A museum under construction in Guadalupe (Honduras)

In the village of Guadalupe in north-eastern Honduras a museum is being built right next to an archaeological site. The multifunctional museum is planned as a depot for finds and an archaeological information centre. Construction work began in 2019. The depot rooms will be equipped with work stations for processing finds, while the exhibition area will convey information about the hitherto largely unknown indigenous prehistory of the region by means of archaeological finds and features. The museum is intended to be not only an educational centre for the local school and students, but also a magnet for visitor groups from the nearby town of Trujillo and so support the development of tourism infrastructure.

The sense of identity of the people in the locality has already been strengthened by an examination of their own past. Construction of the museum creates employment and a source of income. It is also meant to be a pilot project for local government in the surrounding municipalities, illustrating how building local museums can contribute to the protection of cultural assets and boost economic development.

From 2022, the new museum will permanently house the objects from the exhibition on the archaeology of Guadalupe that is on show at Museum Rietberg in Zurich in 2021.

Please support this and similar projects with your donation!
ARCHAEOLOGY WORLDWIDE

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THE COVER PHOTO shows a mortuary relief erected in the 4th century BC to mark a grave in the Kerameikos cemetery of Athens. In it, we see a man standing and a seated woman facing him. The inscription gives their names: Thraseas and Euandria. They are probably a married couple, joined in the background by a female mourner, either a servant or a relative. Which of the two has died is not certain. The gesture of clasping hands and the heartfelt look the two of them exchange suggest an emotional bond that seems to transcend death.

In the FOCUS section, you can read more about how people in societies of the past dealt with loss and mourning. In the TITLE STORY, archaeologists from the DAI discuss various forms of burial and strategies employed to cope with death. LANDSCAPE takes us to the realm of the dead in ancient Egypt. There, death didn’t mean the end, but represented the transition to another world.

Photo: © Staatliche Museen zu Berlin, Antikensammlung, SK 738.

Photo: University of Cologne, Archaeological Institute, CoDArchLab, 104027_FaSPerg-00158_Gisela Geng

DAInsight 2021 –

A series of online events focusing on current research at the DAI

In 2021, the German Archaeological Institute will be providing more extensive and more up-to-date information about its research activities in the series DAInsight. Each month in 2021, a different DAI location will provide an exclusive insight into fascinating projects and work that is underway. The DAInsights will be presented in a variety of online formats.

In June the Commission for Ancient History and Epigraphy in Munich will speak on Roman imperial coinage, among other topics. In July the presentations by the Central Scientific Department will focus on resilience from the perspectives of the architecture division and of the natural sciences unit. The talks given so far – on the prospects of a new decade and on Gilgamesh’s city wall, for instance – can be viewed online: https://www.youtube.com/playlist?list=PLq4Pz4R7tsU6PMe4oqKnEooRECH-8eLS

WHERE AND WHEN?
Upcoming dates:
19 May – 26 May – 23 June – 7 July – 21 July

The events will be live streamed on https://live.dainst.org/
Registration in advance is required.
More information at www.dainst.org, auf facebook.com/dainst and @dai_weltweit
DEAR READERS,

How cultures of the past dealt with dying, death and mourning is one of the central research fields in the archaeological sciences. This volume of ARCHAEOLOGY WORLDWIDE with the theme “Death, mourning and consolation in antiquity” was planned as the first issue in 2020 and had in fact already been typeset. But with the images coming out of Bergamo, Italy, we felt it would be inappropriate to publish an issue devoted to that subject in the first spring of the pandemic. One year later the situation has not fundamentally changed. People are still dying from the effects of the virus. But the alarmingly unpredictable state of affairs of early 2020 has now been succeeded by an awareness that we need to actively deal not only with the pandemic, but also with its consequences, and need to address the question of what the experience of illness and dying, lockdown and distancing is doing to us.

This March in Bergamo a remembrance ceremony was held for the dead. A wreath was laid and trees were planted. Hence, rituals were performed that were meant to help the public cope with the situation. The early cultures of human history had many different ways of dealing with death and remembering the dead – for instance by erecting funerary monuments that were visible from a great distance. Unlike the towns and cities of today, in Greek and Roman urban centres death was present as soon as one travelled out of the city. Funerary monuments lined the roads; burial mounds punctuated and shaped the landscape. The dead, however, could also be concealed, as they were in Egypt’s Valley of the Kings. Sometimes in antiquity the dead would be given a world of grave goods; at other times they would be buried without any furnishings, or tossed unceremoniously into a shallow pit.

To document practices surrounding death and mourning in all this diversity, a specialized branch of archaeology has come into being: thanatoarchaeology. Yet it’s not just about reflecting on how death was dealt with in antiquity – we also need to consider how archaeology deals with the human remains of the past. In the act of researching, excavating, examining and taking samples from skeletons, researchers must always bear in mind that they are handling human remains.

In the ancient world, corpses to be buried were washed, adorned, laid out, and furnished with goods. In the Antigone of Sophocles the tragedy begins with the denial of burial rites for Polyneices, i.e. taking care of the deceased man is forbidden. This was a denial of a central behavioural norm of ancient Greek societies. Studying the past raises the twin questions of whether, and how, the pandemic is eroding our norms and how we should, and can, process the experiences associated with dying and death.

Yours

Prof. Dr. h. c. Friederike Fless
President of the German Archaeological Institute

Photo: Kuckertz
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MASTHEAD
The Baalbek Reborn: Temples app was officially launched at a special live event online. It runs on PCs and laptops, smartphones and tablets as well as VR headsets. Thanks to a generous private donation the app is available to all users free of charge.

March 31 saw the release of the app Baalbek Reborn: Temples, which uses the latest technologies to reconstruct what today’s runs at Baalbek (Lebanon) looked like in the past. The virtual tour of Baalbek – ancient Heliopolis – in the 3rd century AD allows the famous Roman temples to rise again. The virtual journey back in time to Heliopolis is the result of a collaboration between the Directorate General of Antiquities in Lebanon, the German Archaeological Institute and Flyover Zone, a US based company that specializes in developing virtual tours from the DAI, which has been active at Baalbek since 1998.

The Baalbek Reborn: Temples app was officially launched at a special live event online. It runs on PCs and laptops, smartphones and tablets as well as VR headsets. Thanks to a generous private donation the app is available to all users free of charge.

The six remaining columns of the Temple of Jupiter, which the virtual reconstruction enables us to visit, are today an emblem of Lebanon. What makes Baalbek Reborn: Temples unique is how deep and up-to-date the scientific knowledge is that the app conveys. Users can choose to move either virtually through today’s excavation site or through the digital reconstruction of the ancient religious sites. The audio track is available in Arabic, French, English and German. It provides scientifically sound knowledge and explanations and is equally interesting for ancient history enthusiasts and professionals. There are 38 stops dotted around the temple complexes, each presented by researchers from the DAI.

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The Eurasia Department of the German Archaeological Institute and the State Hermitage Museum in St. Petersburg signed a Joint Declaration of Intent in February 2021, underlining their intention to conduct research together in future. Not only one of the largest museums in Europe with important collections, the Hermitage is also one of the leading Russian institutions active in the field of archaeological research and carries out numerous significant excavations. The DAI’s Eurasia Department and the State Hermitage Museum have engaged in regular scientific cooperation and collegial collaboration since 1997. Among jointly conducted projects was a course organized in cooperation with the Russian Academy of Sciences and financed by the Alexander von Humboldt Foundation on the subject of “The Caucasus between Eastern Europe and the Near East in the Bronze and Iron Age. Dialogue of Cultures, Culture of Dialogue”. Currently Svend Hansen (Eurasia Department) and Yuri Piotrovsky (State Hermitage Museum) are working with Ernst Pernicka (Tübingen University / Curt Engelhorn Centre of Archaeometry, Mannheim) on the finds from Maikop, a royal burial mound in the western Caucasus dating from the mid 4th millennium BC. The grave was excavated in 1897 by the St. Petersburg Orientalist Nikolai Veselovsky. The finds, including beakers with figural decoration and bull figurines made of precious metal, are among the outstanding objects in the prehistoric collection of the State Hermitage Museum. The Joint Declaration of Intent envisages that the successful and collegial cooperation between the two institutions is to be continued and intensified in the future.

Joint Declaration of Intent between the Eurasia Department and the State Hermitage Museum, St. Petersburg

THE STATE HERMITAGE MUSEUM ON THE BANK OF THE NEVA IN ST. PETERSBURG.

The prehistoric collection is housed in the Winter Palace.

THE CAVES BETWEEN EASTERN EUROPE AND THE NEAR EAST IN THE BRONZE AND IRON AGE. DIALOGUE OF CULTURES, CULTURE OF DIALOGUE.

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AN ANCIENT ORNAMENT?
The building, which has been a protected monument since 1972, was designed by the architects Ernst Ziller and Wilhelm Dörpfeld and inaugurated in 1888. The institute in Athens had been founded some years before this and now moved into a grand, neoclassical building. With its very large specialist library and a series of hosted events, the building is a frequent port of call for researchers from all over the world.

The institute building was constructed by Heinrich Schliemann, who was also its first tenant, and it has many structural and decorative details in common with his own residence in Athens – including the self-supporting marble staircase with its decor of birds and floral motifs.

Over the years, the building has been enlarged, altered and comprehensively restored. It stands for tradition, continuity and innovation – just like the archaeological projects of the Athens Department.

You can find out more about the fascinating history of the institute in Athens in the brochure DAI Athen – Architektur und Geschichte, which can be downloaded here:
https://www.dainst.org/publikationen/broschueren

The German Archaeological Institute is planning a range of new collaborative research formats to the enhance the institute’s research profile. The foundation on which the DAI conducts its activities consists of the various research networks and collaborations around the world. The new formats will increase cooperation on a national and international level and strengthen the cross-linking of research internally.

The research clusters were instituted in 2006 in the framework of the Pact for Research and Innovation of the Federal Republic of Germany with the objective of investigating central questions of human history. The clusters have worked on overarching themes, focusing for instance on technological and social innovations as well as political and religious spaces in different regions. The diachronic comparison of cultural phenomena in different regions of the world has generated significant new knowledge, which has been published in a dedicated series. Since the inception of the clusters, new research fields have developed, for example in digital archaeology and also in respect of the effects of climate change on the environment in which people lived in the past. Further developing various formats is another component in the creation of networked research at the DAI. So are shared infrastructures and multi-departmental projects.

The proposals developed by the DAI researchers will be discussed and decided on by the executive committee in May 2021.

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During excavations, archaeologists often come across the mortal remains of human beings. Necropolises and funerary monuments, burial sites and single burials all bear witness to the presence of death in past communities. How did past societies deal with their dead, their own mortality, with mourning and loss?

ARCHAEOLOGY WORLDWIDE asks two experts, Dr. phil. Kerstin P. Hofmann and Dr. med. Julia Gresky, what burials as an archaeological source can tell us about life, how disease can be detected in bones, and how rituals can be helpful in coming to terms with death.

THANATOARCHAEOLOGY

How do you investigate death?
And we also investigate what happened to the deceased after Julia Gresky: Investigating death itself is difficult. It’s only in the rarest of cases that we anthropologists can determine the cause of death directly from the skeleton. In the best case we have the circumstances that brought about death, for instance skulls that have been smashed in, or perhaps traces of diseases that are terminal. So generally what we do is reconstruct what happened to the deceased after their death: what the burial was like, how the body was treated and prepared, as well as what happened before the skeleton was eventually dug up. Things that are directly connected with death. Kerstin Hofmann: Biological death is thought to be a universal experience of being human, and yet for the living it remains an event that’s beyond comprehension. Precisely for that reason, death and the post mortem are central questions for human kind. Sometimes, death-related practices and burial practices are therefore seen as an important criterion of being human. Representations of death and dying recur throughout art history. In the humanities, however, the subject of death has only received scrutiny since the middle of the 20th century. What has been studied is not biological death, but ways of dealing with the death of another person, as well as with one’s own death and mortality. What has been established is that attitudes and ways of dealing vary – not only when different cultures are compared, but also, excitingly, in the course of history. So what we investigate, then, are ways of dealing with death, the finiteness of life and mortality, loss, and how the relationships between humans and the objects associated with them change as a result of death, and in coping with crises. Kerstin Hofmann: For example, in archaeology and anthropology a frequently studied question is why cremation or infumation is practised. Previously it was common to associate the switch from one practice to another with a change in religion. But there are very diverse reasons why such a change takes place. For example, hygiene aspects or shortage of space may play a role. In the case of cremation compared to “simpler” infumation there is, however, a more active transformation of the corpse that is naturally subject to decomposition. Cremation could therefore be called an “active coping skill”, one of several resilience factors that, according to psychology, can help in coming to terms with death and loss. On the other hand the French historian Philippe Ariès, in his History of Western Attitudes Toward Death, made the assertion that there is a development from natural death to the confrontation with the question of how one will die oneself. He developed his ideas mainly on the basis of examples from French society. According to him, ars moriendi in the Late Middle Ages meant preparing oneself for what was called “a good death”. In the 18th century there came to be an exaggerated treatment of the death of others, in particular close relatives. Today, following the sociologist Geoffrey Gorer, we speak of the “pornography of death”, which means that a public engagement with death and mourning is seen as indecent and unbecoming. And consequently a funeral industry has come into being: we no longer take care of the burial ourselves, but get others to organize it for us. We anthropologists, who do research all over the world, now see this in a much more differentiated way. We keep finding evidence of changes in practices relating to death and to dead bodies, with shifting emphases on certain aspects, even for prehistory and early history as well as antiquity. Julia Gresky: In the Pre-Pottery Neolithic in the Levant there are no cemeteries, such as are common in our part of the world. Instead the dead are frequently buried under the floor in houses. I examined burials like this during the excavations at Ba’ja in Jordan and Shir in Syria. This raises the question, of course, whether the house occupants continued living with the deceased, or whether the building was abandoned when they were buried. In Syria it is overwhelmingly children that are buried in houses, while in Jordan a few adults are to be found as well. But they are still outnumbered by children, particularly infants. The explanation for this may be practical, for the reason that the decomposition of fully grown individuals may have affected life in the settlement after all, and so they were buried somewhere else. Or it could indicate a particularly close relationship with children. In Ba’ja in Jordan a special status accorded to children is becoming even clearer. Two child burials are absolutely exceptional in their associated finds – one of a child aged about eight, buried individually with approx. 2,600 beads and various other associated finds and a special grave. So, an enormous outlay for a child burial, and the same is true of the other one. This consists of four infants, whose bones are extremely badly preserved, although the associated finds, over a thousand beads, are very well preserved. These children were buried with a lot of effort and love. This shows that these children in this region at this time were important and that their death was a matter of particular recognition. The many DAI projects in different parts of the world and in different periods allow a comparison of the diverse burial practices and ways of handling the dead.
WHERE ARE ALL THE DEAD? This is a question we ask ourselves in archaeology again and again, as burial practices and conservation conditions mean that not all dead bodies are preserved. The diagram summarizes the find contexts in which we can expect to find human remains. Graphic: K. Hofmann

THANATOLOGY as comprehensive human science on the subject of dying and dead

The term “thanatology” is derived from Greek thanatos (death) + logía (subject matter, science). Thanatology is a comprehensive human science of dealing with death and dying. Thanatoarchaeology contributes to it above all by researching the material aspect of death in its temporality and historicality. Graphic: K. Hofmann

ARCHAEOLOGY WORLDWIDE: Burials have always been of central importance in the archaeological research of the human past. How does the concept of thanatoarchaeology relate to this? Is the cross-disciplinary approach, the involvement of sociological and psychological methods of investigation, a new trend?

