

**Zuwarah (Zughar)
in the GHawr
Aṣ Ṣāfi, Jordan:
Interdisciplinary
Research and Study
of the Discoveries of
an Early Byzantine
and Medieval Islamic
Commercial City in
Palaestina Tertia -
Southern Bilād Ash
SHām**

Introduction

Zuwarah (Zughar) (modern GHawr Aṣ Ṣāfi in Jordan), situated on the south-eastern Dead Sea littoral in the soil-rich and well-watered alluvial fan of the biblical Zared River (modern Wādī Al Ḥasā), was known from Roman and early Byzantine sources as an important commercial metropolis based on agricultural products such as wheat, dates, and balsam. It also was said to exploit local sources of copper ore, salt, bitumen, and sulphur (Politis 2021).

During the early Byzantine period (4th–7th centuries AD) Zuwarah (Zughar) was the Seat of a Bishop in *Palaestina Tertia* represented at the Nicaean Councils. The city is accurately located on the late 6th-century AD mosaic floor map in Mādabā (in modern Jordan), in Al Idrīs’s AD 1154 “map of the world,” on the 13th-century *Tabula Peutingeriana*, and is mentioned prominently in other ancient and medieval texts (FIG. 1).

Zuwarah was known as Zughar during the Abbasid and Ayyubid/Mamluk periods (9th–14th centuries AD) in southern *Bilād Ash Shām*. Its vibrant agricultural base was sustained, and new products were brought from central Asia (particularly India) such as cotton, indigo, sorghum, and most importantly, sugarcane (Politis 2015). During these periods, new farming practices were also introduced into the region, such as improved irrigation systems and trimestral crop rotation, augmenting agricultural productivity (Politis 2020a, 2021, forthcoming a). Foreign animals were imported, such as zebu cattle to more intensely till the fields.

From 1997 to 2019 intensive archaeological surveys and systematic excavations were conducted in GHawr Aṣ Ṣāfi under the direction of the author, bringing to light many significant discoveries (Politis 2020b; 2022). They include three churches (and probably a fourth),

complexes all adorned with highly decorated and inscribed mosaic pavements, and one with an early stepped cruciform baptistery (FIG. 2); over 500 inscriptions in Greek, Aramaic, and Arabic (FIG. 3); industrial presses for olives, dates, and sugarcane, indigo processing vats, flour mills, pottery kilns, glass-making, and iron smelts (FIG. 4); and an extensive hilltop fortress with four defensive fosses and colossal perimeter walls, guarding Zuwarah's urban centre below, as is cited in the 5th-century AD *Notitia Dignitatum*.

Objectives Overview of the Project

Although preliminary studies were conducted on some of the archaeological findings, they needed to be completed and made fully public. The primary objective of this interdisciplinary research project involved thorough examination by scholars and experts ranging from history to epigraphy, numismatics, ceramics, glass, archaeometallurgy, human osteology, zooarchaeology, archaeobotany, mosaic art, and architecture. Detailed analyses of these specialist research areas were drawn together in this project to provide a novel and evidence-based view of production (both agricultural and industrial) and exchange in this important hub of Byzantine and medieval Islamic commerce. The results were compiled by the author at the Ionian University in Kerkyra (Corfu) and funded by the Hellenic Foundation for Research and Innovation from 2020 to 2023.

Such collaborative research between science-based archaeologists and more traditional historically oriented scholars provided a cross-examination of what is written about a particular site and/or society and what physically survives. Late Roman–Early Byzantine and early medieval Zuwarah (Zughar) is blessed

with surprisingly good remains that have been recently uncovered that enabled them to be analysed in this innovative manner. This presented scholarship with a unique opportunity to understand how people lived during what is often called “Late Antique” times. This is a fascinating period where east Mediterranean societies are in transition from fundamentally “classical” traditions originating in ancient Greece and Rome to customs associated with the Levant and Arabia. This, for instance, is often manifest in the aniconic decoration of mosaic floors and representation of deities.

The results of this interdisciplinary collaborative study were demonstrated through deliverables based on original fieldwork deliberated initially in a series of specialised seminars in Jordan and Greece (mostly at the Ionian University), which culminated in two international conferences in Kerkyra and Athens. These were accompanied by an exhibition of the discoveries, with a final publication of all the conclusions, followed by a web link and a newly designed permanent display of finds in the Museum at the Lowest Place on Earth in GHawr Aṣ Sāfi.

State of the Art

Although archaeological excavation techniques and analyses have greatly advanced in the last few decades, they are seldom applied to historic and classical sites, and even less often to medieval ones. This is a shame, as those periods usually have relatively more and better-preserved material and organic finds. An important part of the author's strategy over the past two decades has been to apply these new methods to his excavations in Jordan. It is an innovative approach, as historians have recently given particular emphasis to this period, calling it “Late Antique”.

