
CHARAX SPASINOU



Alexander's lost city in Iraq

Charax Spasinou

Supporters

Baron Lorne Thyssen-Bornemisza at The Augustus Foundation
British Institute for the Study of Iraq
British Embassy, Iraq
State Board for Antiquities & Heritage, Iraq
SKA International Group

With special thanks to:

Qais Hussain Rashid
Dr Haider Al-Mamori
Dr Ahmed Kamil
Qahtan Al Abeed
Dr Abdul Amir Hamdani
Dr Jan Walstra

Front cover: Geophysics plot of buildings at Charax Spasinou.
Portrait of Alexander the Great (digital image courtesy of the Getty's Open Content Program).
Silver tetradrachma of Hyspaosines, first ruler of Charax (Harvard Art Museums/Arthur M. Sackler Museum, Gift of James E. and Elizabeth J. Ferrell in honor of David Mitten; Image: Imaging Department © President and Fellows of Harvard College).

Introduction

Few names from the ancient world resonate quite so loudly today as that of Alexander the Great. So when Iraq's State Board for Antiquities and Heritage invited us to work at a city founded by Alexander, we could scarcely refuse. One year on, we have already completed a first season of survey at Alexandria-on-the-Tigris, known later as Charax Spasinou. That we were able to respond so swiftly is due to the generosity of our supporters, first and foremost Baron Lorne Thyssen-Bornemisza at the Augustus Foundation, also the British Embassy, Iraq, and the British Institute for the Study of Iraq.

In early March 2016, on conclusion of our annual excavations at the Babylonian settlement of Tell Khaiber, we moved with our equipment from Ur to Basra. Our core team from Tell Khaiber of Adrian Murphy, Mary Shepperson, and Fay Slater agreed to come to Charax without any respite. We were also very fortunate to have the services of Prof. Jörg Fassbinder and his geophysics

team from the University of Munich. Our thanks go to all of them, and to Qahtan Al-Abeed, Director of Basra Museums and the staff of the State Board for Antiquities and Heritage, Iraq.

For the next month we were based in four cabins placed on the roof of the Antiquities Police depot at Zubair, and drove every day, with our police escort, out to Charax Spasinou (modern Khayaber). Only the massive ramparts of Alexander's city are obvious today, enclosing an area of five square kilometres.

Such a large site poses particular problems. Mapping is the essential precursor to any archaeological excavation, but how do you map such a huge area? And where do you begin your investigations? Another issue was the uncertainty as to how much archaeology would actually be left at Charax, which had been built in an area prone throughout history to severe flooding. Also, the city is close to the Iranian border, still littered with debris

from the Iraq-Iran war, and in some areas disturbed by old military installations. Erosion, agricultural activity and looting continue to be threats as well.

These circumstances shaped the objectives for this preliminary phase of our project, namely to test ways of mapping the city effectively and quickly, and to determine the extent and depth of the archaeological remains.

In this report we present the first results of this work, which exceeded our expectations. The geophysical survey showed that entire districts of the city are present under the surface, waiting to be explored. Archaeological excavations confirmed the presence of monumental public buildings, while the objects we found hint at the wealth and status of Charax.

Our challenge for the future will be to find the resources to implement a comprehensive research and excavation strategy, one that will do justice to this great Alexandrian city.

A Cosmopolitan City

Strolling through the markets and harbours of Charax Spasinou at any time during the first two centuries of the Christian era, you would have encountered a great diversity of people and wares: sea-going traders from the Gujarat coast of India, offering perfumes, spices, ivory, and semi-precious stones; traders from Petra selling frankincense and myrrh; Syrians come from Palmyra by camel-caravan; and Parthians from Babylonia seeking goods worthy of the imperial Arsacid court. You could have bargained for silks from China, cotton from India, for cinnamon all the way from Malaya, and paid with coins minted in Charax.

Inland from the water-front, you might have visited the Christian or Jewish quarters, passed by the houses of wealthy incomers from Palmyra, or admired the palaces and temples of the local dynasts. Perhaps you would have bumped into Gan Ying, envoy of the Emperor of China, who on his way to Rome got only as far as Charax.

For this was the time of the city's greatest prosperity, when Alexander's vision for his new city as a vital emporium had become a reality.