Kerstin Hofmann: Generally speaking, I would say that archaeology is increasingly involved in interdisciplinary and large-scale collaborative research. In the early years of archaeological research there was already the idea of bringing together ethnology, anthropology and prehistory. Thanatology can be regarded as a comprehensive human science that studies death and brings together all aspects including psychology, biology, but also historical sciences and linguistics. And I believe that thanatoarchaeology can play an even greater role in this area, with respect to the question of how death, mourning and loss were dealt with and changed considering longer periods of time. I think that we have a great opportunity here at the DAI, because we can create a dialogue between different perspectives thanks to the various archaeological sciences and the various cultural regions in which we do research.

Kerstin Hofmann: In my doctoral thesis I systematically analysed the transition from inhumation to cremation burials in the Elbe-Weser Triangle in the Bronze and early Iron Age. In the process I noticed that there were sporadic cremation burials very early on. For the Bronze Age there are isolated indications that people had become aware that the bodies buried in tree trunk coffins were decomposing, and that holes were drilled into the coffins to drain off the resulting fluids. Increasingly, from that point on, corpses came to be modified in a very active way. One could say that biological death was shaped culturally. People are constantly confronted by the challenge of how to deal with the presence of the deceased and their bodies, when they no longer react and are absent, become cold and then are subject to decomposition.

On site, I examined chamber tombs which were interpreted as family graves. In each case they had been used several times, with older skeletons being moved to the side. Quite possibly a selection had to be made at that moment. This means that somebody there was confronted with bodily decay, whereas at some point, corpses came to be modified in a very active way. One could say that biological death was shaped culturally. People are constantly confronted with the challenge of how to deal with the presence of the deceased and their bodies, when they no longer react and are absent, become cold and then are subject to decomposition.

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Julia Gresky: Yes, unfortunately that’s the case, if there aren’t any obvious injuries like a broken skull where there are no signs of healing, or a knife between the ribs. Small injuries or a dental abscess can lead to death as well, but they can’t always be identified with certainty as the causing agent. And even if major pathological processes are observable on the skeleton, it can’t be determined if they were the cause of death or if there may additionally have been pneumonia or a heart attack. Even for people living today that can be hard to assess. There are so many causes of death, and only very, very few of them can be identified on the skeleton. We have our limits. Particularly for complicated things going beyond the determination of age and sex, it’s important to have an anthropologist at the excavation. Even with the best documentation, it’s still essential to get an impression for yourself on site. And that’s a problem, because there aren’t enough anthropologists. And that will get worse in the next few years.

ARCHAEOLOGY WORLDWIDE: Why is that?

Julia Gresky: In the past twenty years, study opportunities in the field of anthropology have decreased drastically. Currently the subject is only offered by a small number of universities in Germany.

ARCHAEOLOGY WORLDWIDE: Dr. Hofmann, earlier you used the term “crisis”. Death and crisis would appear at first sight to be close together. But how exactly do you see it?

Kerstin Hofmann: The deceased can’t perceive the crisis themselves, of course. What we as archaeologists investigate above all is how communities cope with the death and loss of others. However, the term “crisis” is problematic, since it is already represents a valuation. While we proceed from the assumption that a person’s death is in some way a loss, we have to bear in mind that the experience of that loss and what meaning is attached to it can vary greatly according to how and/or how frequently one experiences it. I’m thinking here of epidemics, of the intensity of social relationships and also of conceptions of what constitutes a “good” death. There’s a great deal of variation. But essentially the idea behind the term is that death is an occasion for the reorganization of a community in certain areas, which naturally always leads to certain roles and responsibilities having to be redistributed. In addition, there is the grief for the deceased person and ended relationships. How this is experienced differs according to society and community, but in psychology the death of another person is defined as a major life event. It may entail a huge amount of coping, of coming to terms, especially when the fatality comes unexpectedly and suddenly. For many people it is very important to understand the cause and/or to have somebody responsible in order to be able to accept the death. And then there’s the big question: How does it affect the kinfolk, other social relationships, or indeed the whole community? All of that can be relevant when it comes to the burial or the rituals that are associated with it.

In the past 20 years the number of professorships in anthropology at German universities has shrunk by a little over a half. In all, seven such academic posts have disappeared, while only one new professorship has been created. The statistics and locations where the subject is taught in Germany can be viewed on this map: https://bit.ly/33wUNn

The website also provides information about the current situation of other “small” subjects at German universities. The data has been compiled by a dedicated research unit (“Arbeitsstelle Kleine Fächer”) at the Johannes Gutenberg University in Mainz.

ARCHAEOLOGY WORLDWIDE: What kind of things do we mean when we talk about rituals for coping?

Kerstin Hofmann: In Christian communities, for example, it is common to have funeral ceremonies and memorial ceremonies. It would definitively be a very exciting research field to take a look at the materiality and the practices associated with these in modern cemeteries from from an archaeological, anthropological and socio-psychological perspective. For instance, at the start the grave is visited very frequently and there are a lot of occasions for remembrance. But then that gradually changes, depending on whether one is confronted with the absence of the deceased constantly, for example in one’s own household, or only on certain occasions such as the typical family reunion, when remembrance takes place again or when there’s a joint visit to the grave. There are socially desirable times for the remembrance of the dead, like the Christian holidays in November. What’s also interesting to see is the role of social media. There is the digital cemetery, which appears to be gaining favour among more and more people. Facebook is sometimes used for public death and funeral notices. At the same time we have this trend towards cemeteries in forests and anonymous burials, because the survivors are then not tied to a particular place or because children aren’t there to take care of the grave. This can be connected with the idea that remembrance is possible everywhere, and not tied to a given place. These are developments that are negotiated by the community and by society, and in some cases divergent practices are permitted. But nonetheless – particularly for figures in the public eye – there are often definite ideas and norms concerning what is right and appropriate. These, and the rituals that are practised, are subject to change, and we are able to pinpoint that archaeologically on the basis of their material remains.

ARCHAEOLOGY WORLDWIDE: What inferences can we make, then, with respect to earlier cultures when we investigate how they dealt with their dead?

Julia Gresky: At Göbekli Tepe in Turkey, I examined a skull and cranial fragments showing deep carvings of the external surface. Carvings that were scored after the individual’s death, when the bone was still fresh, that is, not yet brittle but still elastic. The soft tissue was removed and lines were incised, sometimes very deep. Modifications of this kind have not been observed anywhere else in the world and seem to represent a new kind of skull cult. We interpreted it as a marking that showed that these skulls were meaningful – belonged to special relatives or members or particular enemies. That is a way of dealing with the dead which is rather peculiar for us today. Defleshing the dead was not out of the ordinary in Neolithic Anatolia; it seems to have been accepted as a possible and common way of handling the dead. And it shows that people in those days acted differently vis-à-vis their dead. People that were buried were not necessarily "gone", but could continue to play a role in the community. Remembrance could be maintained in a highly modified form. It’s also true, of course, that the practice of burying the dead directly under the floor is inconceivable nowadays. But the way we deal with the dead today would perhaps be no less inconceivable for societies of that period.

Kerstin Hofmann: The dead can tell us something about life. That ranges from the analysis of skeletons that provide information about the nutritional situation, injuries or illnesses during their...
Death ritual

a rite of passage that commences while the individual is dying, and continues beyond his/her burial.

Functions of the death ritual:
• symbolic overcoming of death, by individuals and society
• reorganization
• formalized remembrance: making memories
• statements about identities
• legitimation of power
• means of overcoming separation anxiety and mourning, and combating fear of the dead
• guide to life and exhortation

→ for the dead and the living

ARCHAEOLOGY WORLDWIDE: So what did go into the grave specific area, but furnishing a grave with goods does presuppose often serves as an occasion to create something new through performative acts.

ARCHAEOLOGY WORLDWIDE: Can archaeology contribute to the understanding of the functions cited here, albeit often unconsciously.

Julia Gresky: At the DAI we are planning a new research cluster on the subject of “Body and death”, which will link together a number of projects and academic theses – across the DAI and with external partners – that deal in an interdisciplinary way with the dead, but also for the living, and fulfil the functions cited here, albeit often unconsciously.

DEATH RITUALS are rites of passage for the dead, but also for the living, and fulfil the functions cited here, albeit often unconsciously.

Graphic: K. Hofmann

Among them are the emotional and symbolic meanings of grave gifts that belong to or were associated with the deceased. And then on the other side there’s the community, that must be able to support the fact that certain objects end up in the grave or not, also from an economic point of view. We have to keep this context and the various motivations in mind and must in our analyses be very careful about what term we use.

With death, the value or appreciation of things changes. And there’s not just one value, an economic value, but a number of different values and meanings and they are mutually influential. Among them are the emotional and symbolic meanings of things, as well as the memory value. The dead are often interred with clothes on. Some of the clothing, for example buttons, are sometimes then declared to be grave goods, although today people in many cases would claim not to have put anything in the grave. For this reason among others it is very important in my view to always look exactly where objects in the grave actually lie in relation to the skeleton and to take account of natural taphonomic processes. And that’s why it causes considerable difficulties for us archaeologists when the context is destroyed on account of grave robbers or illegal detectorists. Then it’s not possible to do this precise analysis, and we lose information needed to answer key questions.

ARCHAEOLOGY WORLDWIDE: Can archaeology contribute anything to the way we deal with death today?

Julia Gresky: At the DAI we are planning a new research cluster on the subject of “Body and death”, which will link together a number of projects and academic theses – across the DAI and with external partners – that deal in an interdisciplinary way with bodies and their representation in images, with graves, coping with death, and the role of burials in and for communities. Our aim is to arrive at a full understanding of the variety and social conditioning of body images and body-related practices, in particular practices for overcoming death in various cultures and societies, and their transformation over long periods of time.

RESILIENCE FACTORS IN A DIACHRONIC AND INTERCULTURAL PERSPECTIVE

At all times since the dawn of human history people have been confronted with different stress and crisis situations, including death, illness, war and displacement. Starting out from the question “What makes people resilient?”, an interdisciplinary collaborative project made up of researchers in archaeology, life sciences and psychology has been investigating resilience phenomena in a diachronic and intercultural perspective.

Data generated by archaeology were previously not exploited for determining stress and resilience factors, but now they form the basis of an exploration of human resilience in different periods and social contexts.

Find out more here: https://rfactors.hypotheses.org/

For the project, a collaborative research network has been formed in the Rhine-Main Region, comprising researchers from the Romance-Germanic Commission, the Römisch-Germanisches Zentralmuseum (RGZM) – Leibniz Research Institute for Archaeology, the archaeological institutes of the Goethe University Frankfurt, the Technical University Darmstadt, the Johannes Gutenberg University Mainz, the Leibniz Institute for Resilience Research and the institutes of psychology at the Goethe University Frankfurt and the Johannes Gutenberg University Mainz.

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Rome followed upon Rome”, as Goethe once noted. Indeed, the urban development of Rome consists of successively superimposed layers of time. Throughout millennia, structures were destroyed, rebuilt, converted, enlarged, repaired and conserved. Thus the remains of historical buildings bear witness, in a unique way, to long-term social, political, technological and architectural developments.

Currently, the DAI is collaborating with the Sovrintendenza Capitolina ai Beni Culturali on a research project focusing on Temple A, which is part of an archaeological site called Largo Argentina, in the centre of Rome. This ancient Roman temple was maintained and renovated for more than half a millennium. The ancient strategies employed in this process would probably be classified as “sustainable” by modern assessment criteria.
Around 100 BC, Temple A was substantially rebuilt. The tuff columns and entablatures of the foundational building from the 3rd century BC were not removed from site, but broken up into blocks of handy size. These were then used as backfill in foundation trenches and for rough levelling work. Today, this material allows us to reconstruct the appearance of the earliest temple. Some of the original building material was also broken into smaller pieces for use in cast concrete masonry (opus caementicium).

Downcycling we call today this process of recycling waste material for a lower-grade product. However, recycling, that is reusing material or an architectural member for the same purpose as before, was most efficient. The redesigned Temple A had a monumental stairway for which the steps of the predecessor building were carefully dismantled to be reassembled in the new stairway, which stood at a higher level. Similarly, the old cella, the interior of the temple building, was integrated into the new building. In these cases the recycling was not just the consequence of economical thinking. Possibly, the cella and the steps were regarded as sacred relics, invested with religious significance, and they were therefore to be preserved, even though the building material itself was now far from being state of the art.

The methods of building archaeology (Bauforschung) make it possible for us today to understand how Temple A was able to survive throughout antiquity despite massive social, economic and political changes. Environmental disasters presented additional, and considerable, challenges. The temple lay in the southern part of Campus Martius, not far from the Tiber. This area was repeatedly ravaged by devastating fires and was also regularly flooded until well into the modern era. In addition, increasing urbanization led to a shortage of space, which created new challenges for building sites. The survival strategies, which architects deployed at Temple A, attest of clever resource management as well as an approach to maintenance and renovation that adapted itself flexibly to new parameters.

BUILDING MATERIAL, DOWNCYCLING AND RECYCLING

Today an incredible 60% of our waste comes from the construction industry. Whenever a building is demolished or converted, container-loads of building waste are transported away from the site and truckloads of new building material is brought in. On construction sites in ancient Rome the attempt was made to keep the movement of building material contained to the locality, as transporting material was expensive and often also difficult, particularly in the city’s narrow streets. Therefore, discarded building material was reused as far as possible at the construction site. This is a stroke of luck for building archaeologists, because the remnants of various construction phases can now often be discovered at the site.

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The ancient Roman Temple A at Largo Argentina is located in the southern part of Campus Martius, not far from the Tiber river. Visible from the columns are the remains of a medieval church. Photo: J. Pflug
REPARABILITY AND EFFICIENT ARCHITECTURAL SOLUTIONS

Reparability was a decisive advantage of pre-industrial building. Unlike modern structures, which are often assembled from large, prefabricated components, ancient buildings in ashlar masonry or cast concrete/brickwork are practically always repairable. Consequently, parts that were still usable could “live on”, as happened in the year 80 AD, when Temple A fell victim to a devastating fire. Archaeological investigations show that the entire facade and one of the sides of the building were damaged so badly that a row of columns, the entablature above it, and the roof had to be replaced. In the restoration work the architect left as many of the earlier tuff columns in place as was possible, replacing those that couldn’t be saved with columns of travertine. The latter were not newly fabricated, however, but had already seen service in another building.

