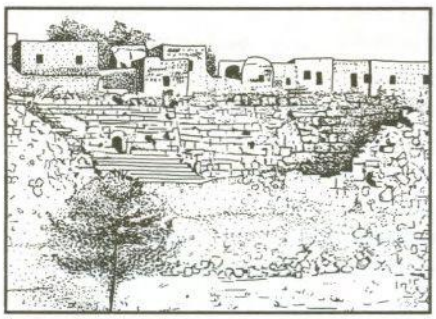
German Protestant Institute of Archaeology in Amman



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- Editor: Hans-Dieter Bienert.
- Technical and editorial assistance: Rami G. Khouri, Jean-Claude Elias - Al Kutba, Publishers, Amman.
- Newsletter logo above by Samir Shraydeh.

The Institute: History, Activities, Facilities

In the late seventies the German Protestant Institute of Archaeology in Amman was founded as a branch of the German Protestant Institute for Archaeology of the Holy Land in Jerusalem, which had been founded at the end of the last century after a visit of Emperor Wilhelm II to Jerusalem. The Jerusalem institute started work in 1903 and has been based since 1982 on the Mount of Olives in East Jerusalem. The main research topics of the German Protestant Institute of Archaeology during the first 60 years of this century were historical and biblical-topographical questions. The directors of the institute during this period were Gustaf Dalman, Albrecht Alt and Martin Noth, all well known scholars of Old Testament theology. The subsequent directors were Ute Wagner-Lux and August Strobel. In the 1970s actual archaeological fieldwork at different sites began: August Strobel worked in Ain-ez-Zara, a site at the Dead Sea, where Herod the Great is supposed to have built a bath close to the hot spring. In 1994 Volkmar Fritz became the director of the institute in Jerusalem, and is also the general director of both facilities in Jerusalem and Amman; he carries out field work in Kinneret. Ute Wagner-Lux launched the first major excavations in Umm Qais in 1974, where the institute has worked, with a gap of five years, ever since. Both institutes in Jerusalem and Amman are funded by the Lutheran Church of Germany.

The institute in Amman has its own building which is situated at the north west edge of Amman, in close vicinity to the University of Jordan and the American Center for Oriental Research (ACOR). The building was erected between 1976 and 1980 with funds provided by the "Foundation Volkswagenwerk Hannover (Germany)". The institute has been

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The German Protestant Institute staff in front of the institute building in Amman.

Minister of Tourism and Antiquities Dr.Saleh Ersheidat (centre, in tie) and Hans-Dieter Bienert (to his left) discussing protection and renovation issues during a recent visit to Umm Qais (Gadara).

Preliminary Report on Gadara / Umm Qais

Preliminary report for the 1996 spring season in Gadara/ Umm Qais carried out by the German Archaeological Institute (DAI) Berlin in cooperation with the Technical University of Cottbus.

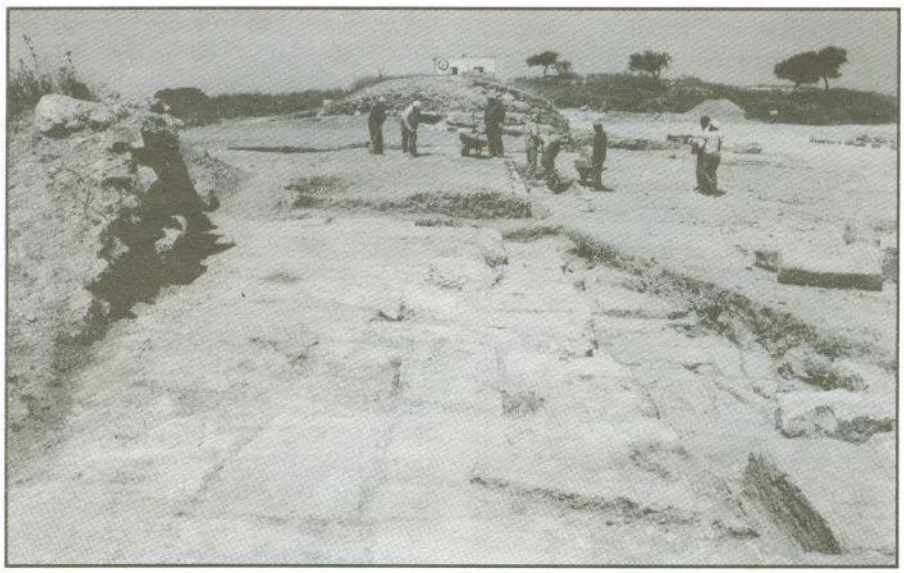
By: Adolf Hoffmann, Technical University of Cottbus (Germany) and Günther Schauerte, Staatliche Museen zu Berlin - Preußischer Kulturbesitz (Germany)

In 1995 research at Gadara concentrated on the city wall and on a complex northeast of the acropolis hill that turned out to be a large sanctuary, with a podium temple in the centre surrounded by a spacious and probably walled temenos. South of the acropolis hill several traces of the Hellenistic zig-zag city wall, with arrow-shaped towers and a city entrance, could be identified. After a disastrous destruction of the city wall it was reerected in Roman-imperial times and concomitantly the city was remarkably enlarged and protected by a new wall. This new western city wall can be traced along its entire length of 1.7 km, including strong fortification works at its westernmost trench.

