquities of Jordan (DoA) "Archaeological research and conservation work at the western theatre in Umm Qais (ancient Gadara)."
- Mr Helmut Burkhard, National Music Conservatory, Noor al-Hussein Foundation/Deutscher Musikrat (Germany), "Courses for Music Teachers of Basic Music Education."
- Team members of the Umm Qais survey, directed by Ms Nadine Riedl, M.A. (DAI-Orient Section and DEI-Amman).
- Team members of esh-Shallaf excavation, directed by Dr. Hans-Dieter Bienert (DEI-Amman) and Prof. Dr. Dieter Vieweger, (Kirchliche Hochschule Wuppertal, Germany).
- Team members of the DAI-Umm Qais excavation, directed by Prof. Dr. Adolf Hoffmann (Technical University Cottbus, Germany).
- Scholars holding a travel scholarship from the German Protestant Institute of Archaeology (DEI): Dr. Gabriele Hagenow (Gießen, Germany), Ms Julia Conrad (München, Germany), Dr. Ludwig Morenz (Tübingen, Germany), Dr. Andreas Obermann (Wuppertal, Germany), Dr. Erich Scheurer (Bad Liebenzell, Germany), Dr. Erich Bosshard-Nepustil (Bern, Switzerland)

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