As a result of the fire and the layer of debris it generated, the ground level in the area rose by almost one metre. Therefore, the tuff columns of the predecessor building that had been left in place became too short. The Roman architect’s solution to the problem can hardly be surpassed in its pragmatism and efficiency. The tuff columns were simply extended by the addition of columnar necks in travertine. As the old column bases now disappeared under the raised floor level, “fake” brickwork bases were attached to the old column shafts. The entire patchwork was then covered by a thick layer of polished stucco with added marble powder. In the end it must have looked like a magnificent marble column.

Before we dismiss this kind of solution as sloppy work, we should consider the technical challenges that stood behind it. Lengthening a column shaft of porous tuff with a piece of much more compact travertine demands a rather sophisticated technical know-how. In addition, we need to bear in mind the economic and political background. In the Imperial period it was no longer the victorious generals and other members of the Roman elite who were responsible for maintaining the temples. The system was now entirely geared to the emperor. The financial burden was so great that, after the great fire of 80 AD, Emperor Titus is reported to have said: “I am ruined.” The pragmatic solutions for the extensive renovation of Temple A should therefore be regarded in part as a reaction to this economic pressure.

“SUSTAINABILITY” AS A SURVIVAL STRATEGY

From today’s point of view the survival of Temple A appears like a success story of sustainable building. The efficient use of already existing building materials as well as the longevity and reparability of buildings are, after all, key criteria of sustainable construction today. Naturally, in antiquity “sustainability” was not the result of an ambition to build in an environmentally friendly way. The primary concern was efficiency and economic viability. Ironically, profit margins are precisely what often prevent investors today from building sustainably. Moreover, modern industrial prefabrication makes building materials cheaper than labour. Therefore, it is cheaper to replace than to repair. In antiquity exactly the opposite was true, though not necessarily because slaves were used. Construction projects in ancient Rome were mostly undertaken by general contractors, known as redemptores, who would hire subcontractors. Efficient planning and economical use of materials including downcycling and recycling guaranteed their profit margins. Even though a religious building like Temple A obviously falls far short of the requirements for present-day public or residential buildings, the ancient Roman construction industry at the very least shows us that sustainability can be effective as a survival strategy.

Stephan Zink

is a researcher at the DAI’s Division of Building Archaeology in Berlin. Since 2018 he has been carrying out research at Largo Argentina in Rome in collaboration with the archaeologist Monica Ceci and the architect Jens Pflug.

Photo: private
The German Archaeological Institute – Vestiges of the past

The relics of past cultures project into the present in a multitude of ways. The famous remnants of the past are physically present and are magnets for tourists. They are studied, preserved and protected, presented and made accessible to tourists. The Acropolis of Athens, the Sanctuary of Olympia and the Colosseum in Rome, for example, are known all round the world and are visited every year by literal masses of people. Olympia alone registered 560,000 visitors per year, the Colosseum as many as five million, before the Corona pandemic began. The German Archaeological Institute, since the 19th century, has played no small part in ancient sites and exhibitions about the ancient world becoming absolute blockbusters.

The archaeological sciences have been able to uncover how early societies dealt with their past. In the ancient world, too, people came across fossils, buildings and graves of antecedent cultures, and found evidence of the repeated modification of the environment they lived in. The vestiges of preceding cultures would be erased and reshaped, but occasionally also deliberately preserved. The effect can be likened to a palimpsest. The valuable writing material parchment was reused again and again in antiquity and the Middle Ages. The writing was scraped off and thus erased so that the parchment could be written on once more. Traces of previous use remained visible. A city in which buildings are structurally modified or pulled down and reconstructed has parallels with a palimpsest. The pre-existent urbanization can still be made out, even if only in slight traces or in the form of older urban structures. It’s not much different for people from the 21st century than for people in the ancient world. Then as now, people encounter layers of the past virtually everywhere. And it’s the same case, essentially, for a research institute like the German Archaeological Institute. The DAI is itself shaped by its institutional history which goes back to the early 19th century. And part of this history is the circumstance that a network of individuals in Rome laid the foundation stone for the German Archaeological Institute (1829). Though they gave themselves the name Instituto di corrispondenza archeologica and soon acquired a first building for it on the Capitol in Rome, it remained – until 1874 – more of a society of scholars than a formalized institution such as the DAI is today. And the importance of this network of scholars can still be discerned today in the election of the Corresponding Members and Founders of the German Archaeological Institute. The actual turning point in the history of the institutionalization of the DAI came in 1874. It is documented by an inscription that adorns the entrance to the building erected in 1877 to house the institute on the Capitol in Rome. According to the inscription, the Institute for Archaeological Correspondence became the Imperial German Archaeological Institute in 1874 by resolution of the imperial parliament and by the Emperor’s confirmation of the statute. The institute was thus brought under the remit of the Foreign Office, which had been founded in 1871. By virtue of its history, the DAI is in many respects unique among German scientific institutions. What is known today as science diplomacy began in the 19th century with scholarship that was already part of an international net-work and was active abroad. A second office abroad was founded in 1874 in Athens. This was followed by further branches like those in Istanbul and Cairo, established in the context of the DAI’s centenary celebrations in 1929. Today it is a common feature of international scientific cooperation that universities and non-university research institutes operate branches or institutes abroad or set up scientific centres abroad. Viewed from the perspective of today’s policy of international scientific cooperation and of the ideals of innovative research structures, the Imperial German Archaeological Institute should in fact be seen as an innovative pioneer. The DAI is a research institute that from its inception operated through an international network and worked actively and collaboratively in other countries. The internationalization of research is accordingly part of the DNA of the German Archaeological Institute.

At the same time, the DAI is a relic of times past. For many research institutes founded at the beginning of the 20th century, the question arose, after World War Two, of which legal form they should operate under and which governmental department should have responsibility for them. In 1945, the DAI was initially managed in a fiduciary capacity by the state of Berlin and then was placed in the custody of the Federal Ministry of the Interior. In 1970, the institute was transferred once more to the portfolio of the Federal Foreign Office on the directions of Chancellor Willy Brandt, becoming a federal agency invested with the right to scientific self-governance. The German Archaeological Institute does not, however, carry out any tasks mandated by national law, as a departmental research institute does, and neither does it have the legal form of a registered association, like for example the Max Planck Society or the Fraunhofer-Gesellschaft e.V. whose missions it is to promote applied research. Resulting from its long history, the German Archaeological Institute’s unique status – being a research institute that is not under the remit of the Federal Ministry of Education and Research as well as a federal agency with the right to scientific self-governance – has always met with a certain bafflement and given rise to debate. A key role is played here by abstract notions about the legal form and the departmental assignment of a scientific institution. Given its history, one could see the peculiar position of the German Archaeological Institute not as an anomaly within a uni-form system, but as the manifestation of a different idea of how scientific institutions should be. Thus, in line with contemporary principles of international collaborative research, the DAI is an innovative scientific institution that, in addition to research, is also dedicated to research-based activities of science diplomacy and cultural preservation. The structures of scientific self-governance guarantee scientific innovation and quality control. Part of the DNA of scientific self-governance are the traditional statutory bodies of the DAI, like the executive committee (Zentraldirektion) and the new scientific boards. Playing an external advisory and decision-making role, these bodies together make a rich and unusually broad-based contribution to the German Archaeological Institute. Here, networks of individuals, such as were at the heart of the institute when it was founded, continue to have a significant impact.

If the vestiges of the past, which incidentally all research institutes in Germany carry within themselves, aren’t regarded so much as a system-disturbing anomaly, but instead are accepted as a matter of fact, then we might be able to address the questions that are actually relevant: namely, does a research institute possess the instruments and self-steering mechanisms necessary to be able to conduct high-quality and innovative research, and does it thereby contribute in a relevant way to scientific debate generally and to the societies in which it operates?

The organizational structure of the DAI, with its multifacetedness and its idiosyncrasies, reflects the global sphere of its operations. It possesses functioning mechanisms of scientific self-governance and is open to external quality control in the form of evaluations by the German Council of Science and Humanities (Wissenschaftsrat) and also in the form of submitting successful applications for funding for its research. At the same time, the German Archaeological Institute faces the challenges and questions of today, be it through the “KulturGutRetter” project or by investigating the impact of climate change in the “Groundcheck” project.
Having to die is a fate all people face, but death does not affect the individual alone. It is a challenge also for communities and societies, which have to ensure their continued existence in spite of the impermanence of their members. Death is therefore not only full of horrors, but is also invested with deep significance for the cultures of all epochs. Ancient Egypt is a prime example of a great culture for which death-related practices were central to its world view and its construction of social structures of meaning. Dying was a palpable reality in those times: historical demographics show that in the ancient world most people died while they were still leading active lives.

Coping productively with this reality was one of the great challenges and great accomplishments of pharaonic culture.
The ancient Egyptians buried their dead in cemeteries. The royal burial complexes with the pyramids of the kings (we shall focus here on the period between the mid 3rd and mid 2nd millennium BC) and the monumental tombs of the high officials at Giza and Saqqara are iconic sites for visitors to Egypt. Their sheer dimensions are a measure of the importance that the ancient Egyptians attached to the sphere of the dead.

Here the town of the living – there the realm of the dead. The present and the past of the community stand opposite one another. Knowing both archaeologically is of decisive importance. The tombs do not look like houses, the cemetery does not resemble a town. The word necropolis, literally “city of the dead”, is therefore misleading. What is similar is the structure: the elite and the lower stratum, high and low, family units and dependencies. What is hard to make out amid the bustle of everyday life, what can be and is constantly renegotiated there – here in the cemeteries it is definite and distinct, laid out in a clear arrangement.

In the tombs lie the dead, the wealthier ones in simple wooden coffins, the others just wrapped in fabric. Some of the bodies have been mummified by the arid climate (not by ritual art). The dead are laid to rest as though sleeping – death is like a heavy sleep. Not infrequently a few items have been placed in the grave with them, objects that had been in everyday use, often damaged: clothing, sandals, jewellery, cosmetics, sticks and staffs, weapons – predominantly things that the people had close to their bodies while they were alive. They are not objects of any great value, but things that now identify their owners in their elementary social identities as man and woman, old and young, rich and poor.

The archaeological form of the area of the dead can thus be read as a diagram which illustrates the structural dimensions of the ancient society and in which every person in the end finds his or her precisely appointed place.

For archaeology, cemeteries are the place where it encounters the world of the dead. The town of Elephantine – by Aswan in the far south of the country – exhibits everything in a less grandiose format. The burial ground was located just west of the enclosure wall of the settlement, then a cluster of 1,200 to 2,000 inhabitants. It consisted of the mastabas (“bench” tombs) built of unfired mudbricks for the urban populace; amongst them lay the shallow pits of the poor people. The largest tombs here are not the grand monuments of individual persons. They are burial complexes with numerous graves for the members of extended, hierarchically structured family units. There was an unobstructed view between them and the tombs cut into the sandstone slopes of the western desert plateau underneath the Qubbet el-Hawa (the much later tomb of an Islamic sheikh), where the members of the urban elite, the expedition leaders and governors were buried. These large mortuary chapels full of illustrations and inscriptions were regularly equipped with a number of shafts and chambers for the burial of the nobles of Elephantine as well as their family members and their officials.

The living and the dead

Here the town of the living – there the realm of the dead. The present and the past of the community stand opposite one another. Knowing both archaeologically is of decisive importance. The tombs do not look like houses, the cemetery does not resemble a town. The word necropolis, literally “city of the dead”, is therefore misleading. What is similar is the structure: the elite and the lower stratum, high and low, family units and dependencies. What is hard to make out amid the bustle of everyday life, what can be and is constantly renegotiated there – here in the cemeteries it is definite and distinct, laid out in a clear arrangement. In the tombs lie the dead, the wealthier ones in simple wooden coffins, the others just wrapped in fabric. Some of the bodies have been mummified by the and climate (not by ritual art). The dead are laid to rest as though sleeping – death is like a heavy sleep. Not infrequently a few items have been placed in the grave with them, objects that had been in everyday use, often damaged: clothing, sandals, jewellery, cosmetics, sticks and staffs, weapons – predominantly things that the people had close to their bodies while they were alive. They are not objects of any great value, but things that now identify their owners in their elementary social identities as man and woman, old and young, rich and poor. The archaeological form of the area of the dead can thus be read as a diagram which illustrates the structural dimensions of the ancient society and in which every person in the end finds his or her precisely appointed place.
A cemetery is not just a repository, however. Everything is aimed at the words of the sacrificial prayer, the spirit of the dead, so it was believed, would emerge through the door and receive the offering. By the arrangement of objects, the performance of the rite could be ever-present, as illustrated by the design of the tomb. A niche in the east side of the tomb’s superstructure – the “false door” – and the place where offerings were laid represent the cultic site. The mortuary priest – ideally the eldest son – took up his place in front of this, “at every feast, on every day” in fact, and made an offering of food to the deceased. At the words of the sacrificial prayer, the spirit of the dead, so it was believed, would emerge through the door and receive the offering. The repast, in ritualized form, symbolizes the communal bond, which exists beyond death, just as in life supplying people with food is a sign of caring, and eating together signifies community.

The ceramic vessels that are sometimes laid next to the dead in the tombs on Elephantine are always new and empty. They are associated with this ritual; the drinking bowl and jug can be seen in the hands of the mortuary priest in images. In the state cemeteries an entire funerary industry came into being. Special model vessels – small vases and plates – have been found there in their hundreds of thousands. They represented the offerings symbolically. In this fashion the many individual offerings (loaves, cuts of meat, drinks) that were prescribed in the long list of ritual offerings could be assembled in model forms inside the tombs, so that performance of the rite could be ever-present, as illustrated by the arrangement of objects. It is not only this ritual offering, a central icon of the funerary cult, that was depicted in the iconography of the richly decorated tombs. Also shown was a recapitulation of its practical, economic, social and legal foundation. For instance, images of sowing and harvesting cereals, threshing and milling grain, and baking and delivering loaves trace the path taken by the offerings. Scenes of administration and inspection show the social fabric in which the significance and power of the high officials were rooted. Contractual texts and lists of villages required to make contributions provide evidence of the legal foundation on the basis of which the offering rites were performed. These funerary cults were the starting point for the institution-alization and professionalization. Endowments for the dead on a considerable scale were attached to rich tombs. The agrarian assets invested there were used to pay the priests who were responsible for the regular funerary cult. This led to the emergence – particularly in the vicinity of the state cemeteries around the ancient capital Memphis (south of Cairo) – of a whole social class whose members made their living from the funerary cults of the elite. These people lived in settlements established to maintain the state cemeteries – pyramid towns, which played a pivotal role in the development of an urban region around the residence. And the contracts that endowed foundations and established terms of service beyond the lifespan of the original contractual partners are milestones in the development of the economic and legal forms of ancient Egyptian society.