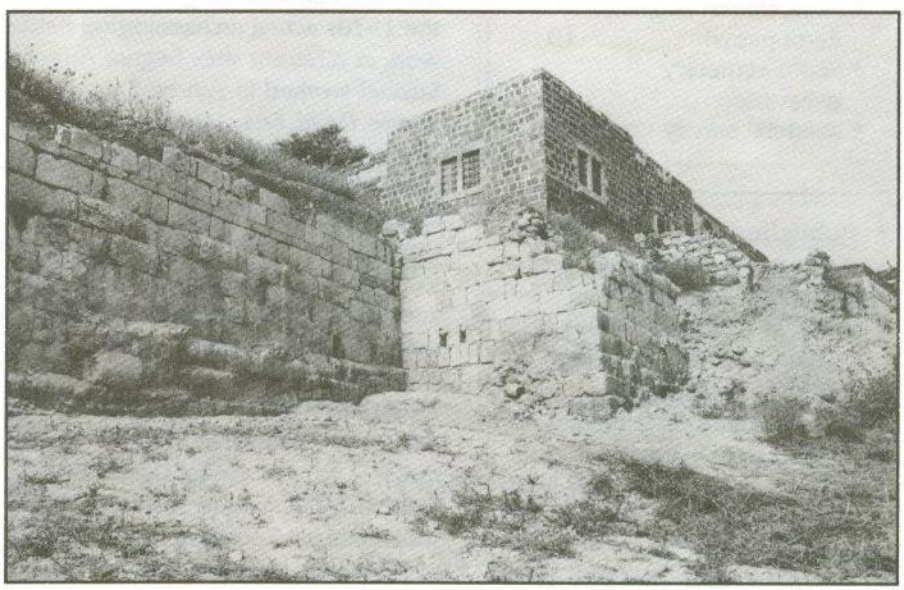
Trikonchos building : This year's work (07.04.-08.05.1996) aimed to clarify the connections of the Trikonchos with the adjoining architectural remains in the southwestern corner of the Hellenistic city (Beit Melkawi II). There is no positive architectural evidence that the Trikonchos was actually a church. The architectural form of the Trikonchos was probably a part of a domestic complex and was later used as a burial chapel. The mosaic in the adjoining room to the southwest (excavated in 1992 and 1993) had a design comparable to those found in the side aisles of some Byzantine churches in Jordan, but the extreme northerly position of this room precludes the existence of a nave in connection with the Trikonchos.

City wall : The original second century B. C. Seleucid city wall, now uncovered along almost the complete length of the southern flank of the Hellenistic city, could not be traced on the southwestern edge of the Hellenistic acropolis (Beit Melkawi II). The corner we excavated turned out to be rebuilt probably in the second half of the first century A. D.

Area of the northeastern temple : Continuing on last season's excavations, two main areas were investigated. In the south, a paved area



In foreground, the excavated portion of the Via Sacra, leading to the temple, at Umm Qais/ Gadara.



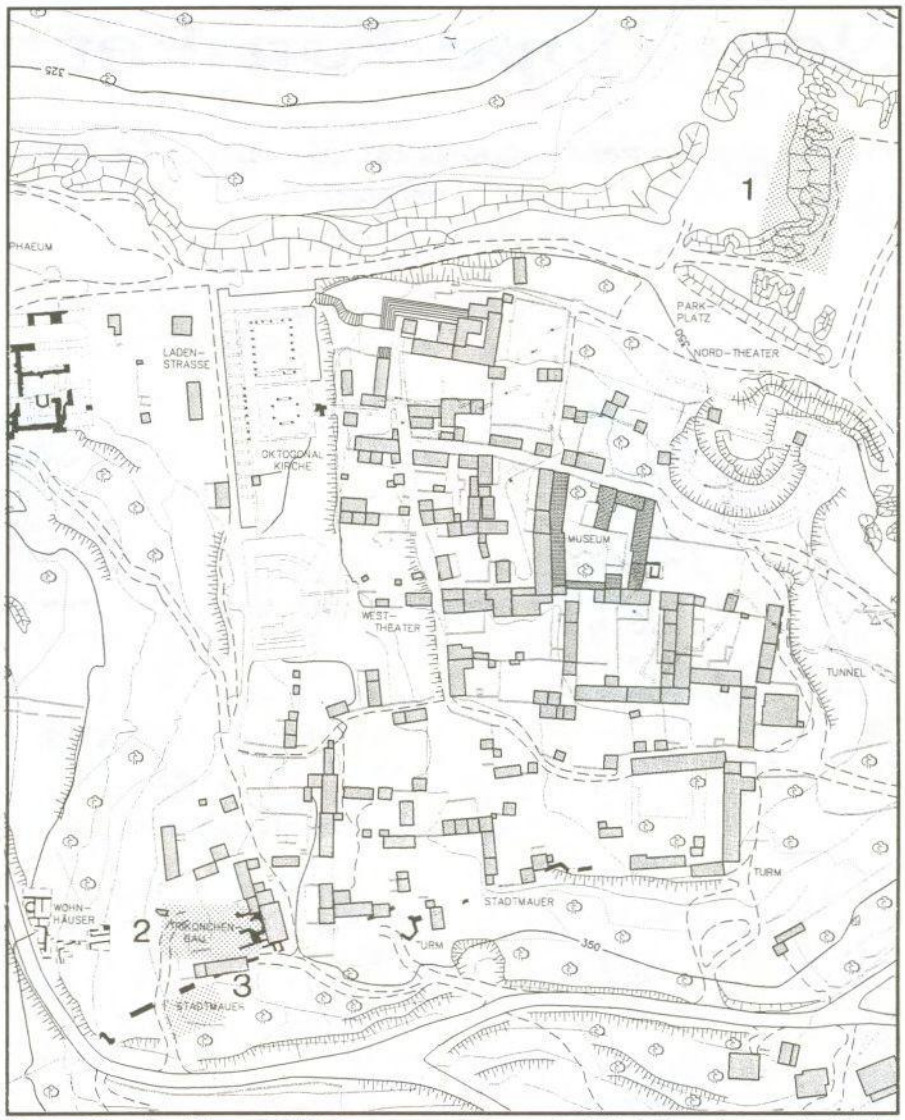
Excavated portions of the Hellenistic/Roman city wall at Umm Qais/Gadara, with the German dig house, the restored Beit Melkawi, above it.

was exposed in a narrow trench. This year the area was expanded in order to try to determine its extent and function. The excavations have uncovered a north-south length of at least 22 metres of a 30-metre-long via sacra. The foundations are very substantial — two metres of very large limestone rubble resting on bedrock. Directly to the east of the paved path is a slightly lower strip of foundation stones approximately 2.5 metres in width. These foundations also go down to bedrock and may form part of a Propylon.

