REPORT
A Phoenician-Iberian joint venture

STANDPOINT
Networked research – Networked worlds

INTERVIEW
Link and barrier – Mediterranean studies acquire new significance
A small island off Morocco’s Atlantic coast – in antiquity a peninsula – was where the west Phoenician maritime trade route met an African caravan road. There was sale and barter, the latest news was exchanged and tales were told from all corners of the world. The hotly traded goods were fish in great quantities, ivory, metals, exotic animals, the amber-like resin of Thuja berberisca/citrus, and precious spices.

Our cover photo shows Essaouira, the town on the mainland. It was known as the “harbour of Timbuktu” until the sixties. Caravans continued to arrive from the African hinterland and all European trading nations maintained consulates in the little coastal town.
Dear Readers,

Networking and connectivity are buzzwords in all spheres of life today and the global world virtually seems a product of new forms of networking. How different the world appears to have been in antiquity. The ancient past is popularly perceived as an inert, adynamic, stagnating entity – especially where economics, politics and international relations are concerned. As such, antiquity is seen as the antithesis of all that we are today. Yet “antiquity” was just as changeable and internationally connected as the present day, even though it operated at a different base speed. In consequence, archaeology as a science is as international and networked as its objects of study were: linked up with partners in the countries hosting its research work, maintaining constant contact, and always confronted with the challenge of keeping highly disparate scientific, political and economic aspects in view at the same time.

At the German Archaeological Institute, cross-border connectivity is even deeply rooted in its foundation history – ever since a circle of international scholars and diplomats got together in Rome in 1829 to promote internationally networked research into antiquity by combining their different fields of expertise. Naturally the tasks of archaeology have changed since then; its methods have been enriched by theoretical approaches which no one thought about almost 200 years ago. And where once the object itself was the focus of interest, now it is the cultural context which archaeology seeks to reveal, very much in the spirit of internationally and scientifically multidisciplinary Area Studies. In the process, archaeology can call into question supposed continuities when, as often happens, they are adduced to explain contemporary problems by reference to the past, in line with the maxim: “That’s how it’s always been.” Yet this kind of chrono-determinism – to coin a phrase – only distorts our view of the ancient past just as it gets in the way of a proper understanding of our own time.

Mobility, migration and trade in ancient cultures are the topics explored in the Title Story in this issue of Archaeology Worldwide. The “Report” focuses on a Phoenician settlement on the Iberian Peninsula, while the “Interview” looks at the relation of Mediterranean Studies to Classical Studies. Finally, in the “Portrait” we meet two people who have just been appointed to top posts at the DAI.

Happy reading!

Prof. Dr. Friederike Fless
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LOS CASTILLEJOS DE ALCORRÍN
The coast known as the Costa del Sol today is where one of the first significant Phoenician-Iberian joint ventures took place.
Looted and devastated
Combating the trafficking of cultural goods

The illegal trade in priceless cultural goods has now become the third biggest sector of criminal business after the illegal trade in drugs and weapons. The total volume of this black market is estimated at 10 billion U.S. dollars.

“The gentleman art-thief, as he is projected by Hollywood, does not fit the reality,” declares the website of the Africa-EU Partnership, an initiative that held a workshop on the illegal trafficking of stolen cultural goods in Casablanca, Morocco, in January 2014. It was organized with the aid of the Joint Africa EU Strategy Support Mechanism. The workshop was carried out in preparation for the Africa-EU Summit in April 2014 in Brussels.

The German Archaeological Institute (DAI) sent a delegation to Morocco under the direction of its special representative for the protection of cultural resources and site management, Dr. Friedrich Lüth. At the workshop, 80 experts from European and African countries had the task of drawing up a list of measures to combat the criminal activities.

The illegal trade in cultural assets is booming and no part of the planet is spared. The opening of borders, the escalating number of conflicts, increasing poverty and the enormous sums that stolen cultural assets command on international markets have all contributed to a worsening of the situation. The trade is organized by networks that sell what they generally procure through illegal excavation. The financial loss is immense, and the destruction of cultural heritage is irreparable. The local population is deprived not only of key elements of its cultural memory but also of potential revenue from sustainable tourism at archaeological sites. The robbers usually leave find-sites in a state of complete devastation.

During the three-day workshop, the experts drew up a catalogue of essential measures and initiatives that need to be agreed and implemented by the countries in the African and European partnership. Foremost among these are raising awareness among legitimate dealers and museum curators as well as police and customs staff, and networking and information-sharing among all stakeholders involved. In the fight against looting and trafficking cultural goods it is essential furthermore that local communities should participate – through programmes that tell them about the value of their own cultural heritage.

“We can only protect what we know about,” explained DAI president Prof. Dr. Friederike Fless. It is therefore crucial to document archaeological sites and cultural assets and to set up digital inventories as well as a central database of international scope. Fless furthermore agreed to make the DAI’s expertise and infrastructure in the protection of cultural goods available in international cooperation.
The romantic view of the land on the Nile and its millennia-old history, manifested in incomparable monuments that are unforgettable for those who have ever seen them, can obscure the hard reality that tourism is one of the most important branches of the Egyptian economy, making up 10 per cent of the country’s gross domestic product before the revolution.

The German Archaeological Institute is participating in a new master’s degree programme Heritage Conservation and Site Management, which has been jointly developed by the Helwan University in Cairo and the Brandenburg University of Technology in Cottbus (BTU).

The English-language master’s programme will transfer knowledge and skills for the administration and management of archaeological sites and include instruction in academic fields such as conservation strategies and methods, strategy and planning in cultural heritage management, visitor management, presentation and interpretation, and give a good grounding in the tourism industry.

The master’s degree course, accredited with the European Credit Transfer System (ECTS), provides for study periods in Germany and Egypt and uniquely combines classical archaeology with multidisciplinary approaches to the modern management of heritage sites with tourism value. The programme, generously supported by the German Academic Exchange Service (DAAD), was established as one of the measures included in the transformation partnership between the Arab Republic of Egypt and the Federal Republic of Germany and is funded by the Foreign Office.

The collaboration was officially inaugurated by an economic conference on Heritage Tourism: Prospects and Challenges, held in Luxor in December 2013. Among the 42 high-level speakers from a dozen countries were the Minister of Tourism Hisham Zaazou, the Minister of Antiquities Prof. Dr. Mohamed Ibrahim Ali, the President of Helwan University Prof. Dr. Yasser Sakr, the German Ambassador Michael Bock, the President of the DAI Prof. Dr. Friederike Fless and the General Secretary of the DAAD Dr. Dorothea Rüland, who spoke about the forward-looking combination of cultural heritage and tourism. The conference proceedings will be published in 2014.

TO FIND OUT MORE:
Basic training

The German-Cambodian Conservation School (2013–2016)

From 2008 to 2011, the Commission for Archaeology of Non-European Cultures (KAAK) of the German Archaeological Institute (DAI) conducted three excavation campaigns at the 2,000 year old burial site of Prohear in the south-eastern Cambodia. Hundreds of ceramic urns, iron and bronze grave goods that were unearthed required expert conservation and storage. Funding for the latter was provided until 2012 as part of the DAI’s ongoing research activities in Cambodia.

At the beginning of 2013, Dr. Andreas Reinecke, an archaeologist specializing in South-East Asia at the KAAK, initiated the founding of the German-Cambodian Conservation School (GCCS). The school has three main aims: to provide basic training for a large number of interested colleagues, to ensure the continuation of restoration work and to establish a Cambodian training team. A key partner is Prof. Dr. Hans Leisens of the Cologne Institute of Conservation Sciences (CICS) at the Cologne University of Applied Sciences.

With financing from the cultural preservation fund of the German Foreign Office and support from the German Embassy in Phnom Penh, the DAI is collaborating with the Memot Centre and the German Apsara Conservation Project in organizing restoration courses for young specialists from all countries of South-East Asia. The six-week courses in Phnom Penh and Angkor Wat, each with two participants, began in the middle of 2013 and are currently scheduled to continue until the end of 2016. The skills and knowledge imparted will help participants to intervene on behalf of the restoration and storage of archaeological objects in their home institutions and to procure the funding necessary for staff and equipment particularly in bilateral research projects. The four courses held to date were attended by participants from Cambodia, Vietnam, Laos and the Philippines. The Cambodian Ministry of Culture is aware of the project’s international significance and lends its support by making premises available and by the personal commitment of high-ranking civil servants who present the participants with certificates at a graduation ceremony. The DAI, responsible for planning, project management and the selection of applicants, is able in return to extend its contacts with all leading archaeological institutions in South-East Asia.

TO FIND OUT MORE:
http://www.dainst.org/en/project/GCCS_2013/?ft=all

When the Portuguese Capuchin friar Antonio da Magdalena reached Angkor in 1586, he wrote that the great temple complex there was “so extraordinary that it can neither be described in words nor compared with any other monument in the world.” The giant temple buildings of Angkor Wat in northern Cambodia date from the 9th to the 13th century AD. It has been a UNESCO World Heritage Site since 1992.

Restoration lab of the Memot Centre in Phnom Penh

1 Tuy Sophea, a Cambodian instructor at the GCCS, training Philippine and Vietnamese participants in bronze restoration.
2 Seng Sonetra, a Cambodian instructor at the GCCS, training two Vietnamese participants in practical restoration.
A PUZZLING PICTURE
Nothing has changed the archaeological sciences so much as the digital revolution, which has had an increasing impact in recent decades on all areas of life and in particular on scientific work. New methods don’t only allow new answers to be found to old questions; they also generate totally new questions and information and thus make it possible to arrive at a better understanding of early cultures. Ancient studies today comprise a wide spectrum of special disciplines ranging from various archaeologies and philologies and ancient history to disciplines like archaeobiology, archaeozoology and computational archaeology. Its methods include text-based and art historical analyses, analyses of very different types of material such as bones, sherds or statues in addition to large-scale regional studies that are conducted using modern excavation, survey and remote sensing technologies.

In Germany the archaeological sciences and classical studies with their numerous special disciplines and their heterogeneous character institutionally are faced with the greatest challenges since their origin 150 years ago, challenges that can only be met with pooled resources.

IANUS, the research data centre for the archaeological sciences and classical studies, was presented to the public in Berlin on 18 February 2014. 180 guests from the world of science, politics and the media attended the event, held at the conference venue Auditorium Friedrichstraße. After the President of the German Archaeological Institute (DAI), Prof. Dr. Friederike Fless, had given a brief introductory talk, the then General Secretary Prof. Dr. Ortwin Dally* spoke about the development of IANUS, while the views of the archaeological departments of the federal states were summarized by Prof. Dr. Jürgen Kunow, chair of the association of directors of said departments. Prof. Dr. Manfred Thaller (University of Cologne) gave the principal address, discussing digital archaeology within the digital humanities.

In 2008, the German Research Foundation (DFG) set up a work group with the appointed task of devising possible solutions. IANUS has been supported by the DFG since 2011 as a collaborative project involving various institutions – university and non-university research facilities, graduate schools, museums, libraries, DFG-funded collaborative research projects as well as individual projects, the academies and the archaeological departments of the federal states.

The event can be seen on the DAI’s YouTube channel www.youtube.com/dainst

MORE INFORMATION AT: www.dainst.de and www.ianus-fdz.de.

A brochure about IANUS is also available, both in printed form from the DAI Press Office (see Imprint page) and as a PDF downloadable from the DAI website. http://www.ianus-fdz.de/projects/ergebnisse/wiki

*On 1 March 2014 Ortwin Dally became director of the Rome Department of the DAI. The new General Secretary is Philipp von Rummel (see Portrait p. 74)
INTERNATIONAL TRADE

The confusing find situation on the island of Samos off the Ionian coast of Asia Minor.

Once sorted and processed, the jumble of debris is transformed into testimony of international connectivity. No other Greek sanctuary has yielded such an abundance and diversity of imports from the Ancient Near East and Egypt in the category of early Archaic votives as the temple of Hera on Samos, which is being investigated by the Athens Department of the German Archaeological Institute under the direction of Wolf-Dietrich Niemeier. In the 7th century BC, the island was already fully integrated in the international mercantile networks of the eastern Mediterranean and beyond.

More on the subject of „sanctuaries“ in the next volume.

![Map showing the provenance of Archaic period votives in the temple of Hera on Samos](image)

(Etruria, Phrygia, Caucasus, Syria, Assyria, Babylonia, Palestine, Egypt, Phoenicia, Cyprus)

Fig. 1 and 2: Cypriot terracottas. Second half of the 7th century BC

Fig. 3 and 4: Cypriot limestone statuettes. Second half of the 7th century BC

Fig. 5 and 6: Fayence from Naukratis. Second half of the 7th century BC
Obituaries

Werner Kaiser – Hermann Müller-Karpe – Peter Neve

Werner Kaiser (1926–2013)
Werner Kaiser’s research led to a new epoch of field work in Egyptian prehistory. The excavations he launched in the ancient city of Elephantine yielded a wealth of new knowledge about city planning and urban culture in Egypt. An outstanding art historian, Kaiser produced studies in particular on Ancient Egyptian sculpture. His pioneering work on the chronology of the Naqada culture and the transition from pre-Dynastic Egypt to the early Pharaonic state opened up new research perspectives for the study of early Egyptian history.

Werner Kaiser was born in Munich on 7 May 1926. He was awarded his PhD in 1954 at the University of Munich. From 1962 to 1967 he was director of the Egyptian Museum in West Berlin, and from 1967 to 1989 director of the Cairo Department of the German Archaeological Institute. Werner Kaiser was a corresponding member of the Bavarian and of the Göttingen Academy of Sciences, a member of the Austrian Archaeological Institute and of the Institut d’Égypte. He died on 11 August 2013.

As director of the Cairo Department of the DAI, Werner Kaiser was responsible for a research programme that embraced all epochs and aspects of the archaeology of Egypt. Alongside research he accorded priority importance also to restoration and site management. Collaboration with and support for Egyptian researchers and archaeologists was always a matter of great importance to him personally.

Hermann Müller-Karpe (1925–2013)
One of Hermann Müller-Karpe’s main works has been of enduring importance for archaeology – his “Handbuch der Vorgeschichte” (1966–1980), later condensed to a universal history of early mankind in the “Grundzüge der frühen Menschheitsgeschichte” (1998).

In 1979, Hermann Müller-Karpe was appointed to the newly founded Commission for General and Comparative Archaeology – today the Commission for Archaeology of Non-European Cultures – of the DAI in Bonn. He saw the founding of the commission as a decisive step towards an archaeology of global scope as an “epitome of human historicity”. He would consciously oppose any one-sided theoretical zeal with concrete material evidence, initiating publication series such as “Materialien/Forschungen zur Allgemeinen und Vergleichenden Archäologie”.