In essence, the funerary cults were a family matter. But where families achieved notability in public life, the funerary cults were a means of publicly demonstrating their importance. This development is well documented in the small world of the town of Elephantine. One of the earliest governors of the town, Khufuanikh (4th Dynasty, ca. 2550 BC), had a rock face situated at a prominent place by the south gate in the city wall inscribed with an enormous tableau. It depicts him as the recipient of an offering in a funerary rite. It should be noted that this is the oldest image of canonical pharaonic art that exists in the Aswan region. The display location shows that the governor’s funerary cult was presented as a matter that concerned the urban community as a whole. This idea was to have a great future. The funerary cult – one might more accurately say personality cult, since the cult could be detached from the burial site itself – of a later town governor, Heqaib, came to be surrounded by a sanctuary at which local and visiting functionaries set up cults or at least monuments in their own memory, thereby reaffirming their collective identity and importance.

The sphere of the dead, of the tombs and cemeteries was therefore an eminently lively place, a hive of activity. Not only that, it also contributed fundamentally to the social and formative processes of Egyptian culture and society.
SPRITS OF THE DEAD AND APOTROPAIC MAGIC

Remarkably, activity in the world of the dead was by no means confined to the living. The dead were capable of being extremely vindictive themselves. Some light is cast on this rather dark side of Egyptian conceptions of death by an exciting find from the cemetery of Elephantine – a sealed capsule made of mud from the Nile that was found buried between the tombs. It contained three small figures made from Nile mud and shaped like bound captives. They are what are referred to as execution figures, instruments of apotropaic magic that is well known from ancient Egypt and served to counteract malign influence. The figures from Elephantine have inscriptions scratched into them by a sharp object: spirits of the dead are named as the target of the magic.

LETTER TO A DECEASED FEMALE FAMILY MEMBER:
"You were taken from here to the place of eternity, without harbouring any resentment against me! If these blows of fate occur with your cognizance, then behold, the household and your children are in a wretched state. But if they occur against your will, then behold, your father is great in the necropolis (i.e. ask him for help) if any reproach is in your body, then forget it for your children’s sake! Be merciful! Be merciful! And may all the gods of Abydos be merciful to you!"

Fig. Museum Berlin J 3573 (from A. H. Gardiner and K. Sethe, Egyptian Letters to the Dead, London 1928, plate 5)

The dangerous side of the spirits of the dead is referred to continually and from different perspectives in ancient Egyptian texts. In the ancient magical-medical literature the spirits of the dead are named as the chief causes of illness, and they are to be fought against. In the ritual books of the funerary texts, by contrast, a distinctly ambivalent attitude is noticeable. There, ritual formulas can be found that are intended to prevent the deceased from falling into a negative alternative world, a world in which the dead “eat excrement and drink urine, walk with their heads down” and where “honey tastes bitter” to them. Here we glimpse the possibility that death could also represent a total negation of the world of life. On the other hand, funerary literature deals at great length with the topic of the dead person’s ability (with certain forms of sanction by judges in the afterlife) to take revenge on “the foe” for wrongful suffering during his or her lifetime. The most differentiated view of the potentially risky dealings with the dead is provided by the Letters to the Dead. Mostly written on vessels used in offering rites, these letters are adressed to recently deceased relatives, who are asked for help or forgiveness in the event of crisis situations, for example serious illness. And it is evident that the dutifully performed funerary cult is supposed to regulate contact between the living and the dead and keep it “in order”.

Since reversals in life, sickness and misfortune are construed as being brought about by aggrieved or angry spirits of the dead, the world of the dead acquires a capacity to sanction. If we conceive of the sphere of the dead as a symbolic model of structures and norms that constitute society – roles, hierarchies, dependencies, liabilities – then that model becomes binding if deviations or omissions can actually be punished. It is more than a dubious psychological obsession in ancient Egyptian society. It is part of its very constitution.

A papyrus manuscript from the mid 2nd millennium BC preserves a harpist’s song, reportedly from the tomb of a King Intef. It is an unusual text in which the singer laments the transitoriness of tombs, the uncertainty of the fate of the dead, since “nobody comes back from there to tell us what it is like”. This is paradoxical, because there is nothing ancient Egypt knows more about than the world of the dead. In its first layer, this knowledge seems to be merely a continuation or projection of the circumstances of life. The dead carry on as usual. But something more happens in the confrontation with death: social structures are rendered explicit, norms are acted out programmatically. Even the idea that death could be the exact opposite of the world of life is ultimately affirmative, inasmuch as the risk of it being totally negated invests the rules on which the social world is founded with definitive binding force. To put it in other words, for ancient Egypt the world of death does not represent a critical space that for example calls into question hierarchies, roles and norms; a space that would allow the reflection that life and society could perhaps be different, perhaps better. The false door in the tomb is in this sense truly a false door. Behind it lies no other world.

STEPHAN SEIDLMAYER
First Director of the Cairo Department of the German Archaeological Institute since 2009

Photo: N. Alexanian

PROF. DR. STEPHAN SEIDLMAYER
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Since 1995, the German Archaeological Institute has regularly carried out excavations on Göbekli Tepe in what is today south-eastern Turkey. The work centres on the stone circles on the hill (Turkish: tepe), which date back to the 10th millennium BC, into the so-called Pre-Pottery Neolithic. The enclosures that have been exposed so far consist of pillars up to five metres high and weighing up to 20 tonnes, some decorated with relief carvings. The three metre high Pillar 43 is one of these famous pillars. It was excavated in the north-west of Structure D by Klaus Schmidt in 2005. Building D was buried by a landslide, which led to it being abandoned. The fill material consists of relocated settlement debris from the residential buildings built on the surrounding slopes.

It’s certain that the enclosures played an important part in communicating Neolithic belief systems and narratives. A big question is how the iconographic programme of the pillars is to be interpreted. Pillar 43, carved in low relief, shows many different creatures (people, mammals, birds, reptiles and insects) as well as abstract symbols. The prehistorian Lee Clare, who directs the DFG research project on Göbekli Tepe, and the building archaeologist Moritz Kinzel, Deputy Director of the DAI’s Istanbul Department, are trying to decipher the imagery.

Grasping the meaning of the relief figures is by no means easy. However, the comparison with other archaeological sites and with images on other Neolithic artefacts as well as reference to later ideas and beliefs, including shamanistic ones, do enable us to form an approximate idea that reflects a conception of “this world” and the “world beyond”. The division into three different levels – an intermediate world which the living inhabit, an upper world and an underworld – can be found in a variety of religious-historical contexts. The animals depicted on Pillar 43 play an important part in this scheme, as they take on the role of mediators between the worlds.

Thinking about how the figures are to be understood leads to the question of how they are to be visualized. So how do the two experts on the archaeological site, Lee Clare and Moritz Kinzel, themselves visualize the Neolithic conceptual world?
Archaeological research examines all facets of life of the communities of the past – and that includes how they dealt with the end of life. In a multidisciplinary way the archaeological sciences look at what strategies were employed to cope with death and loss. In many early societies, rituals associated with death were performed in public, and the site of burial and burial rites was permanently marked with commemorative monuments. The question of when societies developed rituals in the context of dying and burial, what these rituals were, and how societies left a mark on the landscape with funerary monuments is one of the central fields of archaeological research.

DEATH, MOURNING AND CONSOLATION IN ANTIQUITY

On living with the dead

From Asia to Europe, archaeologists from the DAI investigate how different cultures at different times developed their own practices vis-à-vis the dead – from burial to commemoration.
THE LAST EARTHLY HARBOUR

Laid to rest under boats

Anyone who has seen the inhabitants of the Tarim Basin who died millennia ago and are now on show in museums in western China will never forget them. Extreme aridity preserved them and their possessions from decay and loss. Their mumification was not intentional, so they were neither embalmed nor wrapped in bandages or strapped in shrouds as in Egypt.

Before the mourners laid them to rest, they had been dressed in special garments, freshly coiffed, and equipped with things that still seem useful and valuable to us today. The more closely we analyse the properties and functionality of the things, the better we can understand what they meant to the people of those times.

Their clothing has survived as well. As clothes convey a lot of information about the wearer, the impression one has of actually meeting people from a long-gone era is particularly striking here. It seems as though one would only need to wake them.

The expanses of dunes of the Taklamakan Desert lie in the Tarim Basin, which is bordered to the south by the towering Kunlun Mountains, over 7,000 metres high, and to the north by the Tian Shan, the “Heavenly Mountains.”

To the north, the approx. 2,500 kilometre long mountain range of the up to 7.4 kilometre high “Heavenly Mountains” – Tian Shan – abut the desert.

The climate of the entire region is continental with big variations in temperature between day and night and between summer and winter. In the Turfan Basin, the mean temperature in January is -9.5 °C and in July it’s 32.7 °C. The very low annual precipitation of 16 mm in Turfan and under 50 mm in the Taklamakan are the reason for the good preservation of organic material and the natural mumification.

Yet the climate in the basin wasn’t always so hot and dry as it is today. Palaeoclimatic studies show a lasting alteration to the landscape, particularly in the 1st millennium BC, as the weakening summer monsoon led to a reduction in atmospheric precipitation to the present level. The continuing melting of the mountain glaciers reduced run-off to such a degree that river-water oases disappeared, sandy and rocky deserts expanded, and humans were ultimately forced to abandon their extensive settlements in the centre of the basin.

A cemetery shows particularly clearly how people lived and died in the largest river and lake landscape in the east of the Tarim Basin. The site is called Xiaohe (“Little River”) and it dates back about 4,100 to 3,500 years. The dead were buried there alone or in pairs, laid in a big sand dune and covered with a flat-bottomed boat made from poplar wood. The two sides of the boat were mortised together at the bow and stern and also with the outer two of the approx. ten cross-planks of the floor.

The boat resembled flat-bottomed boats used on shallow lakes in other parts of the world. In some cases the pole used to punt the boats remains standing in the sand by the prow. These craft were at all events highly suitable for traversing the riverine terrain of the Tarim, with its vast swamps, creeks, and its shallow terminal lakes Boston and Lop Nur.

On the map, Tian Shan Mountains are in the north, Kunlun Mountains in the south, and the Tarim Basin, which forms the basin to the east of the desert, is indicated with a red cross. The former Tarim delta is marked in blue and yellow. Lop Nor and Boston are the terminal lakes in the south of the desert.
THE FINAL CROSSING?

We will never know what the people here associated with boat burials, whether they were connected with the idea of a journey of the soul to a world beyond or crossing a river in the underworld. In contrast to Scandinavia or south-east Asia, the dead here were not placed in boats but under them. And the bottoms faced upwards to the sky. A solid wooden pole stood at the bow of every boat, and a palisade fenced off the burial ground. The ensemble has the appearance of a harbour in which the boats are securely moored by hawser, or a boat cemetery in the truest sense of the term, in which the final journey of both human and boat ended. On earth at least – perhaps this highest point far and wide was the place from which they were to commence their journey across the lake of heaven.

Visible from a long way off, the upright wooden posts at the prow of the boats were discovered by a hunter by the name of Ordeik in 1911. He led the Swedish archaeologist Folke Bergman to the site in 1934. At that time the Lop Nur still existed as a lake. Today the boat cemetery lies isolated in a sandy desert. When a team from the Archaeological Institute of Xinjiang led by Abduressul Idriss excavated the last surviving 170 plus graves in the years 2002–2005, the expedition had to bring every drop of water with them.

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There is no doubt that the people kept cattle and sheep. They also cultivated cereals: the dead had barley, wheat and millet seeds in small woven baskets, leather pouches and wooden containers. None of this existed in the Tarim Basin before their time. The community on the “Little River” lived in the typically Central Asian climate zone of temperate deserts, but it was also able to exploit the game resources of the wetlands in the Tarim Basin, using their boats for this purpose until the wetlands dried up. Because they buried their dead under upturned boats in the desert, much more of their life is preserved than is the case for all their ancestors and contemporaries in eastern Central Asia. That provides an opportunity for us today to get to know them. As we study them, death recedes into the background. We see life, craftsmanship and a delight in colour.

COOPERATION
Archaeological Institute of the Xinjiang Uygur Autonomous Region, People’s Republic of China.

PROF. DR. MAYKE WAGNER is Deputy Director of the Eurasia Department and head of the Beijing branch.

YOU CAN READ MORE HERE:
https://www.dainst.blog/bridging-eurasia/der-letzte-irdische-hafen/

THE PEOPLE UNDER THE BOATS

Wool clothed and decorated both men and women. They wore woolen cloaks, fleece caps, and a broad woolen girdle with laces hanging down. Leather ankle boots were held on the feet by cords. They also used woolen bands – dyed red and yellow or natural-coloured – to wrap things in, tie them in bundles and fasten them: wooden phaluses, tufts of feathers, twigs on wooden posts, fletching on arrows, necklaces and armbands. Woven wool blankets were laid out on the sand under the corpses.

THE WOMAN UNDER THE BOAT WORE A FLEECE CAP WITH FEATHERS IN IT.

She was equipped with a woolen cloak, leather pouch, woolen bodice, ankle boots (photos below), a woven basket and a small wooden mask (photos on p. 42), a wooden phallus, a tamarisk stick, woollen necklaces, a tuft of feathers as well as finely cut stems of Ephedra sinica. An infusion made from this plant relieves coughs and can also be used as a stimulant and a performance-enhancing tonic.

Photo: Archaeological Institute of the Xinjiang Uygur Autonomous Region

Ephedra is the plant from which they were to commence their journey across the lake of heaven.

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Yet on all sides stretched steppe and desert. That is shown by grass in a pollen spectrum from Xiaohe testify to a humid biotope that will take 2005, the expedition had to bring every drop of water with them. Under the boats in the sand, the grave occupants and their grave goods were so well preserved that scientific evaluation will take years more. But certain aspects are already apparent from initial reports and analyses. Cattle, sheep and goats apparently played a notable role in the lives of these people. Small crumbs found on the neck of several individuals have been by identified by a Chinese-German team as cheese made from milk from ruminants that was skimmed and fermented with kefir bacteria. It was a long-life product rich in minerals and vitamins, but poor in lactose and therefore highly suitable for adults as provisions for a journey. Today herders in Tibet, Mongolia, and western Asia still employ the same recipe.

The kefir cheese from Xiaohe is one of the earliest examples of the deliberate modification of foodstuffs by means of microorganisms, and hence the beginning of biotechnology.
BURIED FAR FROM HOME

Phoenician and Tartessian urn graves in the south of the Iberian Peninsula

The Iberian Peninsula was in contact with very remote regions from the beginning of human history. The first graves of foreign people date from the early 8th century BC. They are cremation burials of Phoenicians – men, women and children – who had settled in the Atlantic south of the Iberian Peninsula at the mouth of the Guadiana (today Ayamonte, Andalusia), at the furthest reaches of the Phoenician oikumene, over 3,000 nautical miles from their original homeland. Their lifestyle was adopted by the indigenous elite, as is evident for example from the Tartessian graves at La Joya, Huelva.

