The sanctuary of Olympia in the north-west of the Peloponnesse is famous as the venue of the classical world’s Olympic Games. For nearly 1,000 years, athletes and visitors would gather there for peaceful contests held every four years. Olympia wasn’t just a venue for athletics, though. First and foremost it was an important sanctuary with temples and votive offerings donated by visitors in ancient times. Today the site attracts more than half a million visitors annually. They come from all over the world and are astounded by what they see: in over 100 years of research, the archaeological remains have been almost entirely exposed.

For archaeologists, such extensive excavation always brings with it the question of how to protect and preserve the site. In 1989, Olympia was inscribed on the UNESCO World Heritage List, which always brings with it a set of obligations.

Many of the monuments at the site bear the traces of the passing of the millennia and are in need of thorough stabilization and restoration. With funding from the Regula Pestalozzi Foundation, the DAI Athens worked from 2009 to 2017 on the restoration and re-erection of the north column of the Ptolemaic votive monument. Kallikrates, the admiral of Ptolemy II of Egypt, had the monument erected for his king and the king’s consort Arsinoe II around 270 BC. It consisted of two columns standing on a long base in front of the Echo Stoa; of these the northern one was still largely preserved. Missing sections of the column were replaced during the restoration work and the column was re-erected in April 2017, giving visitors to the site a new structure to marvel at.
Vision for Africa

A centre for the cultural heritage of humankind

The DAI is supporting a project by universities in Berlin and Brandenburg to set up a Center of Excellence for Applied Cultural Heritage Studies in Ethiopia. The institutions concerned – the FU, TU and HTW in Berlin and Brandenburg Technical University, Cottbus (BTU) – will be cooperating with the university in Mekelle to provide urgently needed teaching capacity in researching, preserving, protecting and promoting awareness of that region’s rich cultural heritage.

In East Africa there is a lack of vocational and specialized training with a practical orientation towards Africa’s cultural landscape and material heritage. Resources of incalculable value may be lost as a result. The plan for a centre of excellence is intended to address this problem. In cooperation with the German Archaeological Institute, which possesses a wealth of experience from projects conducted in Ethiopia previously, a centre of excellence will be set up in Mekelle in northern Ethiopia to give instruction in the necessary technologies for documenting landscapes and monuments as well as for conserving and restoring buildings and objects. All this can only be accomplished effectively if knowledge pertaining to the cultures of the past can be disseminated.

East Africa is rich in the remains of cultures of the past. The rock-hewn churches of Lalibela and the stelae at Axum are UNESCO world cultural heritage sites that are widely known and are visited by tourists from all over the world. They consequently represent an economically significant resource for the region. The DAI therefore emphatically supports the initiative of the four German universities to submit an application in the framework of the programme “African Excellence – Fachzentren Afrika” run by the German Academic Exchange Service (DAAD). Their vision is already one product of cooperation in the DAI’s TransArea Network Africa (TANA) and also of the DFG’s priority programme in Germany “Entangled Africa”.

FIND OUT MORE IN THE NEXT ISSUE!

THE CHURCH OF ST. GEORGE (BETE GIYORIG) IN LALIBELA, Ethiopia, dates from the 12th/13th century and was hewn out of the living rock. Photo: Fless
DEAR READERS,

Provenance has become topic number one in cultural heritage matters. Repeatedly discussed and hotly debated in newspaper articles, the issue of provenance even gets a mention in the federal government coalition agreement that was signed in February 2018. For archaeologists, the topicality of the issue and the controversy surrounding it is something of a surprise, given that investigating where objects come from is one of the core areas of work in archaeology. This being so, some readers may be puzzled to find it the principal theme of the first issue of *Archaeology Worldwide* this year. Yet precisely because provenance research is carried out so much as a matter of course in archaeology, it makes sense to look into it in some depth from the archaeological point of view. Here you will find out about the methods used in archaeology to establish the origin of an object, and how insights into historical developments can be gleaned from that. You will also get a sense of the complexity of current discussions centring on the origin of objects. The controversial tenor of the debate is due to the focus on the provenance of objects from all over the world that began to enter collections and museums in the 19th century in very specific and frequently asymmetric political situations and power constellations. The ongoing debate is not always conducted on the basis of a detailed examination of the complex processes as a result of which objects that originated in a particular region ended up in collections in other countries. All too often discussion of the topic gets reduced to rash and apparently generalized imputations of wrongdoing. Perhaps this issue of *Archaeology Worldwide* will give an impression of just how complex the matter is.

Provenance research is, as it happens, historical research of great complexity and it doesn’t always produce clear and unambiguous results.

I hope you enjoy reading this issue.

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

Photo: Kuckertz
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Sharing Heritage
European Year of Cultural Heritage 2018

With the slogan “Sharing heritage”, the European Year of Cultural Heritage in 2018 seeks to focus attention on Europe’s common cultural heritage. Across the continent events and participative projects will be held to raise awareness of Europe’s rich cultural heritage and to inspire a commitment to protect and preserve it. Ever since it was founded in Rome on 21 April 1829 the German Archaeological Institute has regarded itself as a European research institute. The founding members from several European countries declared themselves committed to researching and preserving the cultural heritage of Europe – a mission that the institute retains to this day. Naturally the dedication to cultural heritage no longer stops at the continent’s borders, but extends throughout the world to cover all of humanity’s cultural heritage, including its entanglements with and reciprocal influence on Europe. The exhibitions, talks, roundtable discussions and conferences through which the DAI will be taking part in the year of cultural heritage at its branches around the continent will take place under the central theme of “Europe: exchange and mobility”. Europe after all consists of a dense network of multifarious ties and relationships that has always been characterized by an exchange not only of goods and commodities but also cultural practices, ideals and values. The international collaborative research projects of the DAI make the interconnectedness of Europe clearly visible. All the events are to be organized with partners in the host country and together will give an impression of the global reach of the DAI’s work.

Follow us throughout the European Year of Cultural Heritage on social media under #entangledhistory and #archäologieimkulturerbejahr.

Full information about the events can also be found at www.dainst.org/kulturerbejahr2018

Pergamon: world cultural heritage

Two exhibitions in the Year of Cultural Heritage

Pergamon was one of the great urban centres of the classical world. Capital of the Hellenistic kingdom of the Attalid dynasty, and major city of the Roman imperial period, it enjoyed great political significance and was also a prominent cultural and religious centre with a famous library and impressive architecture and works of art. German archaeologists have been excavating at the site – on Turkey’s west coast – for over 130 years now. Their activities focus on research into the city as a whole including its necropolises and the surrounding area as well as on the preservation and presentation of the monuments. Pergamon was inscribed on the UNESCO world cultural heritage list in 2014. The DAI is mounting an exhibition that shows the ancient city in 3D. Pergamon wiederbelebt! (“Pergamon brought back to life”) runs from 21 April to 15 July 2018 at the Antikenmuseum Leipzig.

A centrepiece of the exhibition is a new virtual 3D reconstruction of ancient Pergamon. It was created by the Chair of Visualization at Brandenburg Technical University, Cottbus (BTU) in cooperation with the DAI’s Istanbul Department. The exhibition brings the ruins back to life and presents a modern, graphic view of the urban space. It is also intended to make visitors reflect about urban spaces they themselves inhabit.

In Bergama, an exhibition opens at the Kulturzentrum BerKM on 4 May: “Neither in heaven nor on earth. Bergama’s inhabitants and their cultural heritage: agents of a many-layered past.” The phrase “neither in heaven nor on earth” goes back to the geographer Katai Celebi, who used it to describe how the ancient past and the present exist side by side in the Bergama of the 17th century, a part of the old town of Bergama is named after him. The photo exhibition draws on the rich stock of images from the Pergamon excavations, and shows how the lives of the inhabitants in the modern town of Bergama are influenced by history in a variety of ways and how classical, medieval and modern urban environments are interwoven. The four-week exhibition was conceived by the Istanbul Department of the DAI and realized in cooperation with the municipality of Bergama and other local institutions.

ANTIKENMUSEUM LEIPZIG
21 April – 15 July 2018
Opening times: Tues–Thur, Sat, Sun, 12 noon to 5 p.m.; closed Mon, Fri, and on public holidays.
Admission: 3 euros, concessions 1.50 euros

PHOTOGRAPHS OF INHABITANTS OF BERGAMA, MODERN PERGAMON, FROM THE PAST 130 YEARS, like this one from 1986, show interfaces between the historical past and modern urban life. Photo: Steiner

3D MODEL OF ANCIENT PERGAMON (C. 200 AD), an aerial view of the city, computer-generated by Lengyel/Toulouse 2012 © D. Lengyel - BTU Cottbus
"New research into early Greek sanctuaries" is the title of a symposium that was held in Athens from 19 to 21 April 2018. It wasn’t a routine archaeological colloquium. Rather, researchers from many countries gathered at the German Archaeological Institute in Athens to honour the archaeologist Helmut Kyrieleis. Kyrieleis was born in Hamburg 80 years ago on 10 January 1938. He went on to make at that time unimaginable discoveries during archaeological research work in Greece. Around 40 years ago, for instance, he and his team discovered a kouros statue almost 5 metres high in the sanctuary of Hera on Samos, and later also the head belonging to it. The Archaic statue of a young male nude was only one of the unbelievable finds. It was later joined by the torso of a young woman, a figure known as a kore. Yet Helmut Kyrieleis’s achievement amounts to more than these extraordinary finds. From 1975 bis 1988 he directed the Athens Department of the DAI and became the institute’s president in 1988. During his period in office the Berlin Wall fell, in the wake of which portions of ZIAGA (central institute of ancient history and archaeology) in the Academy of Sciences of the German Democratic Republic (GDR) were integrated into the DAI. In addition, Kyrieleis taught at the Free University Berlin from 1990 onwards as honorary professor of Classical Archaeology. Great international recognition of his work was reflected in his being awarded an honorary doctorate by the University of Athens and elected a corresponding member of the Academy of Sciences in Athens and in Tbilisi. Investigations into Greek sanctuaries continued with his excavations on Samos and at Olympia. He directed the German excavations in the Heraion of Samos from 1976 to 1984 and subsequently the excavations at Olympia from 1985 onwards. As a result of these projects and his large number of publications, he added important aspects to the research programme at both sanctuaries, notably the early history of the sanctuary at Olympia. In the year 2000, he published the volume “Olympia 1875–2000”, his critical account of what had been accomplished in 125 years of German excavations at the site. This culture of critical discussion, to which Helmut Kyrieleis attached such importance, was continued at the colloquium in his honour, which was organized by Wolf-Dietrich Niemeier and Aliki Moustaka.
This pair of trousers was examined by an international team directed by the DAI in the BMBF-funded project Silk Road Fashion. It was made some 3,300 to 3,000 years ago, along with another pair also found at Yanghai. They are the oldest pairs of trousers known so far in the world. The yarn was spun from sheep’s wool and woven using three techniques (twill, kilim and rips) in the desired form and size. At the knee the twill is interrupted by a pattern zone in the taaniko weaving technique. This technique makes it possible to produce extensively patterned woven fabric without a complicated loom. The analysis provided the first proof that the taaniko technique was known in central Asia 3,000 years ago.

The trousers were worn by men who can be identified as horsemen and warriors on the strength of the goods in their graves. They belonged to a sedentary, agrarian community. We assume that the trousers were invented for their protection while riding. How researchers reached these findings will be shown in the first documentary film to be produced by the DAI, Die Erfindung der Hose (“the invention of trousers”), which will be released this year.

On 21 and 22 January 2018, European culture ministers met in Davos at the invitation of the President of the Swiss Confederation Alain Berset. They adopted a joint declaration on the need for a high-quality baukultur to be firmly embedded at a political and strategic level in Europe. The signatories in Davos recognized a deterioration of the historical fabric and a loss of regional identities and traditions in Europe. And they emphasized the value and irreplaceability of the landscapes and cultural heritage of Europe.

A special role falls to building archaeology as a consequence of the Davos Declaration. After all, without the examination of architectural heritage, new ways of protecting and promoting the cultural values of the constructed environment of Europe – as called for in the Davos Declaration – cannot be developed. The architecture of past eras can only be appreciated to its true value if its qualities are known and understood. For this reason it has to be documented and examined. This in turn requires a comprehensive approach which isn’t focused solely on the preservation of façades, but instead takes account of all aspects of historical building.

It was precisely to champion these goals that a working group of German “archaeological architects” was set up in 1926. The society is known today as the Koldewey-Gesellschaft, named after the founding father of bauforschung, or building archaeology, Robert Koldewey. The society, which currently has over 350 members, advocates the analysis of our architectural heritage from the first structures of human history right down to the present day. The DAI – whose members sometimes sit on the board of the Koldewey-Gesellschaft – is committed to the same goals as well as training the young generation of researchers and specialists.

When the building archaeologists next meet, in Braunschweig from 9 to 13 May, they will discuss, in the spirit of the Davos Declaration, how a better awareness of our historical heritage can contribute to a high-quality baukultur. The programme of the 50th conference of the Koldewey-Gesellschaft reads somewhat like a direct response to Davos. It will consider how post-1950 buildings are perceived. It’s no surprise this topic has aroused such interest, given that some sixty per cent of existing buildings in Europe date from the second half of the 20th century. Still more knowledge is needed about spatial concepts in the architecture and town planning of that time, and also about constructions, materials and building techniques. To acquire this knowledge, new building archaeology methods need to be developed.
When Goethe set off for Italy in 1786, he was just one of many travellers who took part in what was called the Grand Tour. The tour led to the countries of the Mediterranean and initially it was undertaken by the nobility. From the 18th century onwards the Grand Tour became driven more and more by an enthusiasm for classical antiquity, which was shared by the European middle classes too. The journey needed to be recorded, of course. Paintings, engravings, plaster casts or cork models of classical monuments were manufactured in great quantity for the itinerant antiquarians, and were purchased as mementos. It was not only souvenirs that were bought, but also antiques, which were taken out of their countries of origin. Thus, big and small collections of antiquities came into being all over Europe in the course of the 18th and 19th centuries.
At first the antiques were purchased from already existing Roman collections. As demand increased, people started digging in search of antiques. One of these “excavators” was Sir William Hamilton, who is shown in an illustration from around 1800 standing beside an Etruscan tomb he has had opened in order to get at the Greek vases that were produced in Athens in the 6th and 5th century BC and procured in great numbers by the Etruscans on the Italian peninsula.

The targeted digs and the export of antiquities, like the selling of antiques, started in the 18th century. Rome was the first to react in view of the imminent risk of its cultural heritage being “bought up”. On 7 April 1820 the Lex Pacca entered into force. This edict, issued by Cardinal Bartolomeo Pacca, steward of the papal household, ordered the drawing up of an inventory of art treasures in public and private ownership, and contained regulations relating to the export and trade in antiques. The edict furthermore regulated the granting of concessions to excavate and what was to be done with chance finds. Thus a new era begins in how excavation finds are conducted and how excavation finds are dealt with. By stipulating who is legally permitted to dig and where, i.e. with an authorization, the law also establishes what illegal excavation is. By defining how antiques may be legally exported, it also establishes what constitutes illegal export. The Lex Pacca was a first and important step towards defining legal and illegal activity and hindering the uncontrolled sell-off of cultural assets. Still it took many states a very long time before they adopted functioning legislation on antiques. And around the world these antiques laws are constantly being amended.