Hermann Müller-Karpe was born in Hanau, Hesse, on 1 February 1925. He was awarded his doctorate at Marburg in 1948 (supervised by Gero von Merhart). After first working at the Museum of Hessian History in Cassel, he was employed as curator at the State Prehistoric Collection in Munich in 1950. There he continued his studies of the Umfeld culture and wrote his postdoctoral thesis on the chronology of the Umfeld culture north and south of the Alps. In 1963 he was appointed Professor ordinarius at the University of Frankfurt, where in 1965 he initiated the most comprehensive corpus of material from prehistoric metal ages, the series Prähistorische Bronzezerde. He retired from the post in 1986.

Hermann Müller-Karpe died on 20 September 2013 in Marburg.

Peter Neve (1929–2014)
The Holstein-born architectural historian began his research career at excavations conducted by the German Archaeological Institute in the Hittite capital. Hattuša fascinated him from the start. The student of architecture joined the research team there in 1954 at the age of 25. In 1957 he completed his studies at the University of Hanover and became a permanent member of excavation director Kurt Bittel’s team. In 1963 Neve became local excavation director, later succeeding Kurt Bittel as general director of research at Hattuša in the years 1978 – 1993. In 1969 he received his doctorate from the Technical University of Berlin for his dissertation entitled “Rain Cult Sites at Bogazköy-Hattuša. An Attempt at an Interpretation”. From 1974 to 1993 he was in addition director of the Ankara branch of the German Archaeological Institute.

In his long years of work at Bogazköy-Hattuša, Peter Neve conducted many important excavation projects and helped break new ground in our understanding of the Hittite period and the Iron Age. Hattuša acquired a totally new face through his promotion of systematic conservation and restoration of the exposed architectural structures. It is thanks to his efforts that the site was transformed into an archaeological open-air museum, giving the public an impression of the region’s great history. It was also on his initiative that Bogazköy-Hattuša was inscribed on the UNESCO world heritage list in 1986.

Peter Neve died on 24 January 2014 at the age of 84.
On the history of the Cairo Department

The end of the 19th century saw great advances in Egyptology as a science. The land on the Nile had originally exercised something of an esoteric fascination; its priests were believed to possess ancient wisdom that was written down in then still illegible signs. But after Napoleon’s campaign and the decipherment of hieroglyphics, Egypt lost this arcane appeal and became a favoured destination for scholars and others seeking to broaden the mind.

Europeans explorers and travellers began to visit Egypt from the mid 19th century onwards. King Friedrich Wilhelm IV sent an expedition to the country, led by Richard Lepsius and continuing from 1842 to 1846, but after a Berlin professorship and a collection in the Neues Museum were established, interest in Egyptology waned in official German circles.

Now the first volume of a critical review of the history of the Cairo Department of the German Archaeological Institute has been published. It covers the years 1881 to 1929 and examines the development of German Egyptology in Egypt, which acquired institutional form in 1906/1907 as the Imperial German Institute of Egyptian Archaeology in Cairo, a body that was merged with the German Archaeological Institute in 1929. The author, Susanne Voss, gives an insight into the founding years of Egyptology, looking at the academic situation, the people involved, and the complex political background.

In order to write a history of the subject, the institution and the individuals, Susanne Voss carried out in-depth research in national and international archives and was also able to evaluate previously unaccessed material. The history is structured around the directors of the institute, since they were also representatives of the political, economic and ideological trends of the times in which they worked.

Susanne Voss,

The book is part of the series Menschen – Kulturen – Traditionen. Studien aus den Forschungsschütern des Deutschen Archäologischen Instituts Band 8,1
Cluster 5: History of the German Archaeological Institute in the 20th century.
Edited by the German Archaeological Institute; published by VML Verlag Marie Leidorf GmbH
2,800 years ago the Phoenicians founded many settlements on the coast that today is called the Coasta del Sol.
A voyage of 2,700 sea miles lay behind them.
This issue’s “Report” about the landing of a Phoenician ship on the south coast of Spain is not mere fiction. It is a highly probable, archaeologically attested reconstruction of many incidents that occurred in the region at the time on which it focuses. Well anchored in scientific fact, which is incorporated into the text, our report begins at the end of a sea voyage.
Around 800 BC a ship landed on the south coast of the Iberian Peninsula. The captain knew of the landing place in a river mouth from a colleague who had been there before. He also knew he could find a safe place to anchor there. The bay offered the new arrivals excellent conditions all round. Their ship was ten metres long, four metres wide and could carry 15 tonnes of cargo. The high stem bore the carved effigy of a horse’s head. For long hauls across the sea the big rectangular sail was hoist; and the oars heightened the ship’s manoeuvrability in difficult situations and in coastal waters. They were now only about 50,000 ells (25 kilometres) from the “Pillars of Hercules”, as the Greeks would later dub the straits leading to the open ocean.

As the voyagers went ashore, one of them found a small piece of carnelian. The Iberians liked the handsome red stones. It had probably been dropped there during a business transaction or friendly meeting at which gifts were exchanged; after all, they weren’t the first people to sail so far west. Their own group was fairly small; apart from the seamen – captain, navigator and sailors – it included an architect, a land surveyor and, as the locals’ coarse wares did not go down well on every occasion, a potter who was able to work with the fast wheel. He would earn well because his wares and skills were in high demand, as were those of the “iron man” who knew how to work metal. The ore deposits in the area were supposed to be fantastic, according to earlier travellers. The scribe saw all manner of work ahead of him: traded items had to be accounted for, the calculations made by the architect and surveyor had to be recorded, customs certificates had to be issued. Who knew what other tasks might crop up? Luckily the people responsible for salvation, for altars and rituals, had all the figures well memorized. But the master of ceremonies would definitely come and ask him to make a note of various items for the big banquet in honour of their commercial partners. Fortunately, though, he wasn’t the only one who could write.

“We don’t yet know exactly how many people came to the place that today is called Los Castillejos de Alcorrín,” says Dirce Marzoli, director of the Madrid Department of the German Archaeological Institute, and in charge of research into the Phoenicians here. “We have few finds from the 8th and 9th century BC. It’s only from the 7th century that more definite statements can be made. What we do know is that Phoenicians and locals jointly built a fort at this site.” But this seems to have proceeded in a different way to what first impressions might lead us to expect. The Phoenicians were not the kind of conquerors that occupied territories.
Their anchorage was on a small river that flowed out into the sea. On one bank was a village whose inhabitants had not lived there very long and the same was true of their neighbours. The whole coast had been unpopulated not long before. The villagers decided to arrange a meeting with the Phoenicians to discuss a project. They were familiar with the seafarers, of foreign appearance but friendly people, known to be fine craftsmen and masons as well as astute business people. Yet they were also rumoured to be piratical and treacherous. The villagers decided to approach them all the same. They wanted to propose a collaboration. If the Phoenicians helped them, then they could trade unhindered throughout the region, dealing in their newfangled metal vessels, fine jewellery and tableware. Their see-through glass was a sensation, pure sorcery. So they had a meeting with the Phoenicians and proposed their plan: “We want to build a fort.”

Los Castillejos de Alcorrín is situated in Andalusia, southern Spain, at the western border of the Province of Málaga, only 25 kilometres from Gibraltar and 2.5 kilometres from the Mediterranean coast, on a hilltop 165 metres above the bed of the river Alcorrín – an exceptionally favourable location. The archaeological site was discovered in 1988 by Fernando Villaseca Díaz and Marcos Vázquez Candiles during survey work preliminary to a construction project. They went on to find evidence of a fortified settlement of the late Bronze Age on the verge of the Iron Age, the period in which the first contacts took place between indigenous populations and Phoenicians (late 9th / early 8th century BC). Archaeologist José Suárez Padilla subsequently became excavation director. Declared a historical monument in 2006, the site immediately attracted great interest and the decision was taken to explore it more thoroughly. Since the Madrid Department of the DAI had a long tradition in Phoenician research, it was invited to conduct investigations at the site, which it has now been doing since 2007 in cooperation with the Centro de Estudios Fenicios y Púnicos and the district of Manilva.

The inhabitants of the village had been having trouble with their neighbours and felt the need to protect themselves. So they asked the Phoenicians for cooperation, support and technology in exchange for trading privileges. The settlers from the Levant were quick to decide. They knew of the plentiful ore deposits in the hinterland. Equally interesting was the prospect of having the local inhabitants as trading partners for wine, frankincense, perfume and purple. So the architect and the geometer sat down with the local representatives and worked out designs for a fort. It was to be built on a hill high enough so that one could look out across the sea past Gibraltar as far as Jebel Musa near Ceuta. And the fort conversely would be visible from far off. Being able to survey and measure out the site and the buildings in advance made planning and building so much easier. They had learnt “mathematics” from their neighbours in Mesopotamia and Egypt, the Phoenicians told them, just as they had learned how to produce mud bricks which made house building more practical and flexible than ever before.
The layout of the fortified settlement is adapted to the morphology of the hilltop, while the ground plan of the buildings will have been rectangular, as the rules of architecture dictated. The Phoenician architect in the collaborative project may have been talked into designing one trapezoid entrance area, but it was distinctly contrary to his aesthetic principles. That shape was unknown back home in the east, but here it was necessary to work together for their mutual benefit. He thought the hearths that the cooperation partners wanted to have inside the buildings were actually quite practical conveniences, and the local stonemason was really good.

“97 percent of the ceramic finds are from local production,” Dirze Marzoli explains. “They are handmade and consist of storage vessels and crockery. We can recognize them by the irregular coloration of the surface, which occurs at low firing temperatures.” The remaining fraction of what the archaeologists found was manufactured on the fast potter’s wheel and fired hard. In the case of an amphora, archaeometric analysis has established that it originated from the Phoenician trading post Cerro del Villar on the bay of Málaga approx. 90 kilometres from Alcorrín. Almost more interesting than the pottery from the archaeologists’ viewpoint is the slag they have found on the site of the fortified settlement. The slag bears witness to the oldest iron smelting in Europe.

The landscape around Alcorrín was Mediterranean forest, dominated by cork oaks, one of the characteristic plants of the Mediterranean area. The gently undulating landscape offered good conditions for agriculture and animal husbandry, and the forests could be used for hunting and logging. The sea and the nearby streams and rivers offered a plentiful supply of fish. The landscape near Alcorrín was reconstructed in outline as part of a coastal research project by the DAI in 1986 and we therefore know it changed a great deal in the course of the Holocene. Where there is land today there was formerly, c. 4,000 BC, a deep bay extending as far as Casa Montilla. The bay silted up as a result of erosion and sedimentation processes, which accelerated from the 8th century BC onwards. “It’s distinctly possible that the Phoenicians, who brought new forms of economy and who stimulated settlement activity and farming, had a decisive impact on these processes.”

The attractive flooring along the external walls was unknown in the region. The raw material was provided by Glycimeris and Acanthocardia, sea shells that were laid on the ground, set close together. This tradition had long been practised in the Near East, where the same species of cockle were used.

(photos: Patterson, DAI Madrid)
The buildings had a rectangular plan. The Phoenicians brought this style of building from their Oriental homeland.
(reconstruction of the buildings: Beiersdorf; drawing: DAI Madrid)

The iron ore deposits of the Iberian Peninsula were a magnet for the Phoenicians. Deposits near Alcorín.
(photos: DAI Madrid)
The community continued to live on the hilltop for 150 years, and nothing terrible happened. No attack, no catastrophe, nothing at all. Which meant that civil life could develop more vigorously. The fort became a widely known urban centre that had ties with nearby harbours on the Mediterranean. It was known that locally sourced iron was worked there; people who could read and write Phoenician were to be found at Alcorrín, which became a multinational meeting place. The lavish banquets that were held there would be remembered for a long time to come. One even drank wine, something that had never been done in the region before. At some point the inhabitants came to feel it was too costly to maintain the complex and together the decision was taken to abandon it. They took the movable goods with them and cleared out. The descendants of our ship moved their base to Málaga, where their traces can still be found today.

The external fortifications of Alcorrín extend for two kilometres and enclose an area of 11.3 hectares. They follow the rocky outside edge of a plateau that falls away steeply towards the Alcorrín valley in the west and the north and is bounded by deep valley cuts in the south. Only on the east side, which slopes gently down into the surrounding landscape, is the approach easier. There the fortifications were made stronger, with nine bastions or towers, and were built in a particularly imposing style. A fortification wall 365 metres long lined the steep ridges at the north-eastern perimeter of the site; similar fortifications are not known to recur until late medieval and Islamic times. As usual for the period, the walls were double-shell masonry walls of fairly large quarry stones with a core of small stones and loam. For the outer wall, 430,000 cubic metres of stone needed to be supplied. In the more easily approachable stretches its thickness reached five metres, while two metres were judged to be enough on the steep north face. In the geomagnetic survey data archaeologists were able to make out structures that on examination turned out to be big buildings with several rooms. They are the oldest rectangular buildings in the region. Their dimensions are based on a unit of measurement called the Punic ell – 50 centimetres in length.
An undisturbed archaeological record continuing for 150 years is a windfall for researchers,” says Dirce Marzoli. “It rather makes up for the fact that we found so little previously.” The inhabitants apparently left the place clean and tidy. “It definitely wasn’t a hasty getaway,” the archaeologist says. Whether there might have been an earthquake is being studied in a new DFG- and ANR-financed project employing archaeometric methodology and specialized technology. But it seems that overall the political macroclimate had changed and with it the regional organization, among the indigenous people as well as the Phoenicians; and the fort of Alcórín was no longer needed. One question in particular continues to intrigue the archaeologists: “To date we haven’t found a water source, and the stream nearby is far too small,” Dirce Marzoli explains. So how did the water supply work?
Peruvian experts restore the unfired mud bricks from which the burial chamber of “Señor de Palpa” was built. The Spanish word for this material is “adobe.”

EL SEÑOR DE PALPA
Peruvian tombs nobody expected to find

Palpa is a small town on the south coast of Peru. Its 5,000 inhabitants make their living by farming in fertile irrigated oases that are supplied by three rivers, the Rio Grande, Rio Palpa and Rio Viscas. The town lies on a wide plain at the edge of the mighty Cordillera, and the quiet industriousness of rural life gives no hint that the region once had a grand past. But it so happens that this river valley system, which stands out in stark contrast to the desert directly to the north and south, is home to hundreds of archaeological sites, where the former population in the four principal geographic regions of coast, Andes foothills, mountains and valleys adapted themselves to the environment in very varied ways and with different methods of subsistence in the course of the millennia.