The DAI’s Madrid Department in collaboration with its Spanish partners and an interdisciplinary team has been investigating the Phoenician cremation graves of Ayamonte. In the process, it has discovered vestiges of the lives of Phoenician women, men and children who carried on the cultural traditions from their original homeland, present-day Lebanon. 

14C dating of the charred human skeletal material plus the dating of the grave furnishings prove that the individuals belonged to the first generation of Phoenician "colonists". The dead, probably wrapped only in a shroud, were cremated on a pyre at 700–900 °C. The wood for the pyre came from the olive tree, which was particularly valuable and recalls the foundation myth of the Phoenician mother city, Tyre. The remains of a cremated body were carefully collected and placed in an urn. In some cases detailed documentation has revealed that, as the urns were being filled, the position of the body was reproduced, as though the individual were standing upright in the urn. It is possible that this reflects ideas of a life after death. In a few cases two people were cremated together and buried in the same urn. There is one urn, for instance, that contained the ashes of two women about 35 years old, and another with the remains of a woman of about 35 and a child aged around 7 to 8. The reason for this, as well as the cause of death, can no longer be established. Neither can any kinship between the individuals be determined, as DNA investigations aren’t possible in these cremation burials.

THE FINDS IN THE GRAVES TELL US ABOUT THE BURIAL RITUAL

In most urns the only grave good found was a scarab, which can be seen as a distinguishing mark of the dead person’s oriental identity. The urns, too, represent the person’s identity: they are imports from the coastal region east of Málaga, from Sardinia and Carthage. The vessels used as urns were clay amphoras which formerly contained wine.
It is probable that the wine was drunk during the funeral banquet. The tableware whose remains were found in the burial shafts was probably used in the banquet, too. Its fragmentary state of preservation indicates that plates and bowls were smashed after the meal, as was customary in the Phoenician motherland. The urns were then placed in the grave niches, supported by stones to stop them from falling over. A trefoil jug was stood on one side of the urn and a mushroom-lipped jug on the other.

The original contents of these jugs could not be established by chemical analysis. There are indications, however, that the vessels were used only in the funeral rites. They show no traces of use and appear to be new. With this mode of burial, the graves in Ayamonte, though displaying local features, resemble those in the necropolis of the Phoenician city of Tyre, south of present-day Beirut.

**PHOENICIAN INFLUENCES IN THE NECROPOLIS OF LA JOYA**

The oriental grave and burial customs that were introduced with the Phoenicians in the west of the ancient world soon came to be adopted among the local elite. The best illustration of this is to be found in the Atlantic port of Huelva just 30 kilometres from Ayamonte. Here, in the heart of what has been termed Tartessian culture, cremation burials from the 7th century BC demonstrate Phoenician-eastern Mediterranean influence. An internationally known site is the necropolis of La Joya, which was discovered in the 1980s and today lies in the middle of the urban area. The archaeological site is at risk from ongoing construction activity. Salvage excavations took place from April to September 2019 under the direction of Alicia Echevarría. They established that the necropolis extends far beyond the area so far known about. The Madrid Department was invited to take part in the evaluation of the excavations. The investigation focuses on a total of nine urn graves that were exposed during the salvage excavations. Two of them were examined by computer tomography at a hospital in Huelva. The high-resolution CT scans and imaging based upon them provided an excellent basis on which to conduct precision excavation of the urns’ contents in the lab. Initial results of an anthropological analysis which was carried out by anthropologist Bärbel Heußner, a specialist in cremation burials who already collaborated on the finds from Ayamonte, show that the bones of women, men and children are identifiable here. There is also clear evidence of double and triple burials. A particular surprise was finding small fragments of charred objects of ivory among the cremated remains of human bones. The fragments are now being examined by Arun Banerjee from the International Centre of Ivory Studies (INCENTVS) at the University of Mainz.

This archaeological research of contextualized finds and features is contributing ground-breaking information to our understanding of cultures which do not have written records of their own, as is the case with the Phoenicians in the west and with the Tartessians. The urn burials are consequently a source of evidence on the west Phoenician colonization and on the links between Phoenician and indigenous communities in the south of the Iberian Peninsula in the 8th and 7th century BC.

**COOPERATION PARTNERS**

Dirección General de Cultura, Junta de Andalucía
D. Batanero, A. Echevarría, the excavation firm Ánfora (Huelva)
E. García Teyssandier (Ayamonte)
B. Heußner (Petershagen)
A. Banerjee, formerly of Johannes Gutenberg University, Mainz, Institute of Geosciences
3D photography: A. Kai-Browne, HTW University of Applied Sciences, Berlin;
M. Kohler, Roman-Germanic Commission of the DAI, Frankfurt a. M.

**PROF. DR. DIRCE MARZOLI**

Director of the DAI’s Madrid Department since 2004. For several years her work has focused on Phoenician archaeology. Since October 2019 she has been involved in the investigation of the urn graves from La Joya necropolis.

Photo: M. Latova

https://www.dainst.org/project/43864
In ancient Greece and the Roman Empire, various forms of burial may be observed over the centuries. From the 5th/4th century BC to the 2nd century AD, cremation was the most widespread burial practice in Rome. The cremation was embedded in an elaborate funeral ceremony, which included a public procession through the city. If an emperor died, the procession, known as the *pompa funebris*, could resemble a triumphal procession.

**POMPA FUNEBRIS AND APOTHEOSIS**

A pompous funeral ritual

Many literary sources mention the *pompa funebris*, the ceremonial procession that accompanied the deceased to the place of cremation. The texts only provide testimony about the elites of the Roman Empire. On the burials of poor and ordinary people there is hardly any information. They probably adopted the basic form of those of the wealthy classes, but proceeded without pomp or pageantry within a more modest framework. As is the case today, in classical antiquity the family was responsible for the funerals of its members; burying the dead was generally regarded a sacred duty for the family.

**THE POMPA FUNEBRIS**

The *pompa funebris* was a public event that was used by rich and powerful families to display their social standing and cultivate their image. The day of the obsequies was announced by heralds or by obituary notices posted all over the city. On the day of the *pompa funebris*, the mourners gathered in or in front of the house of the deceased, whose body had been washed, anointed and laid out on a bier. The body was decorated with a floral wreath and jewellery, clothed in garments that reflected his or her function in life; and a coin, Charon’s obol, was laid on the dead person’s tongue. It was believed that this coin was the fee due to Charon the ferryman to transport the dead across the river to the Underworld. The procession set off from the house and headed to the cremation site, the *ustrinum*. This is located outside the city, near the burial place, since both burial and cremation were forbidden within the city. The procession paused on the way at the Forum, where a eulogy was delivered for the dead (*laudatio funebris*). It was usually a son of the deceased person that spoke, and he listed the latter’s offices and accomplishments. In general the funeral oration was also used for the praise and self-promotion of the gens. The oration did not serve to console the bereaved so much as to emphasize the loss the family had sustained and thus further intensify the mourning and lamentations.

From the Forum, the *pompa funebris* made its way to the cremation site, the *ustrinum*. This is located outside the city, near the burial place, since both burial and cremation were forbidden within the city. The wealthy the family of the deceased, the larger the number of participants will have been. How important and popular the deceased and his/her family was could be gauged from the size of the funeral procession – which is certainly similar to contemporary practices.
city walls for reasons of hygiene and safety. At the cremation site the funeral pyre (rogus) had been made ready. Pyres were built of wood and combustible, small-scale items. Initially they were undecorated but became more and more elaborate in the course of the Republic and the imperial period. The corpse was cremated together with personal belongings as well as incense and other aromatic substances. The size and decoration of the pyre were further indicators of the status of the deceased and the gens. During the rogus, dirges were intoned.

In imperial funerals the cremation ritual was of great importance. The whole procedure was raised to an even higher level when a Roman emperor was borne to his grave (funus imperatorum). The state funeral was similar in form to the pompa funebris but was costly. Images on coins show rosi structures three to five stories high, which at first sight resemble tiered cakes. On closer inspection one sees they are decorated with columns, statues and garlands. On the top there stands a quadriga (chariot with four horses) for an emperor’s cremation or a biga (chariot with two horses) for an empress’s. In imperial funerals the cremation ritual was of great importance. If an eagle was observed flying up into the sky during the cremation, it was taken to be a sign that the emperor had assumed the rank of the gods, is a motif in reliefs and on coins, where an eagle ascends as a constellation in the heavens. Evidence of this is provided by officials. Later the practice was changed: an eagle was tethered to the top of the pyre and as soon as the fire severed the rope, it broke free and flew upwards, for all to see.

The honour of deification was granted only to emperors that had rendered outstanding services to the empire and the people of Rome by military achievements. Apotheosis, the ascent to heaven, can be seen as the ruler’s final triumphal procession. It was a distinction that was not open to all emperors. For particularly loathed and feared princes, the senate not only denied them a state burial after their death but also decreed that all record of them should be blotted out (damnatio memoriae). They were to be expunged from the collective memory: for instance, their names were erased from inscriptions, their statues removed or reworked, and on coins their portraits were chiselled off. The empty spaces left by their names and portraits clearly showed they had fallen into disfavour, and were a warning to their successors.

The emperor, on the speaker’s platform (rostra) in the forum, took the opportunity to heap praise on the imperial family. After this, the funeral procession moved on to the Campus Martius, where emperors were cremated. There, stands had been specially built so that all the spectators would have a good view. Emperors’ funeral pyres were probably the biggest and most costly. Images on coins show rosi structures three to five stories high, which at first sight resemble tiered cakes. On closer inspection one sees they are decorated with columns, statues and garlands. On the top there stands a quadriga (chariot with four horses) for an emperor’s cremation or a biga (chariot with two horses) for an empress.

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The whole procedure was raised to an even higher level when a Roman emperor was borne to his grave (funus imperatorum). The state funeral was similar in form to the pompa funebris but was celebrated with much more pomp. In ancient Rome the masses flocked to watch the spectacle unfold. The deceased emperor first lay in state in the imperial palace on the Palatine and then was borne from there to the Forum Romanum. Sometimes, when the emperor had died and been cremated outside Rome – as was the case with Trajan in Selinus in Asia Minor – the emperor’s body was replaced by a wax figure for the ceremonial in Rome. The laudatio funebre was mostly held by his successor, i.e. the reigning emperor. After the cremation the mortal remains (ossilegium) were gathered. The corpse was cremated together with personal belongings. Initially they were undecorated but became more and more elaborate in the course of the Republic and the imperial period. The corpse was cremated together with personal belongings. Initially they were undecorated but became more and more elaborate in the course of the Republic and the imperial period.
With the emergence of Christianity, burial customs changed. Preserved in the Roman catacombs is a very special, innovative type of burial which the early Christian communities of Rome practised for their members for about 200 years, from the beginning of the 3rd to the early 5th century AD. In the name of Christian caritas a network of underground passages 150 kilometres long were dug outside the city along the main roads. They contained hundreds of thousands of graves. These collective burial complexes reflect the radical transformation of society in late antiquity.

Burial as an expression of caritas

Two factors were the preconditions for the construction of these subterranean burial complexes. The first is that the entire region surrounding Rome is underlain by a sediment of tuff. The sediment has been exploited throughout history for the construction of cisterns and small tombs, and also for the extraction of building material – tuff soil required to make impermeable mortar. The second factor is that this tuff sediment allowed the Christians to realize one of the important demands of Christian caritas (charity), namely that all people, even the poorest, were to be provided with a place for a decent burial. To this end, following the usually rectangular boundaries of surface plots of land in Rome, the underground was systematically tunnelled out in parallel rows of narrow passages, in the walls of which burial niches, known as loculi – the overwhelming majority of them very modest – were cut in narrow rows one above the other, so as to save space. More than 60 such catacombs, as these complexes are called, are preserved along the arterial roads at the gates of Rome.

The Catacomb of Domitilla is the biggest in Rome, with over 12 kilometres of underground passages. It has been documented in recent years by a team from the DAI Rome and the Technical University of Vienna using the latest 3D laser scanner technology. It is now possible for the catacomb with its four underground storeys to be studied and explored virtually.

Photo: N. Zimmermann/DAI Rome

The Catacomb of San Callisto, Area I: On the axis of two parallel staircases, two principal passages extend the length of the plot and are linked by rectangular corridors. Fig.: after Styger 1925–1926, elaborated by F. De Santis/ N. Zimmermann, DAI Rome

Early Catacombs as an Image of the Early Christian Community?

A particularly well researched catacomb is that of San Callisto on the Via Appia. It was named after the deacon Callixtus, who had been appointed by Bishop Zepherinus (198–217 AD) to oversee the parish’s cemetery.

In the oldest part of the cemetery there were initially very few chambers for wealthy families. By far the most common type of burial was the simple loculus. It seems that when catacombs first began to be used, in the early 3rd century AD, there was the idea that everybody should receive equal burials on a uniform, simple level. This is also indicated by the earliest inscriptions for instance in the Catacomb of Priscilla on the Via Salaria, where only the first name of the occupant is given, along with the words in pace – the wish that he or she rest “in peace”. But already in the course of that first generation of burials, the appearance of graves changed, and in the catacombs, opulent burial chambers as well as humble burials for the poor came to reflect reality with social distinctions.

Photo: N. Zimmermann/DAI Rome

One of the catacombs of Rome with simple burial niches (loculi) in the walls. Photo: PCAS

Christian Burials in Rome’s Catacombs
Although there was barely any light underground, the graves in the catacombs were in some cases sealed with slabs of valuable polychrome marble, and burial chambers were architecturally sophisticated and decorated with wall paintings – just like in the above-ground tombs. The dead, wrapped in shrouds, were brought below ground by the gravedigger. “Let no one be charged high prices for the bricks that sealed the grave, and even for the work of the fuscus, the gravedigger. Let no one be charged high prices if he wants to bury a dead person at the parish cemeteries, for that would affect the poor. Instead let the gravedigger be paid his wage and the price of the bricks. The cemetery keepers should be paid by the bishop, so that the visitors are not bothered by them” – as it is set out in the so-called Novellae Apostolicae, a text dating from the end of the 2nd century AD. The dead, wrapped in shrouds, were brought below ground by the gravediggers, who cut niches to fit the size and shape of the bodies. At empty local today we can tell the height and thus the approximate age of the occupant, and see whether a single individual or, in deeper loculi, a married couple was buried there. Those who could afford it paid for their graves themselves; in some cases the grave owners proudly announced the fact, citing the price in the epitaph, to set themselves clearly apart from the poor with their donated graves.

