BOOK OF ABSTRACTS

THE ARCHAOLOGY AND HISTORY OF JERASH
110 YEARS OF EXCAVATIONS

2-3 MARCH 2017

ORGANISED BY ACHIM LICHTENBERGER, WESTF. WILHELMS-UNIVERSITÄT MÜNSTER RUBINA RAJA, AARHUS UNIVERSITY

DJERASH

VUE GÉNÉRALE PRISE DU TEMPLE DU SUD

HOSTED BY

THE ROYAL DANISH ACADEMY OF SCIENCES AND LETTERS





Danmarks Grundforskningsfond Danish National Research Foundation



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OUTLINE



110 years ago, in 1907, the first excavations were undertaken in Jerash. It was the beginning of an intensive and continuous period of research in this major city of the Decapolis. Large-scale excavations were undertaken in the 1920s and 1930s after the institution of the mandate. These were followed by several international projects, most nameworthy the large initiative begun in the late 1970s, Jerash Archaeological Project. From the outset of excavations within the urban space of Jerash, the Greco-Roman city Gerasa with its public monuments along the cardo was one of the foci. Furthermore, Christian churches found special interest in the early years as well as in later periods. In the last decennia research interests have shifted, moving away from the large public monuments to the areas beyond the city centre and chronological focus left behind the classical and early Christian periods and encompassed the later periods, in particular the Early and Middle Islamic periods. Also, the restoration and preservation of the monuments and the presentation to the public have become important issues but also challenges. These changed interests reflect current questions of archaeology, which have intensified the view on long-term transformations and the transitional periods as well as relations between city and hinterland.

In order to move the understanding of the development of Jerash forward it is necessary to bring together researchers who have worked in Jerash over the last decades. Such a communal effort will bring the contextualization of this important site further within a local, regional as well as wider framework of the Hellenistic, Roman, Islamic and Medieval worlds. It is important to view Jerash as a case-study of a major city in the Levant and to further understand its place in cultural history.

Therefore, a programme reflecting the research undertaken in Jerash over the last decades has been put together by the organisers in order to facilitate fruitful dialogue between the various missions working in Jerash earlier and today.



Programme

THURSDAY 2 MARCH

8.30 Registration and coffee (3rd floor)

Introduction (1st floor—meeting hall)

- 9.00 **Introduction**Achim Lichtenberger & Rubina Raja
- 9.15 Archaeological Research in Jerash and the Danish-German Northwest Quarter Project 2011-2016 Achim Lichtenberger & Rubina Raja

Session 1: The landscape (chair: Rubina Raja)

- 10.15 The role of landscape in the occupational history of Gerasa and its hinterland Don Boyer
- 11.15 Soils, sediments and environmental history: Introducing geosciences to archaeology at Jerash
 Genevieve A. Holdridge, Kristine Thomsen,
 Søren M. Kristiansen & Ian A. Simpson

12.15 Lunch

Session 2: Spatial organisation (chair: Rubina Raja)

- 13.15 Suburban life in southwest Jarash from the Roman to the Abbasid period Louise Blanke
- 14.15 Urbanism at Islamic Jarash: New readings from archaeology and history Alan Walmsley
- 15.15 The Northwest Quarter of Jerash: Outlines of a settlement history
 Georg Kalaitzoglou
- 16.15 Break

Session 3: Buildings in the the cityscape (chair: Achim Lichtenberger)

- 16.45 The Artemis Temple in Jarash: Overreaching or resistance? Massimo Brizzi
- 17.45 The 'great eastern baths' of Jerash/ Gerasa: Balance of knowledge and ongoing research Thomas Lepaon
- 18.45 A Byzantine thermopolium on the main colonnaded street in Gerasa
 Daniela Baldoni

FRIDAY 3 MARCH

8.30 Coffee (3rd floor)

Session 1: Site management (1st floor—meeting hall) (chair: Achim Lichtenberger)

- 9.00 The challenges facing Jerash archaeological site development Ali Al Khayyat
- 10.00 Recent Italian restoration work and excavation in the Sanctuary of Artemis Roberto Parapetti

11.00 Break

Session 2: Written records—archaeological finds (chair: Achim Lichtenberger)