In 1997, Markus Reindel from the Commission for Archaeology of Non-European Cultures (KAAK) of the DAI and his Peruvian colleague Johny Isla from the Centro de Investigación para la Arqueología y el Desarrollo (ANDES) began their archaeological investigations in the Palpa region. They wanted to clarify the cultural context of the famous geoglyphs or “Nazca Lines” so as to be able to understand what they really are and – independently of speculations about their supposed extraterrestrial origin – find out what culture was responsible for the gigantic figures that are scored into the surface of the earth (Archaeology Worldwide 1-2013, p. 57). In the course of their research the archaeologists made a spectacular discovery. In 1998 they found a Nazca Period burial site near Palpa, called La Muña, consisting of twelve tombs which
The burial site lies in the valley of the Rio Grande in southern Peru. The small town of Palpa is situated on a wide plain at the edge of the mighty Cordillera.

are the largest known so far from that culture. The dead – evidently highly venerated – were found seated half upright and leant against the chamber wall; they had been wrapped in fine cloth and provided with valuable grave goods of finest ceramic ware and ornaments made of gold and precious stones. The opulence of the grave goods indicates that the elite of a society from the middle Nazca Period was buried at the site. Radiocarbon dating points to the time between AD 250 and 450.

Word spread quickly of “Señor de Palpa”. The high status of the buried individuals is additionally suggested by the location of the burial place. Sited at the confluence of the three above mentioned rivers, on the right bank of the Rio Grande, La Muña in its heyday was the political centre of a prosperous region whose inhabitants knew how to wrest the greatest possible utility from a challenging geography.

The architecturally elaborate necropolis covered an area of eight hectares. Six of the twelve tombs have been exposed by the archaeologists, and even though grave robbers have already paid an unwelcome visit to the site, the researchers have documented the architecture and recovered artefacts of exceptionally fine, thin-walled pottery and delicately chased gold objects. Afterwards they filled in the tombs to preserve them.

CULTURAL HERITAGE PROTECTION

The small museum in Palpa displays the finds from the first campaign, and in so doing responds to the Peruvian population’s
growing interest in their country's pre-Spanish history. "There was always a wish to restore the tombs in order to make the cultural context accessible," Markus Reindel says. "It's important to show that the Nazca had a stratified social structure with a clearly crystallized elite. This is evidenced by the chieftain graves of La Muña."

In 2009, an initiative was launched with UNESCO funding to protect the cultural heritage of the Palpa and Nazca region, while the plan to excavate and restore some of the tombs was put into action in 2011 on the initiative of the German Embassy in Lima. "First we have to consolidate the site," says Reindel. Then restoration and conservation work will start and finally the necropolis will be opened to visitors. The geoglyphs at the site are also to be restored. They are badly damaged and barely recognizable now in their totality. Time is short. In this area more and more informal gold and copper mines are springing up," Reindel explains. "If nothing is done about that, the geoglyphs and also the tombs will be seriously at risk."

ADOBE
Adobe is the Spanish term for the unfired mud bricks from which the burial chambers were built. Restoring them is an art mastered by very few. The Peruvian specialists know the method of manufacture, the various materials and their proportions in the mix. They also need to know the climate at the time when the bricks were made and the quality of the water that is used for the restoration so that the old bricks are not damaged by unanticipated reactions. A potter from the region produces replicas of the ceramic vessels; another craftsman reproduces the ornaments as well as is feasible given the find situation.

"In the biggest of the tombs we're going to reconstruct a burial," Reindel says – so visitors can see what it might have looked like. But the exposed tombs need to be protected: the sun's light is harsh in this region and in the winter months there are drastic temperature fluctuations between day and night – harmful for all
Reconstruction of the platform and the roof over the burial chamber.

Reconstruction of the tomb (illustration: Tomkowitz)

Reconstruction of the interior. The dead man, evidently venerable, was buried in a seated position, wrapped in cloths and provided with food and everyday utensils.

Dr. Markus Reindel (r.), Latin America specialist at the KAAK, directs the DAI’s research in southern Peru, Lic. Johny Isla (l.) is director of the Centro de Investigación para la Arqueología y el Desarrollo (ANDES)

FINAL RESTING PLACE OF THE VENERABLE DEAD

“The tombs had a uniform basic pattern. A pit was dug six to seven metres deep, and inside it the burial chamber was built of mud bricks. The deceased were seated half-upright in the chamber, accompanied by precious grave goods – polychrome ceramic vessels of excellent quality, gold ornaments, glass beads and decorated spondylus shells. The chamber was then sealed by a roof made of wooden rafters, reeds and a layer of clay. Next the pit was filled in. After that a stepped platform of mud bricks was erected at ground level and on top of it stood a roof of wooden beams with a covering of reeds and clay. The platform was surrounded by a protective wall that formed a small courtyard with a side entrance. Sacrificial offerings were apparently placed there at regular intervals.”

Markus Reindel
The location of the area of investigation on Peru’s southwest coast.

In Peru, interest in archaeology and the pre-Columbian roots of Peruvian culture has grown enormously in the past 20 years or so. One result is that long-term archaeological projects now attract sponsorship from Peruvian businesses. The inhabitants of the Palpa region specifically have a keen interest in the development of tourism infrastructure for the sustainable presentation of their unique cultural heritage. The Pan-American Highway is not far away.
In Peru, interest in archaeology and the pre-Columbian roots of Peruvian culture has grown considerably in the past 20 years or so. A museum has been built at the site to enhance its appeal for tourists.

photos and illustrations: DAI, KAAK, Reindel, Centro de Investigación para la Arqueología y el Desarrollo (ANDES), Isla
“We inhabit only a small part of the world [...] around the sea, like ants or frogs around a pond,” as the Greek philosopher Plato makes a protagonist in one of his dialogues remark. The little pond-world of this simile seems to be light years away from the globalized and networked world we live in, a world that increasingly appears to us like a complex system in which the individual regions don’t exist and act separately any longer. Consumption or over-exploitation of resources in one corner of the world impacts the climate in another. The Internet brings us together and provides access to information all round the globe and in multiple directions. So when we contemplate antiquity, is it only to gratify a need for the “good old days” when life was less complex and easier to grasp?

The central building blocks of Greek society in antiquity were the house, oikos, and the city plus surrounding countryside, the polis. And these modules were exported – transplanted to the Mediterranean and the Black Sea in the form of settlements founded on the coast. These colonies did indeed lie round the Mediterranean as described in the Platonic dialogue. But they were also connected with one another via the Mediterranean. The Greeks, moreover, were not the only people to establish themselves there; the Phoenicians too, setting out from the city states of the Levant, settled the coasts of North Africa and Spain. From the 8th century BC onwards, Greek and Phoenician settlements were strung like beads along the coastline, and between them a network of trade and exchange developed. The Mediterranean, which when viewed from a deep historical perspective has been capable of both separating and connecting, was consequently in those days criss-crossed by a dense web of contacts, unlike the situation today. No Schengen Agreement existed to channel communication and restrict it by means of a “border” running through the Mediterranean.

It would be a mistake, however, to imagine the Greek and Phoenician contacts as an exclusively Mediterranean network. Via rivers and trade routes there was intensive contact with other cultures, cultural exchange reaching, for example, as far as Celtic areas, where Greek imports have been found inside grave mounds. With the Romans (if not earlier) came a paradigm shift in the conceptualization of the Mediterranean region. The territorial kingdoms that had emerged in the wake of the conquests of Alexander the Great were absorbed by the Romans into a territorial entity that encompassed the entire Mediterranean. The communications infrastructure of this empire involved not only the sea but also roads. And very flexible frontier systems were put in place to control contacts with Africa.

On this continent in particular the ancient Mediterranean cultures overlapped with
other cultural areas, like the one that had grown up round the Sahara. That cultural zone in turn intersected in Ethiopia with the culture in Yemen and the cultures of the Ancient Near East. The Arabian Peninsula, for its part, was in contact with the cultures of India via the Indian Ocean, almost as though they were grouped around an inland sea. And the Indian cultural area was linked to the Central Asian region, a region that from the ancient Greek perspective had drawn closer as a result of Alexander’s campaigns. These overlapping cultural spheres could be linked together by long-distance trade via land or sea routes, as the Silk Road testifies. All these complex and networked spaces with their routes and channels – whose structures sometimes seem to re-emerge today even in the form of international refugee streams, and sometimes seem to re-route themselves – can only be understood from a global, scientific perspective. For this to be possible what is needed is an archaeology with a global view. Studying early cultures in human history not only resembles modern Area Studies in the questions formulated, but can also contribute a great deal to Area Studies. After all, ancient cultures are the foundation of our civilizations today – not just in certain features but also with their interconnections. It often happens that the ancient cultural spheres go beyond the borders of modern nation states and challenge them. Equally they can provide apparent justification for a modern political entity as for instance Bronze Age culture in Europe in the 2nd millennium occupies an area corresponding to the European Union. Studying antiquity can allow these changing spaces and networks to become clearly manifest, and help us to view contemporary constructions and movements to new core regions and centres of globalization from different perspectives. It can also answer the question whether cultural spaces, trade routes, exchange and networking are predetermined by geography and thus constant or in fact continually reconfigure themselves independently of it.

Likewise, carrying out research worldwide means working together in a wide spectrum of disciplines and, even more than that, working with a wide range of cooperation partners in the countries that host our research.

Friederike Fless

The author, Prof. Dr. Friederike Fless, is president of the German Archaeological Institute
PASSAGES
From Bosporus to Bosporus
It takes just four minutes to travel between two continents. A new railway tunnel in the seabed 56 metres below the water’s surface will ultimately convey 75,000 passengers per hour at peak capacity. They will be travelling through the world’s first transcontinental tunnel, one that links Europe with Asia and one day will be part of an “Iron Silk Road” serving freight transport all the way to China. In the first stage, though, the Marmaray tunnel that crosses the Bosporus will help alleviate Istanbul’s acute transport problems. The tunnel was opened to commuter trains at the end of October 2013.

The strait between Europe and Asia Minor that connects the Black Sea with the Sea of Marmara is a dangerous passage, about 30 kilometres long and from 700 to 2,500 metres wide. There is a powerful upper current flowing from the Black Sea, which is water-rich, into the “arid” Mediterranean, which loses more water to evaporation than it gains from inflow, and this makes the eastward journey hard-going, even fraught with risk. Jason and the Argonauts, on their way to Colchis, had to pass between two treacherous rocks, the Symplegades, that stood at the point where the Bosporus discharges into the Black Sea; he only managed it with divine help.

Greek attempts to traverse the Bosporus by ship, in search of land and goods, were initially confined to a few months of the year, until a skilful shipbuilder around 700 BC developed stronger galleys that were able, even without divine assistance, to pass through the dangerous straits – as far as the next Bosporus.
The hypothetical reconstruction of the ancient "Kuban" Bosporus is shown underneath the present-day situation. The view is from the ancient settlement Strelka 2 on the west shore of the "Kuban" Bosporus, looking east over what is today the Kuban valley. To the north lies the coast of the former peninsula/island of Temriyuk; to the south the coasts of Sindike.

(photo and reconstruction: Kai-Browne)
“The” Bosporus is generally understood to be the strait that gives modern Istanbul its face, adorned the imperial metropolis of Constantinople, and on which the ancient Greek city of Byzantium was founded in the 7th century BC to secure the strategic water route. But when archaeologists speak of the Bosporan Kingdom, they mean the region on another waterway, the Cimmerian Bosporus, the strait between the Black Sea and the Sea of Azov, in contradistinction to the Thracian Bosporus. The Cimmerian Bosporus was always coveted and often fought over in antiquity, just as it is in modern times. Now known as the Kerch Strait, it divides the Crimean Peninsula in the west from the Taman Peninsula in the east; it is around 40 kilometres long and four kilometres wide at its narrowest point. Like most straits it acts both as a barrier and a transit route between the continents, and enabled the ancient Greeks in search of land and trade to access the fish-rich and fertile Don river delta.

Udo Schlotzhauer from the Eurasia Department of the German Archaeological Institute is investigating Greek colonization on the Taman Peninsula as part of an interdisciplinary regional study on landscape and settlement archaeology in close cooperation with Denis Zhuravlev from the State Historical Museum in Moscow. Greeks from Asia Minor founded the first settlements in the region in the early 6th century BC. The many bays of the Kuban river delta presented them with a strategically favourable location, and soon fortified settlements on both sides of the Cimmerian Bosporus controlled a waterway that was central to the trade in cereals, wine and fish between the Black Sea and the Sea of Azov.

“We want to investigate aspects of Greek colonization that have been little explored here,” says Udo Schlotzhauer. “How exactly did the landnám proceed? How did contacts with the local population and contacts between the colonies evolve? How should we imagine the climate, the soil conditions and the vegetation, i.e. the way people interacted with their environment?” Of particular interest for the archaeologists is the geomorphological situation of the region, since ancient sources report that part of the present-day Taman Peninsula consisted of islands at the time the Greeks first settled there. The number and size of the islands are not known, neither are any names. “For a long time the formation was presented wrong in research,” explains Schlotzhauer. “But today we know that the Asian part of the Cimmerian Bosporus was in fact still composed of islands at the time in question.” In the course of the past two and a half thousand years, alluvial deposits from the Kuban have transformed the one-time archipelago into a peninsula.
About a hundred years after Greek colonization began, the ill-fated campaign of the Persian king Darius I in the late 6th century BC catalysed developments among the peoples in the Caucasus and in the steppe. Probably as a reaction to the threat, the free Greek communities on the Cimmerian Bosporus joined together in the course of the 5th century BC to form a type of state that was unusual for the Greek world at that time: the Bosporan Kingdom. This successful confederation of free Greek poleis had its political centre at Panticapaeum on Crimea and there was a second leading city called Phanagoria on the islands. Over time the Bosporan Kingdom expanded around the Sea of Azov and survived well into late antiquity. In the 4th and 3rd century BC it was one of the principal exporters of grain in the ancient world. But exactly how far back can this be scientifically proven? Archaeobotanic investigations are expected to clarify this question.

Cereal remains, rubbing stones and pottery are the basic material of research into the mode of economy and possible economic contacts. Classical archaeological methods go hand in hand with archaeometric analyses. “In archaeology today we work together with various disciplines of the natural sciences,” explains Schlotzhauer. Investigations into climate, vegetation, soil conditions and human influence on the environment are indispensable. A robust reconstruction of landscape and built environment can cast light on the reasons for the choice of locality as well as for later changes in settlement conception and ultimately also the colonization process itself. “But of course, researching the natural environment also includes analysing political and cultural space,” the archaeologist explains. “We investigate markers, structures and the organization of spaces and also modalities of using built structures - whether we’re talking about sanctuaries, defensive structures, settlements or the big grave mounds that are called kurgans.” This way it is possible to make out religious, cultural and power-political spheres, embedded in the natural region which the colonists originally moved into.