Inhumation of the body came to predominate over cremation in Rome in the course of the 2nd century AD, if not sooner. It is not easy to determine whether economic reasons had a role to play in this. On the one hand firewood had become scarce and was therefore expensive, while on the other hand inhumation required a lot more space, which had to be acquired in the first place. Irrespective of that, for Christians inhumation was a necessity in order to guarantee resurrection of the body. This expectation of the abode of the gods, to Olympus or the Isles of the Blessed, had been restricted to a small group of the elect, while the realm of the dead had been conceived of as a cheerless underworld. Accordingly a paradigm shift can be observed in epitaphs and images on graves. In place of mourning, which is often presented as tearful and emotional using mythological imagery, for instance on sarcophagi of the 2nd century AD, there now appears a rhetoric of miracles from the New Testament, showing the healing of the sick and an iconography of hope and confidence in personal salvation and a personally attainable paradise. The biblical scenes that are depicted in catacomb paintings and somewhat later on Christian sarcophagi speak of being saved from mortal danger or even death. Alternatively there are scenes of miracles from the New Testament, showing the healing of conditions like paralysis or blindness or even the raising of the dead. The promise of being reawakened to eternal life more or less banished the fear of death and worry about dying altogether from Christian mortuary culture – in the Christian gospel of hope, mourning is almost totally transfigured into glad expectation of salvation.

Ornate arcosolia, like architecturally sophisticated burial chambers, could be decorated with wall paintings. Pictured here is a cubiculum with columns in the Catacomb of Domitilla.

Instead of simple bricks with a red ochre inscription, burial niches could also be sealed by slabs of valuable polychrome marble, and burial chambers were architecturally sophisticated and occasionally incised images like the Good Shepherd or praying figures. Photos: PCAS

What is reported in the sources: he would pay for the burial place and for the bricks that sealed the grave, and even for the work of the fuscus, the gravedigger. “Let no one be charged high prices if he wants to bury a dead person at the parish cemeteries, for that would affect the poor. Instead let the gravedigger be paid his wage and the price of the bricks. The cemetery keepers should be paid by the bishop, so that the visitors are not bothered by them” – as it is set out in the so-called Novellae Apostolicae, a text dating from the end of the 2nd century AD. The dead, wrapped in shrouds, were brought below ground by the gravediggers, who cut niches to fit the size and shape of the bodies. At empty local today we can tell the height and thus the approximate age of the occupant, and see whether a single individual or, in deeper loculi, a married couple was buried there. Those who could afford it paid for their graves themselves; in some cases the grave owners proudly announced the fact, citing the price in the epitaph, to set themselves clearly apart from the poor with their donated graves.

Inhumation for Reasons of Economy or Religion?

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One expression of this paradigm shift can be seen in ritual practice relating to remembrance of the dead. Whereas, through-out the Roman period, coming into contact with death was thought to make one unclean, to the extent that for reasons of hygiene all temples were closed and in ritual practices the official
The area known as the Kerameikos is the site of the best-preserved necropolis of the Classical and Hellenistic period in Athens. Before the gates and along the streets leading westwards out of the city to the harbours, onto the Peloponnesse and the Greek mainland, the inhabitants of Athens erected their tombs – throughout the centuries, from the early Iron Age to early Byzantine times. The burials and funerary monuments cover a period from about 1000 BC to 600 AD. A few graves are even older, and were dug at the end of the 3rd millennium BC.

The areas for mortuary practice have since become standardized; the churches have not only conquered intra-urban space as locations for congregations to perform their rites, but are also present outside towns, in the cemeteries, as sites of mortuary practice and the consolation of the bereaved in the framework of the celebration of Communion.

We thank PCAS (Pontificia Commissione di Archeologia Sacra) for permission to publish their photographs.
This is especially true of the Sacred Way, which led from Athens to the mystery sanctuary at Eleusis some 30 kilometres away. On both sides of this road an unusual high density of graves may be found.

Unlike the family enclosures on the Street of Tombs, a burial site along the Sacred Way was often occupied for less than 20 years, before new tombs were built on top. The monuments to the dead stand facing the Sacred Way. They therefore were not only the backdrop to but also participated in the regular processions that passed along the road. A burial plot close to the procession-al way was probably sought mainly by initiates (so-called mystai), who cherished hopes for a better afterlife as a result of their participation in the mysteries.

More than 6,500 graves have been exposed and published by the excavations of the German Archaeological Institute so far. The tombs of the Classical and Hellenistic period, which give the archaeological site its characteristic appearance today, were either set up as individual grave markers or were grouped together in fairly large units.

However, research being conducted at the site is still far from finished. New research approaches make it possible to construct a totally new picture of the circumstances of life in Classical Athens. DNA analyses of the skeletons that are preserved allow for the investigation of kinship relations between the individuals interred in a given enclosure. In addition, it is also possible to establish and analyse dietary habits and illnesses. In the Kerameikos, thanks to the particularly good preservation of Classical graves, there are a few cases in which a grave can be linked with certainty to the monument that once marked it. This means that not only do we know the names and social status of the interred, but we can also establish facts about the lives of individual persons known by name.

Along the avenues through the necropolis, the high front walls of burial enclosures situated close by one another form a continuous street-front. Epitaphs, always highlighted by colours, reveal the names of many of the burial plot owners. Among those who erected their family tombs here were some of the wealthiest and most influential families of Athens.

Marble funerary monuments inside or on the facade of these funerary precincts are much more than decoration. High marble stelai, embellished with rosettes and crowned by palmettes and anthemia (floral motifs), identify and immortalise the owner and founder of the grave enclosures. Their names, their father’s name, and the deme they belonged to – i.e. information about the district in which the person was registered as a citizen of Athens – are inscribed on the stelai. After the death of the founder of the burial precinct, the name of the new owner (often the son) was added to the inscription on the stele.

Other funerary monuments show the dead person alone, often however in the company of bereaved relatives, separated by death but united as a family on the funerary monument. By the representations and through the inscribed names, the deceased are thus drawn back into the world of the living. The images and the epigraphs proclaim the dead person’s virtues. As it says in an epigram from the island of Rhodes, the images are memorials where the dead remain present for the bereaved, "accompanying them as protective spirits throughout their lives".

Marble stelai with rosettes and ornamental terminations bear inscriptions naming the founder and owner of the burial enclosure – here Koribos of Melite (Inv. I 273). Photos: J. Stroszeck
Dr. Jutta Stroszeck has directed excavations in the Athens Kerameikos since 2012. Photo: J. Stroszeck

The road into the city led past grave enclosures

During the Classical period, one couldn’t enter Athens without passing a long line of funerary monuments of this kind, since the city’s necropolises extended along all the arterial roads. Not infrequently, more information about the grave occupants is communicated by fairly lengthy epitaphs in the form of funerary poems. They praise the interree and his role in society, list his public offices and private occupations. The different levels of meaning of funerary monuments are not immediately apparent for the modern observer. In antiquity, though, the visitor was able to gain some information about who was buried in a particular plot from quite a distance by means of the shape of the funerary monuments: certain marble jars, lekythoi, symbolize the tomb cult, namely the continuous care of the grave by family members. Other vessels, loutrophoroi, signalled that the grave held a prematurely deceased person, often young, unmarried people who had no descendants of their own. Passers-by were thus informed about the fate of the occupant of a grave marked with such a vessel, perhaps that prompted them to make an offering at the grave themselves. Some of the funerary monuments in the Kerameikos have stood upright since they were erected over 2,000 years ago: The excavations have recovered the monuments for Korallion, Hegeso, Dexileos and the consul Pythagoras. Commemoration of these dead has thus lasted millennia.

A conspicuous sight for everyone approaching from the sea was the towering funerary monument for King Maussolos in Halikarnassos, Asia Minor. The tomb was so impressive indeed that it was counted among the Seven Wonders of the World and was also the origin of the term “mausoleum”. In many earlier societies, monuments marked the site of funeral rites and burial. They structured space in a lasting way, and some still do so today. Friederike Fless, Felix Pirson and Gunvor Lindström report on how funerary monuments shaped the landscape.
A monumental tomb like the Mausoleum, which could be seen from a great distance, was a dominant feature of the ancient landscape. Of course, the ancient world also knew hidden, more or less invisible burial places like the Valley of the Kings in Egypt, where pharaohs had their tombs, the best known of which is probably Tutankhamun’s. The fact that they were not designed for visibility and discoverability results today in sensational reports every now and then about hidden burial chambers coming to light. For Rome the subterranean catacombs on the outskirts of the city, hardly noticeable above the ground, are probably among the best-known examples of largely invisible mortuary complexes. Another familiar feature of the ancient world were vast grave fields, which were discernible as such by very few above-ground markings, and most of all resembled modern cemeteries. In the perception of the ancient landscape, they were present as wide spaces that were exempted from everyday use of the land, for instance in arable farming.

THE ROADS OUT OF THE CITY

At many urban centres of antiquity, just like in Athens, funerary monuments lined the roads leading out of the city. The Via Appia in Rome is one of many other examples: every such major thoroughfare into Rome was bordered on both sides by funerary structures one after the other in endless succession. The Tomb of Caecilia Metella, built in the 1st century BC, owed its particular conspicuousness to the fact that it stood at the very spot where the Via Appia reaches a ridge. Erected on a square podium eight metres high was a round building 20 metres in diameter, itself crowned by a statue of the emperor. The ancient city of Sumata – today Soğmatar – seems to be nothing less than encircled by these funerary monuments. It was the site of sanctuaries for astral deities, particularly the moon god, and probably flourished in the 2nd century AD. As no systematic investigations have been conducted there yet, the funerary monuments cannot be dated with any accuracy. It’s an extraordinary fact that many necropolises remain in a largely uninvestigated state. This was also the case until recently with the necropoleis of Pergamon, today Bergama on the west coast of Turkey.

Researchers have interpreted the tomb as a monument that is an expression of the competition between elites in the late Roman Republic, a rivalry that is detectable in other media too. Beyond the funerary monument, the status of the dead person was also demonstrated in a very effective way by the burial rites (see the article p. 48-51). Rituals were an important part of the public display of status and lineage, while the funerary monument stood as lasting testimony in full view in the landscape. The form of the funerary monument was no less important. The tomb of Caecilia Metella from the influential family of the Metelli is a heightened form of the burial mound, monumentalized by a massive substructure. Burial mounds in a stone surround have a long tradition in Italy. How monumental and architectural a form burial mounds could take on is illustrated by the Mausoleum of Augustus in Rome. All that survives of it today are the concentric rings of the enclosing walls, which supported the tumulus, and the internal retaining walls. For this reason, scholars have long struggled over details of the reconstruction. Augustus had his tomb built at an early age in the year 29 BC. The fact that he chose the form of a monumental, architecturally enclosed tumulus is seen by scholars as a clear statement in the context of the conflict with his rival Mark Antony, who had established and consolidated his power in the east of the Roman Empire, particularly in Egypt. By building a funerary monument in the Italic tradition in Rome, Augustus made a clear commitment to Rome. In those days the tomb stood outside the city on the Campus Martius, an area beside the Tiber where there were few buildings. The ruins of the mausoleum were used as a garden in the Renaissance and later as a concert hall, until Mussolini had the structure gutted and the surrounding buildings pulled down. The Mausoleum of Augustus became the centrepiece of a new urban district of Fascist architectural design, and the ideological base of Italian Fascism, whose point of reference was the Roman Empire. The fasces – a bundle of wooden rods that ancient Roman officials called lictors carried – gave the Fascists their name and was used everywhere as their symbol.

BURIAL MOUNDS ENCIRCLE THE CITY

Burial mounds, with or without an elaborate architectural construction, can be encountered in many early societies. Not infrequently they were sited in prominent locations in the vicinity of towns. In the south-east of Turkey, in the Tektek Mountains on the Syrian border, funerary monuments such as are known from Rome lie on today fully karstified ridges surrounding a settlement hill and an important sanctuary. They consist of a podium with an entrance to the burial chamber, and on top of it a round building with a face architecturally structured by shallow pilasters.

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The hill known as Yiğma Tepe was built near the Hellenistic city of Pergamon as a burial mound, with a height of over 30 metres and a diameter of 158 metres. Excavations by the DAI’s Pergamon project in the years 2015–2019 revealed that radial rows of cobblestones extending in from the external circular wall had been laid as the basis on which approximately 260,000 cubic metres of soil and stones were heaped up. The monumental tumulus stands in a conspicuous relationship with the acropolis of Pergamon and its buildings. For travellers approaching the city from the nearby coast and the port of Elaia, Yiğma Tepe would have been an overture to the acropolis. Once they had climbed the acropolis, site of the city’s main sanctuary, and looked out across the plain, the burial mounds would have stuck out as prominent landmarks.

That this was not unintentional is demonstrated by Yiğma Tepe: from the sanctuary of Athena one’s gaze is directed over the Great Altar straight to the midpoint of the tumulus along a visual axis. In this way, two central monuments of the cult of the ruling dynasty of the Attalids (3rd and 2nd century BC) were linked with the biggest burial mound in the plain. The Roman travel author Pausanias left a record of a tumulus, in Pergamon, which was crowned by a bronze statue of a “naked woman”. It was said to be the tomb of Auge, priestess of Athena and mother of the legendary founder of the city, Telephos. We cannot say for sure whether Pausanias was referring here to Yiğma Tepe. However, a compacted layer of soil on the summit of the hill does indicate the existence of a structure - perhaps the podium for the statue of Auge? It’s distinctly possible, then, that Yiğma Tepe was not an ordinary burial mound, but a monument for the Attalids and their mythical ancestors.

Investigation of the hill using the most modern geophysical methods has revealed that it is composed of three layers and is likely to contain structures built into the interior. This brings us significantly closer to understanding the complex monument, even though many questions still remain unanswered.

Yiğma Tepe is being examined as part of a broader investigation of Pergamon’s funerary landscape in the Hellenistic period. In the archaeological sciences, a funerary landscape is a category of landscape formed by the interaction of burial, monument and mortuary practice with the natural surroundings. In this constellation it takes on important functions in the shaping of social memory. It enables us to recognize, for example, that agriculture, small-scale manufacturing, infrastructure and mortuary practice all coexisted side by side on the fringes of the urban area. Other cemeteries lay at more remote locations, and along prestigious processional ways there were further burial places. Equally diverse are the burial customs, funerary monuments and grave goods; in the latter case one ensemble yielded evidence of the linking of cultural traditions from Anatolia, Macedonia and Celtic central Europe. Thus, the world of the dead becomes one of our most important sources of information on the world of the living in ancient Pergamon.
BURIAL MOUND LANDSCAPES

Burial mounds are not only sited in direct relation to urban centres; they can also exist in groups or chains as monumental markers in the landscape. On the steppes of Ukraine and Russia these groupings of several burial mounds have been given names such as the “Seven Brothers” kurgans in post-antiquity. How such groups of burial mounds are to be understood in relation to the individuals buried in them and also in relation to the landscape is a question that has been the focus of intensive research in recent years. Do they mark the boundaries of territorial sovereignty or were they landmarks for travellers to get their bearings in an area that was claimed by nomadic or wandering groups? Herodotus, the Greek historian writing in the 5th century BC, gives an account of the rituals associated with burials and burial mound construction, at least in the case of the Scythians. When a Scythian king died he was embalmed, laid on a wagon and taken round the various tribes in his dominions. Then a burial pit was dug, and the dead king was laid in it along with one of his wives and with servants such as cupbearer, equerry, and the like. “On top of this they heaped up a big burial mound, and in a spirit of competition they tried to make it as high as possible,” Herodotus writes. One year later other servants and horses were killed, embalmed and buried around the royal tumulus. The rituals were carried out also for close relatives, albeit in reduced form. Archaeological evidence has been found of these big burial chambers with principal and subordinate burials and of horse burials, too. And the burial mounds themselves, of course, are visible from afar on the steppe.

