Opuscula

Annual of the Swedish Institutes at Athens and Rome

16
2023

Furthermore, the geographical and chronological framework of the study seems somewhat arbitrary and lacks a rationale. The Roman province of Macedonia encompassed many more regions than the ones covered here (modern northern Greece and Northern Macedonia), especially during such a long time-span that this book intends to cover; a rationale for the reasons why this particular area was chosen to be studied was surely needed. The time frame would also need better argumentation, because Late Antiquity is basically reduced to an extensive treatment of the palatial complex of Galerius in Thessaloniki (pp. 63–68), which stands alone without further context or parallels from elsewhere. Finally, the contextualization of the province itself could be certainly strengthened by closer comparisons with the province of Achaea, using specific examples to illustrate the various points made.

All things considered, *The archaeology of Roman Macedonia* is a most welcome addition to the future study of the first Roman province in the eastern Mediterranean. The author himself describes clearly the value of his work in the 'Epilogue' (p. 196): the book stands as a synthetic look at the existing archaeological evidence, with the hope that the evidence presented in the different chapters will prove helpful as a starting point for those who wish to dig deeper into more specialized matters regarding Roman Macedonia. The material presented might not be new, but the way it is gathered and handled seems promising for new province-wide approaches in the Roman world, especially for the case of *provincia Macedonia* which still remains under-represented in studies of the Roman provinces of the eastern Mediterranean.

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A workshop held in Vienna in April 2016 as part of the 10th International Congress on the Archaeology of the Ancient Near East (ICAANE) is the subject of the current edition of the Oriental and European Archaeology (OREA) series.

Minna Silver convened the workshop with the intention of discussing previous and current initiatives to protect Syrian cultural heritage and obstacles related to this objective; she edited the 15 contributions from the workshop that make up this publication. The volume is divided into five sections: 'Some Syrian views on saving cultural heritage' (Articles 1 and 2), 'Past documentation projects in Syria' (Articles 3–5), 'European and American initiatives' (Articles 6–8), 'Technical examples and solutions' (Articles 9–12), and 'Documentation, databases, and reaching people' (Articles 13–15).

Ammar Abdulrahman in the first article, 'Archaeology in the shadow of the crisis in Syria', discusses the harm done to archaeology as a discipline as a result of the suspension of the archaeological expeditions conducted in Syria, and the consequences of the war on the professors of archaeology who were unable to teach their students what they had learned. Likewise, international archaeological institutes such as the DAI (German Archaeological Institute), IFBO (the French Institute for the Near East), and American, Danish, and Dutch institutes that helped students learn and train, as well as producing important publications, were also shut down.

The most pressing difficulties in the reconstruction of Syrian heritage were covered in the second article by Nibal Muhesen: 'Reconstruction Syrian cultural heritage: Mapping challenges and impacts'. Based on their shared memories and common past, opposing groups can come together thanks to cultural legacy and pave the route for reconciliation. There have been several documentation efforts and damage assessment activities, but there has been a conspicuous lack of focus on the important issue of reconstruction and post-war strategies to rehabilitate the destroyed heritage, both socially and physically. The process of reconstruction should take into account a number of factors, such as collective memory, national identity/identities, colonial and post-colonial past, authenticity, sustainability and tourism revival, as well as a variety of conflicting narratives, local opinion and interests, refugees and displaced persons, justice, and education. The paper concludes with suggestions for the best tactics to use when plans are made for the reconstruction of Syrian heritage, based on literature and observation of reconstruction examples from Aleppo and Homs.

The third article by Johannes Koder, Marcell Restle, and Peter Waldhäusl, titled 'Late Antique and Early Byzantine architectural monuments in the Hauran: Results of two expeditions to Syria 1978–1980', is concerned with the harm done to Syrian cultural heritage during the Arab-Israeli conflict between the Independence War of 1948 and the October War of 1973. The ancient Roman and Byzantine ruins in the Hauran provided the well-shaped basalt stones that were used by displaced people who had arrived in Syria and urgently needed to build themselves new dwellings. The authors, on behalf of the Technical University of Vienna, performed photogrammet-

ric documentation seasons in September–October 1978 and September–October 1980. The project documented both the outside and inside of buildings of architectural and historical interest.