“Only if we survey all the findings together and analyse them collectively can we arrive at a comprehensive picture of the circumstances of life of ancient cultures,” says Udo Schlotzhauer.

In the course of the Great Colonization the Greeks pushed further eastwards, crossing two bosporoi and exploited the strategic advantages of the passages and their landscapes. They enlarged their territory and trading network and the sphere of influence of Greek culture and language. In the west they pushed as far as France and Spain and founded the cities that bear the modern names Nice and Marseille. But they never went beyond the western “Bosporus”, the Strait of Gibraltar. For the Greek historian and ethnographer Herodotus, this western “Bosporus”, the Strait of Gibraltar with the Pillars of Hercules, was the end of the world.

(See also “Networked worlds” p. 36 and “A Phoenician-Iberian Joint Venture” p. 12)
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The archaeologist Dr. Udo Schlotzhauer is a member of the scientific personnel of the Eurasia Department of the DAI
The name of the region is not so familiar today, but in another age it certainly was. Bactria was an ancient land in Central Asia, occupying what is today southern Uzbekistan and Tajikistan and northern Afghanistan. It took Alexander the Great three years (329–327 BC) to conquer the rich but hard-to-subdue region, which in the following centuries belonged to the Hellenistic world. The arrival of numerous settlers from the west gradually led to the development of a composite culture that combined Greek and autochthonous elements. Among the most important archaeological sites in the region is the Oxus Temple in Tajikistan, which was dedicated to the local river god Oxus. Though built in Hellenistic times the temple was not a Greek columned temple but a monumental structure made of unfired mud bricks with an architecture that draws on indigenous traditions. The temple was excavated between 1976 and 1991 by a Soviet expedition, and many artistically wrought objects of gold, silver, ivory, precious stones and other materials came to light. For a long time they led a shadowy existence in a basement of the Academy of Sciences in Dushanbe and were not accessible even to the excavators during the civil war in Tajikistan, which lasted from the break-up of the Soviet Union until 1997. When the Museum of National Antiquities opened in 2001, many finds were finally brought out of the store-rooms and displayed there in the main hall. But one particular artefact remained unaccounted for at first.

EARLY Hellenistic Art
It was part of a scabbard made of ivory with a carved relief showing a fierce battle. In the course of a research project by the Eurasia Department of the German Archaeological Institute, all the old finds from the Oxus Temple were catalogued so that votive practice at various Bactrian temple complexes could be compared. The object, long believed lost, finally resurfaced during systematic inspection of the Academy of Sciences’ depots in 2007. Since then the ornamental scabbard cover has been on show in its own display case at the museum.

It is clear from the shape of the once over 20 cm long cover that it was made from an elephant tusk. The pictorial panel at the tip of the scabbard is decorated with filigree tendrils. The panel next to it carries a battle scene involving infantrymen and soldiers on horseback. The detail is best preserved at the right end of the panel: a rider on a powerful charger is bearing down on a foot soldier who bravely makes a stand against his assailant. With his shield he tries to deflect the thrust of the lance that is to be reconstructed in the horseman’s right hand, and simultaneously he raises his sword to strike a counterblow. The way the battle is depicted corresponds to a common schema in early Hellenistic art, known for example from the reliefs of the Alexander Sarcophagus from Sidon (Lebanon) and from tomb paintings in Macedonia. The scabbard was therefore either imported from the west or – as is more likely – created in Bactria by a master craftsman familiar with Greek models. Whether it was a Greek migrant or a Bactrian who dedicated it in the temple cannot be determined. At all events, its discovery so far east illustrates the very wide diffusion of Greek art traditions in the Hellenistic era.

Gunvor Lindström

FIERCE FIGHTING
A scabbard from the Oxus Temple in Bactria

Ivory scabbard with a carved relief of a battle scene.
(photograph: DAI Eurasia Department)
Dr. Gunvor Lindström from the Eurasia Department of the DAI is a classical archaeologist who has specialized in the cultures of the Hellenistic East and has worked in Central Asia since 2003. After completing a German Research Foundation sponsored project on votive practice in Hellenistic and Kushan-period Bactria, she has directed, since 2013, the exploration of a recently discovered temple complex at Torbulok/Xušdilon in southwest Tajikistan.
NETWORKED WORLDS

Mobility, migration and trade in antiquity
The Pillars of Hercules mark the western frontier of the oikumene, the known world – so Herodotus, traveller, historian and ethnographer, told his contemporaries in the 5th century BC. He knew the Black Sea and the Caspian Sea in the east, “Libya” in the south, while the north was something of a mystery to him. A good 500 years later Ptolemy in his Geography stated that one person could never travel right round the “real earth, enormous in size”. He gives coordinates for 8,000 places gathered together from travel accounts, gazetteers, travelling merchants’ guides and ship captains’ periploi. Like Herodotus, Ptolemy is concerned with the mapping of spaces, connection between points, the description of routes and lands with their occasionally fantastical inhabitants, the linking up of cultures – transfer, transport, transformation. In a word: mobility. For both of them, the centre of the world was the Mediterranean.
Mobility and connectivity are defining elements of modern life. A steady flow of real money and virtual money, trading volumes of a magnitude impossible for the individual to conceive, networks and cultural exchange, price hikes and expansion strategies, protective tariffs and transport tolls at exorbitant rates, political disputes and conflict, undreamed-of opportunities and never-known degrees of freedom, competition and ever more competition – these are components and scenarios of a condition that one calls globalization, erroneously supposing it to be something modern. Yet mobility, trade and networks influenced life in antiquity to a far greater degree than we generally presume today, even though they differed in form and speed from what we experience in today’s world. Also different were the real and imagined territories and boundaries.

The dromedary, a resilient riding and pack animal that is well-adapted to the desert, was domesticated at the end of the 2nd millennium BC. This was a prerequisite for the thriving trade that grew up on the Arabian Peninsula. In the 10th century BC a trade route came into being that is still known today by one of the luxury commodities that passed along it – incense. The Incense Route linked together the Arabian Peninsula, the Levant, Egypt, the Mediterranean, East Africa and India. Along its course, powerful and very rich oasis cultures emerged, major urban centres that employed ingenious engineering to create large habitable natural environments. They were joined together in a dense network, relay stations for trade, cultural contact and communication.

The route ended at the Egyptian and Levantine Mediterranean coast, but the trade in precious resin did not end there. That was continued to the very limits of the world described by Herodotus in the 5th century BC, and one of the routes on which that took place cannot be found today in Google Maps. It leads right through the Mediterranean, connecting the Orient with the Occident.

A little less than 3,000 years ago the Phoenicians controlled trade the Mediterranean and beyond. When Herodotus fixed the limits of his world at the Pillars of Hercules, they had long before sailed out into the Atlantic. On their travels they landed on the southern and northern coasts as well as on some of the countless islands. They were as highly reputed as seafarers as they were as artisans and artists – with no competition in sight. They founded towns without occupying territory and resorted to fighting only if others laid claim to their domains.

From the 8th to the 6th century BC, a development occurred in the Mediterranean area that was later to be termed the Great Greek Colonization. Individual groups of mostly weapons-trained men struck out to make the sea their own, at

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1 Nicknamed the ship of the desert, the dromedary was the main means of transport on the Incense Route.

2 The resin from the tree *Boswellia sacra* was one of the most expensive luxury commodities of the ancient world.
The sanctuary at Delphi was a central information exchange during the Great Greek Colonization.

View of the western mole of Pergamon’s sea port (photo: DAI Istanbul)

Not so much a map as a road plan of the Roman Empire: the Tabula Peutingeriana.

Roman road-building inscription in Albania.

The sanctuary at Delphi was a central information exchange during the Great Greek Colonization. Almost all of them went first to Delphi, to consult the oracle at the sanctuary of Apollo. The temple was accordingly more than just a sacred place; it also acted as an information exchange dispensing practical knowledge of a geographical, nautical and ethnological nature, much of which originated from the Phoenicians, who had set up trading posts here and there among the indigenous populations. Subsequently the Greeks began to colonize the coasts of the Mediterranean, founding cities like Nice and Marseille in the west and striving to compete with the Phoenicians. “Like frogs around the pond” they also settled around the Black Sea coast, penetrating as far as the foot of the Caucasus Mountains.

“Mare Nostrum”, finally, is the name of the Roman version of the Mediterranean. The parameters of the ancient world were transformed by the expansion of the Imperium Romanum. Like Alexander the Great before them, the Romans moved beyond the maritime network of the Mediterranean and acquired vast territories. Consequently they were not fixated upon the sea alone, as the Phoenicians or “Punics” and to some extent the Greeks had been. Their network was the road: 80,000 kilometres of paved viae criss-cross half of the then known world, in Asia Minor, Greece, Germany, Gaul, Britain. It was the age of a seemingly invincible empire with Augustus as its first emperor. Ultimately no other network strategy of antiquity was to leave behind a material legacy of such consequence as the Roman road network, its milestones, a mammoth defensive structure named the Limes – the original meaning of which is “path” and not “frontier” – as well as countless towns and settlements.

Studying ancient cultures and plausibly reconstructing them is a challenge that can only ever be accomplished in a multidisciplinary approach. The archaeological sciences and the allied disciplines of classical studies need to work together with the natural sciences in order to unravel the complex web of relationships between human society and the natural and material environment. Far more intricate are the numerous networks, overlaps, shifts and exchange processes that linked ancient societies culturally, politically, economically – whether in peaceful negotiation, military conflict or, as so often, a combination of them both. Complementing the interdisciplinary approach, a fundamental characteristic shared by German Archaeological Institute projects is therefore working in cooperation with researchers, scientists and institutions in the host countries, since only a view that combines different perspectives can hope to provide a tolerably coherent picture of the highly mutable and fluid ancient world.
The Incense Route is one of the oldest trade routes in the world.
Fragrance of the Orient, holy intermediary between worlds, and source of legendary wealth – one of the most coveted commodities in the ancient world was the aromatic resin of the tree *Boswellia sacra*. It was worth its weight in gold and traded over thousands of miles. It could heal the sick and secure the good will of higher beings in the temples of many regions and religions. It was procured by slashing the tree’s bark – and the procedure hasn’t changed to this day. When burnt the dried resin releases a fragrant odour whose beneficial effect has been known and prized since time immemorial: frankincense.

International trade in frankincense began around 3,000 years ago. The highly valued resin was harvested in Dhofar, in present-day Oman, and transported as far as the coast of the Mediterranean. For Herodotus the land from which frankincense came was a mythical land inhabited by legendary creatures and dragons. In actual fact the land was the starting point of one of the world’s oldest trade routes. The Incense Route led through Yemen over 3,000 kilometres across the Arabian Peninsula to Gaza and on to Damascus in the east. Key trading posts along the way or near it were Sana’a, Medina, Tayma and Petra.
The DAI branch in Sana’a, Yemen, is directed by Iris Gerlach. The archaeologist conducts research into the most important oasis culture at the eastern edge of the Yemeni highlands, a civilization that grew rich from the trade in aromatic resins, the heart and life-line of a caravan kingdom of the 1st millennium BC – the Kingdom of Saba. Originating in the 8th century BC and centred on the oasis of Marib, it developed into a significant state that according to ancient sources was soon famed for its legendary wealth. The remains of well appointed temples and other grand buildings can still be seen today.

It was possibly the lucrative trade in frankincense and myrrh that got the Sabaeans moving. Iris Gerlach is studying the significant correspondences between the Sabaeans in the southern part of the Arabian Peninsula and in northern Ethiopia as well as south-east Eritrea. The great temple of Yeha in Ethiopia displays distinct features of Sabaean architecture. “One reason for the start of the migration of Sabaeans into this area may have been to extend the frankincense trade across the Arabian Peninsula and into the African continent and to gain control of the growing areas of the frankincense tree there,” Gerlach explains. The trade and transportation centre Marib was integrated in trans-regional economic areas.

Also integrated in far-reaching mercantile networks where ancient trade routes intersected was another famous station on the Incense Route, the oasis of Tayma. Like Marib, Tayma was a major territorial power that had become rich through the trade in precious goods but also as an inevitable stopping place for caravans,
which often consisted of hundreds of pack animals that needed to be watered – and the next watering place was 150 kilometres away. Ricardo Eichmann and Arnulf Hausleiter from the Orient Department of the DAI were among the first foreign researchers allowed to work in Saudi Arabia. Since 2004 they have been exploring a site known from the Bible and also from cuneiform literature primarily as a trading centre. With the passage of time the simple oasis settlement developed into a thriving centre of power with public buildings and large residential areas and even with a big city wall erected in the 2nd millennium BC. At that time there were already contacts with Egypt and the Levant.

It was the need for frankincense in ritual practice in the Mediterranean region that made trade in aromatic resin so lucrative. The demand for so vital and urgent a commodity did not become “elastic”, in the economic sense, in spite of the astronomical prices. Oases, merchants and caravan drivers got rich, and at the end of the retail chain frankincense could fetch 300 times its original value. The market changed when the Ptolemaic rulers of Egypt opened up a maritime trade route along the Red Sea in the 2nd century BC. Finally, from the late 1st century BC the Romans controlled the frankincense trade on the sea route, thus avoiding the high duties and tolls that were levied on the land route – with repercussions for the kingdoms on the Arabian Peninsula.
According to ancient authors, camel caravans took 100 days to complete the 3,400 km trek between Dhofar and Gaza. Stars and landmarks were used for orientation; the caravan drivers knew “their” desert. The main food source was the date, nutritious and non-perishable, while the means of transport was the dromedary, the one-humped camel. These can carry loads of up to 250 kg, cover 40 km a day and can modify their body temperature to adapt to the heat. Within a few minutes a dromedary can drink 60 to 120 litres of water and store it for a good two weeks in its stomach (not in the hump).
“Crossing Deserts and Seas: Culture and Commerce along the Arabian Incense Route” is the title of a forthcoming exhibition jointly planned by the German Archaeological Institute and the Qatar Museums Authority (QMA) for the Qatari-German Year of Culture in 2017 in Doha. The exhibition will examine long-distance trade on the Arabian Peninsula in pre-Islamic times and show unique finds from various Arab countries in an exploration of both mercantile and cultural contacts among Arabian cultures and with the neighbouring regions (Mesopotamia, Mediterranean, India, etc.). The exhibition will present notable pre-Islamic societies with their history, material and intellectual culture and many-layered connections with each other. A major focal point will be the archaeological sites of Qatar which are being investigated by the DAI in cooperation with the QMA. Finds from Yemen, Saudi Arabia, Jordan, the United Arab Emirates, Oman and Ethiopia will also be on show at the exhibition.