The archaeologist Theodor Wiegand discussed the history of the protection of historical monuments in an article published in 1939. For this purpose he collected and commented upon the various antiquities laws. These laws are now being digitized in a project of the Exzellenzcluster Topoi and the plan is to make them accessible (project directors: Friederike Fless – Benedicte Savoy). Laws on antiquities were adopted in 1820 in Rome, and in Italy in 1872, as well as in Greece (1834), Turkey (1869, 1874, 1884), Egypt (1835, 1912), Tunisia (1886), France (1887), Cyprus (1905), Spain (1911), Algeria (1925), Syria (1926), Iran (1930) and Iraq (1936), to name but a few countries.

GREECE FOLLOWS SUIT

A permit was also necessary for any foreigner wishing to excavate in the Ottoman Empire in the 19th century. Even so it wasn’t until the 1860s that legally explicit regulations were put in place to govern the granting of excavation permits and questions relating to the ownership and export of antiquities that were found. When, in the early 19th century, an international group directed by Lord Elgin obtained a permit from the Ottoman authorities in 1860 to carry out work with his team on the Acropolis in Athens, according to it, Elgin and his team are authorized to make drawings and casts, and to carry out excavations in the foundations of the two temples using methods standard at the time, salvaged sculptures from the debris, and facilitated the sale thereof with the consent of the Turkish authorities. But the story can also be told from a different perspective. Shortly before the Greek state was founded in 1832, the Ottoman administration gave authorization for the extraction and sale of what was then one of Greece’s most valuable resources, its antiquities, which were auctioned off to the highest bidder among the countries of Europe. From the perspective of the young Greek state, this all happened under Ottoman occupation and hence under conditions of political asymmetry.

In order to understand the current controversies surrounding ownership of cultural assets and the question of provenance, it is important to realize that both narratives exist concurrently today and indeed have become extremely topical. The Greek artist Aristide Antonas contributed a work to the documenta 14 exhibition in 2017 which explores these asymmetries and the selling off of Greek culture in the 19th century. There are debates not dissimilar to this concerning other parts of the disintegrating Ottoman Empire which at first became protectorates of European states, and concerning European colonies around the world. The issue therefore extends deep into the 20th century and can still cause feelings to run high today, as the case of the famous Elgin Marbles demonstrates. In the new Acropolis Museum in Athens, space is deliberately left empty for the missing originals, which Greece is still demanding the return of. But why are the Elgin Marbles at the centre of such controversy?

Lord Elgin obtained a permit from the Ottoman authorities in 1801 to carry out work with his team on the Acropolis in Athens. The permit does not exist in the original, however; only an Italian translation survives, which leaves some scope for interpretation. According to it, Elgin and his team are authorized to make drawings and casts, and to carry out excavations in the foundations of the later structures on the Acropolis in order to search for inscription blocks.

RECOMMENDED READING

A. Antonas, Die Konstruktion der Ruinen des Südens: Eine Anleitung zum Umgang mit Schulden:
http://www.documenta14.de/de/south/49_die_konstruktion_der_ruinen_des_suedens_eine_anleitung_zum_umgang_mit_schulden
They were not to be prevented – the permit goes on – from taking some pieces of inscription blocks as well as figures away with them. It is therefore primarily Elgin’s interpretation of the permit that remains contentious to this day, as he had a large amount of sculpture from the classical temple for Athena Parthenos broken off and transported back to England. The brutality of the act and the very free interpretation of the terms of the permit are probably also the reason why the Parthenon sculptures were not acquired for the British Museum until 1816 after lengthy debate in the British parliament. The way Elgin had acted was already controversial in the early 19th century.

Internationally, judgements of his actions reflected, among other things, emerging national rivalries. A German traveller, Christian Müller, offers a good example of this. In an account of his travels in 1822 he writes that the English had prised off the frieze of the temple at Phigalia Bassae by force of arms. This, he comments, was “a worthy counterpart to Lord Elgin’s theft in Athens! These two moves will go down in art history as both remarkable and examples among many.

In the Ottoman Empire, between the issuing of the first decree in 1869 and the adoption of the comprehensive antiquities law of 1874 and its amendment in 1884, there was much debate about ownership of ancient objects found on private property and about legal treatment of chance finds, known as treasure trove. Can treasure trove or a find on private land be state property even though that land doesn’t belong to the state? At the end of the debate the Ottoman Empire decided that all archaeological finds were state property. Nonetheless the ownership of chance finds remains a hotly contested issue to this day.

WHO OWNS CULTURE?

The disintegration of the Ottoman Empire, the formation of protectorates and mandated territories, followed by nation states, together created a new territorial arrangement which is of central relevance in contemporary discussions of the legitimacy of how cultural heritage was dealt with in the past. Another aspect that has a bearing on the question of who cultural heritage actually belongs to is the fact that ancient cultures in terms of territory and networks are not congruent with these state entities of post antiquity. And yet in most antiquities laws the modern state is defined as the owner of the remains of ancient cultures on its territory.

In spite of this, or perhaps because of this, the question that is most often asked of archaeologists is: “Who gets to keep the finds from an excavation?” The answer these days is in fact very simple. All finds from an excavation are the property of the state on whose territory the excavation takes place. The basis is that state authorization is required for every archaeological excavation. This is set out in special laws, which also define who the owner of the finds is. In the Ottoman Empire, between the issuing of the first decree in 1869 and the adoption of the comprehensive antiquities law of 1874 and its amendment in 1884, there was much debate about ownership of ancient objects found on private property and about legal treatment of chance finds, known as treasure trove. Can treasure trove or a find on private land be state property even though that land doesn’t belong to the state? At the end of the debate the Ottoman Empire decided that all archaeological finds were state property. Nonetheless the ownership of chance finds remains a hotly contested issue to this day.

In Germany, Article 150 of the Constitution of the German Reich of 1919 states: “The monuments of art, history and nature as well as the landscape enjoy the protection and care of the state. It is the concern of the Reich to prevent the export of German art possessions to foreign countries.” Even so, Germany has an extraordinary profusion of regulations on heritage ownership, especially relating to the question of who owns finds that lie on the surface or come to the surface by chance on private property. In Germany, because of the sovereignty of the federal states in cultural matters, every state has its own regulations on the question. They range from variants of the schatzregal, which defines the federal state as the owner of treasure – for example, archaeological artefacts – upon discovery, to what is known as the Hadrinacic Partition. This regulation on the ownership of treasure goes back to the Roman emperor Hadrian and is still to be found today in the German Civil Code § 984. ‘If a thing that has lain hidden for so long that the owner can no longer be established (treasure) is discovered and as a result of the discovery it is taken into possession, one half of the ownership is acquired by the discoverer, and the other half by the owner of the thing in which the treasure was hidden.’

But it’s important to note that this regulation applies to treasure found by chance. Deliberately disturbing the ground in order to extract archaeological objects from it constitutes an illegal excavation all over Germany and as such is prohibited. Prohibition, however, does not stop illegal digging taking place on a large scale, in Germany too.
Returning to the 19th century, international reaction to the antiquities legislation was very interesting. Greece and the Ottoman Empire came in for some harsh criticism internationally because of the antiquities laws they had passed. The German classical archaeologist Friedrich von Duhm gave expression to his displeasure in 1897 when he described the new Turkish antiquities law of 1884 as “merely aping the profoundly foolish and pernicious Greek antiquities laws.” He went on to state that it “...simply and categorically prohibits all export of antiquities of any kind, theoretically declares them to be state property, and thus only opens the floodgates to an immoral contraband trade that is pernicious in the extreme for scientific research, which is primarily interested in finding place and find context to excavation practice, too – promote illegal digging and illegal contravention of laws. Another interesting point about Duhn’s argument is noteworthy above all for positing that a fundamental problem for scientific research derives from legal restrictions for the uncontrolled “mining” of archaeological material and largely unhindered trade were prevalent. The information that Duhn insisted should be registered was initially not recorded at all in many cases, or if it was, then only inadequately. In observing that the law would open the floodgates to illegal trade, Duhn is right to the extent that no legal regulations concerning “excavations” and the trade and export of antiquities had existed in Greece before 1834 and the Ottoman Empire before 1869. Consequently there was no activity illegal by being in contravention of laws. Another interesting point about Duhn’s structure is that the legislation did not rule out the possibility of arranging the partitioning of finds during negotiations, or the possibility of acquiring a permit to export antiquities from authorities in Constantinople. Duhn’s attitude can probably be explained for the most part as vexation over the fact that North Europeans could no longer act so freely as had been the case before the laws came into effect. Looking back from today’s perspective it all seems strange to say the least because at the start at any rate very little changed.

This is vividly illustrated by an account that John Punnett Peters of the University of Pennsylvania left of his journey to take part in the excavations at Nippur in what is today Iraq and his return to the United States. His expedition in the years 1888-1890 and the excavations at Nippur took place on the territory of the Ottoman Empire and with authorization from Constantinople. His journey to and from Nippur took him through Palmyra. When he arrived there, characteristic Palmyrene funerary relief busts were immediately offered to him for sale, he describes dramatically how they were taken out of tombs and hidden all over the site by the local inhabitants. When a foreigner came along, they were brought out and offered for sale. He points out emphatically that the Turks strictly forbade this, but pretty well every traveller procured busts from Palmyra nevertheless. Peters did too. He was obliged to choose a different route to convey them out of Palmyra because of the rumour that the caravans from Palmyra to Damascus were all searched for antiquities by the Turkish authorities. Peters therefore travelled to Beirut and at the custom house acquired an export permit from the administration of the Ottoman Empire. The only problem was with a bowl inscribed with a surah from the Koran: ritual vessels were not allowed to be exported to a land of unbelievers, so the inspector in the custom house said. As the US consul in Beirut could not be found, the German consul got involved, since he was interested in any precedent set by this test case, Peters reports. The story ended with export of the bowl being forbidden, but Peters was allowed to take eight Palmyrene funerary reliefs with him, which today are on display in the archaeological museum of the University of Pennsylvania. His journey then took him to Constantinople. There Peters made the acquaintance of the father of the new antiquities law and founder of the Istanbul archaeological museum, Osman Hamdi Bey. He had a warm regard for his colleague Hamdi Bey, and wrote a report for him about the catastrophic situation at Palmyra, where illegal digging was rampant. He also came to an agreement about the partition of his excavation finds from Nippur and obtained an export licence for them. He noted that it was the policy of the Turkish government to allow foreign archaeologists to export a portion of their finds proportionate to their risk and to the costs of the excavation. Compensation for their investment was thus provided by the transfer of ownership of finds. This was a very common arrangement in the period.

The antiquities law of 1884 did not lead, therefore, to the export of antiquities from the Ottoman Empire being completely stopped. Instead it regulated excavations and the trade in antiquities and defined questions of ownership. All the same, it appears that the situation at Palmyra – illegal under the new legislation – continued to be exploited by many European and American travellers in an effort to acquire funerary reliefs, even though archaeologists like Peters were aware it was illegal. But Peters did in the end secure proper authorization for the export of the Palmyrene funerary reliefs as well as for the finds from Nippur that were taken to the United States in accordance with the agreed partition of finds. The antiquities were thus exported to the United States legally.

PROVENANCE RESEARCH RECONSTRUCTS THE BACKGROUND STORY

There’s no clear understanding of the ways in which, from the 18th century onwards, antiquities were bought and sold, searched for by digging, and how they ended up in private collections and museums, becoming part of a far-reaching enthusiasm for antiquity. The events are remembered and evaluated in very different ways. One and the same event can be regarded as bona fide research or as daylight robbery. Provenance research uncovers these stories. It makes it possible to comprehend the experiences, violations and sensitivities in their complex international ramifications which remain potent today. Because the provenance situation is so entangled, provenance research – which in the best sense can lead from understanding to agreement – will not, however, lead to the kind of legal clarity on which restitution claims can be based.
WHO DO MONUMENTS BELONG TO?

The few examples cited here may have demonstrated that issues from the past are not always easily resolved. A defining moment in the not too distant past was the construction of the dam near Aswan, which prompted the UNESCO Director-General, Vittorino Veronese, in 1960 to formulate the basic principle, still valid today, that such monuments don’t belong to individual states, but to the whole world, and that the international community must do everything possible to preserve them.

The imminent flooding of the Nile valley resulted in a massive programme of projects to document and rescue the monuments at risk, ending in a new cultural landscape of monuments disassembled and re-erected at a different location. The best known of the monuments is probably the temple of Abu Simbel, which was rebuilt above the artificially created reservoir of the Nile.

Thanks to support from the Qatar Sudan Archaeological Project and the Federal Foreign Office, it has been possible to deposit Dr. Friedrich W. Hinkel’s extensive archive at the German Archaeological Institute, help make it ready for research purposes for the first time, and also make it digitally accessible for future use.

The UNESCO convention on cooperation in the protection of cultural property

The states that had assembled for the General Conference of UNESCO approved a convention that was intended to create legal clarity. The Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property – to give it its full title – recognizes in §2 that “the illicit import, export and transfer of ownership of cultural property is one of the main causes of the impoverishment of the cultural heritage of the countries of origin of such property, and that international co-operation constitutes one of the most efficient means of protecting each country’s cultural property against all the dangers resulting therefrom.” To this end, the states that are party to the agreement “undertake to oppose such practices with the means at their disposal, and particularly by removing their causes, putting a stop to current practices, and by helping to make the necessary reparations”. This all applies from the moment the convention enters into force, and only becomes genuinely effective once it is adopted into national law by the signatory states. Germany did not do this until 2007, when it passed a law on the restitution of cultural property, which has now been comprehensively amended.

The profusion of legal provisions that exist today is all but incomprehensible for non-specialists. In Germany, there are regulations about the protection of monuments and cultural property in all 16 of the federal states. On the national level there are laws like the Act on the Protection of Cultural Property. But there are also binding regulations throughout the European Union and under international law. As it’s no less complicated to figure out what can be done if one suspects that objects have been dug up or traded unlawfully, the federal government has set up a website that provides comprehensive information:

http://www.kulturgutschutz-deutschland.de/dok/12194738
The Archaeological Heritage Network (ArcHerNet) has been in existence for two years now. Reason enough to look back on the work done so far and to make plans for the future. The network was set up to pool the specialist knowledge and skills available in Germany in the research, protection and preservation of cultural heritage as well as education and outreach. Germany possesses extensive expertise in this area.
Many experts working together

What is special about the various individual projects, such as the Iraqi German Expert Forum, is that different German institutions, universities as well as experts from the private sector work in collaboration. The objective here is to instruct staff of the Iraqi antiquities directorate in the latest methods of documentation, conservation and restoration, which they can then use in concrete projects in Iraq. They are supported in the process by staff of the DAI, who also pass on their specialist knowledge and skills. The Iraqi German Expert Forum is therefore a realization, in one project, of what ArcHerNet stands for: cooperation among many, whose expertise is necessary if the great challenges are to be met.