At the temple a trench was opened on the east and south sides in order to try to understand the construction of the temple and its connection to the paved area to the south. The north end of the trench was excavated down to bedrock. We found that this area had been a quarry. There is a partly cut block still in situ. The quarry was abandoned and covered with fill. The original surface of the temenos surrounding the temple seems to have been robbed out, although traces of what may have been a surface of crushed and compacted limestones were found on the east side of the sub-structure.

Above this level was a layer of ashy destruction debris containing large quantities of broken roof tiles and some architectural fragments. These included some pieces with cut profiles, one block with a triglyph and traces of plaster, and a large block which was the end of the right side of the pediment. Other finds amongst the debris were two small limestone lion's heads and the broken torso of a female statuette.

The pottery of the early 1st Century B.C. found in the foundations of the via sacra, and the old fashioned doric architecture of the temple suggest that the whole complex might have been constructed in pre-Roman times. ■



A plan of the site of Umm Qais/Gadara; excavated areas include the temple complex (1), the Trikonchos building (2) and the city wall (3).

The German excavation team at Umm Qais/Gadara shown with the visiting German Embassy Cultural Attache Ingrid Liedgens (top row, centre, in sunglasses).

New Hope For Petra Facades

German Government supports establishment of a Jordanian Conservation and Restoration Center in Petra (CARCIP) through long-term GTZ project.

By: Helge H. Fischer (Project Director of CARCIP)

Everyone who has walked through the ancient city of Petra must have noticed the numerous evident signs of decay of the monuments. Most of us who go to Petra don't go there in search of evidence of accelerated disintegration: to the contrary, we go there to study and admire the best preserved examples of Nabatean architecture, the ones that show the least traces of decay, such as the Khazneh, the Urn tomb, the Palace tomb or Ed Deir.

But, what happened to the other monuments, the ones that didn't survive intact to the present? It is a well established fact that once there were thousands of facades, not all of them as mighty and overwhelming as the Khazneh or Ed Deir, but nevertheless architectural and masonry pieces of art in themselves. If one looks out for these other, only rarely and often just accidentally visited facades, one quickly realizes a disastrous fact: that most of the tombs are eroded beyond recognition. For all practical purposes they are gone, lost forever. We can only imagine what jewels once were there, particularly considering that virtually all facades were once decorated and painted.

A conservative estimate would be that more than 90 % of the once elaborately chiseled and decorated facades are weathered beyond recognition. The reason for this loss is straightforward and simple: almost $1^{1/2}$ millennia of neglect, exposure and abuse, and, as with many other historical monuments the world over, loss of interest and appreciation.

Once, however, civilization loses interest in cultural achievements of the past, the forces of nature slowly but efficiently take over: wind, weather, gravity and, above all, the action of water, take their toll. The effects of these weathering processes, chemical and mechanical, are devastating, and sooner or later lead to an almost complete loss of the original structure.

CARCIP -- CONSERVATION AND RESTORATION CENTER IN PETRA

CARCIP
Conservation and Restoration
Center in Petra

The Nabateans must have known how endangered their precious monuments were, as witnessed by the many staircases they build solely for the purpose of maintenance and care: everything was accessible. They chiseled channels to divert water from the front of tombs, channels that had to be kept open; they also coated and painted their facades, a finish that could be renewed if the need arose, and they must have busily restored their monuments in order to keep them in shape, in respect for their ancestors but also maybe out of personal pride.

After the Nabateans left, all this maintenance ceased. The monuments were reintegrated into the cycle of nature, the cycle of erosion and decay. Channels got clogged, fractures were left open, and water was allowed to attack the monument from within and from outside. That is ultimately why most of them have almost completely disappeared, and why only a few of them, almost miraculously, survived, though battered.

The major underlying reason for the evident accelerated decay of the monuments is man-made, and primarily due to neglect, a neglect that continues up to the present.

After Petra was declared a world heritage site by UNESCO, not only out of respect and admiration for its cultural uniqueness and importance but also for practical reasons, to ensure better protection of the monuments that had survived, one would assume that a gradual reversal, from neglect to serious attention, would have taken place.

The sad truth, however, is that so far very little has happened to ensure the survival even of the most prominent examples of Nabatean architecture. Is this cause for alarm? Let's think about it: if, let's say, 15 centuries were enough to obliterate more than 90 % of the facades, how long will it take until these last preserved samples of Nabatean architecture disappear? Decay is an accelerat-