- 11.30 Why did Hadrian spend the winter of 129/130 in Gerasa?
 Jacques Seigne
- 12.30 Romans in Gerasa: A Greek inscription from the hippodrome excavations Pierre-Louis Gatier

13.30 Lunch

Session 3: An abundance of records (chair: Rubina Raja)

- 14.30 **Tell Abu Suwwan, Jerash, Jordan: Neo- lithic skulls and rituals**Maysoon al Nahar
- 15.30 High pottery quantity: Some remarks on ceramics in context from the Danish-German Jerash Northwest Quarter Project Heike Möller
- 16.30 Break
- 17.00 Working with coins in Jerash: Problems, solutions and preliminary results
 Ingrid & Wolfgang Schulze
- 18.00 Forensic investigations of the Jerash glass Gry Barfod
- 19.00 Final discussion and publication process
- 20.30 Dinner in town

<u>Abstracts</u>



ARCHAEOLOGICAL RESEARCH IN JERASH AND THE DANISH-GERMAN NORTHWEST QUARTER PROJECT 2011-2016

Since 2011 a Danish-German team from respectively Aarhus University and Bochum/Münster Universities has been working in the Northwest Quarter of Jerash. This approximately 4 hectar large area is the highest point within the walled city. It lies prominently behind the Roman period Artemision overlooking the city with a commanding view.

The intention of the Northwest Quarter Project was to clarify the settlement history of this area from the earliest attestable periods until modern times. A string of snap shots of history has until now been produced. The area seems to have been intensively used since Roman times until the devastating earthquake of 749 CE, which brought life in this part of the city to a halt. Only in the Ayyubid-Mamluk period was the Northwest Quarter again settled and then only partly. The Late Antique and Early Islamic period are the most flourishing periods and the Northwest Quarter was densely settled during these centuries. Furthermore spectacular evidence for the Late Roman army has come to light in the area just next to the so-called Synagogue-Church, evidence that might relate to the conversion of the synagogue into a church in the 6th century CE. Evidence for the continuity of technological traditions and innovations within the domestic realms have also come to light in the earthquake-destroyed houses on the so-called Eastern Terrace. This paper will present and situate the results of the Danish-German Northwest Quarter Project within the archaeology and history of Gerasa/Jerash.

ACHIM
LICHTENBERGER
&
RUBINA
RAJA

THE ROLE OF LANDSCAPE IN THE OCCUPATIONAL HISTORY OF GERASA AND ITS HINTERLAND

DON BOYER

There is evidence of human occupation in the Jarash valley from the Pleistocene; however, the substantial archaeological *corpus* is biased by a strong focus on sites within ancient Gerasa, and particularly on the major monuments of the Roman-Byzantine period. We have only glimpses of the area's settlement history in the Chalcolithic-Hellenistic period, while intensive studies of the Islamic period only commenced in 2002 and are also limited to the city area. The record is further biased by a concentration of excavations within the modern archaeological park covering the city's western half, as the establishment of a Circassian colony in 1878 effectively precluded systematic archaeological investigation of much of the eastern half; a situation that is exacerbated by the very limited number of publications from excavations on this side of the city.

The Gerasa corpus offers little comment on the city's landscape setting. In contrast to the Decapolis cities of Gadara, Hippos, Abila and Philadelphia, which were founded on protected hilltops, Gerasa was established in an essentially unprotected position surrounding a small Bronze Age tell close to the valley floor and adjacent to the Chrysorhoas or 'Golden River'. The paper looks at settlement historiography in the vicinity of the ancient city in the context of the physical environment, based on landscape analysis, historical photographic evidence and field surveys. It highlights the significance of the springs and offers new insights into the timing of settlement on the east bank of the Wadi. It also questions the traditional view – first espoused by an early 19th-century visitor, William John Bankes - that the eastern side of the city was merely a dormitory suburb; a poor cousin to the western side of the city, with its imposing public buildings and fountains, displayed along the Cardo.