ArchNet

Its responsibilities are based on the state level in view of the federal states’ sovereignty in cultural matters. At the same time German institutions carry out significant projects around the world that set standards in the field of safeguarding cultural heritage. Thus far the experts involved in this work have scarcely been linked in a collaborative network with fellow colleagues or with institutional authorities in Germany. Between 1981 and 2017 more than 2,800 projects in 144 countries were funded by the Cultural Preservation Programme of the Federal Foreign Office. How relevant the subject is today is shown by the Gerda Henkel Foundation just recently setting up the funding initiative “Patrimonies.” Since ArcHerNet was founded back in the year 2016 in the presence of the federal minister of foreign affairs, Dr. Frank-Walter Steinmeier, its work has been dominated by the project Zero Hour, or “Stunde Null”. The project, like the network, is coordinated by the DAI and supported by the Foreign Office. The mission is to contribute towards the safeguarding of cultural heritage in Iraq, Yemen and Syria. To this end, projects are carried out for refugees in neighbouring states, involving the local population. This provides the refugees with an opportunity to receive vocational training and find a job. Here, collaborative work on the preservation of cultural monuments becomes a central element of humanitarian aid and give people who have fled their own countries viable prospects for taking part in rebuilding them. Not for nothing is the Stunde Null project called “Zero Hour – A Future for the Time after the Crisis”. The Iraqi-German Expert Forum is responding to the increasing destruction of archaeological and historical monuments in Iraq. This information flyer provides details about the programme and the initiative. It is downloadable under: https://www.dainst.org/themen-aktuell-kompakt

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Iraqi German Expert Forum. Staff of the Iraqi antiquities authority receive training in the use of the latest geoinformation systems (GIS). Photo: Siegel

THE NETWORK

The Iraqi-German Expert Forum is

FOUNDING MEMBERS OF THE ARCHAEOLOGICAL HERITAGE NETWORK

Aachen University – RWTH
Architectural Heritage Committee of the German Archaeological Institute
Brandenburg Technical University, Cottbus – BTU
Deutsche Gesellschaft für Internationale Zusammenarbeit – GIZ
Deutsche Stiftung Denkmalschutz – DSD
Deutsches Nationalkomitee für Denkmalschutz – DNK
Gerda Henkel Foundation
German Academic Exchange Service – DAAD
German Archaeological Institute – DAI
German National Committee of ICOMOS
German UNESCO Commission – DUK
Koldewey-Gesellschaft, Vereinigung für baugeschichtliche Forschung e.V.
Prussian Cultural Heritage Foundation – SPK
Romano-Germanic Central Museum, Mainz – RGZM
University of Applied Sciences, Berlin – HTW
Verband der Landesarchäologen – VLA
Verein der “Freunde der Altstadt von Aleppo” (association of friends of Aleppo)
Vereinigung der Landesdenkmalpfleger – VdL

THE FOUNDING MEMBERS OF THE ARCHAEOLOGICAL HERITAGE NETWORK at the 2016 annual reception of the German Archaeological Institute attended by the then foreign minister Dr. Frank-Walter Steinmeier. Photo: Paasch

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And for every measure undertaken there’s also a lack of such energy plant and basic IT infrastructure in addition to various other materials for the proper safeguarding of museum objects. Also needed are analogue packaging and devices that can be used for photographic documentation. It became clear that in many cases not very much was required in order to contribute to the restoration and conservation of monuments and do remedial maintenance work on buildings in Jordan and hopefully soon in Syria as well. The training programme teaches trades and crafts that can be used in Germany and elsewhere and not only in restoration projects. If, as for instance in northern Jordan, there’s a lack of blacksmiths who can resharpen or reharden chisels, say, then a museum smith can quickly come over from Germany and show the course participants in Gadara how the craftspeople can do those things themselves in a simple way. The stonemasonry training course has now been joined by expertise in smithery. All these qualifications improve candidates’ prospects for jobs. The masons trained on a similar programme in Tunisia are now in demand as skilled labour, as are the conservators trained on concrete work and concrete assistance, in the places concerned where this is possible. It’s about providing specialist training for experts and vocational training for restorers and craftspeople like stonemasons. The countries we cooperate with are emphatically interested in the continuation of our joint projects in view of their long-term effectiveness.

http://www.archernet.org
http://www.culthemefrans.de

WHAT A SOLAR PLANT HAS TO DO WITH PRESERVING CULTURAL HERITAGE

In December 2017, a two-week workshop took place with colleagues from the antiquities directorate of Yemen. The workshop is part of a whole range of further training measures in which many German partner were also involved. Notwithstanding the war, the experts from Yemen managed to travel to Berlin, and now they can employ the methods they learned on the course in the preservation of significant cultural assets in their homeland, including towns that are on the UNESCO world heritage list. This is a fundamental concern of the colleagues from Yemen. But they are in need of support. There’s a shortage of cameras, computers and hard drives by means of which monuments and damage thereto can be documented. Also needed are analogue packaging and other materials for the proper safeguarding of museum objects. And for every measure undertaken there’s also a lack of such a commonplace thing as electricity. For this reason the DAI has given the antiquities directorate support in the form of a solar plant and basic IT infrastructure in addition to various devices that can be used for photographic documentation. It became clear that in many cases not very much was required in the way of support for institutions in crisis regions in their never-failing commitment to preserving and protecting their cultural heritage in spite of extremely dangerous conditions.

TIP
Read the article by Dr. Iris Gerlach (Orient Department) in the newspaper Neue Zürcher Zeitung (NZZ) on the endangered cultural heritage of Yemen. https://www.nzz.ch/feuilleton/jemens-einzler-schatz-steht-auf-dem-spiel-ld.1355628

STRENGTHENING NETWORKS

ArcHerNet strengthens networks between experts and institutions in Germany as well as ties with institutions in regions in which cultural heritage is in danger and crises are destabilizing existing structures. Through the resultant cooperation it’s possible to support people in need, preserve culture, and work together towards a peaceful stabilization. These are essentially the core objectives of ArcHerNet. The focus is on concrete work and concrete assistance, in the places concerned where this is possible. It’s about providing specialist training for experts and vocational training for restorers and craftspeople like stonemasons. The countries we cooperate with are emphatically interested in the continuation of our joint projects in view of their long-term effectiveness.

http://www.archernet.org
http://www.culthemefrans.de

REACTIVATING ANCIENT KNOWLEDGE

The projects of Zero Hour are also aimed at training craftspeople and restorers. For example, Jordanian and Syrian refugees receive training in stonemasonry in DAI projects in Gadara/Umm Qays in northern Jordan. With the skills they learn they are able to contribute to the restoration and conservation of monuments and do remedial maintenance work on buildings in Jordan and hopefully soon in Syria as well. The training programme teaches trades and crafts that can be used in Germany and elsewhere and not only in restoration projects. If, as for instance in northern Jordan, there’s a lack of blacksmiths who can resharpen or reharden chisels, say, then a museum smith can quickly come over from Germany and show the course participants in Gadara how the craftspeople can do those things themselves in a simple way. The stonemasonry training course has now been joined by expertise in smithery. All these qualifications improve candidates’ prospects for jobs. The masons trained on a similar programme in Tunisia are now in demand as skilled labour, as are the conservators trained in Lebanon.

INSTITUTIONS AND UNIVERSITIES INVOLVED IN THE PROJECT

Berlin Monument Authority (LDA), archaeology / preservation of monuments of architecture and art
Berlin University of Applied Sciences (HTW), conservation and restoration / excavation technology
German National Committee of ICOMOS, Secretary General’s office
Iraqi German Expert Forum (IGEF)
Museum of Islamic Art (Staatliche Museen zu Berlin)
Prussian Palaces and Gardens Foundation, Berlin-Brandenburg, Director General’s office
TU Berlin University, Building Archaeology and Heritage Conservation

COOPERATION WITH SPECIALISTS FROM THE PRIVATE SECTOR

Jan Martin Klessing, architect (lecture on damage mapping and restoration planning)
Carsten Krüger Film- und Fernsehproduktions GmbH (training in documentary film making)
Katharina Kunz M.A., restorer (conservation of architectural objects)
Ping Präventionsingenieure e.V. (simulation game on crisis prevention, e.g. museum security and logistics of prevention)
Rübs Ziegent | Seiler, engineers, structural engineer and specialist in damage and rehabilitation of historical earth buildings, honorary professor at the Potsdam University of Applied Sciences (lecture on the conservation of historical earth buildings)
"Made in Germany" is a designation of origin that is known all over the world. Even though it was introduced at the end of the 19th century in Great Britain as a protection against cheap and inferior imports, it quickly became a mark of quality. Archaeologists today, of course, would be over the moon if the objects they excavate bore an indication of their country of origin. But since as a rule such information is lacking, the business of establishing where objects come from, i.e. provenance research (from the Latin provenire), is an integral part of archaeology. Archaeology has developed a huge arsenal of methods for this purpose. It examines the shape of artefacts, distinctive features of production as well as the origin of the material. Only then can it be said where an object that has been found on an excavation was manufactured. The finding place and the place of manufacture can be thousands of kilometres apart. If that is the case, it raises the question of how the object travelled from the place of manufacture to the find spot: for example by trade, as a gift, by theft or with one of the many travellers of antiquity. By mapping the location of finds and their place of origin it is possible to reconstruct a network of links and to determine the societal and community dynamics as well as political and cultural circumstances surrounding the exchange. Anyone following current debates will associate different issues altogether with provenance research: artefacts stolen by Nazi Germany, looted trophy art, and objects from illegal digging and illegal trade. But common to provenance research in these cases, too, is the fact that displacement of the objects was preceded by a legal wrong. Provenance research thus acquires a political dimension, which it does not have in archaeological research.

The current discussion surrounding provenance research also shapes how we see objects in museums today – objects that became part of European collections during particular historical asymmetries, discrepancies in the balance of power, for instance in colonial contexts. In current discussions therefore provenance research is also associated with demands for the return of cultural property, i.e. with the legal question of unlawful appropriation and restitution claims. The issue of unlawful appropriation of cultural assets was known in antiquity, too. Cicero’s speeches against Verres are a famous example. Cicero held these speeches as part of an actio de repetundis, a legal proceeding that enabled cities in Rome’s provinces to take a provincial governor to court in Rome. The objective of the action was to secure the return of items that had been misappropriated. Cicero deploys dazzling rhetoric in the speeches to describe how Verres plundered the cities of Sicily, shipping Greek works of art to Rome where they were highly prized. Verres committed his acts of misappropriation during the political turmoil of the late Roman Republic, a period that was also characterized by Roman enthusiasm for Greek art. The latter came to Rome from conquered territories as war booty, but also via a flourishing art trade, which Cicero himself made use of. Targeted digging for artefacts to supply the art trade was already a feature of this time.

After the ancient city of Corinth had been destroyed in 146 BC during the Roman conquest of Greece, reconstruction began about 100 years later. The geographer Strabo from the Augustan period describes what the new settlers found when they were clearing away the ruins. They came across graves. They dug them open and discovered large amounts of terracotta reliefs and bronze vessels. “Admiring the artistic workmanship, they left no grave unsearched; so that, well supplied with such items, they sold them at a high price, thus filling Rome with Necrocorinthia, as they called what was taken from the graves, in particular the earthenware. At the outset this was very highly prized, like the bronzes of Corinthian workmanship, but later it ceased to excite so much enthusiasm, since the supply of earthen vessels had dried up, and most of them were not even well executed.”

What Strabo describes, therefore, is how chance finds gave rise to nothing less than an “industry” of illegal digging that was fuelled by the demand on the Roman art market. Greek works of art reached Rome by various routes from the conquered Greek cities in the 1st century BC. Military expeditions and the spoils of war, excavation and the art trade were not thought of as unlawful in themselves at this time. Only specific forms of plundering a province could be considered illegal and could lead to legal proceedings. But even then furnishing evidence was problematic. The dilemma, which still exists today, was elaborated by Cicero in his speech against Verres (Verr. 2, 5, 12 60): “That Verres possesses an incredible quantity of Greek statues and sculptures, he himself will probably not deny; instead he will presumably choose another popular evasion, namely to pretend he purchased those objects which in reality he procured by robbery and theft.” If excavations in Rome today bring to light Greek works of art, it can be difficult to say whether they came to Rome in antiquity by legal or illegal means. Even in the case of the pediment sculptures of the temple of Apollo Sosianus, which was restored in Augustan times, we cannot reconstruct today how exactly those sculptures, which undoubtedly originate from a Greek temple of the Classical period, came to be in Rome. What can be described is the political context in which Rome, the dominant power, had at its disposal by virtue of its expansion all the resources of the empire. For many of the Greek finds in Rome, it isn’t easy either to say which ancient Greek city and hence which modern state the objects come from. They may originate, for instance, from Greek cities in southern Italy or on Sicily or indeed from the Greek-influenced East. What is certain at least is that, on such evidence, it’s not possible for the modern successor states of the ancient regions of origin to assert any claims for restitution. Seen from this point of view, provenance research is historical research of great complexity.

**Ancient provenances**

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Bilad esh-Shaytan, the “Land of the Devil”, is one name the locals give the basaltic desert al-Harra in the north-east of Jordan. The barren and black landscape does indeed give the impression that this is where the antechamber to the underworld is to be found. The low cones of long-extinct volcanoes and big rocks of basalt which the plain is strewn with make the stony desert seem like virtually impenetrable terrain. The landscape is crisscrossed by wadis, dry riverbeds, some with steep cliffs; here and there they debouch into large claypans. To the north, on Syrian territory, tower the massive basaltic mountains of Jebel el-Druze (known variously as Jebel el-Arab or Hauran), epicentre of the volcanic activity that occurred here in geologic ages.
And so for a long time it was inconceivable that people in the past could have remained in this place for longer than absolutely necessary. In the early 20th century, British pilots on the airmail route from Cairo to Baghdad reported sighting a number of ruined structures on the ground as they flew over the Harra. These were the first indications of prehistoric exploitation of the region. In most cases the structures are the remains of camps temporarily used by pastoral nomads. Quite often, though, they are the large, walled enclosures used for trapping gazelles that are characteristic of this region. Because of their shape they have been termed “kites”. These features are evidence of stays of limited, seasonal duration in the region.

**The Discovery of the Town of Jawa:**

It was therefore a great surprise when a prehistoric settlement that was occupied all year round was discovered. The site, called Jawa, was found in 1931 by the French archaeologist, pilot and Jesuit missionary Antoine Poidebard on one of his flights over the region. The solidly fortified settlement lies in the west of the Harra on a volcanic spur at the edge of the Wadi Rajil, and covers an area of nearly 10 hectares.

The strategically located site has commanding views into the distance on much of the eastern side. In the 1970s, excavations were carried out at Jawa by the Canadian archaeologist Svend Helms. Fortification walls and some gates were among the features that were exposed.

It’s an exceptionally hostile, arid landscape with high temperatures in summer and cold winds in winter that bring very occasional, but then very heavy rainfall. In spite of modern infrastructure like the road between Amman and Baghdad as well as a few villages, the Harra is regarded as inhospitable by many who travel through it. Only the Bedouin with their herds still cross this region, every winter and summer, as they have done for hundreds of years, on their way to pasturage in the east and the west.
In addition to that the archaeologists discovered, beside the town, a stone-built barrage dam with adjacent reservoir in which the surface water from the winter precipitation would have been collected.