* Boswellia sacra (photo: Young) 

The dried resin of *Boswellia sacra*: frankincense
MEDITERRANEAN CONNECTOR OF CONTINENTS
The international world of the Phoenicians
Phoenician settlements dot the south coast of Spain like glass beads on a string, to paraphrase French historian Fernand Braudel’s description of the settlement pattern of the Iberian Peninsula. Every 10 miles the sailors would go ashore, sometimes only to trade, occasionally founding settlements. In the 8th and 7th century BC, Phoenician settlements sprang up in the western Mediterranean region – 30 on the Iberian Peninsula alone. The sailors had come a long way on their voyage from the eastern rim of the Mediterranean to the western gateway to the Atlantic Ocean and beyond. They had first set out in the 9th century BC in well-built ships of cedar wood.
Dirce Marzoli is director of the Madrid Department of the German Archaeological Institute, where she is in charge of Phoenician research. From her base in Spain she looks east to the Levant, where the Phoenicians came from, and west towards the Atlantic and the west African coast. There too Phoenician glass beads are to be found. Early on, the seasoned mariners sailed beyond the “end of the world” into the Atlantic, leaving Gibraltar behind them; with this passage they swapped the land-fringed Mediterranean sea for a vast ocean. On their voyages they linked three continents together.

No route can be calculated between Beirut and Cádiz, Google Maps informs us if we search for the route across the Mediterranean once followed by the mariners. A frequent point of departure on their voyages was Tyros, a good 100 kilometres south of modern-day Beirut. It was a city on the water, almost an island, just like Cádiz, a later Phoenician settlement on the other side of the world.

The Mediterranean became a continent of water and land, unified in its eastern, western and African form, an area of culture and technology transfer as well as trade.

The Phoenicians did not call themselves by that name, and neither was there a land called Phoenicia. Rather they lived in autonomous cities – Tyros, Byblos, Sidon and others, that were held together by maritime trade and a common language. Sometimes they referred to themselves as Canaanites after the region they came from. It’s in Homer that the name phoínikes first occurs. Phoínix means purple; dying cloth with a substance obtained from murex snails was a Phoenician speciality.

“The confederation of Phoenician cities can be likened to the Hanseatic League,” says Dirce Marzoli, “even though the Hanseatic League, unlike the Phoenician, founded no settlements." In the 9th century BC – a time of prosperity but also of tribute demands by the Neo-Assyrian Kingdom – the great westward migration began. The archaeologist doubts what is today the most commonly cited reason for the seafarers’ departure: “It wasn’t an escape from the Assyrian rulers,” she says. “The migration was too systematic and too well structured for that. It was politically desired and legitimized by religion.” The ships were also too richly equipped and too abundantly laden for it to have been flight.

The Phoenician settlements on the north and south coasts of the Mediterranean and on its islands became vibrant hubs where different cultures and economic zones intersected. Generally speaking, they were planned towns, built from scratch. The mariners had got the idea of the “city” from the empires of the Near East. What we today call the West knew nothing as yet of this urban mode of living.

The Phoenicians brought not only urban organization and forms of habitation with them, but also their numeral system, their writing system, craft specializations (e.g. manufacturing fine ceramic wares), farming and mining technology, new methods of exploiting local resources, commercial acumen, and they used weights and measures. A powerful magnet for the Phoenician expansion westwards was the abundance of ore deposits on the Iberian Peninsula, a resource that their skilled metallurgists could transform into artistic and useful objects. Their glass industry was far ahead of its time; they were the first that could produce transparent glass, and the first that regularly used an alphabetic script.
1 Phoenician glassware reached a high point in artistry as early as the 7th century BC. Glass like this was still unknown in the west at this time. Vase from Aliseda. Museo Arqueológico Nacional, Madrid

2 The Phoenician script is the basis of our alphabet.

3 Phoenician gold jewellery was a prized trading article.

4 The Phoenicians brought their own style of housing. Houses in Cádiz, a Phoenician settlement founded in the 8th century BC. Reconstruction after J.A. Zamora

5 Fine pottery was made on the fast potter’s wheel

(photos: DAI Madrid)
Morro de Mezquitilla (l.) and Los Toscanos (r., top & bottom) have been reference sites in Phoenician research for half a century. (reconstruction: Arnold)

Through trade and travel they spread quickly round the Mediterranean seaboard and into the interior. Our modern alphabet is based on the Phoenician one.

“The archaeological finds show that where the Phoenicians encountered local communities there was prolific mutual trade,” Dirce Marzoli explains. “On top of that, Phoenician maritime trade always meant an immense boost for all inland trade.” That was the case in Italy, Sardinia and Sicily, on the north African coast and naturally the Iberian Peninsula. “In wine-growing areas, production was increased because more of it could now be sold,” says Marzoli. “And to transport it, packaging was needed, and so amphorae were soon being mass-produced – manufactured with a fast potter’s wheel, that is with Phoenician technology.” The Phoenicians caused existing production to be intensified and they expanded the trading network. The shoals of tuna that swam past Gibraltar twice a year were caught and processed and traded as far away as Greece. Again storage vessels were needed – so there had to be potter’s workshops in the vicinity as well as salterns.

What were they like, these people who were apparently welcome wherever they went? “The Phoenicians were flexible,” says Dirce Marzoli. “They adapted cultural elements of the regions in which they landed. They didn’t feel threatened by foreign religions and ideologies, and as a rule they didn’t cause problems for others, even though their reputation in antiquity was certainly ambivalent.” While they appear in the early layers of the Iliad as “skilled Sidonians” (after a city from which they originated), in the Odyssey Homer calls them “devious pirates, greedy for money”.

In Ayamonte (Huelva Province, Andalusia) archaeologists have found a necropolis with nine graves. The find has confirmed what the archaeologists long presumed: “We now know that whole families travelled together”.

1 Grave goods for a single man
2 Grave goods for a woman and her serving woman
PHOENICIAN RESEARCH

In 1964, the German Archaeological Institute and the Spanish cultural heritage agency entered into cooperation to explore the site of Los Toscanos near Málaga. The Greek settlement they were in search of turned out to be Phoenician. This was the start of systematic Phoenician research in Spain; and the Madrid Department of the DAI has remained dedicated to this field of study ever since and has gone on to acquire great expertise.

Together with Spanish colleagues the Madrid-based DAI archaeologists are investigating the oldest Phoenician settlements from the 8th century BC: Huelva, Málaga, Cádiz and Cartagena. “But it’s places like Morro de Mezquitilla and Los Toscanos that have been reference sites in Phoenician research for half a century now,” Dirce Marzoli says, describing the current state of research. Both mentioned sites are relatively small settlements and just a few kilometres apart. Their geographical location is typical for Phoenician settlements: on the shore of a bay into which a river flows, the river providing access to the hinterland. Ca. 700 BC both settlements experienced an economic boom. They grew larger, the population increased and so did the cemeteries. In an ongoing excavation in Ayamonte (Huelva Province, Andalusia) the archaeologists have found a necropolis with nine graves – in Marzoli’s words “an unusually rich and highly revealing site”. Among other things, the find has confirmed something the archaeologists long suspected: “We now know that whole families travelled together.”

Many of the Phoenician settlements were established by the most important Phoenician apoklia (daughter city) Carthage, which was founded c. 800 BC on what is today the Tunisian coast and in time came to dominate the western part of the Phoenicians’ sphere of influence. It developed into a wealthy city with an agrarian hinterland, bigger than the mother-city Tyros. Its influence extended over the Phoenician settlements of Sicily, Sardinia, Ibiza and the southern coastal strip of the Iberian Peninsula. In the Third Punic War Carthage was destroyed, but that’s another story.
An emblematic place to investigate the interaction between Phoenicians and local communities is Los Castillejos de Alcorrín in Andalusia. The site was discovered in 1988 and declared a historical monument in 2006. Since 2007 the Madrid Department of the DAI has been conducting research at the fortified settlement from the late Bronze Age on the threshold of the Iron Age, the time of the first contacts between indigenous populations and Phoenicians. (See “A Phoenician-Iberian Joint Venture”, p. 12)

**ATLANTIC VOYAGE**

In the 8th century BC the Phoenicians sailed through the Strait of Gibraltar, which given the strong eastward surface current in conjunction with often prevailing westerlies was an enterprise both difficult and daring. They founded the settlements at Cádiz, Huelva and Ayamonte and got as far as a promontory on the Atlantic coast of modern-day Morocco – 800 kilometres south of the “Pillars of Hercules”. The promontory is today an island and bears the name Mogador; it is 500 metres long, 400 metres wide, up to 23 metres high, and today there is nothing on it save an abandoned mosque and the walls of a former prison. If it weren’t for evidence of ancient human activity, the little island would probably attract no one’s attention. That evidence is Phoenician and it left the archaeologists puzzled why anyone should want to establish a trading post at Mogador of all places.

The Phoenician settlement on the Moroccan island is being investigated by the Madrid Department with the Natural Science Section of the DAI, the DAI’s Commission for Archaeology of Non-European Cultures in Bonn and the Institut National des Sciences de l’Archéologie et du Patrimoine in Rabat. It is an interdisciplinary project: working alongside archaeologists are land surveyors, geographers, geophysicists, palaeobotanists, archaeozoologists and archaeometallurgists.
Evidence of the Phoenician occupation of the island includes a stone pillar known as a *baitylos* and Phoenician graffiti on pottery. This proves that the new arrivals were the first to erect a temple here. Thousands of Phoenician potsherds lay around the temple – not only were the same gods worshipped as at home, but also the same dishes and vessels were used. (photos: DAI Madrid)

Archaeologists have found elephant bones on Mogador and the jaw of a young lion that was apparently kept in captivity. (photos: DAI Madrid)

The Phoenicians practised a specialized form of fishing in the waters of the Atlantic.
INTERNATIONAL COOPERATION

“The best place for a conference on Phoenician research would be a ship on the Mediterranean,” Dirce Marzoli proposes. The wide geographical scope of the Phoenicians’ world is reflected in the international character of research into their civilization. Their area of expansion encompassed Syria, Lebanon, Israel, Greece, Egypt, Cyprus, Malta, Italy, Algeria, Tunisia, Morocco, Spain and Portugal. “Without this international cooperation the Phoenicians’ legacy can’t be investigated with the maximum possible success,” the archaeologist explains. “It’s important to increase cooperation with the African countries,” says Marzoli. That’s because it’s looking ever more possible that the Phoenicians may have circumnavigated the African continent, a feat ascribed to Hanno the Navigator in an ancient account. “The Phoenicians not only possessed the knowledge to undertake a voyage into an unknown world,” says Marzoli. “They also had the courage to overcome geographic and mental boundaries.” The archaeological work is still hard-going in the absence of written evidence. But Dirce Marzoli is confident: “It’s only a matter of time till we find the archives.”

INTERNATIONAL TRADING CENTRE

For the Phoenician seafarers and merchants, Mogador was a top address. At this seemingly far-flung spot a brisk trade was done in exceptionally rare goods in antiquity. Here the provisional end of the west Phoenician maritime trade route met an African caravan road. There was sale and barter, the latest news was exchanged and tales were told from all corners of the world. The hotly traded goods were fish in great quantities, ivory, metals, exotic animals, the amber-like resin of Thuja berberisca/citrus, and precious spices. Essaouira, the town on the mainland across from Mogador, was known as the “harbour of Timbuktu” until the sixties. Caravans continued to arrive from the African hinterland and all European trading nations maintained consulates in the little town on Morocco’s Atlantic coast.

COOPERATION PARTNERS

Centro de Estudios Fenicios y Púnicos – Madrid; Institut National des Sciences de l’Archéologie et du Patrimoine, Rabat; Junta de Andalucía; Museum Málaga, University de Málaga, University of Granada; Centro Superior de Investigaciones Científicas, Madrid; Deutsches Bergbaumuseum Bochum; Frankfurt University; Freie Universität Berlin / TOPOI. Within the DAI: Commission for Archaeology of Non-European Cultures; Rome Department; Natural Science Section

SUPPORT

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The harbour of Essaouira. (photo: DAI Madrid)
HARBOURS ON THE IBERIAN PENINSULA

International trade needs the seas as a medium of transport, and mariners need harbours. As simple as that may sound, so complicated can it be to find evidence of this for the ancient past. Maritime archaeology – in Germany a comparatively rare branch of study focusing on ancient nautics, shipbuilding and limnic archaeology – is one of the disciplines of the Madrid Department of the German Archaeological Institute. Marcus Hermanns explores ancient harbours on the Iberian Peninsula and how they evolved throughout many centuries, and he does it in depth – quite literally. Hermanns is not just an archaeologist, but also a trained diver – a lengthy course of training that must be completed by anyone wanting to work under water. The Phoenicians were the first to need landing sites for fair-sized ships on the Iberian Peninsula, but given the difficulty of identifying archaeological features on the shores and in the absence of documentary sources, what remains of their ships provides precious testimony to their culture. The Phoenicians carried on a thriving trade; their ships could carry great amounts of merchandise over long distances. So where did they unload their cargo? “Possibly just on the beach,” says Hermanns. After all, the archaeologists have not found any Phoenician harbour facilities yet. That may only be a matter of time, however, since we now know from geophysical prospecting and from large-scale aerial and marine coastal research that the south coast of Spain has changed greatly over the millennia. There has been erosion caused by sea-level fluctuations and the silting up of entire fjords by river sediments. Many possible landing places of Phoenician ships today lie buried under silt deposits. The likeliest locations of such landing places are the river estuaries, as rivers were the routes to the hinterland where the Phoenicians could trade with the local population.

“The Romans were the first to build extensive harbour facilities,” Hermanns says. For them, too, the ore-rich Iberian Peninsula was evidently an attractive region, worth bringing into their own sphere of influence. Hermanns wants to investigate what developments were spurred by the new masters and whether there was, in typically Roman fashion, a centrally controlled infrastructure programme for the creation of maritime logistics – as there hadn’t been under the Phoenicians.
WESTWARD BOUND, EASTWARD BOUND
The Great Greek Colonization
The sanctuary of Apollo at Delphi functioned additionally as an information exchange, coordination centre and advice dispenser. People would often consult the oracle before setting off on a journey. Many cities of the Greek world preserved a memory of this down the centuries. The Great Greek Colonization, as it is termed, properly began in the 8th century BC after minor expeditions in earlier times. It was only in part a centrally planned venture: mainly it was a case of individual initiative with groups of weapons-trained men putting to sea in pursuit of commercial interests and possibly also to escape population pressure or scarcity of land. The Greeks had gained a great deal of their nautical know-how and information about suitable settlement sites through contact with the Phoenicians, who possessed detailed geographical knowledge and were familiar with the coasts of the Mediterranean.