Consequently, by studying the results of archaeological excavations of the Sanctuary Lot at Dayr ‘Ayn ‘Abāta (Politis 2012), the project’s specialists were able to determine what early Christian monks were eating via archaeobotanical and archaeozoological analyses, their anthropological morphologies (ages and diseases) by osteological studies, and the percentage of various pottery forms and types used in various parts of the site, since 99% of all excavated earth was dry-sieved on-site.

At the 1st–4th-century AD cemetery of KHirbat Qāzūn (Politis 2007, 2018, forthcoming b), unique organic preservation enabled the study of desiccated human remains and bones as well as over sixty complete or semi-complete textile garments and some rare leather funerary body-bags.

After the success of applying these methods and techniques, the author decided to employ them in the GHawr Aṣ Ṣāfī excavations while revealing extraordinarily rich early Byzantine and medieval Islamic deposits of ancient Zuwarah (Zughar). Over the course of 20 years of sophisticated survey and meticulous archaeological excavations, the field team discovered extremely valuable material in order to reconstruct daily life, industry, and commerce during the 5th–15th centuries AD in southeastern Mediterranean lands. These results were fully documented, studied, analysed, and publicised. There is no doubt of their academic value and substantial contribution to the understanding of a crucial transition from “Late Antique” to medieval history.

Research Methodology

As explained above, the research approach was “state of the art” methods and techniques of archaeological analyses. Key to this has been the meticulous

stratigraphic excavations which have been carried out with fine tools (small picks and trowels) and by dry-sieving about 99% of all earth that was removed on-site. This has enabled the field team to conduct the most statistically accurate studies of excavated finds, enabling not only a precise determination of the percentage of pottery types once used but also the recovery of many more minute coins and beads than are usually found on “classical” or medieval-period excavations, which mostly use large picks and shovels to unearth structures and never sieve excavated soil.

Furthermore, not all areas have been excavated, allowing for prospective excavation projects to use possibly better techniques to recover even more information. The final strategy was to preserve and protect what has not been excavated by the field team for future generations of archaeologists to unearth. All exposed structures have been stabilised and material finds which have been removed from their original context have been conserved in the Museum at the Lowest Place on Earth.

Interdisciplinarity

As mentioned above, the research project involved interdisciplinary studies including history, epigraphy, numismatics, ceramics, archaeometallurgy, human osteology, zooarchaeology, archaeobotany, mosaic art, and architecture. It was vital for the investigation to combine all these disciplines to get a more accurate holistic understanding of the ancient societies in question. Additionally, it is significant that the research team was international, coming from several institutions and having divergent viewpoints. It is particularly important to use new objective archaeological techniques and methods to confirm or challenge the more established histor-

ical record. Joint conclusions reflected this in the final publications.

Appropriateness and Competence of the Institutional Environment

The Ionian University on Corfu Island is the first academic institution of higher learning in modern times on Greek lands (established in 1824 under British rule). Consequently, it has a long tradition of excellent scholarship. The author and Principal Investigator of this research project has not only had previous dealings with that University but also maintains an extremely close working relationship with one of its leading academic staff, Professor Dr. Georgios Papaioannou. Amongst other projects, the two have collaborated in establishing the permanent exhibition in The Museum at the Lowest Place on Earth in Jordan.

One of the main deliverables of the research project was to organise two conferences (FIGS. 5 and 6) and four exhibitions (FIGS. 7, 8, 9, and 10). The fact that that Professor Dr. Papaioannou is Director of the Museology Lab at the Ionian University (the foremost museum-research expert in Greece) and teaches museology were excellent reasons for two of these events to be hosted there. Furthermore, the author was familiar with the modern facilities of the University.

Impact on Science, Economy, and Society

Archaeological field work conducted in the GHawr Aṣ Ṣāfi in Jordan under the direction of the author has already proved to be leading innovative science-based investigations. The sites of the Sanctuary of Lot Monastery at Dayr ‘Ayn ‘Abāṭah and the Nabataean cemetery of KHirbat Qāzūn, which have been studied in an interdisciplinary

manner and published, demonstrate the meaningful results that can be achieved by bridging the gap between modern archaeological methods and traditional historical approaches. These were also applied to the Zuwarah (Zughar) research project. The outcome is a model for other projects to emulate (see below).

Measures for Achieving Impact: Dissemination and Exploitation of Results

As planned, all the primary data collected and documented from the archaeological fieldwork was extensively studied by respective project specialists. In turn, the preliminary reports which this initial stage produced were discussed with the project director and this research’s author, and then in groups through a series of seminars.