Soils, sediments and environmental history: Introducing geosciences to Archaeology at Jerash

The early multi-period urban site of Jerash, Jordan, is recognised as one of the great cities of the classical Middle East and has been the subject of ongoing systematic archaeological investigations since the 1920s. While earlier archaeological excavation focussed primarily on the monumental and public architecture of the Hellenistic, Roman, Byzantine and Islamic Ages, areas of domestic and everyday activities in the early city together with the environmental contexts of the site have been largely ignored. As part of these new and important research imperatives geoarchaeology has been introduced to the excavation programme at Jerash, and the wider UrbNet programme, with the purpose of giving new insight into urban site formation processes and to explore relationships between the city and its hinterland within an urban evolution setting.

Formal appraisal of soil stratigraphies within the city and its hinterland demonstrates the occurrence of Cambisols¹ (Red Mediterranean soils) underlying the site and in early urban spaces, Technosols as part of construction activities and Fluvisols with associated colluvial material infilling the adjacent Wadi Jerash. These soil systems hold potential as cultural and environmental records in early urban settings, now being realised through application of geoscience methods including Optically Stimulated Luminescence (OSL) measurement, radiocarbon measurement, thin section micromorphology with associated SEM and EDX analyses, ICP-MS and particle size analyses. Integration of archaeology, soil stratigraphies and analytical methods is giving new insights into important aspects of city life and how it evolved with time. This paper will offer evidence from these unique soil archives that indicate the way in which water was perceived as a natural force and in its management for agricultural irrigation, water supply and waste management, the pollution that the early city was creating, and the way in which contrasting mortars and plasters were used to create different types of urban surfaces.

GENEVIEVE A
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KRISTINE
THOMSEN,
SØREN M.
KRISTIANSEN
& IAN A.
SIMPSON

SUBURBAN LIFE IN SOUTHWEST JARASH FROM THE ROMAN TO THE ABBASID PERIOD

LOUISE BLANKE

Just over a century of excavation in Jarash has uncovered an impressive cityscape consisting of colonnaded thoroughfares, temples, churches, theatres and bathhouses. As such, Jarash is among the best-known archaeological sites in Jordan. However, a marked bias in past excavations towards the monumental architectural remains of the Roman and Byzantine periods means that we have a limited understanding of the city's *longue durée* and only the haziest notion of how the people who once called Jarash their home lived their lives.

A new archaeological initiative – the Late Antique Jarash Project (LAJP) - seeks to redress this imbalance. Combining survey of architectural remains with geophysical examinations, excavation and finds study, the project's main focus is on a residential area in the southwest quadrant of the site. The LAJP examines the practical sides of daily life over the longue durée, in particular, the shifting boundaries of public and private spaces; the maintenance and development of water-supply (from city-wide organisation to household management); and garbage disposal. So far, the partial excavation of a residential building and a nearby area comprised of rock-cut features reveal a complex settlement history stretching from the Roman to the medieval period. Our most recent studies suggest that residential use of the area continued into the 9th century, where an abrupt event – most likely an earthquake – caused the abandonment of this part of the city and triggered its transformation into agricultural land.

Complemented by data from the University of Copenhagen's excavations in central Jarash, and with reference to contemporary sites in the region, this paper presents the main results of the first two seasons of archaeological work carried out by the LAJP. It offers new evidence for the city's residential history from the classical to the medieval period and addresses transformative aspects of life in ancient Jarash.

Urbanism at Islamic Jarash: NEW READINGS FROM ARCHAEOLOGY AND HISTORY

Scholarship has expended considerable energy in an attempt to describe and explain the character of urban life after the arrival of Islam in the Middle East. One of the primary areas of concern has been Syria-Palestine, as seen in the detailed work of Jean Sauvaget, among others. The primary focus of research was directed towards the inhabited 'great' Islamic cities such as Ladhiqiyah/Latakia (1934), Damascus (1934, 1949), and Aleppo (1941), from which work was to emerge the enduring 'polis to madinah' concept. By the 1960s interest had extended to looking further afield, such as the enigmatic vacated site of Anjar in Lebanon, with its supposedly counterintuitive gridded structure resplendent with a mosque, palace, extensive markets, bath, and residential precincts. Now there was much to be discussed about 'The Islamic City', what it was and what was meant, with international symposia tackling these increasingly uncertain ideas.