Ortwin Dally, new director of the Rome Department of the German Archaeological Institute, describes what determined the Greek seafarers’ course in the Mediterranean and the Black Sea. “What was important in the choice of location for the founding of colonies was most of all convenience in terms of transport routes. There was a preference for easily defended promontories, good harbours, access to the hinterland via rivers, and fertile land in the surrounding area.” Once the colonists had secured their position, they could expand their area of control here and there deeper into the hinterland.
A “mother city” of the Great Greek Colonization was Chalcis on the island of Euboea, originally settled by Phoenician purple-dye fishermen. It was from Euboea that Pithekoussai (Ischia) was founded in the first half of the 8th century BC – the starting signal for a series of foundations in Lower Italy and Sicily which ultimately would fringe the coastline as far as northwest Sicily. Many Greek colonial cities were planned and built from scratch, unlike the mother cities. One of the most remarkable “drawing-board cities” is Metapontum, whose innovative city planning has been the object of long-term study by the Rome Department of the DAI in close cooperation with the regional heritage office.

Travel promotes not only the exchange of goods but also the dissemination of knowledge about technologies, innovations and scientific methods. At the dawn of the Hellenistic age, advances were made in geography and cartography; the oikumene rapidly expanded and with it the cultural and scientific horizon of the Greeks. It was the Great Colonization that had paved the way for this development. “Colonization, intensified trade and contact with diverse indigenous populations collectively brought about a gradually increasing awareness of the fellowship of all Hellenes,” Dally says about the complex political processes of the period. The Greeks pushed as far as Corsica and the south coast of France, where Massilia – Marseille – became a hub of their mercantile network. From Massilia they sailed to Spain, where they eventually founded Empúrias. But they weren’t able to contest Phoenician dominance in maritime trade in the western Mediterranean. Greek expansion was not only directed westwards, however.
Euboea was an important departure point for Greek colonization.
Taganrog lies approx. 60 kilometres west of Rostov-on-Don and about 10 kilometres west of the estuary where the Don today flows into the Sea of Asov. The trading post at the foot of the Caucasus was the easternmost of all those inhabited by Greeks. But why were the Greeks so far east in the first place, at the northern extremity of the Black Sea region? The location is not the only puzzle confronting archaeologists. “Unlike all other instances of Greek settlement, Taganrog never developed into a city with an orthogonal street system,” says Ortwin Dally. This cannot have been due to supply problems: “The Don delta was always an attractive settlement area, rich in fish and conveniently situated in transport terms.”

Were there political reasons for this exception? Were the nomadic and semi-sedentary peoples that had settled the territory in the late Bronze Age the reason for the unusual development? Or was it Crimean or Taman Greeks who had reached the region in the first half of the 6th century BC and didn’t want to see any competition emerge there? It is possible that they transformed the island-dotted straits between Crimea and what is today the Taman Peninsula – a precondition for trade and communication – into a barrier, as happened countless times later in history.

What is certain is that trade in Taganrog was exceptionally brisk and turnover was high. People even shared resources. “We’ve found ceramics from 40 different production centres all over Greece, as well as indigenous wares,” the archaeologist explains. Chemical analysis has revealed the remarkable fact that the Greek pottery and the indigenous pottery partly originated from the same clay deposits. “Obviously, new and old inhabitants lived together peacefully,” Ortwin Dally says. They lived together in Taganrog, a trading post which did not become a city but all the same played an important connectivity role in facilitating trade and cultural exchange.
A large-scale investigation carried out by Dally and his colleagues has yielded some more precise data about the early phase of Greek colonization of the Black Sea region, the origin of the settlers, and in particular the contacts between Greeks and the indigenous population in the Don delta between the mid 7th and the 6th century BC. They now want to combine their findings with recent research into the early phase of the Great Greek Colonization in lower Italy and Sicily. “We want to look at the Mediterranean and the Black Sea region not as a crisis zone, as it’s often presented at the moment, but rather as an area of communication that significantly favoured the emergence of networks between its settlements and cities.”

**COOPERATION PARTNERS**

- Don Archaeological Society, Rostov-on-Don (V. Zibrij, V. Zibrij, A. Isakov, P. A. Larenok)
- Institute of Archaeology, Russian Academy of Sciences, Moscow (V. Kuznetsov)
- DFG Excellence Cluster TOPOI, Research Area A 1
- Institute of Geosciences (IFG) of Kiel University, Geophysics Dept. (W. Rabbel; H. Stumpel; Ch. Müller)
- Institute of Communications Engineering (NTIE), hydroacoustic research group, Rostock University (G. Wendt)
- Institute of Geographical Sciences (physical geography), FU Berlin (B. Schütz, M. Schlofife)
- Institute of Prehistoric Archaeology, FU Berlin (H. Parzinger, L. van Hoof)
- Helmholtz Institute of Radiation and Nuclear Physics, University of Bonn (H. Mommsen)
Elaia, Pergamon’s harbour

Whatever may change in the course of the millennia – languages, cultures, religious systems, state borders – there are some things that essentially remain what they always have been, in spite of all political transformations and upheavals. Where today the seventh biggest container harbour in the world is taking shape on Turkey’s Mediterranean coast, some 2,000 years ago a small harbour town became a strategic satellite of the mighty kingdom of the Attalid dynasty that controlled large areas of Asia Minor. Its capital was Pergamon.

“That Pergamon as an importer of building materials but also an exporter was dependent on a functioning harbour, actually needs no further explanation,” says Felix Pirson, director of the Istanbul Department of the DAI and head of the Pergamon Excavations, who is investigating the links between the harbour city Elaia and the Attalid capital in an interdisciplinary collaborative project. Pergamon’s rise as a territorial power meant that most other cities in the region declined. But Elaia, which has both Anatolian and Greek roots, prospered under Attalid rule. Probably shortly after the middle of the 3rd century BC, the city was integrated into the Pergamene kingdom, and was radically remodelled and heavily developed. Henceforth it not only functioned as a commercial harbour but also possessed military significance. Numerous archaeological finds and features – ceramic vessels, traces of buildings, and the typically Hellenistic street grid – are evidence of
the link between Elaia and Pergamon. “We’ve also been able to establish that the reduction in the tree population – an important indicator of anthropogenic influence – increased with the expansion of the city and reached its high point around the beginning of the Common Era,” says Pirson. The transformation of Elaia had effects that could be felt in rural areas and changed the natural environment surrounding the city.

“The presence of units permanently stationed in Elaia, of merchants and international travellers fundamentally changed the character of the city,” says Pirson. “Though Elaia continued under Attalid rule to be governed by its citizens, the city, like Pergamon itself, was representative of a number of Hellenistic poleis that were essential to the operation and security of the new territorial states and that could be reorganized at will by the rulers. Elaia is an example of a polis which specific functions of the territorial state were transferred to,” explains Pirson. “A very similar case is presented, for example, by Seleucia Pieria, the harbour city of Antioch on the Orontes.”

Strategically situated on the coast of the Aegean Sea, the city played a central role in many wars. But once Rome had established definitive control over Asia Minor, references to Elaia in written sources decrease and the harbour city lost its strategic significance, becoming merely one of many seaports on the Romans’ mare nostrum. From the archaeological viewpoint, the city is important for the testimony it provides about the history of Pergamon and for the new information it contributes to our still very patchy understanding of maritime trade and the navy in the Hellenistic era.
EMPIRE ON LAND AND WATER

The Romans transform the ancient world
Neither the Greeks at the time of the Great Colonization nor the far-travelled Phoenicians would ever have coined the term “Mare Nostrum” or thought that way at all. The Romans did. They applied their territorial concept to an expanse of water after they had taken control of the shores of the Mediterranean in all four cardinal directions. These shores and the land masses behind them were the Romans’ element, much more than a body of water conceived of as a territory. Taking over the Mediterranean networks of the Greeks, Phoenicians and the civilizations of the Ancient Near East while adopting their know-how and some of their technology, the Romans forged completely new links between Rome and lands that were now its terrestrial colonies. These ancient communication routes, still extant today, criss-cross Europe, Asia Minor and the Middle East and have a total length of 80,000 kilometres. In central Europe, solidly constructed roads in the Roman style – paved with stone – were an absolute novelty, and they connected formerly remote regions in an unprecedented way. Journey times were cut; news travelled faster; civilians and military personnel could get from one point to another with greater speed and ease. The roads were passable regardless of ground conditions and weather conditions. They even crossed mountains virtually in a straight line and without conspicuous inclines thanks to supporting walls and bridges. Under Emperor Augustus road construction was accelerated as the empire expanded, and its new subjects were everywhere reminded who their new masters were. The characteristic milestones in the Roman road system did not only serve orientational purposes. They also declared in durable form and in no uncertain terms: Rome rules here.

The Tabula Peutingeriana is a Roman map of the entire known world, from Iberia in the west to India in the east. It is 7 m long and 37 cm high. Drastically compressed and distorted, it reproduces the network of roads in the schematic style of a metro map and also gives information about distances. The map is based on an original that dates from the 3rd century BC.
The road building inscription of M. Valerius Lollianus from Byllis in modern-day Albania shows that the new masters were emphatically here to stay. It was a region where different cultures met, becoming a cultural transition zone particularly during the Roman imperial era. The region was “shared” between three Roman provinces: Dalmatia, Macedonia and Epirus. The first of these was part of the Latin-speaking west of the Empire, the other two belonged to the Greek-speaking east.

The inscription was found in the 19th century at a spot that was originally hard to pass but highly frequented. It is the largest Latin inscription in Albania, declamatory in its size and its typography. The text is chiselled into the rock face, mostly in letters 6 cm tall, but with three lines that are specially emphasized and blazoned in letters 13.5 cm high.

The Commission for Ancient History and Epigraphy of the DAI subjected the inscription to renewed scrutiny in 2009 in order to come up with a new reading. This is because one question still remained unanswered: was the road to which the inscription related a *via publica*, that is publicly financed, or was it co-financed by private benefactors? In research this was long unresolved. What would today be called a public-private partnership is in fact very probable here. In the time of Julius Caesar and Emperor Augustus many colonies of Roman citizens were founded, and hence Latin-speakers settled, in a place where the locals either spoke Greek or communicated in one of the languages of the native populations. The Empire had an interest in securing the central West–East axis through the Balkans – not least by means of settling colonists there.

**M. Valerius Lollianus**, son of Marcus, from (the tribus) Quirina, (former) praefectus of cohors I Apamenerorum sagittariorum equitata, (former) tribunus militum of legio VII gemina felix, (former) praefectus equitum of ala Flavia Agrippiana, (former) commander in Mesopotamia of detachments of selected horsemen of the alae: praetoria, Augusta, Syriaca, Agrippiana, Herculiana, singularium, and of the cohorts: I Lucensium, II Ulpia equitata civium Romanorum, I Flavia civium Romanorum, I<-> Thracum, III Ulpia Paflagonum, II equitum, I Ascalonianitarum, I Flavia Chalcidenorum, V Petreorum, IIII Lucensium, I Ulpia Petreorum, II Ulpia Paflagonum, I Ulpia sagittariorum, IIII Dacorum, I Syngambrum, at his own expense paved the public road leading from the colonia Byllidenium through the area known as Astaciae, which was narrow, bumpy and dangerous, so that it can (now) be used by wagons, and erected bridges over the river Argyas as well as streams, and documented (this) by inscription; by resolution of the decurion council.
WALDGIRMES, A COLONIAL OUTPOST

It was the first archaeological proof that the Romans intended to establish a permanent civil administration in Germanic territories east of the Rhine. Waldgirmes was not a military base but a civil settlement that covered an area of about eight hectares and existed for 20 years, from 4 BC to c. AD 16. This is the time of the attempted conquest of German lands east of the Rhine under Augustus, and foundation of the settlement marked the beginning of the installation of civil structures and the transition from conquest to permanent rule. The site was discovered by chance in the late 1980s.

Waldgirmes lies in the federal state of Hesse between the towns of Wetzlar and Gießen, about 100 kilometres east of the Rhein and about 25 kilometres north of the later Limes. The town was laid out around a central forum covering 2,200 square metres. So that there could be no doubt as to who controlled the area, a life-sized gilded bronze statue of Emperor Augustus stood in pride of place in the forum.

Gabriele Rasbach of the Roman-Germanic Commission of the DAI has been conducting explorations at Roman Waldgirmes since 1993. Statues of stone or bronze were part of the standard furnishings of newly founded, long-term Roman settlements, especially from the Augustan period onwards. The other statues, for which socles have been found at Waldgirmes, probably also followed a prescribed

THE HORSE’S HEAD

The life-sized bronze horse’s head was recovered in 2009 from an eleven metre deep well whose timbering has been dendrochronologically dated to 4 BC. The head is 55 cm long, the natural size of a horse’s head, and exhibits exceptionally fine workmanship. The bridle is richly embellished with discs containing figural high-reliefs attached where the longitudinal strips on the horse’s nose and cheeks are crossed by the transverse straps above the eyes and nostrils. Originally the whole object was gilded. Tomography carried out by the Federal Institute for Materials Research and Testing in Berlin showed that the whole head including ornamental discs was cast in one piece. The position of the side discs and the horse’s gaping mouth indicate that the rider is pulling the horse’s head back towards himself. The head was held more or less vertically vis-à-vis the viewer, like the position of the horse’s heads in the early Augustan equestrian statues of the Nonii from Pompeii or in a marble statue from Sentinum.
The town at Waldgirmes was fortified with an earth-and-wood rampart in front of which was a double ditch; originally it was entered through at least three gates. House plans feature an entrance passageway between two rectangular rooms of equal size that led into a large, approximately square central area with narrower rooms on either side and a series of rooms at the far end of the building.

Along with streets and statues the Romans brought a new type of architecture to the region. The forum at Waldgirmes was built on mortared stone foundations. It represents the first archaeological evidence of stone foundations – to say nothing of a forum – east of the Rhine in the Augustan era. The town was founded as the first step in a projected urbanization process and was presumably not completed when building activity at the site ceased and the statues were destroyed.