An example of burial mounds being used to occupy a landscape can be seen in the Igisak kurgans near Saksanokhur in Tajikistan. These were investigated using geophysical survey methods by Gunvor Lindström from the Eurasia Department of the DAI together with colleagues from Munich and Tajikistan. The four mounds are set close to one another at the edge of a plateau that rises approx. 50 metres above the Jakhsu valley. All of the kurgans have been robbed, which accounts for the sometimes deep, funnel-shaped dips on their summits. Moreover, the two smaller kurgans (2 m high, 18–20 m diameter) have been badly damaged by modern agriculture. The two larger ones, 8 and 11 metres high respectively, are so well preserved, by contrast, that the geophysicists had difficulty working on the steep slopes. Even so, the resultant magnetogram allows the structure of these large kurgans to be recognized clearly: they are composed of the mound itself, 54 and 75 metres in diameter respectively, a circumferential platform, and a ditch with a diameter of 90 and 160 metres respectively that is divided into segments by low, radially arranged “footbridges”. In shape and structure they resemble Saka kurgans in the “land of seven rivers” (Zhetysu) in Kazakhstan. The radial segmentation of the ditches finds a close parallel in Kurgan 2 of the grave field on the Kegen plateau in Kazakhstan. Archaeological investigation of that burial mound by a Kazakh-German expedition yielded material that allowed the presumed dating of Kurgan 2 to the 5th century BC. Because of the parallels, the Igisak kurgan group may also date to the mid 1st millennium BC. The Saka were Central Asian representatives of the culture of the Scythians. Their kurgans are so far known above all in northern Central Asia. Graves with Saka inventory are known, however, in the Tajik section of the Pamir Mountains. The burial mounds of Igisak are the first monumental kurgans to be investigated in southern Central Asia. After the geophysical investigations, archaeological excavations are now planned for the Igisak kurgans.

GEOPHYSICAL INVESTIGATION OF THE IGISAK KURGAN GROUP IN TAJIKISTAN.

Photo: G. Lindström
It wasn’t quite how Thomas Schattner had imagined his final year at the DAI… The excavations at Munigua, which he had directed since 1996 as Second Director of the Madrid Department, were allowed to go ahead, but with COVID restrictions in place, it was to be a campaign with a minimum number of participants and a lot of physical distance. He made the best out of the situation. His team finished a geoinformation system (GIS) on the area surrounding Munigua and has been working on a 3D model of the Roman city. The archaeologists are reconstructing Munigua virtually in three dimensions.

There is a great deal that is unusual about the Roman city, which lies around 50 kilometres north-east of Seville in Andalusia. Firstly it is peculiarly small, covering an area of 3.8 ha, and unlike the majority of Roman foundations it doesn’t have the typical orthogonal street system. Many religious and public buildings, among which the terrace sanctuary on the summit of the acropolis is especially impressive, contrast with strikingly few residential buildings. In the more than 65 years in which researchers from the Madrid Department have been working at Munigua, several temples, the forum and the thermal baths have been excavated along with some of the few urban villas.

Under the direction of Thomas Schattner the focus of the excavations lay on investigating the city’s economic basis. Munigua owed its existence mainly to the ore deposits in the locality. They were exploited in copper and iron mines, the ore being extracted both in open pits and underground; the mines with their shafts and galleries still survive. It was Thomas Schattner who added archaeo-metallurgy to the Munigua project. This archaeological specialization is of major importance on the Iberian Peninsula because of the abundant mineral resources there.
A distinguishing characteristic of Thomas Schattner is the wide scope of his research interests. His bibliography comprises works on such diverse fields as Celtic iconography, on sanctuaries and votive deposition, urban development and economic research. He considers the most varied aspects of life in antiquity, and in his research projects he combines various specialized disciplines and perspectives. He is exceptionally well-connected himself and is a member of a number of learned societies. Scientific cooperation is very important to him. And this being so, he conceives and has shaped the Madrid Department as a platform for interaction and communication among the many, sometimes highly specialized archaeological facilities in Spain and Portugal.

At the end of a nearly 35 year career at the DAI, Thomas Schattner looks back with humility and gratitude: “The DAI is a special institution. It has always reinvented itself and continually adapted itself to things. It’s something special to work for the institute. My work here has filled me with joy and pride.”

“Moving house, meeting the new colleagues, generally settling in,” says Simone Mühl good-humouredly about her first week at the Orient Department of the DAI at its base in Berlin. The Near Eastern archaeologist succeeds Margarete van Esv, who has been elected First Director. In Simone Mühl the Orient Department has acquired an excellent researcher as its Second Director, one with considerable experience in research in the field and enthusiastically committed to the protection of cultural assets in Iraq.

After completing her doctorate at Heidelberg University, she started working at Munich University in 2011, most recently directing the Emmy Noether junior researchers group there in the DFG-funded project “Flight – Migration – Interaction”, which has been investigating artefactual diversity in Ancient Mesopotamian contexts of the 3rd and 2nd millennium BC. Her field of research is northern Mesopotamia in what is today northern Syria and northern Iraq. She is conducting research there at several sites, including Gird-i Shamlu, whose history goes back to the mid 4th millennium BC. The archaeological finds at this site show that there was a break with traditions in the middle of the 2nd millennium BC. Instead of the usual high-quality flint tools, pebbles are used to manufacture tools; while in pottery the production technique and decor change. The shape of vessels changes too, probably reflecting new consumption habits.

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Written sources from Shimshara, situated in the same region, suggest refugee movements and political unrest in this period. The question is how displacement and migration can be detected archaeologically.

“If the material culture, for example the pottery or the tools, change in a relatively short time, that can indicate that the people were cut off from their previous resources or that other people came who didn’t know where the local resources were,” Simone Mühl explains. The reasons for such changes can be many-layered and it’s not always possible to identify clear causes like war or other catastrophes. At Gird-i Shamlu there is much to suggest that people arrived there from the Iranian highlands. For a long time the scientific examination of skeletal material was not possible in Iraq. Now Simone Mühl can supplement her investigations with isotope analyses, which will reveal whether the people grew up in the locality or came from elsewhere. Cross-linking with other projects and building up a comparative database will make it possible in future to investigate the origins of the people and to reconstruct migratory movements within the region.

“Small sites offer big implications for large scale topics,” says Simone Mühl. It’s not just major urban centres with palaces and temples that researchers need to consider. Small archaeological sites in rural areas also have the potential to contribute to current research questions. Working as an archaeologist is a childhood dream come true for Simone Mühl. In choosing to specialize in the Ancient West Asian Archaeology she was following her gut feeling – and was also led by curiosity about an age and a region which at the time she knew little about. Well-versed in the bible, having attended a Catholic school, she noticed more and more parallels with what she was familiar with in the course of her studies. In addition to this came the opportunity to acquire new technical know-how and skills. The first excavations in Yemen, Syria and Iraq were fundamentally new experiences. Above all, local colleagues, with their openness and helpfulness, introduced her to various social conventions and supported her day-to-day work with these conventions properly. The long-term perspective that working at the Orient Department offers gives her the possibility to develop projects over a long time-frame and forge new collaborative ties. Simone Mühl will continue with her research projects, including excavations at various sites as soon as fieldwork becomes viable again. Until then, she will apply herself to the many new questions and challenges awaiting her at her new place of work, concerning research data management among other things. But there’s a lot else to do besides. Because of the pandemic, the Orient Department is offering its numerous study programmes and training courses partly online. Distance learning options give researchers and scholars in the Orient Department’s host countries the chance to continue their professional development remotely. Herself an expert in remote sensing methods and geoinformation systems (GIS), Simone Mühl will support her colleagues here with her expertise.
In March 2020, many countries closed their borders in an effort to contain the spread of the contagious disease COVID-19. Airports ceased regular operations, flights were cancelled, and many Germans abroad didn’t have the possibility to return to Germany independently. The Federal Foreign Office launched a repatriation programme to bring stranded travellers home safely. Markus Reindel, archaeologist at the Commission for Archaeology of Non-European Cultures (KAAK), and his excavation team were stuck in Honduras. Decisive assistance in their evacuation came from German embassies and from the driver hired for the excavation.

Their journey home via several stopping points is recounted by ARCHAEOLOGY WORLDWIDE in a report on this not exactly everyday episode in the life of an archaeologist.
Markus Reindel has been excavating since 2016 in the coastal village of Guadalupe in north-eastern Honduras. In the courtyard of the municipal school he is investigating the remains of a little known culture that settled there more than 1,000 years ago and carried on trade with the Maya. The schoolchildren are fascinated by the “window onto the past” that has been opened up by the archaeological investigations. Markus Reindel is carrying out the excavations with other members of KAAK (Bonn) and with Swiss archaeologists from Zurich University. In the hinterland of Guadalupe they have discovered other sites that appear to be much older. Their investigations could contribute to a better understanding of the past of Honduras.

The locals are proud of the discoveries, which will deepen the knowledge of the history of the region they live in. In order to communicate that knowledge, plans have been drawn up to build a small museum in the village, which may attract tourists to Guadalupe. Construction work on the museum began in September 2019. In March 2020, a 13-strong team was doing fieldwork in Guadalupe, project members including three Mexican anthropologists and eight archaeologists from Germany and Switzerland. Also present was a four-member television crew from the channel 3sat, which was documenting the project. Then the Corona crisis reached Honduras.

The archaeologists leave their accommodation in Guadalupe early in the morning and travel by car more than 350 kilometres to the airport in San Pedro Sula. The roads are closed to traffic; there are police patrols. The driver hired for the excavation manages to get the German-Swiss team safely through the checkpoints. In the night the president of Honduras announces the closure of the country’s borders with immediate effect. The German-Swiss team is packed as quickly as possible. For the local participants the interruption of the excavation means more financial uncertainty, while the doctoral candidates in the team will not be able to complete the data acquisition for their dissertation. Booking a return flight proves to be difficult, with many airline companies having already stopped operating.

Now speed is of the essence: the excavators’ trench is refilled, the finds are put in crates and stored in the depot, the equipment is packed as quickly as possible. For the local participants the interruption of the excavation means more financial uncertainty, while the doctoral candidates in the team will not be able to complete the data acquisition for their dissertation. Booking a return flight proves to be difficult, with many airline companies having already stopped operating.

13.03.2020 – Markus Reindel’s excavation diary
News from Germany; the fieldwork has to be discontinued. The relevant authorities and the German embassy in Tegucigalpa have been informed. Honduras is closing its borders. We have to leave the country as quickly as possible.

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14.03.2020 – Markus Reindel’s excavation diary
The USA and Guatemala have closed their borders; departure is only possible via Mexico. We are able to book flights for 16 March.

The archaeologists leave their accommodation in Guadalupe early in the morning and travel by car more than 350 kilometres to the airport in San Pedro Sula. The roads are closed to traffic; there are police patrols. The driver hired for the excavation manages to get the German-Swiss team safely through the checkpoints. In the night the president of Honduras announces the closure of the country’s borders with immediate effect.

16.03.2020 – Markus Reindel’s excavation diary
Because of the border closure, all flights are cancelled; some planes have to turn back in mid air. I am at the airport at five in the morning. Hours later we manage to change the flight reservations to 26 March.

The team members check themselves into rooms in a San Pedro Sula hotel. In Honduras a strict lockdown is imposed; supermarkets and local farmers’ markets are closed. There are protests by the population.

20.03.2020 – Markus Reindel’s excavation diary
Our flights on 26 March are cancelled. All regular air connections are suspended. We are in constant contact with the German embassy. The situation is tense.

The German embassy in Honduras tries to organize evacuation flights for German nationals in the country. Markus Reindel has worked in Honduras since 2011, and knows that the health service in the country has limited capacity.

23.03.2020 – Markus Reindel’s excavation diary
In spite of the curfew our driver Tito keeps us supplied with food. Some team members are under the weather, but the mood overall is calm and collected.

The Institute management and the emergency task force of the DAI have advised us to look for private charter flights to countries from which outbound flights are still possible.

At the last minute it is possible to charter two propeller aircraft to Costa Rica. From there the team is able to get to Frankfurt on board the final evacuation flight, which has been organized by the German ambassador in Costa Rica, Martina Nibbeling-Wrießnig. She comes in person to wait for the German-Swiss team at the airport San José Juan Santamaría.
The excavation team’s journey home was supported by the German embassies in Honduras and Costa Rica in the framework of the German federal government’s COVID-19 repatriation programme. Special thanks are due to the German ambassador in Costa Rica, MARTINA NIBBELING-WRIESSNIG, and the then ambassador in Honduras, THOMAS WRIESSNIG.

Equipped with a pass from the German embassy, we drive through numerous police and military checkpoints to the airport at San Pedro Sula. From there two chartered propeller planes take us to San José, Costa Rica. The relief when we actually take off is huge. Even greater is the joy of being met at the airport in San José by the German ambassador. She gives us the tickets for our onward journey. On 27 March, the archaeologists land at Frankfurt airport, from where they travel on to Bonn and Zurich.

Looking back, Markus Reindel is above all grateful for how well he and his team coped with the difficult situation and for the assistance they received from the German embassies as well as from the management of the Institute.

The commitments to the people of Guadalupe remain. Though excavations had to be abandoned in 2021, it will hopefully be possible to resume them in 2022. For the time being, construction work continues on the museum and depot in the village, while at home the archaeologists are evaluating the documentation from the excavations conducted so far.

The television crew that had arrived to document the excavation in Guadalupe also got stuck in Honduras after the borders were closed. The archaeologists’ and the film crew’s own departure from the country was captured on film. The two TV features that were made can be viewed here:


HUGE RELIEF FOR THE TEAM MEMBERS when the small propeller aircraft takes off. Heading home at last! Photo M. Reindel

DETAILED IMAGES OF THE SURFACE OF THE LANDSCAPE, known as LiDAR scans, allow the region to be investigated remotely. Modelling: M. Lyons

CERAMIC MASK FOUND IN 2020 … which Mike Lyons of the KAAK made a 3D model of using a laser scanner, so it can be “taken away” for further study. Photo: M. Schacht, Scan: M. Lyons

At Museum Rietberg in Zurich, a temporary exhibition entitled “The Forgotten Coast – Archaeology in Honduras” runs from 22 January to 27 June 2021. The exhibition at Museum Rietberg in Zurich is based on the findings of the ongoing DAI research project in Guadalupe, in cooperation with Zurich University and the Honduran heritage agency Instituto Hondureño de Antropología e Historia (IHAH). Both the archaeological research project and the exhibition are funded by the Swiss-Liechtenstein Foundation for Archaeological Research Abroad (SLSA).