While Anjar was one of a handful of sites subjected to archaeological enquiry in the early years, the 1970s and 1980s brought balance to the equation. The question of urban continuity, not doubted for Syria's 'great' cities, led to interest in the Syro-Palestinian transition from late antiquity into Islamic times: what stayed, what changed, and what was left behind, and why. Rusafah and Raggah in Syria, and Amman, Jarash and Fihl (Pella) in Jordan were but some of the major sites investigated, with this paper focusing on the author's early work in the 1980s and, most prominently, from 2002 onwards. Incorporating historical and archaeological work, the defining urban features of mosque, markets, palace, baths, and residential quarters have been investigated along Jarash's main axial street. From new excavations of a congregational mosque, modeled on Damascus' Great Mosque, along with an integrated commercial zone, a centuries-long urban evolution into the Islamic middle ages has been revealed. Along Jarash's central thoroughfare, an urban landscape was preserved and modified to accommodate new expectations and needs, without the city losing the fundamentals of its structural integrity and cultural identity.

ALAN WALMSLEY

THE NORTHWEST QUARTER OF JERASH: OUTLINES OF A SETTLEMENT HISTORY

GEORG KALAITZOG-LOU

Five excavation seasons in the Northwest Quarter of Jerash (ancient Gerasa) enable us to sketch the settlement history of this urban guarter. Scanty finds of pre-Roman periods underline the conclusion drawn from the excavations that the first substantial occupation of this area, situated on the highest point of the ancient city, took place in the Roman period. And, although the Northwest Quarter of Gerasa was integrated into the city walls since Roman times the hill seems to have been settled only sparsely until the Byzantine period. It was in this period that a settlement with a system of streets and terraces was projected and realized and the entire hill site was fully occupied. While the south slope of the hill as well as the Roman cistern was covered with domestic buildings at the southern edge of the summit an older synagogue was transformed into a basilica and additional buildings such as a long mosaic hall were added forming a clerical complex. On top of the hill itself an over 70 meters long rectangular compound was erected in Byzantine times as well, which served obviously not for simple housing. Even the transition from Byzantine to Umayyad did not cause substantial changes since greater parts of this flourishing settlement remained inhabited and in the Umayyad period also new buildings of lavish character were added on the eastern terrace. Like in most parts of Jerash the flourishing development and the urban character of the settlement were stopped abruptly by the earthquake of 749 CE. The discovery of undisturbed destruction contexts proof that a reoccupation took place only in Late Ayyubid to Mamluk times. This newly established Middle Islamic hamlet on top of the hill and above the ruins of the former urban quarter marked the last period of a permanent habitation in the Northwest Quarter of Jerash.

THE ARTEMIS TEMPLE IN JARASH: OVERREACHING OR RESISTANCE?

The Antonine extension of the Sanctuary of Artemis at Jarash was part of an urban renewal project that involved the entire city. The new temenos was designed and built up together with a series of urban infrastructures that had a massive impact on the city plan and the semantics of these urban spaces. In this context, the incompleteness of the peristyle of the temple, the most significant building in the sanctuary for building accuracy and choice of materials, is striking.

Investigations carried out in the 1990s inside the temple cella and a review of the earlier and later discoveries upon the two terraces of the sanctuary have enabled a more accurate reconstruction of the building phases of the temple and have shed new light on its relationships with the other structures discovered on the sanctuary terraces.

MASSIMO BRIZZI

THE 'GREAT EASTERN BATHS' OF JERASH/GERASA: BALANCE OF KNOWLEDGE AND ONGOING RESEARCH

THOMAS LEPAON

The only important monument built on the eastern bank of the wadi Chrysorhoas in the ancient city of Gerasa, the thermal complex known under the name of 'great eastern baths', impresses with its ruins preserved in places up to the level of the roofing tiles. Mentioned by all visitors from the beginning of the 19th century, this building yet never was the object of an in-depth study. Now lost in the middle of modern buildings, the remains of this thermal complex occupy an insula-204 m long and, at least, 116 m wide – a minimum area of 23.000 square meters thus making the 'great eastern baths' the largest monument of ancient Gerasa.

The French Archaeological Mission of Jerash, the Department of Antiquities of Jordan, the University of Jordan in Amman and the Johannes Gutenberg University of Mainz (Germany) initiated this year a new four-year research program (2016-2019) dedicated to the 'great eastern baths'. This collaborative project will focus specifically on the 'North Hall' and its annexes, and archaeological, architectural, epigraphic, statuary and environmental studies of the building, which is dated to the 2nd-3rd century AD, will be undertaken. This paper will attempt to synthetize our knowledge about this building and will feature the last discoveries from the 2016 archaeological campaign.