The Battle of Teutoburg Forest in AD 9 is cited as one of the causes for the end of Roman colonization attempts east of the Rhine; another is the mutiny by legionaries and veterans on the Rhine in AD 14 upon the accession of Tiberius – with far-reaching consequences for both the Roman and the indigenous population. At Waldgirmes, however, occupancy continued and building work also took place on a small scale; the defeat in AD 9 did not lead to the settlement’s demise. “Evidently the peaceful cooperation between the local population and the Romans who had moved to the Lahn valley continued,” says Rasbach. “The proportion of indigenous find material remains equal in the destruction layer.”

But the plan to establish provincial structures in the newly conquered areas and to cultivate a new political elite that could support rule Roman and disseminate Roman culture in the region had failed by 17 AD when Emperor Tiberius withdrew the troops from Germania and abandoned the project of creating a province that would reach to the river Elbe.

WALDGIRMES

The town at Waldgirmes was fortified with an earth-and-wood rampart in front of which was a double ditch; originally it was entered through at least three gates. House plans feature an entrance passageway between two rectangular rooms of equal size that led into a large, approximately square central area with narrower rooms on either side and a series of rooms at the far end of the building.

(reconstructions: Förderverein Römisches Forum Waldgirmes e. V., Lahnau)

COOPERATION

Heritage Office of the Federal State of Hesse, hessenARCHÄOLOGIE, Wiesbaden
Federal Institute for Materials Research and Testing, Berlin
Goethe University, Frankfurt am Main, Institute of Archaeology
Lower Saxony Institute of Historical Coastal Research, Wilhelmshaven.

SUPPORT

German Research Foundation (DFG)
1999-2013.
A unique artefact among the find material is a mosaic glass bead, 1.5 cm across, for which no directly comparable objects are known. Inlaid in the light blue, opaque matrix of the glass bead are three pictures of the Egyptian bull deity Apis; they are separated by three monochrome, light green, opaque glass platelets. The black and white bull stands in a yellow frame against a light blue background – a manner of depiction that suggests a shrine. Apis carries the sun-disc between his horns. In front of him stands a tiny incense burner or altar on which a sacrifice is being burnt.
Connective medium or barrier

The growing importance of Mediterranean studies

The DFG has launched a priority programme focusing on harbours that has more than 30 participants, among them the DAI; the European Research Council is approving large-scale projects investigating Roman harbours; the DAI jointly with the Ruhr-University Bochum is to propose a session at the annual meeting of the European Association of Archaeologists in Istanbul in 2014 on the subject of Mediterranean studies – a big part of the academic world seems to be gathering on the shores of the Mediterranean. Why is that?

This field of study is not entirely new, of course, but since the end of the Cold War it has gathered momentum and become increasingly topical. One of the new points of debate is an imagined boundary between the “Orient” and the “Occident” that runs straight through the Mediterranean. It’s interesting to note here that the modern view of the region differs radically from the view prevailing in antiquity. At that time, the Mediterranean Sea wasn’t perceived as a barrier or a frontier that has got to be protected, as it evidently is today. Neither the Phoenicians nor the Greeks or Romans projected a border onto the Mediterranean. Also later in the Ottoman Empire the sea was seen more as a connecting element than a dividing one.

The Mediterranean is traditionally a major area of archaeological research. What place in this larger context do Mediterranean studies have at the DAI?

The DAI has conducted research into the cities of antiquity for a long time and in a large number of projects, and it continues to do so. The study of ancient urban culture is after all one of the core areas of archaeological research. But at the same time we have to bear in mind that many of the important centres of antiquity were harbour cities, like Carthage, Miletus, Smyrna, Ephesus, Byzantium and Alexandria. Surprisingly little account has been taken of this fact – since the pioneering dissertation by Karl Lehmann-Hartleben in 1923 and his expulsion in 1933, this field of study has not been pursued in any consistent way. Lehmann-Hartleben examined ancient harbour facilities as an integral part of an urban whole. What he conducted therefore was harbour research with an urbanistic focus that took account of the interlinking of harbour facilities and city.

And in a very similar way we want to look at questions like these at the DAI in a...
research group in the new research cluster “Connecting Cultures”. How do coastal cities define their relationship with the hinterland? To what extent do they look outward to the sea? Do they automatically develop a maritime identity or are there alternatives to that?

Individual research projects of the DAI are spread all over the Mediterranean area and will now work together in a new perspective.

As you say, Mediterranean studies are not totally new. The French historian Fernand Braudel was a great driving force in this field of research. How has it developed since then?

Mediterranean studies is first of all a term that involves the historical, archaeological and cultural sciences, and combines various subjects and methods under a geographical matrix. Braudel was very strongly focused on geography in his argumentation, even though one should be careful not to impute any sort of environmental determinism to him. More recent authors like Peregrine Horden and Nicholas Purcell go in a different direction and in so doing broaden the perspective. They don’t just focus on the cities, but also consider the hinterland, which is part of a common and interrelated event-space of history. They are working on the thesis that you have to study the “microecologies” of the Mediterranean and how they are interconnected if you are to understand the larger historical and cultural developments of the region.

The Mediterranean often takes centre stage in international politics today with the result that the picture of a friendly holiday destination offering edifying cultural experiences gets overshadowed by reports of human suffering, with people fleeing or being driven out. Can the archaeological sciences, through studying the past, provide any clues about how to deal with this particular aspect of the present?

When you look at the development of the Mediterranean region and consider that decisive impulses for human history came from there, as a product of the interplay of different cultures, you really do have to ask yourself whether the specific geographic and cultural constellation of the Mediterranean still has the same potential today. So what we need to examine are continuities and above all discontinuities. And a crucial role is played here by the phenomenon of transit space and – connected with that – political space. It’s interesting particularly at the present time to find out when and why the Mediterranean was perceived mainly as a connective medium and thoroughfare or mainly as an obstacle. In other words, we want to find out how the exchange of resources and ideas and the movement of people actually functioned in antiquity, and what impact this had on the identity of the inhabitants of the Mediterranean region. On this basis it would be possible to assess the situation today in a more distanced way and not to regard it as inevitable, but rather as one option among many. It’s here that the importance of the historical sciences lies. They should view current developments in the Mediterranean as nothing less than a challenge.
“Modern archaeologists are in themselves an interdisciplinary species,” says Eszter Bánffy. When their task is the complex one of reconstructing ancient societies, hence palaeo-sociology in the broadest sense, then they definitely need a wide-ranging background in the humanities and social sciences. And that is still not enough. The task is so immense it can only be mastered in collaboration with other people, Bánffy says with conviction. “Without the natural sciences it’s not possible.”

Eszter Bánffy was appointed the new director of the Roman-Germanic Commission (RGK) of the German Archaeological Institute (DAI) in Frankfurt am Main on 1 September 2013. She studied English philology, prehistoric and medieval archaeology, as well as Indology and comparative Indo-European linguistics at Eötvös Loránd University in Budapest. In 1986 she became an assistant contributor at the Archaeological Institute of the Hungarian Academy of Sciences and was appointed its deputy director in 2008. Three years before that she had been made doctor of the Hungarian Academy of Sciences. In 2012 she completed a second doctoral dissertation in geo-archaeology.

Eszter Bánffy, humanities scholar and social scientist, knows how important it is to have a proper balance between different research cultures. When positivism, influenced by the hard sciences, was introduced in the social sciences in the mid 20th century and everything had to be measurable, all complexity was lost; just as in postmodern forms of archaeology where the pendulum swung right to the other extreme, when excavation was almost seen as harmful and one tended to live in a realm of constructs. “I think we are past those teething troubles now,” Bánffy says. “But they were important to strengthen the immune system.” Analogously, traditions that wouldn’t necessarily be carried on today can still contain certain aspects that are valuable, indeed indispensable in modern archaeology. The age of large-scale systematization in the 19th century resulted in the great collections. “It was the age of classifying
and clarifying,” the archaeologist explains. “The zeitgeist expressed itself in those forms, and it’s important to respect the valuable part of the Central European tradition and make it available for use in work today. But that doesn’t mean we can rest on the laurels of this tradition.”

The Central European perspective with a physical location in Frankfurt am Main is for the Hungarian born Eszter Bánffy the ideal basis for the creation of an intellectual centre with a cultural diplomacy focus and an orientation also towards eastern Europe and south-eastern Europe – regions that have rich cultural traditions but have, in her view, attracted too little attention to date. A horizon widened in this way moreover implies something that used to be a matter of course in the good parts of the scientific tradition: “We should do our best to ensure that access to languages other than one’s mother tongue or other than a single foreign language becomes more common and more self-evident again.”

This kind of intellectual exercise may also make it a somewhat easier task to focus on ancient cultures from our modern vantage point and, though proceeding from the self-evidences of the present time, nonetheless to understand what they might have been like. “We often have very little evidence and must of course be careful with our analyses,” Bánffy cautions. But still we can find ways of approaching the past – though not to leave it at that. “We want to understand the past in order to learn for the present and future,” the archaeologist explains. “It could well be that we are searching for solutions to problems without realizing that they already exist, and have done for a long time.”

Eszter Bánffy is the first woman and the first non-German to occupy the highly regarded post of director of the Roman-Germanic Commission of the DAI. Appointments of this sort are still very much the exception in the German academic establishment. So the DAI’s decision should be honoured all the more, the new director believes: “I have enormous respect for the almost spectacular decision to elect me head of this venerable institution.” It was a leap that cleared several steps at one go, evincing “a great dynamic”.

Not all that old and not really “venerable”, but certainly very famous and among the best of its kind – that’s how Eszter Bánffy would describe a second institution also committed in its way to interdisciplinary polyphony: the Budapest Festival Orchestra. Founded in 1983 by Iván Fischer (who is not only its music director but also chief conductor of the Konzerthausorchester Berlin), it is considered to be one of the ten leading orchestras of the world in spite of its comparative youth. The chair of the Budapest Festival Orchestra Association is Eszter Bánffy.
“The position of general secretary is always a position between politics and science,” says Philipp von Rummel. Research issues need to be further developed in a multidisciplinary, multi-departmental way and the institute needs to be well positioned among national and international scientific communities. On 1 March 2014 von Rummel succeeded Ortwin Dally – who has become the institute’s director in Rome – in the post of general secretary of the German Archaeological Institute, director of the scientific department of the Head Office, and deputy president.

The new general secretary comes to Berlin with a great deal of experience. Geopolitical developments in the past few years meant that von Rummel’s research projects in Tunisia got bound up in international politics. The “Arab Spring” led to the signing of the Transformation Partnership between the Federal Republic of Germany and the Tunisian Republic, which has meant that tactful mediation between all parties and their disparate interests on more than one level is required in the management of the institute’s various projects – excavation, museum creation or summer schools for Tunisian archaeologists and restorers.

Philipp von Rummel began his studies in 1995, reading prehistory and early history, classical archaeology and ancient history at the universities of Freiburg and Basel as well as at the Humboldt and the Freie Universität in Berlin. He earned his doctorate at the University of Freiburg in 2005 with a dissertation entitled “Habitus barbarus” on clothing and self-presentation among elites in the 4th and 5th century AD. The thesis won the Juliana Anicia Award (Ver ein Spätantike Archäologie und Byzantini nische Kunstgeschichte). In 2006 von Rum mel became a research associate at the Institute of Prehistory and Early History and Medieval Archaeology at the University of Freiburg, and in 2008 joined the Rome Department of the DAI, where he headed the editorial office and coordinated the department’s projects in north Africa.

But it all began much earlier. Cities at the Bottom of the Sea was his favourite reading in his early school years. “From that point on I wanted to be an archaeologist,” von Rummel recounts. Starting at the age of 15 he took part in excavations at an Alamannic hilltop site near Freiburg (Zähringer Burgberg). The romantic beginnings of the spirit of archaeological inquiry,
as significant as they may be for later career decisions, nonetheless have little to do with what archaeology can and should achieve today: “In most of the countries we work in, historical discourses and self-affirmation through one’s own history play an incomparably bigger role than they do with us,” von Rummel explains. “That’s all the more true in times of upheaval, when people search for stabilizing anchors.” In a situation like this, one of archaeology’s tasks can be to support consolidation processes. “We have to make all the expertise of the science available for this,” von Rummel explains. “That is not to disparage work in the individual disciplines.” For they form the basis of cooperation between different branches of study. “Very often it’s the researcher himself or herself who establishes the network in the first place and that network then develops into institutional and international cooperation.” Diversity in specialization and the resultant synergy effects that modern archaeology needs in order to answer ever more complicated research questions is one of the unique features of the German Archaeological Institute, a feature that in his view is still not appreciated widely enough.

Communication inwards is, it has to be said, no small challenge in an institute whose departments and research centres are scattered all over the world. But Philipp von Rummel is taking up the gauntlet. “What matters is a strong team.” A different type of challenge may lie in quitting the Eternal City on the Tiber for “Athens on the Spree” (as Berlin was nicknamed in bygone days), swapping the warmth of the south for a city known for biting north-east winds... But as with so many things in life and in archaeology, age plays a certain role. “Rome is a wonderful city,” Philipp von Rummel says. “But Berlin is multifaceted, lively and agile – and also a bit younger than Rome.”
The epigrapher’s gaze rests on a piece of paper about the size of an A3 sheet. To the layperson, it looks like a strip of ingrain wallpaper, but it could hold the answer to a long-unresolved riddle in archaeology.

Epigraphers, specialists in inscriptions, are scholars of writing with very unusual skills. They can distinguish and construe lettering on the rough surface of coarse-fibre paper. They have brought their reading matter mainly from Greece or Turkey, where they carried out the manual part of their profession, making relief impressions called squeeze copies, as many of their colleagues have done before them (see box).

Much written testimony from antiquity is lost for ever, eroded by wind and rain or destroyed by modern urban expansion. And so it may be that all that survives today of ancient inscriptions carved in stone are comparatively fragile artefacts of paper made in a period in which neither the technological means for preserving cultural heritage, nor the relevant awareness, was yet very developed.

**THE SQUEEZE COPY**

A robust method of decipherment and documentation

Myra – known today as Demre – is an ancient city in Lycia in the province of Antalya, Turkey.

DAI epigraphers have pasted paper on the stones – from which the inscriptions will be easier to read later.
STONE, PAPER AND BRUSH
Armed with paper and brush the epigraphers set off for stones and statue bases bearing inscriptions that need to be reread and then documented. The paper they use for this purpose is highly absorbent and tear-proof. First they dampen it with water and lay it upon the stone, pressing out any big air bubbles by hand. The epigraphers then take a special brush, a heavy horsehair brush with specially thick bristles, and use it to beat the supple paper with well judged force onto the surface of the stone until it clings to every contour. Once it has dried, the unexpectedly hard-wearing paper is peeled off, capturing a very accurate negative of the inscription – an invaluable aid in decipherment especially where texts are poorly preserved.