Silver, in the fourth article, which is titled 'SYGIS—The anatomy of the Jebel Bishri Project in Syria: Remote sensing, archaeological surveying, mapping and GIS studies with education in Syria', discusses how the Finnish expedition worked with the Museum of Palmyra to survey and map the Jebel Bishri region of the Syrian desert between 2000 and 2010. Along with the Japanese–Syrian project and the German excavations at Abu Hamad's burial site, it was one of the major initiatives that addressed the area between Mount Bishri and the Euphrates valley. The Syrian members of the DGAM (Directorate General of Antiquities and Museums) received GIS training from the SYGIS project (Syrian Geographic Information System). On-ground survey was used to confirm the satellite imagery. The primary goal was to provide a better understanding of the Amorite emergence with Jebel Bishri as their homeland, while also chronicling the lives of the pastoral nomads and nomadic people who lived in the area.

The fifth article by Garzia Tucci, 'Documenting Syrian built heritage to increase awareness in the public conscience', discusses two research initiatives that used two methods developed by the University of Florence's Laboratory of Geomatics for the Environment and Conservation of the Cultural Heritage. In 2007, the first project (*Coupoles et habitats*) employed a top-down approach to investigate local earthen architectural heritage and the representation of architectural knowledge in northern Syria, specifically in the east region of Hama, and the west regions of Lake Jabboul and Lake Assad. *Mare Nostrum*, the second project, was completed in 2009. The Syrian part of the Phoenician settlements network connected to the Mediterranean Sea was the focus, along with the port city of Tartous and its surroundings, including Arwad Island and the archaeological site at Amrit. The bottom-up method was used with the intention of investigating these sites from a technical point of view and increasing local community knowledge of the importance of cultural heritage site preservation in fostering sustainable tourism.

Frank Braemer, Hartmut Kühne, Andrew Jamieson. and Graham Philip in the sixth article, 'Shirin: What place for archaeology and archaeologists during wartime?', discuss the shirin initiative (Syrian Heritage in Danger: an International Research Initiative and Network), which was developed in response to suggestions made by workshop attendees at the 9th ICAANE in Basel, Switzerland in 2014. The goal is to unite the heritage community, using their skills and experience to create extensive databases, and then make these databases accessible to scholars and authorities so they can help with future restoration and reconstruction projects as well as the preservation of damaged heritage. Some 12,000 sites are included in the Historic Environment Record (HER) of National Sites and Monuments for Syria, which is administered by a Durham University team in partnership with the Endangered Archaeology in the Middle East and North Africa (EAMENA) project at Oxford University.

The seventh article by Emma Cunliffe and Robert Bewley, titled 'Endangered archaeology in Syria and beyond: An international perspective', describes the Endangered Archaeology in the Middle East and North Africa (EAMENA) project, which was started in 2015 at Oxford University in collaboration with Leicester and Durham Universities. The initiative addressed issues with cultural heritage in more than 20 countries, extending from Iran to Mauritania. A non-governmental organization, Heritage for Peace, gathered information from reports published in Arabic, English, and other languages on websites, social media, and in research news articles published on Google. The research's objectives included locating endangered archaeology in the targeted area, recording damaged museums and sites in a database that is open to the public and has over 150,000 records, raising awareness of these issues, combating illegal trafficking of cultural propery, and training heritage professionals. Three main areas have been addressed: first, awareness-raising efforts have been made through workshops, conferences, presentations, and seminars. Second, changes in legislation: by advising the UNESCO on Cultural Property Protection and consulting the structure for 25 national "Blue Shield" committees throughout the world. Third, the need to take measures to safeguard cultural assets and stop the illegal trade in antiquities.

Susan Penacho and Michael Danti in the eighth article, 'The ASOR Cultural Heritage Initiative: The cultural heritage crises in Syria and Northern Iraq', focus on the partnership agreement between the US Department of State and the American Schools of Oriental Research that created the ASOR Cultural Heritage Initiative in August 2014 (ASOR CHI). By publishing reports on the destruction, theft, and looting of cultural property, the initiative aimed to raise awareness and aid in the creation of plans for post-conflict rehabilitation, repatriation, and restitution. It also served to preserve and protect Syrian and Iraqi heritage, cultural diversity, memory, and identity. Between 2014 and 2016, ASOR CHI released 120 online weekly reports based on a range of data sources, including as social media, visual and photographic evidence, information gathered on the ground, and high-resolution satellite images. The effort focused on archaeological and religious monuments, as well as UNESCO World Heritage Sites including Nineveh in Iraq and Ebla in Syria. Additionally, it has tackled mitigation and restoration efforts at Syrian sites including Bosra, Apamea, and Ma'arat al Numan.