These seminars were first conducted in Jordan, in the ample workrooms and laboratories of the Museum at the Lowest Place on Earth in GHawr Aṣ Ṣāfi, where virtually all the finds are brought for processing and eventual permanent storage. In a second stage, when the physical finds (architecture, objects, bones, environmental remains, *etc.*) were fully and satisfactorily documented (measured, quantified, photographed, illustrated, *etc.*), interdisciplinary study and analysis seminars were held by research team members at the Ionian University, the Hellenic Society for Near Eastern Studies, the University College London’s Institute of Archaeology, and elsewhere. This took about two years to complete.

During this two-year period, preliminary reports on results were presented at various international conferences by individuals and groups from the research team. These included the American Society of Overseas Research,

Chicago 2021 and Boston 2022; the International Conference on the History and Archaeology of Jordan 15 Irbid 2022; Byzantine Museum and City Hall Athens 2022; and the International Conference on Conservation of Mosaics 14 Plovdiv 2022.

In the third and final year of this research project, emphasis was placed on conclusions with the ultimate goal of composing final reports to be presented to the wider public and eventual hard and soft publications, as well as exhibitions of finds. This was achieved through an international symposium the proceedings of which will be published in printed form as well as on-line, and two exhibitions, one permanent with archaeological finds and custom-made poster-panels in the Museum at the Lowest Place on Earth in Safi, and three others in Greece with only poster-panels. At this point all the information will be open for full public access. All the archaeological finds and their documented archives will be accessible at the Museum at the Lowest Place on Earth in GHawr Aṣ Ṣāfī, by permission of the Department of Antiquities of Jordan, and freely through an online database.

Implementation of Work Plan and Intermediate Targets

The overall structure of the work plan was divided into three general parts: The first phase will focus on fully documenting discoveries made during archaeological excavations over the years. In some cases, records have already been made and the registration process has begun. But the job of the author was to oversee all the work that needs to be done, coordinate its implementation and make sure of its completion. Where necessary, the author will take personal responsibility to finish the primary documentation.

The second stage was to input all the data collected in the field and during the initial phase of documentation and begin processing and studying the finds. During this period, interdisciplinary discussions were conducted. For instance, excavation stratigraphies were correlated to the materials found within a specific context, or locus.

Once all the finds, whether they were materials, documentation records, illustrations, or archives, were registered and recorded, proper analyses began. This part began in the second year of the proposed research and when into the third and final stage.

The final phase of the project encompassed full research and analysis with an aim to identify interdisciplinary interpretations at the close of the project. As these were completed, more in-depth discussion via more focused seminars was conducted. The end achievement was to make interdisciplinary conclusions and publicise them by presenting all the results in two international conferences, publishing the proceedings, and presenting them within a specially designed exhibition of finds and information panels.

Conclusion

The main end product of the three-year research project carried out by the author was a comprehensive academic volume in a series of studies of ancient Zuwarah (Zughar) in the GHawr Aṣ Ṣāfī (Politis forthcoming a). The website and exhibitions that accompanied this publication were added valuable assets. As of 2024, the future of surveying, excavating, and research of ancient Zuwarah (Zughar) in the GHawr Aṣ Ṣāfī has been secured with new funding. Therefore, the continuity of the project has been safeguarded based on the previous published studies.

ZUWARAH (ZUGHAR) IN THE GHAWR AṢ ṢĀFĪ, JORDAN



5. Poster exhibition, Museum at the Lowest Place on Earth, GHawr Aṣ Ṣāfī (photo by K.D. Politis).



6. Poster exhibition, Ionian University, Kerkyra (Corfu) (photo by K.D. Politis).



7. Poster exhibition, Hellenic Society for Near Eastern Studies, Chalkis (photo by K.D. Politis).



8. Poster exhibition, Byzantine Museum, Athens (photo by K.D. Politis).



International Colloquium on
*Zoara/Zughar in the Ghor as-Safi, Jordan: Interdisciplinary Research and Study of the Discoveries of
an Early Byzantine and Medieval Islamic Commercial City
in Palaestina Tertia - southern Bilad ash-Sham.*

To be held in Athens City Hall (Greece) on 13 October 2022
(live-streamed on <https://ionio-gr.zoom.us/j/99702145128>)

Chaired by Professor Dr Georgios A. Papaioannou, Ionian University*, Kerkyra (Corfu)

09:30 *Welcome addresses*

H. E. Kostas Bakoyiannis, Mayor of Athens
H. E. Ahed Sweidat, Ambassador of the Hashemite Kingdom of Jordan

09:50 *Significance of Ancient Zoara and Modern Ghor as-Safi* Yiannis E. Meimaris (National Hellenic Research Foundation)