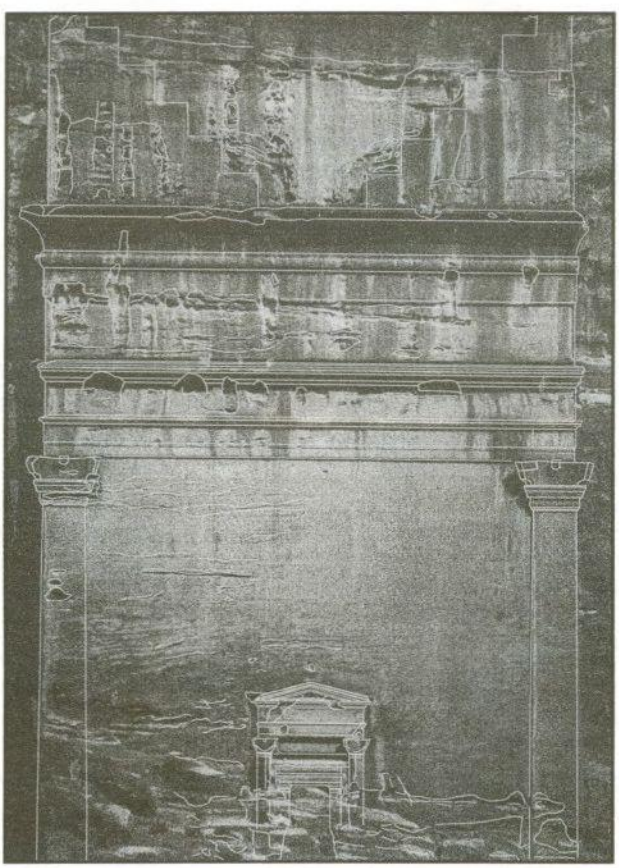
ing process: the fact that some monuments survived in relatively presentable shape for almost two thousand years gives no guarantee that they will survive much longer. Of course, we can always leave the matter to future generations...

The few, honorable attempts that have been made to save some of the substance, e.g. at the Khazneh, the Palace tomb or Qasr el-Bint, were, to make things even worse, actually failures. They were well intended efforts in their time, but we know now that they were futile and in fact in the long run may be more harmful to the monuments than if nothing had been done; the excessive use of rich, undiluted Portland cement, with its entirely different properties compared to the sandstone from which the tombs were chiseled, forms an incompatible mix.

Nevertheless, these attempts were a start on which one could have built, gaining experience in the process and developing ever better methods of restoration and conservation. Nothing of this kind, though, happened, and we have reason to believe that this constitutes the single most significant threat to the survival of the remaining monuments: lack of continuity, dedication and passed-on knowledge.

This dilemma and the need for a continuous effort were first realized at the Institute of Archaeology and Anthropology at Yarmouk University in Jordan. Recognizing the complexity of the issue, and the lack of any tradition in the field of stone conservation and restoration on any significant scale in Jordan, they approached the German government for technical assistance. The tedious preparatory work, and the enthusiasm and dedication of the Jordanian participants in the project to be, finally paid of: they received a positive response, and what was first known as the "Petra Stone Preservation Project" and later as the "Jordanian German Project for the Establishment of a Conservation and Restoration Center in Petra (CARCIP)" was born and subsequently implemented.

In close cooperation between Jordanian and German experts the project was meant to achieve two goals from the beginning: continuity and independence. In other words, the Center to be established should be an entirely Jordanian effort, making the country essentially independent of foreign expertise and interference, and it should ensure continuous work instead of relying on intermittent activities. In fact, it was this strategy of offering help for self-help that was most convincing to the German authorities and led them in the end to fully support this project, which is somewhat unusual for an agency dealing with development assistance.



In a joint, systematic analysis and planning workshop the Jordanian and German partners agreed to join efforts to implement the project goal within a time frame of about 7 years: The Conservation and Restoration Center in Petra (CARCIP) would be able to independently plan, supervise and execute Conservation and Restoration work on the facades.

After two years of continuous support from the German Agency for Technical Cooperation (GTZ), the project is fully on track: the rock properties of the sandstones in Petra are being established, behavior of a vast range of materials is being tested, a steady flow of materials is arriving in Petra, other cooperating institutions are starting operations, staff is being trained in specifically tailored courses in Germany and on site, and the idea of the Center, CARCIP, is gradually taking shape. Considering that virtually everything had to be started from scratch, it is a huge effort: test programs for laboratory and field had to be designed, suitable equipment selected, purchased and shipped, training needs identified and transformed into programs, space made available, authorities convinced, and awareness created in order to build up motivation, dedication and support, without which any such effort is futile. This process is still ongoing. The first 3-year build-up phase of the project is not yet finished, and 2 further phases are planned until the goal is reached. Nevertheless, the whole effort builds up to the goal of a dedicated Center in Petra that takes care of the monuments, efficiently, professionally and on a permanent basis. Indeed, after centuries of neglect and abuse there is now hope that what remains to us from Nabatean architecture in Petra will finally be preserved for future generations, and the long cycle of neglect and decay will be brought to an end. ■

Water Supplies of Early Bronze Age Towns

Preliminary Remarks on the Water Supplies of Early Bronze Age Towns in the Southern Levant.

By: Hermann Genz, University of Tübingen (Germany)

The Early Bronze Age of the Southern Levant is characterized by the emergence of fortified towns. Debate still ranges about the reasons for the fortifications, whether for protection or for prestige, but the protection offered by the fortifications still seems to be the major reason for their construction. The walls, towers and gates reach enormous dimensions in some cases (see, for instance, Tel Yarmuth and Khirbet ez-Zeraqon), offering more protection than needed just to fend off occasional raids.

Although it is well known that the water supply for a town under siege is a crucial point, surprisingly little work has been done on the water supplies of these towns (see Helms 1981: 9ff.; Helms 1982: 109ff.; Miller 1980: 335ff.).