Very recent analyses have shown that the dam dates back to the beginnings of Jawa, making it the oldest reservoir dam currently known in the world. At the time of Jawa’s discovery nobody reckoned with the existence of a fortified settlement in so inhospitable a region. Even more astonishing was the age of the settlement. The excavations were able to establish that the occupation of Jawa, which continued for only a few hundred years, dates to the beginning of the Early Bronze Age, that is the fourth millennium BC. Jawa is thus one of the oldest fortified sites in Southwest Asia. The massive stone walls and gates, along with the location of the town in such an isolated region far away from the known settlement areas of the fourth millennium in the Levant to the west and in Mesopotamia, made Jawa for a long time an enigma even among scholars, and gave rise to much speculation.

INVESTIGATIONS BY THE DAI’S ORIENT DEPARTMENT

Since 2010, a research project by the Orient Department of the German Archaeological Institute has been attempting to solve this puzzle. With financial support from the German Research Foundation, archaeological expeditions are being carried out in the eastern hinterland of Jawa to gather data about human exploitation of the region in the past. In terms of period, the focus is on the beginning of the Early Bronze Age in the fourth millennium BC, hence the timeframe in which Jawa existed.

The fourth millennium is a significant phase in the cultural history of Southwest Asia. It’s the period in which many inventions that still shape our lives today originated, including the wheel, the plough, and precursors of writing. It’s the period in which the mass production of goods began and inventory management was invented. Long-distance trade routes now traversed the entire region as far as Egypt and Iran. In addition to manufactured goods and produce from arable farming and animal husbandry, mineral resources from the desert areas like copper, salt and high-grade flint were among the sought-after commodities that came to be distributed over a wide area. The domesticated donkey, which made long-distance trade and the exploitation of mineral resources possible in the first place, was introduced from Egypt. Above all it’s the period of urbanization, when large population centres came into being. These processes took place – according to the current state of knowledge – primarily in Mesopotamia and in the southern Levant.

The aim of the project was therefore to investigate how these processes may have affected the region directly between Mesopotamia and the southern Levant – the arid and (apparently) inhospitable basaltic desert and its immediate surroundings. Are there indications of economic exploitation of this peripheral region? If so, what kind of exploitation? Could people have survived in these arid areas? If so, how? These were the central questions that were there at the inception of the project.

The field research that was then launched principally consisted of surface surveys, accompanied by some small excavations. The field research has yielded results which were not to be foreseen and which will permanently alter our perception of this region long held to be hostile to life.

ARCHAEOLOGY IN THE DESERT.
The DAI research camp in the Harra. Photo: Müller-Neuhof

THE MASONRY DAM NEAR JAWA IS THE OLDEST KNOWN RESERVOIR DAM IN THE WORLD. Photo: Müller-Neuhof

ONE OF THE OLDEST FORTIFICATIONS IN SOUTHWEST ASIA: the fortification wall of Jawa. Photo: Müller-Neuhof
MINING, NOMADS AND EVEN OLDER FORTIFICATIONS

Right at the start of the field research, a sizeable mining area of the Early Bronze Age was discovered in the limestone desert that adjoins the Harra on the eastern side. There flint was extracted on a large scale by means of open cast mining. Even though copper and bronze were already known in the fourth millennium BC, flint continued to be the most important raw material and the one most often used in the production of tools and weapons. In the immediate vicinity of the open-cast mines, the freshly extracted material was roughly shaped for making into fan scrapers, a characteristic type of tool that was distributed all Southwest Asia and Egypt in this period. The only signs of this manufacture and the adjacent limestone desert were already visited in certain seasons by herdsmen with their herds in the Early Bronze Age.

But one of the outstanding results was the discovery of the four fortified hilltop settlements Khirbet al-Husayn, Tulul al-Ghusayn, Khirbet al-Ja’bariya and Qasr Usseikhim, all of which are sited on top of volcanoes and enclosed by sturdy stone walls. Even though they are smaller than Jawa and their walls aren’t up to four metres thick as Jawa’s are, the parallels are striking. Stratagically situated on the summits of extinct volcanoes, they afford far-reaching views over the surrounding landscape. The volcanoes’ summit plateaus are enclosed by walls that are pierced by only a few gateways. The remains of simple dwellings can be found within the walls and in the immediate vicinity of the fortifications. There is no evidence of temples or palaces.

No evidence of settlements has been found in the vicinity of these mines. One possible route for this merchandise will have led across the basaltic desert to Jawa. However, large parts of the Harra are virtually impossible to cross because of the dense surface cover of big basalt rocks, and so these trade routes can only have led via connected wadis and claypans that run through the desert. At the edge of such wadis and claypans the surveys identified the remains of many old encampments used by pastoral nomads, many of them dating to the Early Bronze Age. Initially it was probably pastoral nomads that operated the flint mines and organized the distribution of the semi-finished scrapers.

In addition the research has revealed that the basaltic desert and the adjacent limestone desert were already visited in certain seasons by herdsmen with their herds in the Early Bronze Age.

The large number of these suggests mass production running to several million units, all of which will have been destined for export. No evidence of settlements has been found in the vicinity of these mines. One possible route for this merchandise will have led across the basaltic desert to Jawa. However, large parts of the Harra are virtually impossible to cross because of the dense surface cover of big basalt rocks, and so these trade routes can only have led via connected wadis and claypans that run through the desert. At the edge of such wadis and claypans the surveys identified the remains of many old encampments used by pastoral nomads, many of them dating to the Early Bronze Age. Initially it was probably pastoral nomads that operated the flint mines and organized the distribution of the semi-finished scrapers.

GARDEN TERRACES IN THE DESERT

The fortified settlements of the basaltic desert have something else in common, too. Identified nearby them was evidence of garden terraces that were artificially irrigated. Jawa’s gardens represent the largest complex, with approximately 30 hectares of terraced gardens, which were discovered on one of the expeditions in the area around Jawa. The irrigation technology used there is well thought out in terms of efficiency. By means of channels, rainwater that fell in winter and spring was harvested, even on high ground that was relatively far away, and conducted above-ground to the gardens. There the precious element seeped into the garden sediment and thus was stored for the irrigation of the crops.

At other sites, for instance Khirbet Abu al-Husayn, Khirbet al-Ja’bariya and Tulul al-Ghusayn, the garden terraces were situated at the foot or in the crater of the volcanoes. The water catchment area was thus limited to the respective elevations. These structures partly date to the 5th millennium and are therefore amongst the earliest specimens of irrigation agriculture in Southwest Asia.

We can certainly assume that the climatic conditions were somewhat more favourable then than they are today, though artificial irrigation would still have been necessary for arable farming. We can count on there having been distinctly more vegetation and more favourable soil conditions in the 4th millennium. In consequence we may assume that the “Land of the Devil” in the Early Bronze Age was not in fact so inhospitable a place as it seems today. Over-exploitation of local resources, for instance by overgrazing, and the resultant erosion at the beginning of the 3rd millennium will have led to a massive change in the living conditions of the population in the basaltic desert.

These environmental changes could be the reason why the inhabitants of the fortified hilltop sites left their settlements and the basaltic desert, and why herdsmen with their herds no longer crossed the basaltic desert. For around 3,000 years there was no more human activity of any significance in the Harra. Only at the beginning of the Common Era, in Roman-Byzantine times, was the region used more intensively again. A wet phase permitted increased pasturing in the basaltic desert, whose vegetation had presumably recovered a little. Canals and cisterns were built to ensure the availability of water all year round for the herds and for trading caravans. Roman forts and settlements grew up on the fringes of the basaltic desert. Today the basaltic desert looks desolate again, even though for a few weeks in spring little green plants with colourful flowers sprout on the wadi banks. Big herds of sheep, which can only survive on transported water and fodder, graze the last plant remains from patches of land. Heavy trucks lumber along the road to Amman or Baghdad and only the stone ruins of fortifications on the tops of eroded volcanoes stand witness to another time.
ARCHAEOLOGY WORLDWIDE

REACTIVATING SUSTAINABLE STRATEGIES – THE MODERN APPLICATION OF ARCHAEOLOGICAL RESEARCH ON ANCIENT RESOURCE MANAGEMENT

Archaeological research in this region has not only led to the discovery of a previously unknown culture. The findings above all illustrate how people in the past dealt with difficult climatic and environmental conditions. On the one hand they developed technologies as a response to the changes, for example inventing artificially irrigated terrace agriculture. On the other hand they also took decisions that were misguided, for instance in choosing to do nothing to stop overgrazing. Finally the inhabitants of the Harra were forced to capitulate to a transformed environment they were partly responsible for and leave the region.

For us today these events serve as a warning and also a challenge. A warning against man-made overexploitation of resources and of the environment of the kind that happened 6,000 years ago. The challenge is to learn from that and to prevent maladaptive developments. Equally we can learn from the technological strategies that were developed in the Harra around 6,000 years ago.

Bernd Müller-Neuhof

INVESTIGATION OF THE NORTHERN BADIA (NORTH-EAST JORDAN)

The German Archaeological Institute first carried out research in the Northern Badia from 2010 to 2014 as part of the German Research Foundation (DFG) funded Jawa hinterland project “Arid habitats in the 5th to the early 3rd millennium B.C.: mobile subsistence, communication and key resource use in the Northern Badia (NE-Jordan)” (DFG MU 3075/1-1 and 1-2).

The results of the project led to the initiation of a new research project, also funded by the DFG, “The colonization of the northern Badia (North-eastern Jordan) in the Late Chalcolithic and Early Bronze Age (4th-3rd mill. BC): A contribution to archaeological settlement geography in arid regions of Southwest Asia” (DFG MU 3075/3-1), which was launched in 2015 and again focuses on the exploration of Late Chalcolithic / Early Bronze Age settlement activities in the hinterland of Jawa.

https://www.dainst.org/project/47285

PROJECT SUPPORT

German Protestant Institute of Archaeology (DEI), Amman
Council of British Research in the Levant (CBRL), Amman
German Research Foundation (DFG)
Department of Antiquities of Jordan (DoA)
Excellence Cluster TOPOI - The Formation and Transformation of Space and Knowledge in Ancient Civilizations
Higher Council of Science and Technology (H.C.S.T.), Jordan
Badia Research and Development Program (BRDP)

PROJECT PARTNER

Aerial Photographic Archive for Archaeology in the Middle East (APAAME)

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DAI ARCHAEOLOGISTS WITH LOCAL COLLEAGUES INVESTIGATING THE TERRACED GARDENS OF JAWA.

Photo: Müller-Neuhof

One of the central areas of the Orient Department’s research is ancient water management and its innovations. Prof. Dr. Ricardo Eichmann, First Director of the Orient Department, spoke about water management in ancient and modern times in the DAI’s annual report of 2015. His talk, Brunnen in der Wüste (“wells in the desert”), can be watched online:

https://www.youtube.com/watch?v=LI1AEVipAGY&feature=youtu.be

Tip

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GARDEN TERRACES IN THE CRATER OF TULUL AL-GHUSAYN.

Photo: Müller-Neuhof

DR. BERND MÜLLER-NEUHOF

is a researcher at the Orient Department.

Photo: private

DAI ARCHAEOLOGISTS WITH LOCAL COLLEAGUES INVESTIGATING THE TERRACED GARDENS OF JAWA.

Photo: Müller-Neuhof
IVORY FROM ASIA AND AFRICA IN SPAIN

Like so much in archaeology, the story of the object presented here begins with a chance find and then becomes a story of forgetting and rediscovery. At the same time it's a story of meticulous criminological work, at the end of which a fascinating picture emerges of far-reaching contacts which present-day Spain was involved in 5,000 years ago. The network, in the Copper Age, reached as far as Africa and Asia.

The biography of our object commences, however, with a chance discovery. On 5 February 1860, agricultural labourers ploughing land in a vineyard belonging to the count of Castilleja de Guzmán, north-west of Seville, came upon a massive stone slab. Underneath it they discovered a hollow passage that led to a burial chamber. The burial chamber was empty but in the passage as 73 Copper Age grave structures, including one that was very special. This was a particularly big construction, 19 metres in length, with a long passage and two circular burial chambers. In the second chamber the archaeologists found – unusually for the Copper Age on the Iberian Peninsula – just one inhumation burial of a man aged between 17 and 25. He was buried with his legs bent. A crouched inhumation of this kind is not unusual for the period. What is unusual is that lying next to the dead man's head was an unworked elephant tusk. Also found in the grave were objects made of ivory, a dagger of flint, and a pommel made of amber that was presumably sourced from Sicily. The entire burial was covered by slates, upon which more ivory artefacts plus an ostrich egg had been placed. Among these artefacts was the extraordinary object that this article is about.

Evidence of far-reaching contacts

As 73 Copper Age grave structures, including one that was very special. This was a particularly big construction, 19 metres in length, with a long passage and two circular burial chambers. In the second chamber the archaeologists found – unusually for the Copper Age on the Iberian Peninsula – just one inhumation burial of a man aged between 17 and 25. He was buried with his legs bent. A crouched inhumation of this kind is not unusual for the period. What is unusual is that lying next to the dead man’s head was an unworked elephant tusk. Also found in the grave were objects made of ivory, a dagger of flint, and a pommel made of amber that was presumably sourced from Sicily.

The entire burial was covered by slates, upon which more ivory artefacts plus an ostrich egg had been placed. Among these artefacts was the extraordinary object that this article is about.

First of all, though, the object had to be (re)discovered in the depot of the Archaeological Museum of Seville. It had shared the fate of many excavation finds. The sheer quantity of archaeological material and the limited resources of historic monument offices and museums often mean that finds don’t get processed in a timely manner.

The restorer and archaeologist Miriam Luciañez Triviño and a team of researchers from Seville University were able to examine the object. After it was cleaned, conserved and restored, the restorers made a sensational discovery: various items could be fitted together into a dagger with a crescent-shaped pommel at the end of its hilt.
The hilt, or handle, consists of two parts and is made of ivory. It displays on both sides a rich reticular decoration of rhombuses and zigzag lines in high relief. The unusually finely worked blade is made of rock crystal. This rock crystal dagger was not the only funerary item laid next to the deceased. The dagger was sheathed in a scabbard, to which another ivory plaque that was found in the grave belonged. In workmanship the dagger and its scabbard are unique and so far without any parallel. We know of nothing comparable either on the Iberian Peninsula or in the rest of the Mediterranean. But where did the dagger and the material it’s made from originate?

This was a central question in a comprehensive project that was launched by the Madrid Department of the German Archaeological Institute and funded by the German Research Foundation (DFG). The project was carried out in cooperation with the geoscientist Arun Banerjee. He’s an expert in the contemporary world’s illegal trade in ivory. In investigating and combating this it is essential to identify the origin of illegally traded and confiscated ivory. Modern methods make it possible to determine not only whether objects are made of bone or of tusks from elephants, hippopotamuses, sperm whales, walruses, narwhals or fossil mammoth tusks. They can also tell us the exact origin of ivory artefacts. Nowadays we can even state precisely whether the ivory comes from Africa or Asia and from animals that are alive today. Thus we are able to clarify how the unworked tusk in the Copper Age grave made it to Spain 5,000 years ago. Analyses showed it comes from an African steppe elephant. As for the dagger in the grave, the analyses produced a surprising result. The ivory from which it was made did not come from nearby Africa, but instead from an Asian elephant. This means that the raw material or the finished product was imported from the Near East right across the Mediterranean.