A BYZANTINE *THERMOPOLIUM* ON THE MAIN COLONNADED STREET IN GERASA

The building adjacent to the last workshop North of the Sanctuary of Artemis' frontage, on the Main Colonnaded Street, was investigated by the Italian Mission between 1991 and 1992.

DANIELA BALDONI

As can be deduced from the data provided by the excavation, the room was built within the first decades of the 2nd century AD, shortly before the construction of the Sanctuary's frontage in AD 150. Its architectural features seem to point out that it was originally reserved for cultic purposes.

The analysis of the finds brought to light, carried out recently, allows us to define the subsequent events of the building and the change of its function, especially with regard to the Byzantine age.

After a long period of abandonment between the $4^{\rm th}$ and $6^{\rm th}$ centuries, probably due to the seismic events, sometime in the period between 551 and 660, the dates of the two earthquakes that devastated Gerasa, it is likely that the building was transformed into a *thermopolium*.

In the inner space, in fact, two places for cooking were organized on either side of a recess. Plastered benches and platforms had been set up for the customers. Three stone containers were probably used for waste. Moreover a large amount of cooking and table vessels, some of which almost complete, was found in the layers of this period.

The absence of material datable after the first half of the $7^{\rm th}$ century AD suggests that the activity of the *thermopolium*, as well as that of the adjacent workshops, had suddenly ceased as a result of the earthquake in AD 660.

THE CHALLENGES FACING JERASH ARCHAEOLOGICAL SITE DEVELOPMENT

ALI AL Khayyat

The archaeological excavations at Jerash started in the 20s and 30s of the last century, and archaeological remains of the great city of Jerash, which was built during the Greco-Roman Period and flourished during the 1st and 2nd centuries AD as one of the Decapolis cities in the area, were discovered.

Since the 70s of the last century a project has aimed at rediscovering and rehabilitating Jerash city in cooperation with local and international partners in order to present the city as one of the most important Roman cities.

During the last three decades Jerash city became one of the main prominent sites on the eastern side of the Jordan river which has caused many challenges and responsibilities on the Department of Antiquities and foreign expeditions partners who worked on the preservation of the cultural heritage and develop and rehabilitate it in order for it to remain an attraction, and in order to define the history and archaeology through developing and preserving the archaeological site and its site elements.

- * How to protect the archaeological remains and the site elements in the city?
- **Development and rehabilitation of the site to keep presenting it for the next generations!
- A* How to preserve (the city wall surrounding the city needs excavations and restoration works to bring back the purpose for which it was built as a defense wall).
- B* The partners are supposed to have a main role in rehabilitating, conserving and restoring the site elements in the archaeological site and the Jerash city which includes churches, temples, baths, and theaters in addition to the city wall.
- C^* Continuation of the excavations held by international missions to excavate archaeological remains of the Roman city plan.
- A** How to present the site to tourists and the tourists trails and services.
- B^{**} Presenting all the historical information and interpretation regarding the last 2000 years with reference to the research and excavations that took place in the last century.
- C** Perpetuate the site and its cultural part in the Jordanian history.

RECENT ITALIAN RESTORATION WORK AND EXCAVATION IN THE SANCTUARY OF ARTEMIS

During the period 2010-2014, the Italian mission in Jerash has carried out restoration and conservation work on the monumental remains of the sanctuary of Artemis, in the area east of the main colonnaded street. In Byzantine times these were transformed into the church complex known as Proylaea church.

ROBERTO PARAPETTI

A first intervention was the consolidation of the precariously tilted pillar at the northwest corner of the so-called Trapezoidal Court of the monuments approaching the uppermost temple, which was subsequently incorporated into the façade wall of the Byzantine church. The work consisted of removing the blocks, consolidating their supports, and finally in remounting them correct and straight. In a second stage, the work involved the reconstruction of the portal at the centre of the church facade of which only few blocks of its jambs and parts of the back lintel were preserved on the ground in a state of collapse. A photo from 1890 made it possible to reconstruct its design properly. At the end of 2014, the intervention remained unfinished. As for the fragment of the western block of the lintel, still on the ground, it is expected, but not yet realized, to create a new metal structure to support the fragments. On the contrary, the portal jambs were made reconstructing the missing moulded blocks out of new stones which were purchased and cut for the purpose. In addition, in collaboration with the ISCR, reclamation of the area was made of the arboreal plant pollution.