In principle, several possibilities exist to ensure the water supply for the population within the walls:

1. to include a spring in the fortified area
2. to locate the settlement adjacent to a lake or perennial river
3. to collect runoff water in ponds or cisterns
4. to reach the groundwatertable by means of shafts or galleries

A good example of the first option is Tell es-Sultan, where the spring of Ain es-Sultan was most likely included within the Early Bronze Age fortification (Helms 1982: 112). Khirbet el-Kerak can be cited as an example of option two, there the Sea of Galilee formed the eastern border of the site (Helms 1981: 11). Pools to collect runoff water were excavated at et-Tell, and very likely also Arad can be included in this category (Miller 1980: 336; Helms 1982: 110ff.). Jawa in the Eastern Desert of Jordan has several large pools to collect runoff water from Wadi Rajil (Helms 1981: 157ff.), but the whole system is located outside the fortifications. For option four no conclusive evidence has yet been found from the Early Bronze Age.

At Khirbet ez-Zeraqon, 12 km northeast of Irbid, a 9-ha. fortified town from the Early Bronze Age II-III has been examined (Ibrahim/Mittmann 1989). Inside the fortified area three

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Fellows in Residence (January-May 1996)

- Dr. Roland Lamprichs, University of Freiburg (Germany), "Excavations at Abu Snesleh: Preparation of Final Report"
- Jan Martin Klessing, Dipl. Ing., Karlsruhe (Germany), "Damage assessment of the Ottoman village of Umm Qais and preparation of planning concept for the further development of the site"
- Prof. Dr. Beat Brenk, Dr. Carola Jäggi, University of Basel, and Dr. Hans-Rudolf Meier, Federal Institute of Technology Zürich (ETH) (Switzerland), "Jerash Cathedral Project".
- Dr. Friedrich von Heyl, Robert-Bosch Foundation (Germany), "Aqaba Area - Regional Development Perspectives and Foreign Investment Opportunities"
- Brigitta Meier, Robert-Bosch Foundation (Germany), "Water Management and Salinity Problems in the Jordan Valley"
- Najma Bachelani, University of Michigan (U.S.A.), "Mobilization, democratization and collective action: Jordan, 1989-present"
- Anja Wünsch, University of Leipzig (Germany), "Modern Economic Development in Jordan and the Impact of the Structural Adjustment Program"
- Umm Qais excavation team from the German Archaeological Institute (DAI) Berlin and the Technical University of Cottbus: Prof. Dr. Adolf Hoffmann (director), Dr. Günther Schauerte (acting director), Claudia Bührig (architect), Thorsten Bunk (architect), Heinz-Holger Hirth (excavation engineer), Brita Jansen (archaeologist), Nadine Riedl (archaeologist), Isabelle Ruben (archaeologist and photographer) and Wolfgang Thiel (archaeologist).
- Scholars holding a one-year travel scholarship from the German Archaeological Institute (DAI): Dr. Cartsen Schneider, Dr. Dirk Steuernagel, Dr. Holger Baitinger, Dr. Winfried Held, Dr. Heike Frielinghaus, Dr. Dirk Lenz.

(continued from page 6)
stepped shafts lead down to an aquifer, which feeds a small spring on the eastern slope of the site, halfway down to the Wadi esh-Shellale. On the level of the aquifer, a natural cave has been extended by a manmade tunnel, leading for more than 200 m under the site. Today the water coming from the tunnel is used to water a small orchard near the bottom of Wadi esh-Shellale. So far it is not clear whether the stepped shafts and the tunnel are connected. No positive evidence of the date of the whole system has yet been found, but due to the fact that Zeraqon was never resettled in post-Early Bronze periods, one may speculate that this water system goes back to the period of the walled Early Bronze Age town. The technology existed to built shafts and tunnels through bedrock then, as proven by the Early Bronze Age copper mines in the Wadi Faynan region.

Clearly more research is needed on the nature and technology of Early Bronze Age water systems, and this may eventually lead to a better understanding of the phenomenon of the walled Early Bronze Age towns in the Southern Levant.

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Miller, R.: Water Use in Syria and Palestine from the Neolithic to the Bronze Age. - In: World Archaeology 11, 1980, 331-341. ■

Excavations at Abu Snesleh

Excavations at Abu Snesleh 1990 and 1992: Preparation of final report - Stratigraphy and Architecture.

By: Roland Lamprichs, University of Freiburg (Germany)

The results of two seasons of excavations at Abu Snesleh and further analysis of the material in 1995 and early 1996 can be summarized as follows:

1. Stratigraphy

Nine layers of occupation debris could be separated at Abu Snesleh. The most recent finds are from the Ayyubid/Middle Islamic Period, whereas the oldest cultural remains uncovered at Abu Snesleh date to Neolithic and Epipaleolithic times. The main occupation levels, however, date from the Chalcolithic and Middle Bronze Age periods, which are both represented by substantial architectural remains. There are no indications so far of an Early Bronze Age settlement at Abu Snesleh so far.