View of the exhibition © Museum Rietberg, Rainer Wulfberger

The archaeologists are using aerial imaging known as LiDAR scans to scrutinize the surface relief of the region. Potential new sites localized by this technology are to be investigated in future in a project on the regional settlement structure.

Photos of the exhibition and a film introducing the archaeology on the Caribbean coast of Honduras can be viewed here:

https://rietberg.ch/ausstellungen/vergessene-kueste

PROF. DR. MARKUS REINDEL is a researcher for Latin America at the Commission for Archaeology of Non-European Cultures (KAAK) in Bonn. He has worked in Honduras since 2011 and in Guadalupe since 2016. Photo: Baumgarten

https://www.dainst.org/project/3011155

Everyday Archaeology...
The Beijing Branch
A bridge to East Asia

The Beijing Branch was established in 2009 to intensify existing cooperation with Chinese institutions and to initiate new joint research projects. The DAI is thus the first and as yet only foreign research institution devoted to archaeology and cultural heritage preservation with its own permanent base in China. The Beijing Branch has an important bridge-building function in Germany’s cultural cooperation with China, Japan and Korea. It furthers the research, preservation and presentation of cultural heritage in the east of the Eurasian continent. Transregional studies on overarching themes are carried out in collaboration with project partners in East Asia.

Current research projects such as the “Silk Road Fashion” project explore resources, manufacturing techniques and the social implications of clothing. Other projects – like “Groundcheck” and “Bridging Eurasia” – investigate food production and the spread of innovations in the context of changing culture, climate and landscape. For instance, in China’s arid regions the soil environment and the climate favour the preservation of textiles over thousands of years, thus forming a unique knowledge archive. Reverse engineering allows the manufacturing techniques and patterns of ancient clothing to be brought to life again, as the reconstruction of the world’s oldest trousers shows.

What immediate consequences changes in the environment had for people’s way of life is the subject of research conducted by the Branch on Hokkaido, a Japanese island in the north Pacific. Its inhabitants, some 15,000 years ago, had to turn from hunting big game on land to exploiting the abundant resources of the sea, as global warming caused the ice sheets to melt and sea levels to rise. The Branch’s research projects in collaboration with other institutions not only generate correlative archaeological and scientific data with high chronological resolution, and in addition they have an influence on society through involvement in the discussion of currently relevant issues like dealing with climate change and its social implications. In specializations where the DAI possesses particular expertise, like building archaeology and dendrochronology, the Beijing Branch assists by developing the knowledge and structures where needed on site. Together with the TU Berlin and the Head Office of the DAI, the Beijing Branch is working in cooperation with the Palace Museum in Beijing on analysing and restoring the Crystal Palace (Lingzhao Xuan) on the grounds of the Forbidden City.

The researchers at the Beijing Branch publish the results of their work in international journals, in the book series Archaeology in China and East Asia, and digitally in its Bridging Eurasia blog. The Branch also produces the series of “Explorer Books on East Asian Archaeology” for children, which deals with various periods and topics in an entertaining way, and explains for instance how the “Great Walls of China” were built. The Branch supports young Chinese archaeologists studying and acquiring further qualifications at German colleges. German students and PhD students interested in preparing their final theses in China benefit from scientific backing and are also involved in the Branch’s research projects. A small library is at the disposal of staff and guests of the Beijing Branch.

For a closer look at the Beijing Branch’s current projects, go to:
https://www.dainst.blog/bridging-eurasia

BEIJING BRANCH
4th Floor, Unit 0401K, DRC Liangmaqiao Diplomatic Office Building
19 Dongfeng East Road, Chaoyang District
100600 Beijing
PR China

The Office of the Beijing Branch
is located in the German Centre Beijing
Photo: German Centre Beijing
In the 4th millennium BC, the city of Uruk (Warka) in present-day Iraq grew to cover an area of 2.5 km². That may sound small by comparison with today, but at that time it was a megacity!

Within the walls of this ancient oriental city, magnificent temples and palaces were built and different quarters arose with houses, workshops, district temples and open squares. But also gardens, fields and unused land lay inside the city.

The people of Uruk therefore not only experimented with a new form of collective urban living, but also practised horticulture and agriculture in the heart of the city. Elaborate irrigation systems were in operation to regulate water distribution and supply elevated urban areas.

Archaeologists from the Orient Department have been researching how these systems worked.
The Epic of Gilgamesh, one of the best known works of world literature from the 2nd millennium BC, tells the story of Gilgamesh, king of Uruk, and his (unsuccessful) quest for immortality. Right at the beginning of the epic there is a description of the high-walled city of Uruk and how the area within the mudbrick walls was divided:

One square mile of city,
one square mile of gardens,
one square mile of clay pits,
a half square mile of Ishtar’s dwelling.
Three and a half square miles is the measure of Uruk.

(translation by Benjamin R. Foster)

Even though there was a great deal of building, rebuilding and remodelling in the 3,000-year history of the city, there is archaeological evidence of the existence of gardens and horticulture, at least for some phases and parts of the city. Urban gardening, which has taken root in many cities in recent years, is therefore not a new phenomenon.

URBAN GARDENS IN URUK

It’s not only the Epic of Gilgamesh that tells of gardens in the city: geomagnetic surveys also show field furrows and a network of canals within its defensive walls. Although the survey data does not indicate what period the structures date from, some areas of the city were evidently always used as agricultural and agricultural land; no settlement remains have been detected there.

Just how difficult arable farming was in southern Mesopotamia in ancient times is shown by modern geomorphological investigations: the quantity of precipitation in the region was and still is so low that agriculture is not possible without artificial irrigation. On the other hand, the rivers Euphrates and Tigris bring a huge amount of water to Mesopotamia. As it happens, just before the first harvest, which in southern Mesopotamia occurs in April/May, there is often a danger of flooding because that’s when the waters from the snow-melt in the north arrive. The construction of irrigation systems was therefore essential and required considerable planning, technological know-how and the organization of labour – in short, a functional community.

We don’t know exactly what factors led to several villages merging to form a city at Uruk in the 5th millennium BC, or how communal life was organized by the urban society. What is certain is that at the end of the so-called Uruk Period, which dates to between 4000 and 3250 BC, writing was “invented”, monumental buildings and a complex administration appeared, and outstanding craft specializations developed – innovations that still shape our lives today.

Archaeologists have been conducting research into these complex processes at Uruk for more than a hundred years now. The Orient Department of the DAI has been active at the site since 1955. More recently its focus has been on Uruk’s early urban development, the landscape and climate history of southern Mesopotamia, and also on creating digital models on the basis of the research results. Major architectural structures in the city – which was largely built of unfired mudbricks – have been reconstructed in 3D.
A particularly impressive reconstruction is that of the “Great Court”, which was located in what is known as the Eanna District in the heart of the city. This central area lies about ten metres above the surrounding plain. Here, in the late 4th millennium BC there was a more or less square garden supplied with water by an irrigation system that employed a water-lifting device. Presumably trees and bushes stood in the garden. At present it’s not possible to be more precise about what plants were cultivated there as no palaeobotanic data is available yet. It’s certainly conceivable that all the essential types of timber or exotic, sought after tree species such as juniper were grown there, much like in a botanical garden. Such cultivation attempts are attested by later texts, and lists of tree species and wooden objects written around 3000 BC demonstrate how important wood was – in many cases it had to be imported and was therefore a prestige commodity.

The reconstruction shows how water from a high-edged basin in the foreground is conducted along small ditches to the stand of trees. This so-called furrow irrigation is also suitable for cultivating sensitive plants. Minimal differences in the level of the paving around the basin could have caused the water to flow through its spillway into the furrows. The walls enclosing the court are constructed in such a way as to be impermeable, while the ground inside the plantation allowed the channelled water to seep in. This mode of construction not only led to an efficient and well-targeted irrigation of the garden, but also prevented the water and the moisture emanating from it from attacking the foundations of the adjacent buildings.

THE END OF A GARDEN

The garden was part of an exclusive architectural ensemble with enclosed courtyards and bath houses. Ricardo Eichmann, former director of the Orient Department, studied Uruk’s architecture in great depth and presumes that only a privileged group had access to this ensemble while the general public was largely excluded. Erecting these buildings was a triumph of logistics and only achievable by mobilizing enormous resources and manpower.

During the late Uruk Period in the second half of the 4th millennium BC, the centre of Uruk must have been similar to what it’s like in the cities of today, with construction work going on constantly. Huge quantities of bricks were produced in the city, while timber was in some cases brought in from far away. Around 3200 BC there was a radical remodelling: the garden and the adjoining buildings were abandoned and pulled down, leaving only the stubs of walls. The area was levelled and partly sealed with mudbrick terraces and then completely redeveloped. The new spatial organization that arose on that foundation remained in place in Uruk’s urban centre for the following 3,000 years. It was there that the vast sanctuary of the city deity Inanna/Ishtar now stood, having previously been located probably at the western fringe of the city centre. The sanctuary comprised a temple terrace, which 1,000 years later was transformed into a ziggurat – a tower with a temple on the top storey – surrounded by very large courtyards with different functions. The garden gave way to one of these courtyards. The remains of walls in the courtyard show that the area probably served to supply the sanctuary with food: hearth structures, storage buildings and perhaps stables. The courtyard’s outer wall follows more or less the identical course as the garden enclosure of the late 4th millennium. Water supply remained a very important matter – as is indicated by a stepwise functioning device for lifting water which has survived there and which is perhaps similar to the one in operation earlier.

Although the garden had to yield to a new building, another key passage of the Epic of Gilgamesh shows what value a garden had in ancient Mesopotamia: the hero traverses the darkness until he reaches the “garden of the gods”. There he steps into the light and marvels at the sparkling, glittering trees that surround him; they are made of precious stones but nevertheless bear fruit. This gem garden, some scholars think, was the literary antecedent of the biblical garden of Eden. The garden in Uruk, a cool and shady green enclosure, must have seemed like a small paradise to those who had access to it.
Long Night of Ideas on 7 June 2021

The Federal Foreign Office will hold the sixth Long Night of Ideas on 7 June 2021, offering a varied programme of events – which will take place largely online due to the pandemic.

This year the Long Night has the motto:

**HOW SOON IS TOMORROW?**
**Diverse.Digital.Sustainable.**

The Federal Foreign Office and its partners give insights into areas where the cultural relations and education policy is applied.

**WHEN?** 7 June 2021

More information at [www.auswaertiges-amt.de](http://www.auswaertiges-amt.de) and on social media: #LNDI2021

Follow us on Facebook and Twitter to find out more.
ARCHAEOLOGY WORLDWIDE

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THE COVER PHOTO shows a mortuary relief erected in the 4th century BC to mark a grave in the Kerameikos cemetery of Athens. In it, we see a man standing and a seated woman facing him. The inscription gives their names: Thraseas and Euandria. They are probably a married couple, joined in the background by a female mourner, either a servant or a relative. Which of the two has died is not certain. The gesture of clasping hands and the heartfelt look the two of them exchange suggest an emotional bond that seems to transcend death.

In the FOCUS section, you can read more about how people in societies of the past dealt with loss and mourning. In the TITLE STORY, archaeologists from the DAI discuss various forms of burial and strategies employed to cope with death. LANDSCAPE takes us to the realm of the dead in ancient Egypt. There, death didn’t mean the end, but represented the transition to another world.

Photo: © Staatliche Museen zu Berlin, Antikensammlung, Sk 738.
Photo: University of Cologne, Archaeological Institute, CodArchiLab, 104027, SPerg-001580, Gisela Geng

DAInsight 2021 –

A series of online events focusing on current research at the DAI

In 2021, the German Archaeological Institute will be providing more extensive and more up-to-date information about its research activities in the series DAInsight. Each month in 2021, a different DAI location will provide an exclusive insight into fascinating projects and work that is underway. The DAInsights will be presented in a variety of online formats.

In June the Commission for Ancient History and Epigraphy in Munich will speak on Roman imperial coinage, among other topics. In July the presentations by the Central Scientific Department will focus on resilience from the perspectives of the architecture division and of the natural sciences unit.

The talks given so far – on the prospects of a new decade and on Gilgamesh’s city wall, for instance – can be viewed online:

https://www.youtube.com/playlist?list=PLq4Pz4R7ts0UPMo4cqknEooRBC3H-8eLS

WHERE AND WHEN?

Upcoming dates:

- 19 May – 26 May
- 23 June – 7 July
- 21 July

The events will be live streamed on https://live.dainst.org/
Registration in advance is required.
More information at www.dainst.org,
facebook.com/dainst and
@dainst_weltweit

NEW RESEARCH AT THE DAI 2021

DAI HEAD OFFICE, BERLIN

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- ISTANBUL DEPARTMENT
- EURASIA DEPARTMENT
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- COMMISSION FOR ANCIENT HISTORY AND EPIGRAPHY, MUNICH
- CENTRAL SCIENTIFIC DEPARTMENT, BERLIN
- ROMAN-GERMANIC COMMISSION, FRANKFURT
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- ATHENS DEPARTMENT
- COMMISSION FOR ARCHAEOLOGY OF NON EUROPEAN CULTURES, BONN
- MADRID DEPARTMENT

FEBRUARY

MARCH

APRIL

MAY

JUNE

JULY

AUGUST

SEPTEMBER

OCTOBER

NOVEMBER

DECEMBER

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A museum under construction in Guadalupe (Honduras)

In the village of Guadalupe in north-eastern Honduras a museum is being built right next to an archaeological site. The multifunctional museum is planned as a depot for finds and an archaeological information centre. Construction work began in 2019. The depot rooms will be equipped with work stations for processing finds, while the exhibition area will convey information about the hitherto largely unknown indigenous prehistory of the region by means of archaeological finds and features. The museum is intended to be not only an educational centre for the local school and students, but also a magnet for visitor groups from the nearby town of Trujillo and so support the development of tourism infrastructure.

The sense of identity of the people in the locality has already been strengthened by an examination of their own past. Construction of the museum creates employment and a source of income. It is also meant to be a pilot project for local government in the surrounding municipalities, illustrating how building local museums can contribute to the protection of cultural assets and boost economic development.

From 2022, the new museum will permanently house the objects from the exhibition on the archaeology of Guadalupe that is on show at Museum Rietberg in Zurich in 2021.

Please support this and similar projects with your donation!