Finally, it was decided to investigate the unpublished remains on the sanctuary's Intermediate Terrace, so far attributed to a second 'altar'. A 7.5 x 10 m base of a building was cleared. Some sounding highlighted the foundation of a square main structure with a 7.5 m long side, followed up to 2.5 m in depth, and a western 2.5 m addition. Only one row of the euthynteria is preserved above the foundation; it consists of crenellated blocks, as in the added structure, of obvious reuse, original from another unknown building. The discussion about the original design and history of the 'altar' is open to various interpretations though.

WHY DID HADRIAN SPEND THE WINTER OF 129/130 IN GERASA?

JACQUES SEIGNE

The visit which emperor Hadrian made in 129/130 to Gerasa is related in *Vita Hadriani*, one of the very rare historic sources mentioning this city as part of the Decapolis. The interest that Trajan had showed for the city (establishment at Gerasa of the procurator of the new Provincia; works on the three main communication roads; urban structuration with planning of the Cardo and of the civic center) doubtless supplies a part of the answer, Hadrian being well-known to have strengthened his predecessor's actions. However, the recent highlighting of oracular structures in the sanctuary of Zeus could also explain the prolonged stay of the emperor on the edges of Chrysorhoas.

The imperial presence was the occasion to rethink the spatial organization of the city around the oracular sanctuary with the creation, to the south, of a new quarter the limit of which was marked by the construction of a huge arched gate dedicated to the emperor. A few months later, however, the starting of the second Jewish revolt, ended the urban project in a totally different way, giving evidence of the profound political upheavals arisen in Gerasa immediately after the imperial stay.

ROMANS IN GERASA: A GREEK INSCRIPTION FROM THE HIPPODROME EXCAVATIONS

During the excavations of the Jerash hippodrome from 1984/5 to 1996, a stone altar recut for secondary use was found. Ten lines of Greek are still readable on the central die. One can approximately reconstruct a longer text pertaining to an offering made by a Roman to an unknown god. The inscription is the only one in Gerasa to use the Roman instead of the local Macedonian calendar. The text displays several specific or rare characteristics and seems to be a translation from the Latin language into Greek. It also offers the opportunity to reassess the role the Romans played in Gerasa, as soldiers or civil servants.

This lecture shall be a tribute to the late Antoni Ostrasz, who directed the Hippodrome Excavations and Architectural Studies Project and discovered this inscription during his excavations.

PIERRE-LOUIS GATIER

Tell Abu Suwwan, Jerash, Jordan: Neolithic skulls and rituals

MAYSOON AL NAHAR

During the summer seasons 2015 and 2016, the University of Jordan team at Tell Abu Suwwan uncovered thirteen human skulls, two of them were plastered. The skulls were buried under a Late Pre Pottery Neolithic (LPPNB) mud brick structure. The Neolithic megasite Tell Abu Suwwan is located in Jerash in northern Jordan and dated to ca. 8000-5000 BC. The village included a large square building 13 x 13 m of the so-called 'Grill Building Type' which is similar to the Neolithic structures in Cayönü in southern Anatolia. The skulls were found in a special mud brick structure and connected with the Grill Building. This custom of burying the dead probably related to social rituals practiced during that period to honour certain people in the society and emphasizes the importance of kinship to this agricultural community. Therefore, it seems that special ancestral shrines were built for periodic rituals, and probably these community-wide rituals were observed by village elders.

By studying the people, technologies, and culture practices and rituals preserved in the settlements of this period, we can achieve a better understanding of how humans changed from a relatively simple way of life to the often bewildering social and political complexity of modern times.

HIGH POTTERY QUANTITY: SOME REMARKS ON CERAMICS IN CONTEXT FROM THE DANISH-GERMAN JERASH NORTWEST QUARTER PROJECT

As a pottery specialist working on ceramics in context, establishing typologies and rethinking chronologies is a big task of my working schedule. Chronologies are used to order the past and to provide a framework within changes can be discussed, however they are also artificial constructs, incorporating a range of assumptions. Therefore they are always instable and a work in progress.