2. Architecture

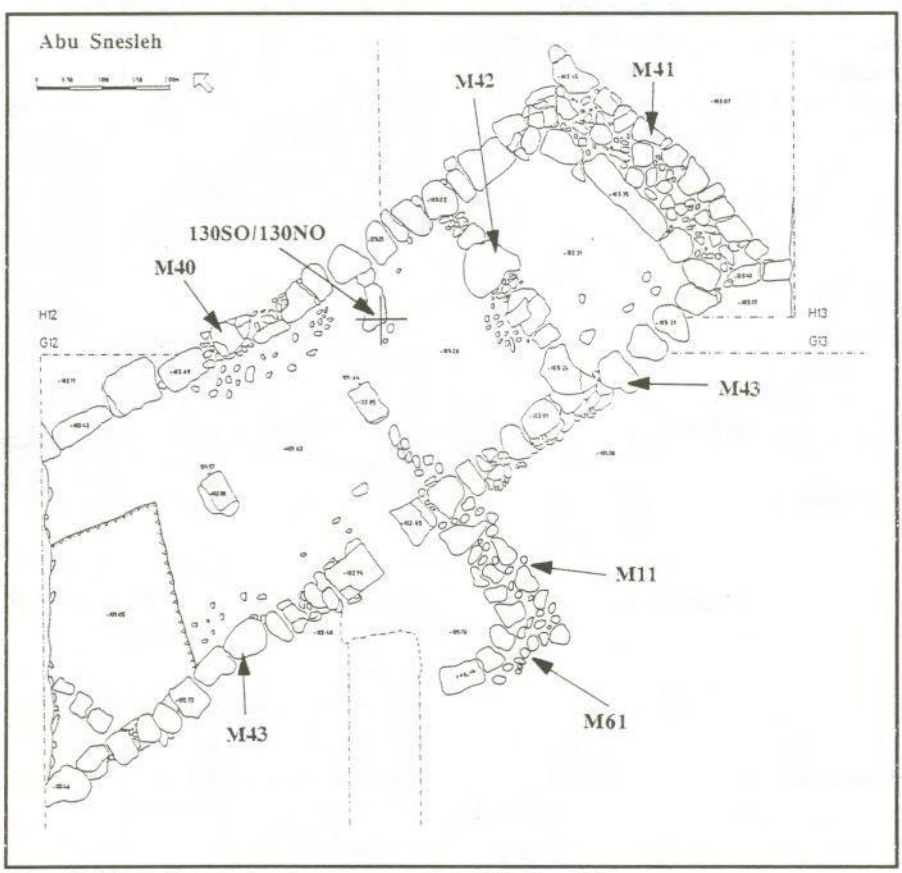
The Middle Bronze Age settlement at Abu Snesleh most probably consists of several houses grouped around an open courtyard. Several storage jars, fireplaces, and ash and rubbish pits found "in situ", as well as the analysis of animal bones found in this area, showed that the open space between the houses has to be connected with domestic activities like butchering of sheep and goats. Charcoal remains showed that the inhabitants used wood from pistachio and olive trees.

The architectural remains of this period include an almost complete two-room house, measuring 14 m by 4.5 m. The walls, built of large limestone blocks that were smoothed on their external face, are standing up to 1.3 m in height. Nicely finished limestone "pillars" (height: approx. 1 m) inside the house probably served to hold the wooden posts that supported the roof. The house was entered through a big doorway in its southern wall.

The Late Chalcolithic remains also include houses, floors and other elements of a permanent settlement. One rectangular house was excavated almost completely. It measured 4.8 m by 2.0 m. The well preserved walls are made of double rows of small stones built without mortar. They still stand up to 1.35 m. Their outer faces were slightly smoothed. The entrance to the house was decorated with prominent pilasters. Inside the house we found long stone slabs that probably formed a corbelling system to support the roof. Material remains found on the floor of the building include many flint tools used for purposes related to stock breeding (i.e. burins, scrapers, notches).

Acknowlegdements

The excavation at Abu Snesleh, located about 30km southeast of Amman, was directed by Dr. R. Bernbeck (Binghampton / USA), S. Kerner, M. A. (Amman / Jordan), Dr. R. Lamprichs (Freiburg / Germany) and Dr. G. Lehmann (Berlin / Germany). A reconstruction of the stratigraphic conditions and an analysis of the architectural remains were done by the author in 1995 and early 1996. This work was funded by the Alexander von Humboldt-Stiftung (Feodor Lynen Programm). Logistical help was given to me by Prof. Dr. Zeidan Kafafi, Institute of Archaeology and Anthropology, Yarmouk University, Irbid and Dr. H.-D. Bienert, German Protestant Institute of Archaeology in Amman. Thank you to all of them! ■

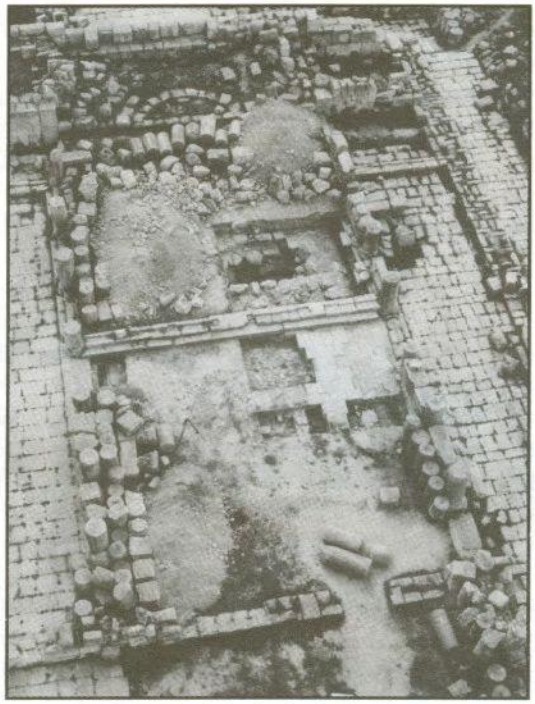


Plan of a Middle Bronze Age house excavated at Abu Snesleh.

Jerash Cathedral Project

By: Carola Jäggi, University of Basel (Switzerland)

The Cathedral of Jerash is mentioned in every handbook of early Christian architecture. Since its discovery in the late 1920s it has always been dated to the middle of the 4th century and is said to have replaced a temple of Dionysos, with both of these theses based on not very explicit written sources. Archaeological evidence, however, has never been provided, though the final publication of the excavations of 1928/1929 [C. H. Kraeling (ed.), Gerasa. City of the Decapolis. New Haven 1938] is one of the best dig reports of its time. To fill this gap, a small Swiss team from the University of Basel and the Federal Institute of Technology Zürich (ETH) started new research on Jerash Cathedral in 1993 (see references). During our third stage (March - April 1996) we opened some trenches next to the position of the early Christian ambo. We found that the steps of the bema do not belong to the original church but to a transformation no earlier than the late 6th century. Coin finds, which have not yet been studied, will hopefully give us a hint about the construction date of the first church. We also know now that there was a temple before the Christian basilica was built; from a first examination of the accompanying finds this temple seems to date from the first half of the 2nd century A.D. But it is still not clear when and how this temple was destroyed, a question which will be the focus of the next stage of the dig.



