The Ancient City and Nature's Economy in Magna Graecia and Sicily – Introduction

Johannes Bergemann – Mario Rempe

In his preface to the second edition of *Nature's economy. A history of ecological ideas*[1] D. Worster describes the "economy of nature"[2] as a "point of view that sought to describe all of the living organisms of the earth as an interacting whole"[3]. Scholars of different fields and of different academic backgrounds have offered numerous views and hypotheses on historic human-environment relations in recent times. For landscape archaeologists questions concerning the ancient economy cannot be answered without taking into account the economy of nature. Our panel dealt with the interaction of ancient cities with their environmental surroundings. Reconstructions of cities, their landscapes, and paleoenvironments in Magna Graecia and Sicily have been presented, offering a wide repertoire of methods and giving insights into various aspects of human-environment interaction.

Speakers aimed at creating a more detailed vision of the historical development of their research area by interweaving environmental and socioeconomic changes in their presentations. Although comprehensive studies, which consider the environment and landscape change in southern Italy and Sicily, are still rather an exception, the papers could demonstrate the potential of an interdisciplinary approach to an ancient city and its territory.

A. M. Mercuri showed how different pollen analyses create pictures of cultural landscapes and man-made changes to the environment in south Italy and Sicily, focusing especially on methodology. J. Bergemann highlighted in his paper how natural resources in different parts of the Mediterranean affected cities and societies, giving insights into his research in Attica, Gela, Agrigento, and Camarina. M. Rempe built on one of the Sicilian examples, offering a case study of Camarina with focus on landscape change and paleoenvironment in connection to the Göttingen survey. E. Mango demonstrated how a city inserts itself into the landscape and how natural surroundings shaped settlement features of Himera. The paper of A. Burgio and Oscar Belvedere emphasized the role of geomorphological processes and different vegetation and land-use schemes in different Sicilian regions. R. Chowaniec portrayed the exploitation of the territory of Akrai, looking at several aspects of daily life and consum, using a wide range of methods. A. P. Mosca gave an insight into the diachronic development of the Lilybaeum area with special regard to exploitation sites and water resources.

Obviously, the panel did not aim at delivering a comprehensive overview of all archaeological investigations that include environmental aspects and paleoenvironmental reconstructions in southern Italy and Sicily. Over the last decades, research in this field of study has grown intensively, thus producing a vast bibliography, including the regions

Published in: Johannes Bergemann – Mario Rempe (Eds.), The Ancient City and Nature's Economy in Magna Graecia and Sicily, Panel 2.1, Archaeology and Economy in the Ancient World 3 (Heidelberg, Propylaeum 2022) 1–6.
DOI: *https://doi.org/10.11588/propylaeum.758.c10701*

of southern Italy and Sicily.[4] It was rather our idea to give insights into environmental aspects in connection to economic questions and to settlement dynamics as highlighted by some of the ongoing archaeological investigations in Magna Graecia and Sicily.

Notes

[1] Worster 1994.

[2] Worster 1994, X.

[3] Worster 1994, X.

[4] See for example Attema et al. 2010; Bergemann 2010; Belvedere 2002; De Haas – G. Tol 2017; La Torre – Toscano Raffa 2016; Seiler et al. 2010; Vermeulen et al. 2017; see also the contributions on Italy and Sicily in Bergemann – Belvedere 2017 and Vermeulen 2012.

References

Attema et al. 2010
P. A. J. Attema – G.-J. Burgers – M. van Leusen, Regional Pathways to Complexity (Amsterdam 2010).

Bergemann 2010
J. Bergemann (ed.), Der Gela-Survey. 3000 Jahre Siedlungsgeschichte in Sizilien. 1–3 (Munich 2010).

Bergemann – Belvedere 2017
J. Bergemann – O. Belvedere (eds.), Survey-Archäologie. Naturwissenschaftliche-technische und historische Methode in Italien und Deutschland, Kolloquium Loveno di Menaggio 30 March – 2 April (Rahden 2017).

Belvedere et al. 2002
O. Belvedere – G. Boschian – A. Burgio – A. Contino – R. M. Cucco – D. Lauro (eds.), Himera 3. 2, Prospezione archeologica nel territorio (Rome 2002).

De Haas – Tol 2017
T. C. A. de Haas – G. W. Tol, The Economic Integration of Roman Italy. Rural Communities in a Globalizing World, Mnemosyne Suppl. 404 (Leiden 2017).

La Torre – Toscano Raffa 2016
G. F. La Torre – A. Toscano Raffa, Archeologia dei paesaggi: il territorio di Licata (AG) e la bassa valle dell'Himera meridionale, in: R. Hermans – G.-J. Burgers – S. Kluiving (eds.), Multi-, Inter- and Transdisciplinary Research in Landscape Archaeology, Proceedings of the 3rd International Landscape Archaology Conference in Rome, 17–20 September 2014 (Amsterdam 2016) 1–12.