HEIKE MÖLLER

With this paper I would like to discuss two pottery fills (Trench J) excavated in 2014 in the frame of the Danish-German Jerash Northwest Quarter Project. How can we interpret those pottery fills? Can we refine typo-chronological sequences reading them and beyond – how far can we go and at which point do we get false ideas of data security?

Since the composition of finds from the same pottery fills (Trench J) is predestined not only for methodological questions, a second part of the paper will tackle economic aspects of Gerasa. Further insights in the embedding of the city into regional and super-regional markets will be given, looking at local and imported finds – some of them even produced in the outermost Western Mediterranean World.

The interaction of both, methodological aspects on one hand and economic approaches on the other hand, both presented in this paper, will result in insights into Gerasa from different angles – theoretical: what does ceramics in context mean? and practical: what do we learn about networks and consumption patterns by analyzing finds in Gerasa, one of the Decapolis cities.

Working with coins in Jerash: Problems, solutions and preliminary results

INGRID & WOLFGANG SCHULZE

Different methods of cleaning coins will be discussed. In particular a quick and simple method of cleaning during a running excavation can be presented. Furthermore an overall idea of the coins found in Jerash will be given and compared with other excavation finds in Jerash and surroundings.

Finally the coins found in the Northwest Quarter of Jerash will be analysed in relation to some selected trenches and complexes respectively.

FORENSIC INVESTIGATIONS OF THE JERASH GLASS

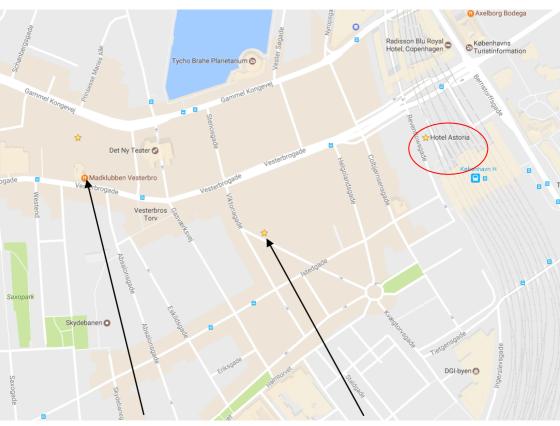
Fragmented glass from the settlement in the Northwest Quarter of Jerash mainly stems from the Byzantine and early Islamic periods. The fragments come from vessels, bowls, bottles, jugs, plates, cups and lamps.

GRY BARFOD

Investigations of a sub-set show a dominance of natron glasses of the Levantine I-type imported from the Apollonia area on the present-day Israelian coast. The glasses retain chemical information of repeated recycling in the form of accumulated contaminants (e.g. potassium and phosphorous) from the fuel and furnaces used for remelting. The systematic increases in contaminants with degree of recycling indicate that a highly-organized, localized 'industry' was in place in Jerash during the latter part of the first millennium CE. The contaminating fuel is indicated to have been olive pits rather than wood. This is plausible given that olive pits burn at very high temperatures and that it therefore would be natural to use the available leftover pits and pulp from the local olive oil production for fuel.

Speakers' dinner

Please note that meals are only included for invited speakers. Coffee breaks are for all.



2 March, 20.30

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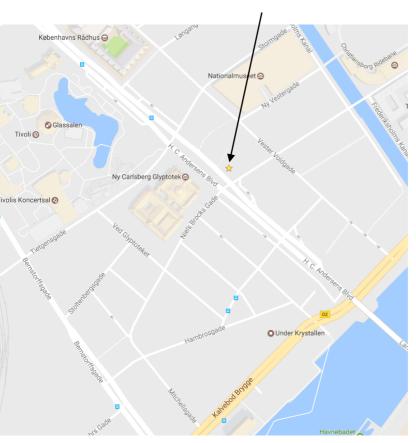
Madklubben Vesterbro Vesterbrogade 62 1620 København V 3 March, 20.30

Restaurant Cofoco Abel Cathrines Gade 7 1654 København V

Conference venue

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The Archaology and History of Jerash: 110 Years of Excavations

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