Aerial view of the Cathedral at Jerash.

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Something unusual at the Institute: A Historian Looking After the Investment Climate in Jordan

By: Friedrich C. von Heyl, Munich, (Germany)

With a scholarship from the Robert Bosch Foundation, Stuttgart (Germany), for its Graduate Program for International Affairs, I am staying for five months in Jordan to investigate the Jordanian investment climate. Luckily, even though I am neither an archaeologist nor a theologian, I stayed in one of the little rooms in the German Protestant Institute, which provides me with a friendly base for research, and allows me to learn something about the life of archeologists and the richness of the archeological treasures of Jordan. Where else do social and economic historians hear about the Roman temple beneath the cathedral in Jerash or about the city wall of Umm Qais? So I enjoyed - besides my work - quite a few nice weekends around Amman.

The investment climate in Jordan deserves to be investigated be-

cause it is one of the potential keys to improving the Jordanian economy, and enjoys brand new investment legislation designed to attract more foreign investments. The trend is very promising: In the first quarter of 1996 investments reached 76 per cent of last year's total amount, and attracted high levels of foreign investments. Although the figures are always worthwhile to look at, the investigation of the investment climate must deal with the whole economic climate, including administrative performance, and the political environment in Jordan and the region.

Jordan's political structure seems to be stable and works successfully, but the regional political picture is highly affected by the Iraqi tragedy, on the one hand, which proves the inappropriateness of an economic embargo against a dictatorship, and the brutal terror and bombing in Israel, the Palestinian territories and Lebanon, on the other hand. Jordan might play an important role in resolving the Israeli-Arab conflict, if it manages to remain neutral, but its own interests are affected by both parties. Israel affects Jordan economically and Palestine affects Jordan through population linkages.

One might easily forget the well-known principle that every peace process needs time, and usually longer than initially anticipated. The friendship between Germans and French was not built in a month's time. But it is worthwhile to work on the peace. Investments in Jordan are likely to support the political efforts of a peaceful country within a struggling region. Their big advantage is to be products of local private interests instead of foreign governmental assistance, and therefore, out of self interest, they can strengthen the sustainability of Jordan's economic development. ■

The Prehistory of Jordan

After eight years: Preparing the Second Volume of The Prehistory of Jordan

By: H. G. Gebel (Free University of Berlin, Germany)

When the first comprehensive survey of prehistoric work in Jordan was published in 1988 under the editorship of Andrew N. Garrard and Hans Georg Gebel (The Prehistory of Jordan. The State of Research in 1986. British Archaeological Reports - International Series 396.1-2. Oxford, B.A.R.), research on prehistoric Jordan already had established itself as the most active, growing field in Jordanian archaeology. This trend has continued, and has created the need for a second publication after some eight years: The Prehistory of Jordan, II. Perspectives from 1996, is being prepared for publication by Hans Georg Gebel, Zeidan Kafafi and Gary O. Rollefson (eds.) as Volume 4 of the Studies in Early Near Eastern Production, Subsistence, and Environment (Berlin, *ex oriente*). While the earlier publication summarized results reached so far, the new publication is meant to collect contributions from which future research perspectives and needs could be outlined. The following is the current list of contents of the new publication (by kind permission of *ex oriente*, Berlin).

Editors' Introduction

Palaeolithic

Phillip G. Macumber and Phillip C. Edwards: Preliminary Results from the Acheulian Site of Masharia 1 and a New Stratigraphic Framework for the Lower Palaeolithic of the East Jordan Valley

J. Thomas Golden: Preliminary Report of the Lithic Assemblage from J444, a Levantine Mousterian Rock Shelter, South Jordan

Joseph Schuldenrein and Geoffrey A. Clark: Stratigraphic Contexts of the Middle Palaeolithic Horizons at 'Ain Difla Rock Shelter, West Central Jordan

Nancy R. Coinman: Reconstructing Reduction Strategies at Upper Paleolithic Sites in the Wadi Hasa and South Jordan

Jesse W. Benton: Local Chert Availability and the Frison Effect on Upper Paleolithic Endscrapers from the Wadi Hisma, South Jordan

Kristopher W. Kerry: Tor Fawaz and Jebel Humeima: A Re-evaluation of Upper Paleolithic Lithic Assemblages and Technotypological Relationships in Southwest Jordan

John K. Williams: A Technotypological Assessment of the Lithic Assemblage From Tor Aeid, an Upper Paleolithic Site in Southern Jordan

Daniel Schyle and Hans Georg Gebel: A Surface Collection from Siq Umm al-Alda 1, an Upper Palaeolithic Site Near Petra

Deborah Olszewski: From the Late Ahmarian to the Early Natufian. A Summary of Hunter-Gatherer Activities at Yutil al-Hasa, West-Central Jordan

Neolithic

Ian Kuijt: Trying to Fit Round Houses Into Square Holes: Re-examining the Timing of the South-Central Levantine Pre-Pottery Neolithic A and Pre-Pottery Neolithic B Cultural Transition

Hamzeh Mahasneh: Es-Sifiya. A Neolithic Village from the Seventh Millennium B.C., Wadi Mujib

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Russel B. Adams: The Early History of Copper Metallurgy in the Southern Levant

List of scholars involved in the pre-Bronze-Age prehistoric research of Jordan. ■

Petra Church Papyri

By: Pierre M. Bikai [American Center of Oriental Research (ACOR), Amman, Jordan]

With the conservation phase completed, the publication phase of work on the Petra papyrus scrolls has been conducted in 1995-1996 by the University of Michigan and Finnish teams. All 152 rolls, some written on both sides, contain documentary texts written mainly in Greek. The papyri are economic documents dealing with possessions, dispositions and acquisitions of real estate and other types of property. There are sworn and unsworn contracts, agreements and settlements of disputes concerning loans, sales, divisions of property, cessions, registrations, marriages and inheritance.