The ninth article by Haskel J. Greenfield, Deland Wing, and Aren M. Maeir, 'Terrestrial LiDAR survey as a heritage management tool: The example of Tell esh-Shafi/Gath', dis-

cusses how remote sensing methods are frequently used to collect information about archaeological sites. The archaeological site of Tell esh-Shafi/Gath in Israel was successfully studied using LiDAR (Light Detection and Ranging) technology. This site has long been endangered by visitors, grazing animals, and modern land use. Both ground-based techniques, including GPR, and satellite and aerial imagery are used in remote sensing to gather data. LiDAR has recently opened up new opportunities. Millions of data points may be swiftly gathered, and it allows for more nuanced images and analysis than is possible with more widely used data collecting techniques. Both aerial coverage data from aircraft or drones and terrestrial scanning using a portable scanner akin to the total survey station are sources of the data used in LiDAR. It is suggested for heritage management and preservation uses, including as a tool for analysis, documentation, conservation, and accurate 3D display.

Andreas Georgopoulos in the tenth article, 'On the possibilities for crowdsourcing and Automated Structure from Motion (SfM) algorithms for cultural heritage documentation', states that digital surveying and geometric documentation of cultural heritage require the collaboration of many experts from various fields. The public and tourists can also contribute data to the digital documentation. Crowdsourcing is frequently utilized to enhance the photographic content of various monuments. It works as a way to gather the massive amount of photographs or videos required for a project, by asking for the public's assistance in providing images and movies. The virtual reconstruction of the Bamyan Buddhas, which the Taliban in Afghanistan destroyed in 2001, is a good example of how crowdsourcing has been used in the realm of cultural heritage. Another example is the initiative by the universities of Oxford and Harvard to send 3D cameras to Syria in 2015 with the goal of gathering one million images by the end of 2016. Crowdsourcing was also employed as part of the collaborative, open-source Project Mosul, also known as Rekrei. In the case of the 18th-century Plaka Bridge in Greece, which was destroyed during the First World War, a 3D model could be created using the modern Structure from Motion (SfM) technique, which creates a dense point cloud of the object imaged by taking a series of densely overlapping images and establishing a large number of point correspondences. The southern part of the bridge could be recreated as a 3D model, but it was not possible for the northern side owing to a lack of sufficient photographic data.

Ahmet Denker in the eleventh article, 'Virtual revival of the Great Temple of Bel in Palmyra', discusses how the Temple of Bel, which ISIS militants demolished in August 2015, was digitally reconstructed. The monument and its surroundings were digitally reconstructed in six plates: the temple as seen from the Triumphal Arch, the Propylaeum, the temple's western flank, the cella's façade, the perspective view of the temple toward the cella, and a general picture of the temple in Palmyra. Ancient writings, lithographs, architectural plans, pictures, and digital images were utilized as data to create this digital reconstruction. This monument was restored to its original state during the Roman era. The virtual reconstruction cannot repair the harm brought on by the destruction of the temple, but it may revive memories, educate people, and assist them in accepting the loss of the temple.

The twelfth article by Karel Pavelka and Jaroslav Šedina, 'New documentation possibilities for the Great Umayyad Mosque in Aleppo, Syria, based on historical images', summarizes Czech efforts to record the Great Umayyad Mosque in Aleppo. The project was carried out in 1999 in Prague by the Czech company Geodezie CS in conjunction with the Czech Technical University (CTU). The mosque later sustained significant damage during the Syrian Civil War, particularly in 2012 and 2013. Since the measurement operation in 1999 employed analogue pictures, the Czech University attempted to use the earlier data to record the damage, but this effort was complicated by the mismatch in technological documentation and the various image-processing techniques. The process for creating the new documentation began with the professional scanning of the analogue images in the Czech Republic. The team combined terrestrial photogrammetry with traditional geodetic measurement, defined control points, used GIS and CAD (Computer Aided Design), and utilized digital photogrammetry to process the image data. The outcome was successful and all four mosque facades could be documented, including entrances or decorative elements. The cupola and other features were added to the 3D model's texturing.