Not only has this collaboration between archaeologists, restorers and natural scientists shed light on the background of an exceptional funerary item, but it also teaches us that the Mediterranean world of the 3rd millennium BC was very much more global than we had previously been able to imagine.

Thomas X. Schuhmacher

COOPERATION

The ivory objects from Valencia de la Concepción were recorded as part of a DFG-funded project at the DAI Madrid (Elephants and ivory as indicators of intercontinental relations in the 3rd and the first half of the 2nd millennium BC. Interdisciplinary studies on systems of exchange in the western Mediterranean, Atlantic north-west Africa and south-west Europe; directed by Thomas X. Schuhmacher) and analysed by A. Banerjee at Mainz University. The work was carried out in close cooperation with the ATLAS (HUM-604) research group of Seville University directed by Leonardo García Sanjuán. The ivory objects were cleansed and restored by Miriam Luciáñez Triviño of Seville University as part of her master’s thesis. The photos by Miguel Ángel Blanco de la Rubia were kindly made available to us by the ATLAS (HUM-604) research group.

PD DR. THOMAS X. SCHUHMACHER

is a researcher at the DAI’s Madrid Department and directs a joint DAI and DFG project on the Chalcolithic settlement of Valencia de la Concepción.

Photo: Ramírez

READING TIP

M. Luciáñez Triviño – L. García Sanjuán – Th. X. Schuhmacher, An article in German on the restoration of archaeological ivory with reference to four Copper Age ivory objects from the settlement of Valencia de la Concepción, Seville. Restaurierung und Archäologie 6, 2013, 71–87.

In the ancient world, the origin of an object designated quality. That’s true of works of art and manufactured products as well as for certain foodstuffs. Among these are wine from the island of Chios, Greek vessels sourced in Corinth’s tombs (“Necrocorinthia”) for the Roman art market, silk from the island of Kos, pottery from Athens, and much more.

This use of a designation of origin to define a certain manner of production and level of quality is familiar to us in the modern world. Today, though, it’s a legally regulated matter and for instance is commonly on the agenda of European Union institutions in Brussels. The indication of origin of goods such as Nuremberg bratwurst, cider from the federal state of Hesse or pickled gherkins from the Spreewald has such relevance economically that protecting it has become essential. A pivotal question is often whether the indication of origin designates literally the place of production or perhaps only a certain way of making the item in question. The distinction isn’t always easy to make either when it comes to products in the ancient world.
Transport amphoras and prize amphoras

It’s not only a question of interest to modern researchers. In antiquity, too, great store was set by products from particular regions and cities. This can be seen for few products as well as for wine. Not only did the shape of the vessel chiefly used to transport it, the amphora, indicate the region from which it came, but there were also and above all inscriptions painted on the amphoras, which specified the contents and the place of origin, as was the case with wine from Chios.

At the same time, drinking vessels that were produced in certain places were prized. In the Archaic and Classical period, from the 6th to the 4th century BC, cups from Athens enjoyed particular popularity and are often singled out for mention in classical literature. It’s above all Attic clay – i.e. from the Athens region – that was praised. An indicator for the popularity and appreciation of cups produced in Athens for symposia is how widely dispersed they are. Attic ceramic artefacts have been found in their thousands all round the Mediterranean. For this reason the cups were also imitated and copied. As a rule these drinking vessels aren’t marked with a reference to the place they were made.

In the classical world there was no standardized and obligatory “Made in Athens” on every product. So how do archaeologists know where ancient vases were produced originally and where they were imitated?

Since 1913, the German Archaeological Institute has been digging in Athens outside the gates of the ancient city in a district called Kerameikos. In addition to the many tombs lining the roads in an extensive necropolis there were also potters’ workshops. The area was named the “potters’ quarter” (demos kerameon) after them, and the road that ran through it was called the Kerameikos. These ancient designations have been confirmed by the excavations, which have brought to light the remains of workshops and kilns along with great quantities of potters’ refuse. The workshops provide evidence of the wide spectrum and the quality of ceramic wares produced in Athens. They have also generated data on the nature of Attic clay, on painting technique and on how both the pictorial style and the subjects depicted on Attic vases changed in the course of time.

In Patare, in the south-west of present-day Turkey in the ancient Roman province of Lycia, transport amphoras are evidence of far-flung trading networks in the Roman Empire.

An exhibition on Patare – Lycia’s gateway to the Roman world – explores life in the ancient trading centre and port. Organised by the Commission for Ancient History and Epigraphy, the exhibition can be seen in Saarbrücken until 23 September 2018.

Irrespective of these workshop finds, it is clear that one particular category of pottery must have originated in Athens since it was closely associated with the cult of the patron deity of that city. Every four years a festival of games was held in honour of Athena. The prizes victors were awarded with were amphoras filled with oil. These Panathenaic amphoras were specially made for the games.

A Panathenaic amphora, last quarter of the 6th century BC, with a boxing scene. The amphora comes from Vulci (Etruria), necropoli dell’Osteria, Tomba 47, “Tomb of the Warrior” (1931). It is displayed in Rome’s Museo Nazionale di Villa Giulia.

Photo: picture alliance/akg-image
On one side these amphoras bear a depiction of the goddess Athena and the inscription: “[one of the prizes] from the contest at Athens.” This type of amphora has also been found in the Kerameikos, either in the context of workshops or in contexts in which they were set up by the victors as prize vessels. Norbert Eschbach has just published approx. 2,000 fragments of this category of vessel from the Kerameikos. They demonstrate production over a very long period of time: from the Archaic period in the 6th century BC to the early 1st century BC. Prize amphoras have not only been found in Athens. Apparently the winners of contests in the Panathenaic festival took them home, dedicated them in sanctuaries, and may also have sold them or given them away as gifts. As such it is no surprise that prize amphoras from Athens have also been found at the sanctuary of Hera on Samos. Hundreds of fragments from that sanctuary have recently been published by Bettina Kreuzer.

As prize amphoras carry inscriptions that name the official who held office in Athens during the period in which they were produced, they can be dated essentially to within a few years. In consequence, they are important building blocks in the chronology of Attic ceramics. Since they were definitely produced in Athens, they also help identify the origin and the painters of Attic vases. Shipwrecks in which Attic vases have been found as well as excavation finds of Attic ceramics throughout the Mediterranean and beyond attest that the wares were freely traded and penetrated virtually all regions of the ancient world. Attic vessels were even traded north of the Alps, as finds in Celtic contexts show. Antiquity not only saw free trade in products, however. It also witnessed controlled access to resources, which were then transported from far away to power centres such as Rome.

With the intensive rebuilding programme under Roman emperor Augustus, marble became one of the most commonly used materials in embellishing public buildings in the city of Rome. Floors and walls were revetted with coloured marble panels. The coloured marbles were sourced from every corner of the Roman world.
Architectural decoration in Rome therefore demonstrated to every Roman that the emperors had all the resources of the Roman Empire at their disposal and accordingly were able to present the entire Roman Empire through the characteristic marble types from every corner of the empire. The emperors after all had control of many of the quarries of the ancient world. They were imperial property, like the quarries of yellow marble – called giallo antico or marmor numidicum – that are situated in what is now Tunisia. Since 1965, the German Archaeological Institute has been conducting research at the ancient site of Simitthus, today Chimtou, in the far west of Tunisia near the border with Algeria. First to be investigated were the ancient quarries and the camp for the men that worked in them. Subsequently research focused on the urban structures and major infrastructure like bridges and aqueducts. The archaeological site covers just under 60 ha, in the middle of which towers the craggy mountain from which marble was once quarried. The working camp lies to the north, the ancient town – Colonia Iulia Augusta Numidica Simitthensium – to the west and the distinctive yellow marble even reached Britain and distant Palmyra in Syria.

AN EMPEROR FROM NORTH AFRICA

It wasn’t only marble that came from North Africa in Roman times. The Roman emperor Septimius Severus hailed from North Africa, too. He was born in Leptis Magna in what is now Libya in 146 AD. When he spoke in the Senate in Rome he is said to have been mocked for his Punic accent. Still, he was responsible for adorning cities in North Africa and many other parts of the Roman Empire with amenities and architecture of typical Roman style. Foreign origins and Roman identity, a seemingly uniform and integrative Roman culture and at the same time an acceptance of cultural diversity – this is what constituted the character of the Roman Empire and probably also accounted for its enduring appeal over centuries. Yet precisely this appeal is cited by researchers as one of the factors for the incursions by “barbarians” into the Roman Empire which are held to have brought about its downfall. This mindless lust for destruction is proverbially associated with the Germanic people known as the Vandals. But in actual fact they acquired this reputation very much later, in the age of the French Revolution. Not until the late 18th century was the term vandalism minted as a railing cry denouncing destruction and calling for the safeguarding of France’s cultural heritage.

When the Vandals overran the North African provinces in 429 AD, they acted differently however. The attractive Roman lifestyle prompted something other than plundering and rampaging. The Vandals instead moved into the villas of rich Roman Africans and further expanded and embellished them in the Roman style. In the early 6th century the African poet Luxorius even composed a paean on a sumptuously furnished and decorated villa belonging to the Vandal nobleman Fridamal.

Anthologia Latina, no. 304: [...] This tower truly soars to lofty heights, offering its lord a delightful resting place that is replete in the heart of woodland and combines all imaginable advantages at one site. The rooms are surrounded here by groves, there by fountains, and a statue of Diana stands as though on her native mountain. But although gorgeous things are to be found here in abundance, and although various works of art beautify the rooms, what is above all to be admired, Fridamal, is the depiction of your bravery and the game that has been slain in a most glorious manner. Inflamed by love of the valour that inheres in you, you have accomplished a real feat in the embellishment of this worthy place. [...]

The German Archaeological Institute has helped to build and that displays some of the research results. The marble for the yellow columns in the interior comes from Chimtou.
Among the numerous different ways of conceptualizing the barbarian, incursions into Roman territory — this is how the interaction of communities living inside and outside the Roman Empire is commonly visualized. That word “barbarian,” though it came to denote a cultural dissimilarity, was originally a neutral term for people whose language was an incomprehensible babble — to Greek ears, namely, a language other than Greek. There’s an echo of this today in the theatre world, where “rhubarb rhubarb,” which also derives from Gk. barbaros, is used to describe the distribution of finds beyond the Roman Empire. Rome in this metaphor is presented as an entity of magnitude whose influence extends across its borders and deep into the territory of communities living outside. All these figurative expressions suggest a directionality, a disparity, a relative value. This being so, it may seem rather anachronistic that the Romano-Germanic Commission (RGK) should be coordinating a project that is entitled Corpus of Roman Finds in the Central European Barbaricum (CRFB). The idea of gathering data on object categories and making it available in comprehensive publications goes back to the 19th century, too. Just as the knowledge of the world was concentrated in the central museums established in European countries, corpora — i.e., collections — of inscriptions, sarcophagi and so forth were compiled in the field of classical and ancient studies. Producing a comprehensive publication on one particular group of objects, such as the thousands of Roman finds from the Rhine, is used to describe the distribution of finds beyond the Romano-Germanic context and mode of use. One such figure of speech is the “long shadow of Rome,” which is part and parcel of the scientific process that the very use of the word Barbaricum is what stimulated critical reassessment of terms and perspectives that originated in the 19th century. And it’s part of the scientific process that such a critical reappraisal cannot proceed without a material basis. In archaeology, material culture has always occupied a central position; without a precise knowledge of artefacts it’s not possible to make inferences about historical processes. Archaeology therefore does not need to initiate a material turn, which many other disciplines are currently doing. Digitization, however, is something that archaeologists have been making use of systematically for a long time already. And so it is that publications are increasingly being joined by databases. They represent a means of coping with the ever growing quantity of finds from excavations, and of keeping data on find categories up to date. Databases are moreover research-based. As such, they make it easier to analyse and to map the contexts and distribution of Roman finds outside the Roman Empire. They make basic data on archaeological material available digitally for research purposes. Another thing that has changed is the line of enquiry and the approach to Roman finds, which has led to utterly new insights into the nature of relations between societies of either side of the Limes. When the initial focus lay on identification, inventoring, and determining the chronology of so-called alien, in this case “Roman,” objects, a question that soon attracted attention was how and why objects got into the “Barbaricum.” In the period after World War Two, for example, economic interpretations were preferred and the buzzwords were trade and import. But with the discovery of sacrificial depositions of Roman weapons in fens, attention shifted to military aspects. Were Roman weapons obtained by “barbarians” serving in the Roman military? Or did the Romans give gifts as a way of consolidating alliances? The objects themselves leave open many possibilities as to how and why they were eventually found outside the boundaries of the empire. For this reason, analysis came to focus more and more on the find-contexts. Today we don’t only enquire about the origin and transformation of knowledge and practices. Thus it’s not only the place of production and mechanisms of exchange of a given artefact that are of interest to us today, but also the location and transformation of its context and mode of use.

THE MAP SHOWS THE FINDING PLACE OF SO-CALLED EYE FIBULAE of a particular type from the second half of the 1st century AD. Predominantly distributed east of the river Oder, they have been termed the “Prussian series.” Whether brooches of this type were indeed a typically “Germanic” clothing accessory, however, appears doubtful in the light of the discovery of a large quantity of them in the Roman provincial capital, Augsburg. The idea of gathering data on object categories and making it available in comprehensive publications goes back to the 19th century, too. Just as the knowledge of the world was concentrated in the central museums established in European countries, corpora — i.e., collections — of inscriptions, sarcophagi and so forth were compiled in the field of classical and ancient studies. Producing a comprehensive publication on one particular group of objects, such as the thousands of Roman finds from the Rhine, is used to describe the distribution of finds beyond the frontiers of the Roman Empire. Rome in this metaphor is presented as an entity of magnitude whose influence extends across its borders and deep into the territory of communities living outside. All these figurative expressions suggest a directionality, a disparity, a relative value. This being so, it may seem rather anachronistic that the Romano-Germanic Commission (RGK) should be coordinating a project that is entitled Corpus of Roman Finds in the Central European Barbaricum (CRFB). The idea of gathering data on object categories and making it available in comprehensive publications goes back to the 19th century, too. Just as the knowledge of the world was concentrated in the central museums established in European countries, corpora — i.e., collections — of inscriptions, sarcophagi and so forth were compiled in the field of classical and ancient studies. Producing a comprehensive publication on one particular group of objects, such as the thousands of Roman finds from the Barbaricum, may thus appear at first sight just as old-fashioned as the term “European Barbaricum.” But that impression is false.