The texts cover a period of some 50 years between A.D. 528 and 578 (or perhaps A.D. 582), i.e., during the reign of the Emperor Justinian and his successors. Many of the documents refer to Petra as Augustocolonia Antoniana Hadriana Metropolis of the Province Palaestina Tertia Salutaris. Among the key figures in the texts are men of administrative ranks: ecclesiastic, civilian, and military, who bear typical Byzantine honorific titles. Almost every man bears the status-name of the upper class, Flavius, and once, we find also a woman named Kyra signing a marriage contract in her own hand. Some slaves have been identified, not only as property, but also as farmers. ■

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South Cemetery Excavation at Wadi Faynan

By: Alison McQuitty [British Institute at Amman for Archaeology and History (BIAAH)]

The British Institute at Amman for Archaeology and History began a long-term research project in the Wadi Faynan in 1994. The rescue excavation of the large Byzantine cemetery east of Khirbat Faynan took place in the winter of 1995/6 under the joint directorship of Mr George Macrae Findlater (BIAAH) and Dr Mahmoud Najjar [Institute of Archaeology & Anthropology (IAA), Yarmouk University]. The Department of Antiquities was represented by Mr Jihad Darweesh and Mr Emad Droos. Funding was provided by BIAAH, the British Embassy in Amman and Yarmouk University.

The site itself covers an area of 36,000 square metres and is distinguished by at least 1,200 sandstone orthostats. Over 200 of these presumed headstones were engraved with a variety of Christian crosses. It is known from Eusebius that Christian slaves were sent to work in the coppermines of Phaino where many perished or were martyred. In addition, the large settlement site of Khirbat Faynan testifies to a large Byzantine population in the area; 60% of the graves had been looted so there was an obvious need to carry out rescue work on the site.

A total of 50 inhumations were recovered during the season and these are being analysed at the IAA, Yarmouk University. Excavation showed that many of the graves do not have markers and the count from previous seasons must be seen as the minimum number of graves. The majority of the inhumations were buried with no grave goods. However, a large number of skeletons had extensive pieces of textile shroud still surviving and frequently leather shoes were found. The richer grave goods that were recovered were invariably found with female inhumations and relate to a distinct cosmetic assemblage that has parallels with other late Roman/Byzantine cemeteries. These finds include bead necklaces, ivory and copper bracelets, wooden combs, mirrors, spatulae, ivory make-up bottles and glass vessels. Apart from several inscribed headstones, five inscriptions were recovered from the site, two of which had been previously recorded.

The finds and skeletal material are being studied at BIAAH and the IAA, Yarmouk University. ■

An excavated grave in the South Cemetery at Wadi Faynan.

(continued from page 1)
headed by Ute Wagner-Lux, Ernst Axel Knauf, Thomas Weber, Susanne Kerner, and since 1996, Hans-Dieter Bienert.

The institutes - apart from archaeological field work - have other obligations. Once a year a group of theologians receive a scholarship from the Lutheran Church of Germany to travel to the "Holy Land" (an area very generously defined here, sometimes even including Egypt, Syria and Turkey) and study the archaeology, topography and history of this area. The logistics of this study-course have changed considerably since then, from sleeping in tents, riding on mule-back and being woken at four in the morning by a shrill whistle, to using one of the institute buses, staying in our guest-rooms, and having dinner at one of Amman's Arab restaurants. But the main purpose is still to learn as much as possible about the "Holy Land" in a very short period of time.

Another aspect of the institute's responsibilities in Amman is cooperation with other local and foreign institutions in Jordan, such as jointly organized lectures or exhibitions about German archaeological work in general, where the institute represents not only its own projects but also the work of German universities and other institutions in Jordan. This can also include projects with our Jordanian counterpart, the Department of Antiquities. It is our intention to further strengthen cooperation with Jordanian and foreign institutions.

The main archaeological activity of the Germany Protestant Institute in Amman is the excavation in Umm Qais. Thanks to the German Embassy, which provided money from the cultural fund of the Ministry of Foreign Affairs, the institute owns a relatively complete set of survey instruments and materials. Excavation to date has revealed parts of a Hellenistic-Roman-Byzantine city. It comprises a terrace with a central church and the smaller of two theatres, the bath, the so-called nymphaeum, a subterranean mausoleum, and three city-gates.

Other areas of interest are the early Roman living quarters and the water system; these excavations were undertaken by Susanne Kerner, who was the head of the Amman Institute between 1990 and 1995. Other work in Umm Qais includes restorations of (so far) three houses in the Ottoman village, financed by the cultural fund of the German Ministry of Foreign Affairs via the German Embassy. The most prominent one, Bait Rusan, now houses the local museum in Umm Qais, which gives an overview of the material excavated so far. The Amman institute is working in close cooperation with the German Archaeological Institute (DAI) which, as well as excavating at Umm Qais, supports the institute by covering the costs of providing an assistant director. It also provides support, help and advice for other archaeological missions - German and non-German - that work in Jordan.

In addition it offers accommodation (seven beds in three single and two double rooms) to scholars. Its library of more than 5600 books and journals is open to researchers, students and anybody interested in the archaeology and history of the Near East. The institute also owns a collection of over 8000 photographs and around 1500 slides. ■