Fulvio Rinaudo, Minna Silver, Emanuele Morezzi, Francesca Quenda, and Maria Laura Moretti in the thirteenth article, 'The CIPA database for saving the heritage of Syria: Challenges and coordinating efforts', describe the work of CIPA, a joint scientific committee of ICOMOS (International Council on Monuments and Sites) and ISPRS (International Society of Photogrammetry and Remote Sensing, formerly the International Committee of Architectural Photogrammetry), to document landscapes and archaeological, architectural, and artistic heritage. Metric data are captured, analysed, and visualized by CIPA using image- and range-based methods. Images, measurements, and historical documents, such as maps, sketches, and textual descriptions, as well as archaeological studies are all included. The goal is to digitally share their data with organizations and researchers involved in culture management. A book on 3D recording, documentation, and management of cultural heritage was published by CIPA and offers resources for the digital documentation of sites and monuments. CIPA collaborated with international efforts to preserve Syrian cultural heritage and completed documentation projects in the Great Umayyad Mosque and Citadel of

Aleppo, as well as at the temples, monumental arch, and tower tombs in Palmyra.

Documenting lost Syrian legacy is the subject of the fourteenth article by Gabriele Fangi, Wissam Wahbeh, Eva Savina Malenverni, Francesco Di Stefano, and Roberto Pierdicca, 'Documentation of Syrian lost heritage: From 3D reconstruction to open information system'. The objective was to use free and open-source software to create a technological platform for the obtained data and 3D models. For architectural documentation, a new and affordable photogrammetric technique known as spherical photogrammetry (SP) was employed, with 360° high-resolution panoramic images available. Hyperlinks were used to present the data in multimedia as connected data sheets. The tool's lack of mapping support was a nuisance. The results were shared online via the Google Earth platform. To preserve the memory of lost heritage for future generations, as well as for educational purposes using multimedia databases, the project documented 32 monuments in Aleppo, Apamea, Bosra, Damascus, Crac des Chevaliers, Hama, Palmyra, Serjilla, and Shahba. Many of these monuments were added to the List of World Heritage in Danger in 2014, and the majority of them are part of Syria's UNESCO heritage list.

A multi-sectoral, multinational co-operation is the subject of the fifteenth article by Samir Abdulac, Elizabeth Lee, Stefan Simon, and Mario Santana Quintero, 'Partnership for protecting cultural heritage in Syria: Project ANQA'. ANQA is the Arabic for "phoenix". The project was started by ICOMOS and funded by the Arcadia Fund (London, UK) in collaboration with CyArk and Yale University, and the training was conducted in conjunction with DGAM and UNESCO. The project sought to train and build the capacity of local stakeholders using an educational platform and through in-person and online technical and ethnographic training, to create permanent architectural inventory units, and demonstrate an excellent example of (people-centred) cultural heritage documentation, to conduct scholarly research, document at-risk heritage sites in 3D, and create a shared-ownership, open-access platform for researchers around the world. Two CyArk professionals led the training in 2017 at the UNESCO offices in Beirut. The DGAM chose trainees in the fields of engineering, computer science, architecture, and archaeology. Drones, specialized methods, photogrammetry, structured light scanning, and LiDAR technology were all used in the research. The project selected six sites in Damascus and documented them: Azem Palace, Madrasa al-Jaqmaqia, Bimaristan Nur al-Din, Hammam Nur al-Din, Khan Assad Pasha, and Ananias Church. As for the dissemination of results, Yale University created an online platform to communicate the findings.

The present volume of this OREA series offers pertinent information on post-war documentation, international initiatives, challenges, solutions to these challenges, and the most popular databases used to share knowledge, raise awareness, and put the spotlight on the significance of heritage in societies affected by war and conflicts. This book is significant and adds to the resources designed to protect cultural heritage in Syria and elsewhere.

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