10:00-10:15 *Coffee/Tea break*

10:20-10:30 *Introduction* Georgios A. Papaioannou*

10:40-11:10 *Cultural Studies* Konstantinos D. Politis*

- i. *Landscape, Environment and Identifications*
- ii. *Byzantine and Islamic Archaeology*
- iii. *Architectural Features (building elements and mosaics)*

11:15-10:35 *Glass* Mariusz Burdajewicz (Warsaw University)

11:40-12:05 *Numismatics* Peter Edwell (Macquarie University)

12:10-12:30 *Epigraphic Finds* Kalliope I. Kritikakou-Nikolaropoulou (National Hellenic Research Foundation)

12:35-13:00 *Light Lunch break*

13:00-13:30 *Ceramic Traditions and Investigations* Konstantinos D. Politis*, Anthony Grey (Museum of London), Georgios A. Papaioannou* and Louise Joyner (Cardiff University)

13:35-13:55 *Ceramic Lamps* Kate DaCosta (Sydney University)

14:00-14:20 *Zooarchaeology and Animal Use* Louise A. Martin (University College London)

14:25-14:45 *Archaeobotanical Remains and Plant Use* Annette Hansen and Frits Heinrich (Vrije Universiteit Brussel)

14:50-15:05 *Coffee/Tea break*

15:05-15:25 *Byzantine and Islamic Human Remains* Rula Nuri Shafiq (Yeditepe University)

15:30-15:50 *Exhibiting Zoara* Georgios A. Papaioannou*

15:55-16:15 *Ghor as-Safi Heritage in Context of Jordan* Konstantinos D. Politis*

16:20-16:45 *General Discussion*

Concluding Remarks Georgios A. Papaioannou*

9. Conference programme, City Hall, Athens.

ZUWARAH (ZUGHAR) IN THE GHAWR AṢ SĀFĪ, JORDAN



International Conference of the Project
Zoara/Zughar in the Ghor as-Safi, Jordan: Interdisciplinary Research and Study of the Discoveries of an Early Byzantine and Medieval Islamic Commercial City in Palaestina Tertia - southern Bilad ash-Sham.

[Project Code H.F.R.I. (E.A.I.Δ.E.K): 2354, Ionian University Project Code: 80454]

To be held at Ionian University, Kerkyra (Greece) on 17 February 2023
(in-person and virtual live-streamed)

Venues:

- Onsite at Ionian University, 72 Ioannou Theotoki St., Kerkyra *
- Online at zoom link: <https://ionio-gr.zoom.us/j/93945085149> (session will be recorded)

Chaired by Aristotelis G. Sakellariou* (in Greek, English and Arabic)

10:00 Welcome Addresses

Greetings by H. E. Ahed Sweidat, Ambassador of the Hashemite Kingdom of Jordan (online)
Greetings by the Rector of Ionian University
Greetings by the Head of the Department of Archives, Library Science and Museology
Greetings by the Director of Museology Research Laboratory, Ionian University

11:00-11:30 *Summary of Research* Konstantinos D. Politis*

11:30-12:00 *Significance of Ancient Zoara* Yiannis E. Meimaris (National Hellenic Research Foundation)

12:00-12:30 Coffee/Tea break

12:30-13:00 *Decision-making in Arid Landscapes: Planning the Outer Spaces of the Museum at the Lowest Place on Earth in Jordan* Alexandra Andrianou*

13:00-13:30 *Documenting Byzantine Architecture* Panagiotis Kanelloupolous (Hellenic Society for Near Eastern Studies)

13:30-14:00 *Zoarchaeology and Animal Use* Louise Martin (University College London)

14:00-14:30 Lunch Break

14:30-15:00 *Epigraphic Data and Documentation* Eleni Sfyridou*, Georgios Papaioannou*, Manolis Gergatsoulis* and Eleftherios Kalogeros*

15:00-15:45 *Ceramic Traditions and Investigations* Konstantinos D. Politis*, Anthony Grey (Museum of London), Georgios A. Papaioannou* and Louise Joyner (Cardiff University)

15:45-16:15 Coffee/Tea break

16:15-16:45 *Exhibiting Zoara* Georgios A. Papaioannou*

16:45-17:15 *Conserving Zoara* Aristotelis G. Sakellariou*

17:15-17:45 *Ghor as-Safi Heritage in Context of Jordan* Konstantinos D. Politis*

17:45-18:00 *Concluding Remarks* Aristotelis G. Sakellariou* and Georgios A. Papaioannou*

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9. Conference programme, Ionian University, Kerkyra (Corfu).

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