It’s part and parcel of the scientific process that the very use of the word Barbaricum is what stimulated critical reassessment of terms and perspectives that originated in the 19th century. And it’s part of the scientific process that such a critical reappraisal cannot proceed without a material basis. In archaeology, material culture has always occupied a central position; without a precise knowledge of artefacts it’s not possible to make inferences about historical processes. Archaeology therefore does not need to initiate a material turn, which many other disciplines are currently doing. Digitization, however, is something that archaeologists have been making use of systematically for a long time already. And so it is that publications are increasingly being joined by databases. They represent a means of coping with the ever growing quantity of finds from excavations, and of keeping data on find categories up to date. Databases are moreover research-based. As such, they make it easier to analyse and to map the contexts and distribution of Roman finds outside the Roman Empire. They make basic data on archaeological material available digitally for research purposes. Another thing that has changed is the line of enquiry and the approach to Roman finds, which has led to utterly new insights into the nature of relations between societies of either side of the Limes.

CROSS-BORDER TRADE AND IMPORT? While the initial focus lay on identification, inventoring, and determining the chronology of so-called alien, in this case “Roman,” objects, a question that soon attracted attention was how and why objects got into the “Barbaricum.” In the period after World War Two, for example, economic interpretations were preferred and the buzzwords were trade and import. But with the discovery of sacrificial depositions of Roman weapons in fens, attention shifted to military aspects. Were Roman weapons obtained by “barbarians” serving in the Roman military? Or did the Romans give gifts as a way of consolidating alliances? The objects themselves leave open many possibilities as to how and why they were eventually found outside the boundaries of the empire. For this reason, analysis came to focus more and more on the find-contexts. Today we don’t only enquire about the origin and transformation of knowledge and practices. Thus it’s not only the place of production and mechanisms of exchange of a given artefact that are of interest to us today, but also the location and transformation of its context and mode of use.

ROMANS IN THE BARBARIUM On the dissemination of “Roman” finds beyond the Limes

Roman legionary bases east of the Rhine, campaigns and battlefields, the fortification of the frontier (the Limes), “barbarian” incursions into Roman territory — this is how the interaction of communities living inside and outside the Roman Empire is commonly visualized. That word “barbarian,” though it came to denote a cultural dissimilarity, was originally a neutral term for people whose language was an incomprehensible babble — to Greek ears, namely, a language other than Greek. There’s an echo of this today in the theatre world, where “rhubarb rhubarb,” which also derives from Gk. barbaros, is used to describe the distribution of finds beyond the Roman Empire. Rome in this metaphor is presented as an entity of magnitude whose influence extends across its borders and deep into the territory of communities living outside. All these figurative expressions suggest a directionality, a disparity, a relative value. This being so, it may seem rather anachronistic that the Romano-Germanic Commission (RGK) should be coordinating a project that is entitled Corpus of Roman Finds in the Central European Barbaricum (CRFB). The idea of gathering data on object categories and making it available in comprehensive publications goes back to the 19th century, too. Just as the knowledge of the world was concentrated in the central museums established in European countries, corpora — i.e., collections — of inscriptions, sarcophagi and so forth were compiled in the field of classical and ancient studies. Producing a comprehensive publication on one particular group of objects, such as the thousands of Roman finds from the Barbaricum, may thus appear at first sight just as old-fashioned as the term “European Barbaricum.” But that impression is false.
In connection with the international editorial project Corpus of Roman Finds in the Central European Barbaricum (CRFB), a question that has arisen more and more often is: what is “Roman” actually, what does “Roman” mean? Does “Roman” refer to the place or the manner of manufacture? After all, sporadic evidence of the production of high-quality wheel-thrown ware of Roman type has been found beyond the Limes. Finds and features indicative of this caused a sensation when they came to light at the settlement of Haarhausen in Thuringia, where vessels typically Roman in shape were manufactured.

Our understanding of metal objects termed “Germanic” solely on account of their distribution has also undergone changes thanks to new finds and their publication. Fibulae, brooches for fastening garments in the ancient world, are a case in point. One type of fibulae has a decoration that resembles eyes. A particular form of these eye (or Augen) fibulae was known only from Germanic contexts predominantly east of the river Oder; hence they were referred to in archaeology as the “Prussian series.” The specimens and their distribution made it look as though this brooch was popular in Germanic territory, until a good 200 of them originate from the Roman provincial capital Augusta Vindelicorum (Augsburg) came to light. Among them were many semi-finished examples – intermediate products from a production process – which raises the question whether brooches were produced inside the Roman Empire, at what is now Augsburg, for a Germanic clientele on the other side of the Limes. Close inspection of the find contexts has moreover revealed ever more clearly that Roman artefacts also occur as recycling material in settlements. They were consequently not only prestige items, which found their way into the graves of the elite. The latter impression was due to the fact that in the early days archaeological research focused particularly on graves, especially richly furnished, so-called princely graves. But it appears in fact that Roman imports were in many cases simply a material resource that could be used. Contact between the two sides of the Limes – whose purpose is now to have been to organize and control that contact rather than block it – meant that it wasn’t only a case of objects entering the “Barbaricum” or being imitated. Instead many creative adaptations and new creations came about. As an illustration of this the two ornamental discs from the Thorsberg Moor hoard may be cited: the images they bear are drawn from two very different imaginative worlds, the classical Roman and the Germanic. The edition of Roman finds in the European “Barbaricum” enables us to paint a detailed picture of what cultural contact entails. Objects are appropriated and imitated. Not everything is appropriated – only such items as can be integrated into the society and its practices. Other things were ignored or could not be adopted in the first four centuries AD, for example glass technology and certain elaborate procedures in fine metalwork. Above all, the assimilation of objects does not mean the context and the function for which they were produced in that original context remained the same. For instance, large quantities of Roman coins have been found north of the Limes; a small number of them were also imitations made by Germanic peoples.

These imitations are the subject of a joint German-Polish research project, IMAGMA, which examines the important role that imitations played in the development and representation of the complex identity of the elites who, beginning in the 5th century, founded the Germanic kingdoms on the territory of the collapsing Western Roman Empire, and who maintained in so doing the culture and tradition of classical antiquity. But there was no monetised, coin-based economy comparable to that of the Roman Empire. Coins served instead as repositories of value and were probably also used for payments between members of the elite. Most of all they were converted into jewellery. Finding coins is thus not evidence of a monetary macro-region like today’s Eurozone.

CORPUS OF ROMAN FINDS IN THE CENTRAL EUROPEAN BARBARICUM (CRFB)

The Corpus of Roman Finds in the Central European Barbaricum (CRFB), an international project which since 1990 has been under the aegis of the Romano-Germanic Commission (RGK) of the German Archaeological Institute, catalogues the whole spectrum of archaeologically tangible Roman objects from non-Roman find-contexts outside the provinces of the Roman Empire. The description and documentation of Roman finds, performed according to uniform standards and involving critical appraisal of the sources, is part of a presentation of find-assemblage relationships and of associations with indigenous objects. For the territory of the Federal Republic of Germany, eight deliveries with 8,136 catalogue entries have been published so far and further deliveries are being prepared. CRFB catalogues are also available for Poland, Lithuania and Hungary. This edition is part of RGK research field no. 2, Crossing Frontiers in Iron Age and Roman Europe, which examines among other things the significance of things as boundary-crossers.
AN INTERLINKED FINANCIAL WORLD?

How coins were dispersed throughout the Roman Empire

The composition of the coin hoard shows the extent to which the Mediterranean was interconnected in antiquity. But the hoard does not reveal how exactly the coins travelled from Athens or Sicily to Syria. With the beginning of the Roman imperial period (31 BC), reconstruction of links based on the circulation of coins becomes more complicated. Even though Greek cities continued to issue their own coins, coinage was now largely centralized. The majority of coins circulating in the western provinces of the Roman Empire in the first two centuries AD come from one single mint, namely in the city of Rome. Coin finds thus establish that the north-western provinces were integrated into the financial zone of the Roman Empire. But the ways and means by which the coins minted in Rome were disseminated cannot be determined so easily from the finds. Still, there are clues that help us reconstruct their circulation and thus the network of links. A series of Augustan coins were secondarily countermarked with the letters VAR (see p. 52). Based on the dating of the coins and their find spots, these three letters can be interpreted as an abbreviation of the name Publius Quintillus Varus. The region where the coins were found and hence where they circulated in antiquity is part of the area in which Varus and his legions operated until they were annihilated in the Battle of the Teutoburg Forest in AD 9.

Even though the reasons for which the coins were countermarked is a matter of controversy among researchers, these marks nevertheless prove that, in the military environment, the need was felt to connect the coins minted in Rome with a particular commander and his military mission. If the finds of coins with countermarks are mapped, the areas of the two military commands in Germania superior and Germania inferior can be distinguished. In the Greek East, by contrast, countermarks were primarily added by cities. The countermarks indicate which coins from foreign cities were in circulation in the city that marked them at a given point in time. All these observations are only possible if not only the type and the dating of a coin is determined, but also the find spot is documented and mapped. Only then can we really establish the contexts in which coins were distributed and used in terms of chronology, geography and function in antiquity – a possibility that is is a solitary coin, torn from its historical context, and sold as a collectible.
THE TREASURIES OF OLYMPIA

The whole Mediterranean at one place

For the Greeks of the Archaic and Classical age the polis, i.e. the city and its immediate surroundings, was the fundamental social and political unit and reference value. This module was exported round the Mediterranean and the Black Sea as settlements founded on the coasts, and transplanted with the polis was Greek culture. These “colonies” were dotted around the coasts of the Mediterranean in a manner resembling that aptly described by Plato (Phaedo 109 b): “We inhabit only a small part of the world from Phasis [a city on the east coast of the Black Sea] to the Pillars of Hercules (i.e. the Straits of Gibraltar) around the sea, like ants or frogs around a pond”. A colony was founded by settlers sent from a mother city (metropolis) (origin upon their foundation, but that idiom very soon developed forms of its own. These Greater Greek idiosyncrasies were fully developed at the time the treasuries were built. The biggest and grandest treasury at Olympia was the one erected by the wealthy colonial city of Gela on the south coast of Sicily.

Seleunute, Syracuse and Sybaris as well as the colony of Epidamnos in Albania. These cities of Magna Graecia (Greater Greece), as the region was called, adopted the architectural idiom of their land of origin upon their foundation, but that idiom very soon developed forms of its own. These Greater Greek idiosyncrasies were fully developed at the time the treasuries were built. The biggest and grandest treasury at Olympia was the one erected by the wealthy colonial city of Gela on the south coast of Sicily.

Ruins of the Ancient City of Gela in Sicily.

Photo: Wolf

For the Greeks of the Archaic and Classical age the polis, i.e. the city and its immediate surroundings, was the fundamental social and political unit and reference value. This module was exported round the Mediterranean and the Black Sea as settlements founded on the coasts, and transplanted with the polis was Greek culture. These “colonies” were dotted around the coasts of the Mediterranean in a manner resembling that aptly described by Plato (Phaedo 109 b): “We inhabit only a small part of the world from Phasis [a city on the east coast of the Black Sea] to the Pillars of Hercules (i.e. the Straits of Gibraltar) around the sea, like ants or frogs around a pond”. A colony was founded by settlers sent from a mother city (metropolis), which the daughter city (apoiko) remained affiliated with. The new arrivals brought their dialects and writing system, their weights and measuring systems with them. And in terms of cults, too, the daughter city remained closely linked to the mother city. Greek poli were linked up with one another by Panhellenic sanctuaries, among other things. Emissaries from the cities would gather at the Panhellenic festivals; festival visitors and contestants who travelled to Olympia every four years deposited votive offerings from all regions of the Mediterranean in the sanctuary. After victory in battle, weapons were dedicated, statues were set up and entire buildings erected by individual cities. One group of monuments has long been at the centre of controversy among researchers: the treasuries erected by different poli in the sanctuary of Olympia. The sanctuary of Olympia is situated at the foot of Mount Kronos on the Peloponnesian. On the south flank of the hill, a series of terraces were erected on a terrace from the 6th century to the early 5th century BC. Treasuries like these, resembling small temples, can also be found at other sanctuaries. At Delphi, for instance, the inhabitants of Siphnos and Sikyon built small shrines of this kind – like architectural treasure chests – to hold valuable gifts dedicated to the gods. In the 2nd century AD a description of Greece was written by the Greek author Pausanias. In his book he describes Olympia in particular detail. Unlike modern guidebooks his account has no maps and pictures, as a result of which it’s hard to figure out which buildings are being talked about in what order; neither is it easy to coordinate what he says with the features brought to light by excavation. There are also disagreements about when he visited the sanctuary and which publications by other authors he referred to. Systematic excavations commenced at Olympia in 1875. In 1878 the German archaeologists unearthed the still surviving remains of the treasuries at the foot of Mount Kronos, and further important finds were made in subsequent excavation campaigns in the 20th century. Research at Olympia is associated with the excavation architects who were in charge of the digs: Wilhelm Dörpfeld (*1853–1940), Alfred Mallwitz (*1919–1986) and Klaus Hermann (*1940–2015). The current state of research into the architecture of the treasuries has never been comprehensive-ly published, however, so a great many questions remain open.

From Pausanias’s Description of Greece, Book 6.19.1–15: In the Albae, to the north of the Heraion, is a terrace of porous stone and behind it stretches Mount Kronos. On this terrace are the treasuries, just as at Delphi some Greeks have built treasuries for Apollo. ... The last of the treasuries is right by the stadium, and the inscription states that the treasury and the images in it were dedicated by the people of Gela. The images, however, are no longer there.

Pausanias mentions ten donor cities. At the site, however, the foundations of twelve treasuries have been found. Which treasury is to be attributed to which city has therefore become a vexed question for researchers. Many proposals have been made, but in every case the root problem is that the finds and features on the site have not been published to an adequate extent. The intensity with which this debate is carried on may be startling to some. But it is understandable when the buildings are considered with the question of provenance in mind. Among the donor cities are colonies in southern Italy and on Sicily like Metaponto, Gela,
The treasury of Gela is notable for having a six-column facade and special roof decor of painted terracotta elements. It was erected by Sicilian craftsmen, as many connections with buildings and with architectural ornament in the mother city of Gela attest. Researchers are exercised by the question of whether these background circumstances are deliberately reflected in the architecture. In the modern world a similar case is presented by the building of embassies. In a city like Berlin, where after reunification many embassies were built in a short time, architectural forms were employed that recalled characteristic styles from the respective countries of origin, with a great range of variation. Whether that also applied to Olympia, whether Greek cities strove to be identifiable, indeed unmistakable there, is one of the questions researchers have with respect to the terrace of treasuries at Olympia. A study of all the architectural finds and features by a building archaeologist is a basic prerequisite for this discussion. A project of this kind will be launched this year.

**MANY SMALL SUBJECTS**

What does it take to do provenance research?

If we wish to find out about the origin of an object, a very disparate skill set is required – irrespective of whether the research concerns antiquity or post-antiquity. The task is actually in every case to reconstruct an object’s biography. Where was the given object produced, how did it come to be in a different location during antiquity, was it moved, stolen, donated or sold – possibly several times? In what context was it displayed or used? And what happened to it after antiquity? Object biographies can be exceptionally varied and many-faceted.
THE OBELISK TODAY STANDS DIRECTLY IN FRONT OF ST. PETER’S.