Seiler et al. 2010
F. Seiler – M. Märker – P. Kastenmeier, Interdisciplinary Approach on the Reconstruction of the Ancient Cultural Landscape of the Sarno River Plain before the Eruption of Somma-Vesuvius 79

AD, in: H.-R. Bork – H. Meller – R. Gerlach (eds.), Umweltarchäologie - Naturkatastrophen und Umweltwandel im archäologischen Befund, 3. Mitteldeutscher Archäologentag, 07.–09. October 2010, Tagungen des Landesmuseums für Vorgeschichte Halle (Saale) 6 (Halle a. d. Saale 2011) 145–154.

Vermeulen 2012

F. Vermeulen, Urban Landscape Survey in Italy and the Mediterranean (Oxford 2012).

Vermeulen et al. 2017

F. Vermeulen – D. Van Limbergen – P. Monsieur – D. Taelman, The Potenza Valley Survey (Marche, Italy). Settlement Dynamics and Changing Material Culture in an Adriatic Valley between Iron Age and Late Antiquity (Rome 2017).

Worster 1994

D. Worster, Nature's Economy. A History of Ecological Ideas 2(New York 1990).

Abstracts

Palynological Approach to the Economy and Human Impact Reconstruction. Examples from the Greek Colonial System (Metaponto area) and Roman Agrarian Settlements (Central Sicily)

Anna Maria Mercuri

Archaeopalynology and archaeobotany are among the key disciplines in the understanding both present-day landscapes and past human-environment relationships.

In archaeological contexts, plant remains help to recognize different types of land use: a) exploitation of plant resources; b) cultivation, i.e. the planting and care of useful plants; c) breeding leading to the increase of pastures and selection of unpalatable plants by animal browsing; d) settlements with spreading of ruderal and nitrophilous plants. Pollen and non-Pollen palynomorphs (a set of other microscopical records of biological origin, mainly including fungi and algae) are especially useful to discriminate these types of actions.

In the Metaponto area, the palynological research has been carried out on samples collected from archaeological contexts, mainly farmhouses and rural settlements of the Greek colonization. Pollen analysis allowed for local reconstructions in an area with over 700 rural sites. This improved the knowledge of plant species present and/or used in the sites, and environmental and land-use changes during the Greek phase of occupation, as several sequences were analyzed, thus creating a much broader pollen signal.

In central Sicily, pollen analyses on the Roman farmhouse and rural settlements have been particularly worthwhile for palaeoenvironmental/economical local reconstructions. Sequences have been extracted from horizontal and vertical stratigraphies. Our data evidences intense land exploitation that contributed to transforming the natural environment of the island into the cultural landscape of the early modern central Mediterranean. This was further validated by taking into account archaeobotanical remains.

Culture and Nature in Landscape

Johannes Bergemann

Three survey projects in Gela, Agrigento, and Camarina (Sicily) have led to the result that ancient economic life must be considered as a complex system. The impact of nature and natural factors like moving coastlines or depleted soil on human life became evident. The paper addressed the influence of natural resources on the ancient settlements, their cultures and economies in different regions of the Mediterranean, giving examples from the Göttingen research in Attica and Sicily. A further concern of the contribution was a possible sustainable behavior of the Greek and Roman settlers.

The Chora of Camarina from Archaic to Roman Times. A sustainable Cultural Landscape?

Mario Rempe

Within the scope of the Göttingen survey of the Camarina Chora (southeastern Sicily), changes in the settlement patterns are demonstrable, especially between the Greek and Roman era. The Greek settlers did plainly use other places and pockets within the landscape and environment. Several palaeo-environmental approaches were carried out to check if the change of settlement patterns coincides with changes within the cultural landscape and/or natural disaster. The talk focused on physical changes on the landscape, as it considered the development of the fluvial terraces and the effects of land use and erosion. In connection with these changes the results of a pollen core, which was taken in the middle of the Greek chora, has been presented and discussed with regard to economic and ecological changes.

Ancient Landscapes and Economy in the District of Northern Imera River (Sicily), from Prehistory to Early Medieval Times. A Comparative Analysis with the Cignana Hinterland (Agrigento, South Sicily)

Oscar Belvedere – Aurelio Burgio

The paper presented the palaeo-environmental approaches and preliminary results in the area of northern Imera river, corresponding to the territory of the ancient cities of Himera (destroyed in 409 BC) and Thermae Himeraeae (founded in 407 BC). The area is located in the northwest of Sicily, and it is mainly characterized by hilly landscape crossed by rivers facing the Thyrrenian Sea, and by a mountainous landscape (the Madonie) on the eastern side.

Comparing the results of the archaeological excavations (in the city of Himera, and in the rock-shelter of Vallone Inferno), with topographical and palaeo-environmental analysis (both in the northern Imera River and in the Madonie), relevant aspects were taken into consideration. The speakers discussed the ancient habitation area and human activities in the coastal area as well as in the hilly and mountainous contexts south and east of the Himera, from prehistory to Late Antiquity.