“It takes a while to learn how to decipher something on a squeeze copy,” says Christof Schuler, director of the Commission for Ancient History and Epigraphy of the German Archaeological Institute in Munich. The uninitiated may wonder that anything at all can be made out from the grainy texture of the paper, but that’s not the only problem: the more legible side, with embossed lettering, has to be read back to front. “You often spend hours at the desk with squeeze copy and lamp before hard-to-read texts can finally be deciphered and published,” the epigrapher says.

MODERN ALTERNATIVES
Digital photography as well as more sophisticated technology like laser scans have recently enlarged the possibilities of documenting and deciphering ancient inscriptions. “But the new methods can’t replace the paper squeeze as a central documentation instrument,” Schuler says. “At least not yet.”

Today, alternative materials like latex or silicone are occasionally used in the production of squeeze copies, but only marginally, since their advantages do not necessarily outweigh their disadvantages. Latex squeeze copies, for instance, are not capable of being stored so they are unsuitable as long-term documentation media. Silicone presents greater logistical difficulties when it comes to transporting the material, which is not always feasible in remote locations. The advantages of the synthetic products are that they allow an especially exact impression of the inscribed surface and can capture even the smallest details. Also, in cases where the inscribed stones have been subsequently reused for building and are in places that are hard to get to with paper and brush, the syn-
thetic materials are more convenient as they can be applied in cramped spaces and removed more easily when dry. Once the squeeze copies have been deciphered, the next stage of the work begins. The content of the inscriptions has to be interpreted and placed in the right epigraphic context. "In general it makes sense when taken together with the historical and archaeological record," says Schuler. "Without interdisciplinary collaboration it's not possible."
The site of Patara, a major harbour city in Lycia, where excavations have been in progress since 1988 under the aegis of Akdeniz University in Antalya. Over 500 Greek inscriptions, some also in Latin, have been found. These are being processed by the Commission for Ancient History and Epigraphy in cooperation with the Research Office on Asia Minor at the University of Münster.

... the rain now continued throughout the day

“(We climbed...) up the rugged, craggy mountain for two hours towards my destination Gjölbaschi, whose delightful landscape made us immediately forget how arduous the ascent had been. Here we found basic accommodation in the wooden shed surviving from the expedition, and once difficulties with the Turkish neighbour had been resolved by a zaptieh (policeman) summoned from Kash, Count Lanckoroński and Dr von Luschan left me on 3rd December. (...) Unfortunately the bad-weather season had arrived in full force, and the rain now continued throughout the day too, as soft, steady rain. (...) In unrelentingly adverse weather conditions, in which work was nevertheless only suspended during heavy storms and torrential rain, and then only briefly, 11 inscriptions, some of them fragmentary, were discovered by 18th December; these I kept, as long as it was possible to do so, in the only dry spot under my camp bed, which I protected by digging water trenches on all sides of the bed. At this point the lack of light made it difficult for me to copy out the less legible inscriptions in full; I therefore took to making as many squeeze copies as possible of all of them, keeping them in the same place. Only when I saw that not even my bed could keep the ground below from getting wet did I flee to the nearby dwelling of the originally so hostile Turk.”

Report by the young scholar from Graz Eduard Gollob about epigraphic fieldwork in the ancient city of Trysa (Gölbaşı) in south-western Turkey in December 1882. In: Archäologisch-epigraphische Mitteilungen aus Oesterreich 7, 1883, 140f.
Construction history
Division of Building Archaeology at the Head Office

The Berlin Architectural Academy, founded in 1799, had ancient architecture on the curriculum, and until the middle of the 19th century many architects were equally well versed in the history of architecture and in archaeology. Often it was scholars with a knowledge of the adjoining fields of architecture, art history and archaeology that provided valuable impulses in classical studies in the second half of the 19th century.

In 1973 the German Archaeological Institute (DAI) institutionalized this long tradition by founding the Architecture Section at the Berlin Head Office. Last year the DAI celebrated the section’s 40-year existence with an exhibition on ancient architecture that was held in the Berlin Urania in October and November 2013.

The Architecture Section is a base for architectural historians working at all the DAI offices as well as for other architects who are involved in DAI projects. It integrates architectural historical research with the study of classical antiquity in numerous research projects, which are often carried out in cooperation with domestic and international universities and research institutes. The study of archaeological architecture is a unique feature in classical studies at German universities and one that is playing an increasingly important role on the international level given the growing challenges of preserving cultural heritage.

At the famous German large-scale excavations, the “philologists” were always backed up by “practical people”. For example, the archaeologist Ernst Curtius took architect Friedrich Adler with him to Asia Minor in 1871; and when the Olympia project began in 1875 under Curtius’s direction, the same architect was actively involved in the spectacular excavations and in the publication of the finds.

Similarly architects, archaeologists and architectural historians work together in interdisciplinary fashion in the Architecture Section’s ongoing projects. These include the archaeological investigations of the imperial palaces on the Palatine Hill in Rome, the late Roman imperial palace of Felix Romuliana near Gamzigrad in eastern Serbia, the city walls of Pergamon, Şekerhane Köşkü, the presumed cenotaph of Emperor Trajan at Selinus in Turkey, Porta Nigra, the Roman city gate in Trier, the oasis of Tayma in Saudi Arabia, the undulating mud brick walls of Pharaonic Egypt, and a bazaar quarter in Erbil in northern Iraq.

The further development of survey and visualization techniques in archaeological architectural research is one of the tasks of the Architecture Section, as is photographic documentation and the running of the Head Office’s photographic archive. The interest in the planning and building of historical monuments and how they functioned in their social context remains undiminished. To this end the Architecture Section employs a wide spectrum of modern graphics and visualization tools. The Architecture Section hosts a series of colloquia on archaeological architectural research in Berlin, an important platform for the discussion of research results, which are published under the title Diskussionen zur Archäologischen Bauforschung.

In addition the Architecture Section organizes a number of other events, lectures and conferences.

The exhibition “antike Architektur im Blick” has transferred to the Wissenschaftszentrum Bonn, where it is to run from 3 June to 25 July 2014. Accompanying the exhibition is a richly illustrated brochure.
The German Archaeological Institute has offices at the following locations:

- Berlin
- Bonn
- Munich
- Frankfurt am Main
- Athens
- Istanbul
- Rome
- Lisbon
- Madrid
- Cairo
- Jerusalem
- Amman
- Sana’a
- Beijing
- Bagdad
- Damascus
- Ulaanbaatar
- Teheran
The journey rounded off a person’s studies – gave them the “finishing touch”. The destinations were great European art cities with historical monuments, primarily from antiquity. The scholars would travel through picturesque landscapes and get to know the culture and customs of foreign lands, gaining experience and making contacts that could be useful later in life. The Grand Tour of the English nobility had its origins in the late 17th century and became a sort of initiation rite for admittance to cultivated society. The young men whose horizons were to be broadened in this manner were generally between 17 and 21 years of age. They could consult accounts of journeys and travel guides that listed recommended routes, places of interest, local mores, the necessary clothing and medicines, and suggested reading; key vocabulary and phrases were also given.
Today, useful tips about itineraries, museum opening times, business hours and so forth are entered in a web-based gazetteer by scholars while they are still en route. They can also post their whereabouts and record their experiences in real-time mode on Facebook. These modern analogues of Grand Tour scholars, rounding off their education and widening their horizons, are part of a completely different tradition, however – they are the recipients of the German Archaeological Institute’s travel scholarship, which has been awarded since 1859. In that year Alexander Conze was the first travel scholarship holder (along with Adolf Michaelis). When he wrote home from his travels in Asia Minor to say that he had hired an armed servant, the letter took many weeks to arrive.
Melanie Jonasch, responsible for travel scholarships at the DAI, has on her desk a fat folder containing travel reports and useful tips, which are gradually being entered in a database providing they are still up to date. These days things change faster than they did in the past, especially in many of the countries archaeologists classically travel to. The Internet is everywhere, which means that most of the scholars’ travel information is sent by e-mail and doesn’t have to be scanned. This is convenient, just as money transactions have been made more convenient by credit cards that now work almost everywhere in the world, even in remote areas.

“In general the scholarship recipients stay for a fairly long period in the cultural area of classical antiquity, i.e. the Mediterranean region and the Ancient Near East,” the application documentation states; and the aim is for them to gain “an impression of the countries and the culture and above all the archaeological and historical sites and monuments”.

The DAI travel scholarship was established at a time when it was mainly ordinary citizens, and no longer just aristocrats, who were travelling to foreign parts, motivated by a desire for self-improvement. Karl Baedecker and Thomas Cook discovered a new market in the mid 19th century. In 1863, Carl Stangen in Breslau opened the first travel agency in Germany; it offered trips to Egypt from 1873 and arranged voyages round the world from 1878. Visiting ancient sites in Italy had been a tradition among artists and intellectuals since the late Middle Ages, while in antiquity the favoured tourist destinations are known to have been Greece, southern Italy with Sicily and the Gulf of Naples, Asia Minor with its islands, Egypt and also, after the end of the republic, the capital of the Roman Empire.

Wadi Rum
A flash flood could make this place impassable. The Wadi Rum is the biggest wadi in Jordan. A wadi is a dry river bed that channels water only after heavy rainfall. A protected area covering 74,000 hectares, Wadi Rum was added to the UNESCO World Heritage List in 2011. Since prehistoric times the region has been inhabited by many cultures that have left behind material traces.

(photo: Heike Lehmann, travel scholarship in 2005/06)
Samosata on the Euphrates
Transportation experts would call it mobility convergence: the car can’t get any further and has to hitch a ride on a boat. A VW Beetle crosses the Euphrates at Samosata (today in south-east Turkey) and is accompanied for some of the way. Once Samosata was a stopping point on the road from Damascus via Palmyra and Sura to Armenia and the Black Sea. It was originally founded by the Hittites as Kummuhu. It was named Samosata, c. 160 BC, after Sames II, ruler of the Hellenistic Kingdom of Commagene. It became Roman in 72 AD.

photos: Heilmeyer

Djebel Aruda in Syria
The Euphrates 40 years later, photographed by Jens Pflug, travel scholarship holder in 2007/2008. Today Pflug works in the Architecture Section of the DAI at the Berlin Head Office.

Not far from Leptis Magna in Libya – a full tank for seven dinars, equivalent to €3.75 (photo: Jens Pflug)
Roman-French-Greek-Celtic: Glanum in Provence is one of the most important Roman excavations in France. Here one travelled overland, via roads paved with stone. When Glanum became Roman in the 1st century BC, it was already an ‘old’ city.

In the early years of the DAI travel scholarship two grants were awarded, primarily to classical archaeologists. Following a change in the institute’s statutes in 1874, the number of scholarships was raised to five: four for classical archaeologists (in those days commonly philologists) and one for a Christian archaeologist. The first female scholarship holder was the theologian Carola Barth in 1908. The objections raised by the some members of the institute (“...in my view women are incompatible with the Institute’s tasks as formulated in § 1, just as the admission of women to the state doctorate is incompatible with the interests of the universities...”) were rejected by the first secretary, Wilhelm Dörpfeld, who referred to “successfully excavating (also in a directorial capacity) and publishing ladies from the English-speaking world”. Nonetheless, when the first travel scholarship for an architectural historian was established nearly 20 years later and the architecture departments at German technical colleges were advised of the fact, the general secretary’s letter made it clear that only “gentlemen” need apply.

Since 1927/28, prehistorians have benefited from a scholarship programme run by the Roman-Germanic Commission, and both the Commission for Ancient History and Epigraphy and the Commission for Archaeology of Non-European Cultures award independent scholarships. The number of scholarships awarded
depends on the funds available and the number and quality of the applicants.

The DAI travel scholarship rapidly became an exemplarily sustainable method of promoting scholarship among the younger generation. A large number of professors particularly in the field of classical archaeology are former holders of the DAI travel scholarship, one of the most highly regarded in German academic world, and the same is true of many of the heads of department, general secretaries, presidents and scientific personnel at the DAI. Wherever they are, scholarship recipients are required to attend research-related events organized by the foreign departments of the DAI. There they have a chance to compare notes with colleagues who can tell them what the country, the people and the travelling was like in their day.

Morocco’s best preserved Roman archaeological site was inscribed on the UNESCO World Heritage List in 1997. Volubilis was an important outpost on the western fringes of the empire and presumably founded on a former Punic settlement. The earliest evidence of human presence goes back to the Neolithic.

(photos: Melanie Heinle, travel scholarship in 2013/14)
PLACES OF WORSHIP, TRADING CENTRES, THINK TANKS, SPORT STADIUMS AND INFORMATION EXCHANGES

Roman sculpture on a monumental scale – restored as part of a project directed by the Istanbul Department of the DAI and supported by the Studiosus Foundation – was unveiled in Bergama, Turkey, in September 2013. Of course, it was not “just” a statue that was revealed, but also the multilayered meanings of a sanctuary: here a gigantic Roman temple to multiple gods in the formerly Greek city of Pergamon in Asia Minor. Sekhmet, unveiled here, is neither a Roman nor a Greek goddess, however. She comes from Egypt. Hadrian, Roman emperor and builder of the temple complex, liked the statues of deities he saw on his journey to the Nile and wanted to have them as monumental support figures for a temple roof – to create an awe-inspiring setting for deity worship and the imperial cult. More revelations in the next issue.
In the next issue of Archaeology Worldwide

SANCTUARIES
Time takes its toll on antiquities, and in many places our cultural heritage is under threat and needs to be restored.

Between 1400 and 1200 BC a strongly fortified, Mycenaean-style palace stood in the south of the Peloponnese – a kind of model citadel whose mighty walls remained visible for a long time to come: Tiryns. Vividly coloured frescoes of great beauty showed visitors what had brought them there: a procession to the sanctum in the heart of the palace.

Heinrich Schliemann launched the first series of excavations at Tiryns in 1876 – it lasted until 1920. The DAI resumed excavations in 1967. New standards in the investigation of the site were set by the large-scale excavation in the Lower Citadel directed by Klaus Kilian from 1976 to 1983, which clarified the use and conception of the architectural structures in this part of the settlement in Mycenaean period. Since 1994 the project has been directed by Joseph Maran of Heidelberg University on behalf of the DAI.

In 1999, newly discovered wall paintings revived interest in the frescoes that had been found in debris in 1910 – particularly since it was possible to associate them with the old finds that were known thanks to Gerhart Rodenwaldt’s publication.

Restoration work on the old finds was completed in 2009. Next on the agenda is the restoration of the new finds.