Photo: picture alliance/akg-images

Among the paintings in the Biblioteca Apostolica Vaticana is a wall painting (1685–1688) showing the obelisk that today stands in front of St. Peter’s Basilica in Rome being moved to that position. This is the only obelisk in Rome that doesn’t have Egyptian hieroglyphs, instead a Roman dedicatory inscription. According to it, the obelisk was dedicated to the deified Augustus and to Emperor Tiberius. It was brought to Rome by Tiberius’ successor, Caligula, and erected in his circus that occupied the site of the Vatican today. How the obelisk was transported from Egypt to Rome is described vividly by Pliny in his Natural History.

He mentions that Caligula had a huge ship built to bring an uninscribed obelisk to Rome. Before the Vatican Obelisk reached Rome and was set up in the Circus of Caligula, however, it had a prehistory in Egypt which has been reconstructed as follows: it was first moved within Egypt, to Alexandria, where it was erected on the forum. Only then was it shipped to Rome. In 1586 it was moved from the ancient circus to its current location in St Peter’s Square, as the painting illustrates. If the whole story is to be reconstructed and understood, then everything must be taken into account, from its origin in an Egyptian quarry to its first erection under the Pharaohs, its relocation in Hellenistic times, sources on Caligula’s day and the 16th century. What is needed is the ability to interpret the object, the depictions and the written sources equally. If we look through the literature on the Vatican Obelisk, we notice that its history has been a subject of study for Egyptologists, archaeologists, ancient historians, art historians and other specialists. They have all tried to reconstruct the historical, spatial and cultural context in which the obelisk was erected and moved.

It is only through specialists working together in interdisciplinary research that the often very much more complex stories of objects can be reconstructed. That way a picture emerges of what happened after Augustus’ victory over Cleopatra the city of Rome was filled with obelisks from Egypt, which were intended to memorialize that victory and the beginning of one-man rule by Augustus. The erection of an obelisk in the Circus Maximus by Augustus then led to obelisks becoming a fixed item in the furnishings of a Roman circus. How spectators in the Circus Maximus saw the obelisk at the foot of the Palatine over the course of time, is a question for building archaeologists. From the Augustan period into late antiquity, the imperial palace on the Palatine was gradually extended and enlarged, resulting in a grand facade overlooking the circus. It was against this backdrop that visitors saw the obelisk. The idea that obelisk and circus go together was then adopted by Caligula. Fetching an obelisk from Alexandria, he set it up on the spina in the middle of the circus. Drawing: Denkinger

PORPHYRY AND IMPERIAL PRESTIGE

After Constantinople was founded, an obelisk was erected in the circus there, too, the Obelisk of Theodosius in the year 390 AD. And in this case as well a vivid depiction survives of how it was transported and erected – carved in relief on the pedestal. The obelisk from the pharaonic period – shipped from Egypt to Constantinople – wasn’t the only object to decorate the spina of the circus. There were also important victory monuments such as the Serpent Column, which was brought to Constantinople from Delphi. The Serpent Column commemorated the Greek victory over the Persians in 480/479 BC.

Many of Constantinople’s monuments were later taken as loot when the city was conquered and plundered by Crusaders and Venetians in 1204 during the Fourth Crusade. Among them was the porphyry statue of the Four Tetrarchs that now stands in a corner of St. Mark’s Basilica in Venice. Proof that this statue group really was stolen from Constantinople in the early 13th century is provided additionally by the discovery of a fragment of the monument during excavations in Istanbul.

The material for the statue of four Roman rulers comes from an imperial quarry on the Red Sea. It is in fact the only quarry where red porphyry can be sourced. The stone’s colour recalls the purple that was used for rulers’ garments and also used, in abundance, for architectural decoration in late antiquity. Porphyry columns as well as wall panels and floor slabs of red and green porphyry can be found in buildings from late antiquity and most commonly in Rome’s churches where it is reused in great quantity as spolia. The regalia worn and carried by the emperors of late antiquity in their sumptuously furnished rooms became ever more ostentatious. This attracted a certain amount of criticism. The Neoplatonist Synesius wrote a paean to simplicity in which he gave expression to a criticism of luxury that is a recurrent theme throughout the Roman imperial period:


Photo: D/DAI-ROM 68.5154

YOU MIGHT ALSO LIKE:
“Line by line – How reconstruction drawings are made” Panorama, page 80
The knowledge necessary to reconstruct object biographies, like the ones sketched out above, is stored in many “small” disciplines which however in many cases are not taught at universities very much these days – if they haven’t been entirely abolished. An attempt has been made in recent years to stop the extinction, as it were, of these endangered academic species. A database of small subjects is being maintained and updated, and measures to promote their study have also been introduced. Once knowledge and know-how has been lost it’s difficult to build it up again later.

In archaeology the situation is aggravated by another problem. While there are sub-disciplines in archaeology that are specialized in certain epochs and regions, in the case of many regions outside Europe there are few possibilities to specialize in them at university as the subjects are not taught or no longer exist. These specializations are in many cases only cultivated at non-university research institutes like the DAI’s Commission for Archaeology of Non-European Cultures in Bonn.

Meanwhile for collections and museums an added problem is that there have frequently been personnel cuts affecting specialized curators in the past, with the result that it has become an ever greater challenge, even just on a purely physical level, to capture and catalogue holdings in a modern digital form.

And it’s not only a reduction in specializations that makes it hard to conduct provenance research. There was a trend whereby less and less value was attached to the exploitation of material in theses written for qualifications – this can still be encountered here and there. Even though recently there has been increased focus on the object and its materiality – the material turn – a re-evaluation and a new appreciation of material is urgently needed. There are in fact signs of this happening, with newly initiated programmes which give grounds for optimism that the challenges associated with provenance research can be surmounted. Benedicte Savoy’s project at TU Berlin university, which was awarded the Leibniz Prize in 2016, is an example of this change of direction and a focus on the origin of objects. Thanks to its contextualization, the project has resulted in some major findings. The project is entitled Translocations – Historical Enquiries into the Displacement of Cultural Assets.
From the Palaeolithic to Islamic desert castles

Scored deep into the Jordanian steppe is a wadi on the bank of which stands one of the desert castles that are so typical of this region. They are important vestiges of the architecture of early Islam and were built by the Umayyads (661–750). It is not for nothing that they resemble Roman forts from above. Many of them were in fact erected on top of Roman frontier posts on the Limes Arabicus. The Qasr Mushash site is typical of the region in another respect, too. Around the castle in the desert there are countless surface finds, including stone tools that date from between the Lower Palaeolithic and the Neolithic, in other words c. 500,000 to 7,000 years before present. Jordan's desert region was therefore occupied and used throughout millennia.

Qasr Mushash exemplifies the unusually wide span of Karin Bartl's research work. Few archaeologists of the Ancient Near East, in selecting their projects, devote equal attention to the period before the advent of agriculture and herding, i.e. the transition from the Palaeolithic to the Neolithic, and to the transformations caused by the spread of Islam. No less wide-ranging are the countries where her research has taken her: Jordan, Syria, Lebanon and Yemen are just some of the stopping points on her journey as an archaeologist. After her studies at the Freie Universität Berlin, her doctorate and postdoctoral lecturing qualification, Karin Bartl went to work for the German Archaeological Institute in Damascus. She directed the Orient Department’s branch there from 2003 to 2017.

And there she experienced the dramatic upheavals of the year 2011. The Arab Spring ushered in a catastrophe that continues to this day and has brought with it unending human suffering and unending devastation and loss of cultural monuments. For the researchers from around the world who were working in Syria, this meant an abrupt end to their projects and made collaboration with Syrian colleagues all but impossible. “We've been trying since then to maintain our long-standing ties by inviting Syrian colleagues to the DAI’s Berlin Head Office for study and training...”
courses and to continue our research activities together. Very important assistance in preparing these visits comes from the local staff at the branch in Damascus, who have been working there without a break since the conflict began,” Karin Bartl reports. So as not to lose contact with the region she started working from Amman in 2011. In cooperation with the German Protestant Institute of Archaeology (DEI) she directed the DAI research unit there until her retirement. Her projects on Neolithization processes in the Levant, which initially included excavations at the late Neolithic settlement site of Shir in Syria, were then supplemented by digs in the early Neolithic settlements of eh-Sayyeh and Mushash 163 in Jordan. Her research into the old town of Hama in Syria was complemented by the work at Qasr Mushash in Jordan. The catastrophe in Syria meant a reorientation in research for Karin Bartl, and not only that. It also and above all made her committed to supporting Syrian colleagues and to safeguarding cultural heritage. With this objective, she coordinated the Syrian Heritage Archive Project, the core of which is the digitalization of all the DAI’s archives on Syria, so that they can be used in the protection and preservation of cultural assets. After all, without the documentation of objects and their publication it isn’t possible to help combat the illegal buying and selling of looted cultural assets in Syria. And without graphic documentation and photographs of buildings no plans can be made for post-conflict rebuilding. In pursuit of these aims Karin Bartl is in contact with international organizations as well as with Syrian colleagues who have had to flee to Jordan.

On a mountain spur overlooking the Jordan Valley lie the ruins of the ancient city of Gadara, near the modern small town of Umm Qays in the extreme north-west of Jordan. From that high vantage point the view of the Sea of Nazareth is breath-taking. It’s no wonder that the site was chosen by Alexander the Great’s successors, who built a fortress there, probably around 200 BC, to mark the frontier between the Ptolemaic kingdom to the south and the Seleucid kingdom to the north. In the years that followed the frontier post developed into a vibrant city that, under various rulers – including Seleucids, Hasmoneans and Romans – existed into late antiquity. Continuous occupation at Gadara was interrupted, for the first time, by major earthquakes in the 7th and 8th century.
Claudia Bührig’s career in the archaeological sciences began with a monumental gateway in a city, more specifically with the monumental gateway in Gadara. When she embarked on the study of architecture in Hanover in 1983, she would not have imagined that her career as a scientist would one day lead her to northern Jordan. Involved in projects in Egypt, Chile, Italy, Yemen, Jordan, Sudan, and Turkey, her interest in architecture was increasingly directed towards the investigation of the architecture of past ages. She became a building archaeologist and wrote her dissertation in Cottbus on the monumental archway of Gadara that provided access to the city in Roman times.

Before she became head of the Damascus Branch and of the DAI’s research unit at the German Protestant Institute (DEI) in Amman in 2017, she worked at the Max Planck Institute for the History of Science in Berlin and at the ETH university of technology in Zurich. Her work increasingly focused on the evolution of the settlement of Gadara and the possibilities of safeguarding cultural heritage at archaeological sites like Palmyra. A central theme of her work has been researching building from a history of science perspective as well as questions relating to knowledge transfer.

In addition to her work in Syria, and inspired by meeting displaced persons from Jordan, she began to initiate projects that brought together Syrian refugees, cultural heritage preservation, and fostering an appreciation of culture in the younger generation, and supporting the population of Jordan. The foremost concern in these projects is to consolidate knowledge and encourage an attitude of respect towards one’s own past. Working together with German and Jordanian partners, Claudia Bührig organizes cultural education programs for children of the population in and around Gadara, regardless of whether they have lived in the region for a long time or have fled there from Syria. And so it is that the building archaeologist Claudia Bührig may be seen among groups of children who are listening intently and learning in a fun way about the lives of people in ancient Gadara, the lives of their ancestors in the region, and the treasures of the landscape that surrounds them.

None of this would be of lasting value if the programmes took place only once. Even though over 100 children take part in the activities, a lasting effect can be achieved only if people are trained to conduct similar programmes themselves. This is where “Train the Trainers” comes in. The idea is for training courses in cultural mediation, museum education and landscape appreciation courses on which specialists, teachers and non-specialists are taught how to communicate an understanding of their country’s history, archaeology and environment. Claudia Bührig’s professional involvement with the past therefore goes far beyond researching old buildings. It’s also about contributing to the preservation and protection of antiquity by communicating the value of antiquity for our own times. It’s about passing on the results of scientific research for the benefit and use of society.
Where do these sherds come from?
This question is probably asked by most visitors to an archaeological site. When a major Greek city like Selinunte – founded in 628 BC in south-western Sicily – is conquered and destroyed, what remains of the city gradually becomes buried. While the Carthaginians partly reoccupied the site of Selinunte after conquest of the city in 409 BC, the Greek colony was never entirely built over. That’s why the remains of buildings and their inventory can still be discovered all over the site today. Ancient ceramic material turns out to be more or less indestructible.

Pottery is usually not recovered intact, but fragments – called sherds (or shards) – of various sizes remain preserved and are scattered everywhere. Archaeologists always come upon potsherds in excavations when they dig down to the natural, undisturbed soil.
For archaeologists, therefore, the question “Where do these sherds come from?” relates first of all to the find context. During excavations, they document precisely which layer the ceramics are found in. That’s because both the founding of Selinunte by Greeks from Megara Hyblaea (the oldest Greek settlement on Sicily) and also the later growth of the city in Archaic and Classical times are preserved in different layers, together referred to as a stratigraphy. Finally the buildings collapse, as at Selinunte. Stones are removed as building material and sand from the nearby coast, which Selinunte looks over, covers the ruins.

Investigating the provenance of sherds therefore means, first of all, establishing and documenting the find contexts. Most finds cannot be very easily attributed to a historical functional context. A sherd in a house may have been found in the very room in which it was used, or it may have fallen there from an upper storey or may have ended up there when the building was levelled at a later date. It is common that only approximate contexts such as graves, houses, sanctuaries or particular public spaces can be reconstructed as potential former contexts of use. Sherds must therefore be documented in their location, and their shape and period must be identified.

Local pottery was produced in great quantity in the artisans’ quarter of Selinunte.
THE STORAGE DEPOT IN THE EXPEDITION HOUSE

Crates of potsherds from the Rome Department’s excavations are stacked on the high shelves in the depot of the excavation house. By the time they are placed there for storage, sorted according to context, inscribed and left awaiting further processing, the sherds have passed through many hands. Dirtied by earth, the sherds first of all have to be cleaned. In an excavation campaign, thousands of sherds are washed and then carefully arranged on sieves to dry. It’s essential that nothing gets mixed up. If it does, it will no longer be possible to attribute the sherds to a find spot and stratum, and without a find context finds lose their informative value. So the sherds are washed and laid out to dry, and when well cleaned they are sorted. Are they painted? Do they come from the rim or the foot of a vessel? Can they be differentiated by colour and composition of the clay? The sorted sherds are counted, weighed and, if they are big enough and typical, the sherds are inscribed so that anyone can find them easily later on. Every step in this process is documented.

A CERAMIC VESSEL KNOWN AS A HYDRIA that was made in Corinth in the 6th century BC and imported to Selinunte was discovered in an excavation and carefully exposed.

Photo: Schmehle

THE RESTORED HYDRIA is photographically documented.

Photo: Schmehle

GRAPHIC AND PHOTOGRAPHIC DOCUMENTATION

Now the day-to-day routine begins in an excavation storage depot. The sherds and pots are drawn and photographed. Archaeologists draw in a very particular way, as a rule interpreting and reconstructing the vessel while drawing. They can gauge from a piece of the rim how big the vessel’s diameter was. The shape of the rim, documented with its profile, gives an indication of its function and period of production. Photography records the colour of the clay and details of its painting. Old hands among the ceramic processing personnel can do the preliminary sorting and identification with remarkable speed. They sort hundreds of sherds every day.