Strong erosion is well recognizable inside the city of Himera and in the surroundings. It is possible that it has originated in late-Archaic and Classical ages, maybe connected to human activities. Further transformations of the territory occurred during Late Antiquity and early Medieval Age.

Moreover, a preliminary comparative analysis with the area of Cignana, a hilly site near the coast in southern Sicily, east of Agrigento, was offered.

Topographical and Urbanistic Considerations Regarding Himera. New Evidence from the Piano del Tamburino

Elena Mango

This paper presented work carried out by the University of Bern in collaboration with the Archaeological Park of Himera since 2012. Our research has thrown new light and importance on the area of the colony of Himera referred to as the Piano del Tamburino, an area that has received little attention in the more than 50 years of research at Himera.

Following an initial extensive study of the morphology and topography of the Piano del Tamburino with investigations employing remote sensing, surveys and various geophysical methods (geomagnetic, geoelectric, electric tomography, georadar), excavations commenced in 2012. The results to date from this multidisciplinary approach have provided new insights about the environment and development of the Piano del Tamburino, especially regarding the aspects of the interactions between the natural surroundings and the ancient polis, between different urban spaces and social activity zones, all of which contribute to a new understanding of the cultural landscape of the city. The rivers around the site form fluvial landscapes and are important for many processes like transport and production. This is of special significance given Himera's unique geographic location on the northern shore of Sicily with its orientation toward the Tyrrhenian Sea and its trade with the Phoenicians and the Etruscans. Moreover, its ethnic and cultural context – situated at the crossroads of various spheres of interest – in an indigenous Sican territory near the Phoenician cities of Soluntum and Palermo needs to be highlighted in this regard.

Living around Lava Flows and Volcanic Mud Lakes: Settlement and Landscape Transformations in the Western Slopes of Etna from the Early Iron Age to Classical Times

Massimo Cultraro

The western slopes of the Etna represent an area of interest for investigating the interaction of settlements and environment in a long-term perspective. Intensive survey activities carried out in the last thirty years have provided a reliable source of data for examining settlement dynamics from prehistory onwards. The main questions arise around the long-term activity of Etna and its impact on the ancient landscape, natural as well as human. Although a huge number of publications on the volcanic evidence of this area has been produced, comprehensive studies on the relationships between human settlement and environmental transformations are rare.

The paper aimed at reconstructing the different levels of interaction between human communities and their environmental surroundings. Evidence of Lake Gurrida (Randazzo), located at 835 m. above sea level, won by multiproxy investigations leading to a reconstruction of paleoenvironmental dynamics, indicating that the early Iron Age (1100–800 cal. BC) was more arid than the preceding Bronze Age.

Changes in the human landscape related to the volcanic events can be visualized as well. Moreover, specific volcanic phenomena had an influence on the religious system of the local communities.

Faunal and Botanical Assemblages in *Akrai*/*Acrae* (south–eastern Sicily) from Late Hellenistic Period to Late Antiquity. Paleoenvironmental and Food Circulation Reconstruction

R. Chowaniec

The paper presented the recent studies on the faunal and botanical assemblages discovered during the new archaeological excavations in ancient *Akrai*/*Acrae*, located in southeastern Sicily. The paleoenvironmental and food circulation reconstruction is based on the recent research done at the Greek colony, founded by Syracuse in 664/663 BC and developed for centuries, with an intense architectural boom in the second half of 3rd cent. BC. After the fall of the mother-colony in 212 BC, the town becomes a part of the Roman province and was frequented till late Antiquity/Byzantine period. The osteological, archaeobotanical, lipid and stable isotope analyses along with the observation of archaeological artifacts, allow observing changes in the exploitation of natural resources and culinary preferences.

Natural Environmental Factors and Human Settlement in Western Sicily: the Example of Lilybaeum

Annapaola Mosca

The paper focused on relationships between environmental factors and human settlement in Western Sicily from the 5th century BC until Late Antiquity in the area around the main urban center of Lilybaeum. The interdependence between cultural landscape and natural environmental factors has been analyzed within the wider scope of archaeological surveys. Coastal lagoons and ponds, wells of drinkable water, quarries, fertile soil and specific types of vegetation have characterized the organization of ancient settlement in the area between Lilybaeum and Mazara del Vallo. Particular cultures, like small palms growing on rocky soil, but also wheat, olive trees, and vineyards have played an important role in the inland economy. The opportunity to practice herding due to the proximity of the mountain pastures of Erice has also contributed to the formation of the ancient settlement.

But, above all, the presence of the ports of Lilybaum and at the Mazaro river and the possibility of trade with North Africa due to the proximity to the African coasts probably influenced wealthy owners in choosing this Sicilian area to build their estates. Through archaeological data, we can understand settlement changes over the centuries, until the apparent loss of importance of the settlement after the Vandal period.