PROVENANCE OF CERAMIC VESSELS

Once this has been done for thousands of sherds, scientific evaluation begins and here again the question arises of where the ceramic vessel actually comes from. Was it produced locally or was it purchased by a merchant or simply brought to the site by somebody?

For a long time, identification was made on the basis of the colour and the composition of the clay as well as the shape of the vessel and how it was painted. If among the finds there are some that originate from potters’ ovens, as is the case at Selinunte, then identification of the production site is, of course, much easier. Yet the naked eye can’t always easily distinguish one clay from another and attribute the object to a specific place of production. Certain types and decorative elements are produced in the same period but at different localities, and display similarities in form. Today archaeometric methods help establish whereabouts ceramic objects were manufactured. The method in use at Selinunte is energy-dispersive x-ray fluorescence (EDXRF) analysis. Dr. Markus Helfert uses a portable spectrometer, which he holds against the sherds. The device can detect chemical components of the clay in their proportional quantities. Composition varies according to place of production. Ceramics can be said to have a chemical fingerprint.

LINDA ADORNO is a doctoral student at the Institute of Archaeology and Cultural Anthropology, Dept. of Classical Archaeology, University of Bonn. She is pictured here processing the local ceramic production of Selinunte. Photo: Leone

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WASHED, DRIED AND APPROXIMATELY SORTED. Amphora fragments from the excavation at Alma Kermen in Crimea.

Photo: Trainee excavation by the FU Berlin, 2007

EVERYDAY ARCHAEOLOGY

Washed, dried and approximately sorted. Amphora fragments from the excavation at Alma Kermen in Crimea.

Photo: Trainee excavation by the FU Berlin, 2007
The Rome Department of the German Archaeological Institute has worked in close cooperation with the archaeological authority in Trapani and the archaeological park of Selinunte since 1971. In antiquity the city of Selinunte was second to none as the largest colony founded by Greeks on Sicily. The archaeological site offers outstanding conditions for research because Selinunte was not built over in the modern era and is protected by an archaeological park set up in 2010. http://selinunte.gov.it

By this means Dr. Helfert is able to distinguish typical Selinunte clay from clay originating from Selinunte’s “metropolis”, Megara Hyblaea. As a result it can be established that the fine Archaic sherds with their palmettes and animal depictions come in one case from Selinunte and in another from Megara Hyblaea. So at the end of a long day’s work the excavation team at Selinunte can answer the question of the provenance of the pottery in all its facets.

**PORTABLE ENERGY-DISPERSIVE X-RAY FLUORESCENCE**

is a method of materials analysis that also has an application in the archaeological investigation of ceramics. Using a highly sensitive measuring instrument called a spectrometer, the geochemical composition (“geochemical fingerprint”) of clay used in pottery can be determined. Comparison of the results with reference material makes it possible to identify the origin of pottery in a particular region, town or even pottery workshop. As the instruments produce readings in just a short time, investigations can be done in series, so that several hundred samples can be analysed per project. Thanks to this new method, detailed answers can be obtained to economy-related questions on the production and consumption of pottery, as in the case of the Selinunte research project.

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The Orient Department

Marib, Uruk, Baalbek and Palmyra – archaeological sites of the Ancient Near East with names full of promise for scholars and enthusiasts. Since the 17th century, in fact, antiquarians have travelled to the Near East to study its cultural history. It might come as a surprise therefore that the Orient Department was founded at the German Archaeological Institute as late as 1996. But this late date is deceptive inasmuch as it does not reflect the DAI’s research tradition or its institutional presence in that region.

The Orient Department with its Head Office in Berlin consists of many parts. The Baghdad Department was founded in 1955. It built on archaeological activities in Iraq that the DAI was involved in, going back to the 1930s. This department was the germ cell that grew into the Orient Department. The Baghdad Branch, as it is known these days, continues to have a defining influence on the research profile of the Orient Department. Then in 1978 a branch was founded in Sana’a, followed by one in Damascus in 1980. In 2017, the DAI’s long-standing cooperation with the German Protestant Institute (DEI) in Amman was put on a new footing, the Orient Department henceforth operating a research unit there in close cooperation with the DEI.

The locations of the branches and research units are no reflection of the great geographic extent of the Orient Department’s research activities. They are joined namely by research projects on the Arabian Peninsula (Saudi Arabia, Qatar, United Arab Emirates) as well as in Lebanon, Turkey and Ethiopia, as is representative of the wide range and reach of its research.

The same is true of the chronological depth of the research, which extends from the monumental enclosures of Göbekli Tepe (from 10,000 BC) to monuments of the modern era like the Azm Palace in Hama from Ottoman times (17th/18th century). The research it conducts is guided also by critical issues of the present day. Innovations and sustainable water management in and regions of the Middle East are as much part of the research programme as the safeguarding of cultural heritage and the development of new forms of contact and networking among researchers. The founding of the Iraqi-German Centre for Archaeology and Assyriology in Baghdad is one of the most recent fruits of the long-standing mutual trust and cooperation.

Information on research by the Orient Department:
www.dainst.org/publikationen/broschueten

THE ORIENT DEPARTMENT BUILDING IN BERLIN (DAHLEM) holds one of the world’s largest libraries on Assyriology and Near Eastern archaeology as well as the photographic archive, editorial office and archives of the Orient Department. Photo: Wagner
The past is often only fragmentary. Of a temple, no more than a few columns stand. An ancient statue survives as a mere torso.

Publications on archaeology are nevertheless full of pictures of intact sculptures and temples. These are fairly often reconstruction drawings, which are produced line by line in painstaking detail and after lengthy discussion.
Reconstruction drawings shape our view of antiquity, above all its architecture. What few people realize is that they are the product of intensive research and the collaboration of many specialists. The drawings are so commonplace and seem easy to produce. But any reconstruction drawing of ancient architecture is preceded by research, often lasting many years.

An ancient building is precisely documented and its construction phases analysed by building archaeologists. A central question during the research process is what the ruin may have looked like in each phase, and how what is missing may be restored. Plans and sections are drawn and preliminary sketches are made for a reconstruction. These days everyone immediately thinks of course of digital reconstructions in 3D. Few think of graphic reconstructions – though these remain important and indeed are enjoying a comeback these days.

“The two techniques are not mutually exclusive. They complement, and require, one another,” says Jörg Denkinger of the Architecture Section of the DAI. When he drew his first reconstructions of Greek temples, computer technology was still in its infancy. After lengthy discussions with archaeologists and building archaeologists he would set about reconstructing various structural elements, lay out the required perspective in pencil sketches, and then would face the daunting task of incorporating all the building elements into this scheme at the right scale and in the right perspective – in the early days in an analogue drawing made using vanishing points. Key tools of his trade, then as now, are photocopier and adhesive.

The photocopier allows the artist to precisely reduce the scale of drawn structural elements and to reproduce elements that recur repeatedly. These are then stuck on with adhesive tape. Gradually a whole building is pieced together like a puzzle from drawn elements, resulting in a picture that corresponds to what archaeologist and illustrator have in their mind’s eye. In this way Jörg Denkinger, like other specialists at the DAI, helps to create an image of the ancient past.

Today experts use an array of different methods. The reconstruction drawing is based on a digital terrain model of the ruins of an ancient town in the foothills of the Taurus Mountains in Turkey. Located near the village of Akören, the archaeological site was investigated in the years 1994–2000. Building archaeologists drew the ground plan of every built structure and produced a general plan of the town, while geodesists were called in to generate a terrain model.

What existed at this point was only a ground plan. There was no visualization of what the town once looked like. So then building archaeologist Ulrike Wulf-Rheidt consulted Jörg Denkinger. Together they decided on a bird’s eye view that would survey the whole of ancient Akören from above. The building archaeologist supplied the buildings’ ground plans and determined what the above-grade masonry – i.e. on top of the foundations – could have been. From this bird’s eye perspective Jörg Denkinger then made some preliminary sketches of individual buildings and blocks of houses. These sketches were then elaborated with more and more detail; the buildings acquired courtyards, terraces, balconies, doors and windows. Different materials – ground, walls, tiles – were suggested. And finally the town was pieced together from individual drawings.
“With a pen-and-ink reconstruction drawing that measures 135 × 85 cm, you need a lot of experience to know how the details will look when it's scaled down to A4 or smaller. If lines are drawn too thin, they’ll disappear; if they’re placed too close together, they’ll run together and create a black patch,” Jörg Denkinger points out. Reconstructing features from building analysis breathes life into the city. On the basis of archaeological finds and features, the appropriate trees are graphically planted in the surrounding landscape; human figures and animals are drawn in to indicate the size of the buildings. Small scenes and stories come into being. The longer you look at the picture, the more details you can discover.

“I love drawing the viewer into the picture. If the perspective that has been chosen is at natural human eye level, then the viewer often makes eye contact with a person in the drawing, which establishes communication between the drawing and the viewer,” Jörg Denkinger explains.

“Using light and shadow it’s possible to evoke a particular time of day or season in the drawing. And that way a scientifically correct, informative reconstruction drawing becomes an atmospheric stage set.”

With the rapid development of digital technology, more and more digital reconstructions are being produced. In the DAI’s Architecture Section, too, computer graphics software is increasingly being used to document finds and features, with the resultant graphics files serving as the basis for digital reconstructions. Jörg Denkinger welcomes the 3D models that are produced and makes use of them – primarily rather basic mass models or wire frame models – for his drawings. If you want to produce 3D reconstructions of greater sophistication than these working models, then an enormous amount of detail needs to be generated in 3D. Just as drawings do, scientifically correct 3D reconstructions require extensive research and intensive collaboration to ascertain and reconstruct the original forms.
GRAPHIC DESIGNER JÖRG DENKINGER has worked since 1993 in the Architecture Section of the DAI. 

All drawings: Denkinger

Jörg Denkinger’s graphic reconstruction of the colonnaded street in Aizanoi, an ancient city in present-day Turkey, was pieced together in the same procedure as the panorama of Akören and contains a wealth of details that often only close scrutiny reveals.

“3D models soon come to seem sterile and monotonous, or even kitschy if the wrong surface textures are applied. Producing high-quality and extremely detailed computer-generated 3D models is a real art. Drawing has the charm of offering a lot of artistic freedom along with complete scientific accuracy. Just a few strokes can suggest a street or bring a village community to life; the calming effect of a garden can make itself felt,” says Jörg Denkinger with conviction.

It’s not only the building archaeologists in the Architecture Section that appreciate these lovingly produced drawings. “The ancient world becomes so much livelier and more real,” says an enthusiastic Ulrike Wulf-Rheidt.

ANALYSES BY BUILDING ARCHAEOLOGIST ULRIKE WULF-RHEIDT (ARCHITECTURE SECTION, HEAD OFFICE BERLIN) WERE THE BASIS FOR THIS VIVID AND REALISTIC RECONSTRUCTION DRAWING OF THE GARDEN ON THE PALATINE.

Drawing: Denkinger

GRAPHIC DESIGNER JÖRG DENKINGER has worked since 1993 in the Architecture Section of the DAI.

Photo: Machler
Invitation to the Long Night of Ideas: “The world in flux – Identity 4.0”

Come and visit us in Schinkel’s Bauakademie!

Being an active player in Germany’s cultural relations and education policy, the DAI takes part in discussions serving to determine the current position. What form, open or regressive, should society take in the future? How can post-national cultural policy be practised in view of the fraught issue of cultural sovereignty? If these questions are to be answered, there is no way round discussing what is meant by cultural identity. The topic will be presented and discussed in short talks by experts. We are inviting Muslim poets to participate in a poetry slam called i,Slam centring on the issue of multiple identities in modern majority societies.

Where: Neue Bauakademie, Berlin
When: 1 June 2018, 6–10 p.m.
**Vision for Africa**

A centre for the cultural heritage of humankind

The DAI is supporting a project by universities in Berlin and Brandenburg to set up a Center of Excellence for Applied Cultural Heritage Studies in Ethiopia. The institutions concerned – the FU, TU and HTW in Berlin and Brandenburg Technical University, Cottbus (BTU) – will be cooperating with the university in Mekelle to provide urgently needed teaching capacity in researching, preserving, protecting and promoting awareness of that region's rich cultural heritage.

In East Africa there is a lack of vocational and specialized training with a practical orientation towards Africa's cultural landscape and material heritage. Resources of incalculable value may be lost as a result. The plan for a centre of excellence is intended to address this problem. In cooperation with the German Archaeological Institute, which possesses a wealth of experience from projects conducted in Ethiopia previously, a centre of excellence will be set up in Mekelle in northern Ethiopia to give instruction in the necessary technologies for documenting landscapes and monuments as well as for conserving and restoring buildings and objects. All this can only be accomplished effectively if knowledge pertaining to the cultures of the past can be disseminated.

East Africa is rich in the remains of cultures of the past. The rock-hewn churches of Lalibela and the stelae at Axum are UNESCO world cultural heritage sites that are widely known and are visited by tourists from all over the world. They consequently represent an economically significant resource for the region. The DAI therefore emphatically supports the initiative of the four German universities to submit an application in the framework of the programme "African Excellence – Fachzentren Afrika" run by the German Academic Exchange Service (DAAD). Their vision is already one product of cooperation in the DAI’s TransArea Network Africa (TANA) and also of the DFG’s priority programme in Germany “Entangled Africa”.

**FIND OUT MORE IN THE NEXT ISSUE!**

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**Cover Photo**

shows the transport of a 30 tonne statue in Tebo (Tabo) in Sudan in 1972. The statue stands today in the museum of Khartoum (see page 18). The photo is one of the many taken by Friedrich Hinkel (†2007). In 2009 Hinkel’s extensive research archive began to be digitized and made accessible at the German Archaeological Institute.

**Photo: Hinkel**
The sanctuary of Olympia in the north-west of the Peloponnese is famous as the venue of the classical world’s Olympic Games. For nearly 1,000 years, athletes and visitors would gather there for peaceful contests held every four years. Olympia wasn’t just a venue for athletics, though. First and foremost it was an important sanctuary with temples and votive offerings donated by visitors in ancient times. Today the site attracts more than half a million visitors annually. They come from all over the world and are astounded by what they see: in over 100 years of research, the archaeological remains have been almost entirely exposed.

For archaeologists, such extensive excavation always brings with it the question of how to protect and preserve the site. In 1989, Olympia was inscribed on the UNESCO World Heritage List, which always brings with it a set of obligations.

Many of the monuments at the site bear the traces of the passing of the millennia and are in need of thorough stabilization and restoration. With funding from the Regula Pestalozzi Foundation, the DAI Athens worked from 2009 to 2017 on the restoration and re-erection of the north column of the Ptolemaic votive monument. Kallikrates, the admiral of Ptolemy II of Egypt, had the monument erected for his king and the king’s consort Arsinoe II around 270 BC. It consisted of two columns standing on a long base in front of the Echo Stoa; of these the northern one was still largely preserved. Missing sections of the column were replaced during the restoration work and the column was re-erected in April 2017, giving visitors to the site a new structure to marvel at.