The city had an inauspicious start, and in the early days of its foundation it had struggled to survive. Its fate was not a priority in the ambitions of Alexander's successors, the Seleucids. In the mid-second century BC it had to be rebuilt after a particularly severe flood, and was renamed Antiochia, but it was only after a repeat of these events that it started to thrive.

A local potentate, Hyspaosines, carved out independence from a weakened Seleucid empire and rebuilt the city, which became known as Charax Spasinou after its founder. Hyspaosines and his queen, Thalassia, were the first rulers of the kingdom of Characene. Their wealth was built on maritime power and trade, with a fleet controlling the waters of the Gulf and their capital now at the nexus of international trade routes.

Even when the city subsequently fell under the sway of its new and powerful neighbours, the Arsacid rulers of Parthia, commerce continued to flourish. During the following centuries the kings of Characene were able to act with varying degrees of autonomy, depending on the state of relations with Parthia, and between Parthia and its rival Rome. In AD 112, for example, Characene made the mistake of siding with the Roman emperor Trajan when he invaded. A subsequent change of Roman imperial policy led to the Arsacids re-establishing control over Mesopotamia. Characene was invaded and subdued in a punitive expedition.

It was not the end of the Parthian Empire in AD 224 that eventually sent Charax Spasinou into decline, but the silting up of the river channel and the loss of navigable access to the Gulf. The city lost its *raison d'être*, so the population declined and eventually left altogether. The floodwaters returned, and the city disappeared under silt and sand.

Reflections of Glory

For the moment, the glories of Charax remain buried, but our survey and evaluation trenches offer tantalising glimpses of the city's rich past. Coins found on the surface are inevitably badly corroded, but at least two have recognizable heads. Their exact identification remains to be verified, but one is in the style of the clean-shaven Seleucid kings who succeeded Alexander, and one depicts a monarch with shaggy locks, more likely later in date. Charax had its own mint, so coins depicting local rulers will no doubt also turn up.

Further testimony to the wealth generated by the city's trading activities was provided by fragments of fine glass vessels, and by a beautiful disc-shaped bead made from a kind of carnelian still prized locally today: deep orange with misty white swirls. Hints of a grand architectural heritage come not just from the proportions of the building plans, but also from large pieces of decorated stone and fragments of columns brought to light by recent



Coins from the surface of Charax, and carnelian bead (diam. 29mm).

military activities. We also found a single, skilfully cut glass cube, which must once have belonged to a glittering mosaic.

Pottery, of course, is found in quantity both on the surface and in our evaluation trenches, including a particular type of luxury ware, of elegant shape and skilled manufacture, with a glazed finish. The glazes have now mostly decayed to yellow or white, but were originally a brilliant green. Excavators of sites in the Gulf have also found this pottery, and speculated that its origin might be the workshops of hitherto unexplored Charax Spasinou! It was made between the first century BC and the first century AD.



Column with mason's mark (Scale 20 cm).

In our evaluation trench along the city grid, we were surprised to find nearly a dozen whole vessels, all of them large. Seven inverted storage jars were set

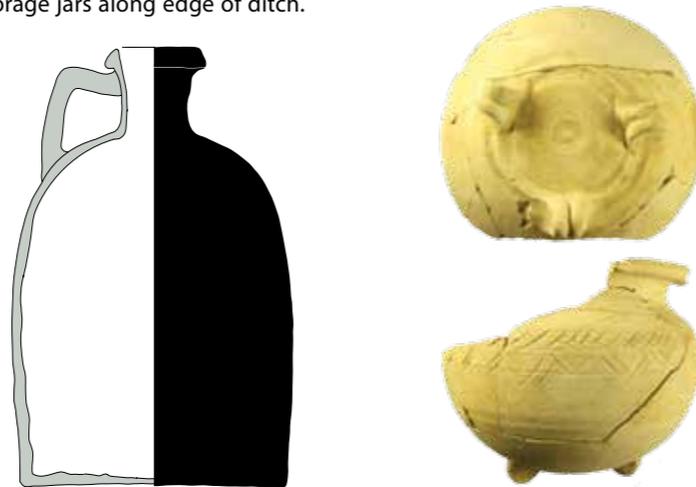
in a row along the southern side of a ditch demarcating the boundary of the housing quarters. Each jar was over a metre long, thin, with perfectly straight sides, a neckless rim and gently tapered base. They all had the bases neatly cut off, for whatever secondary purpose they last served while standing in a line upside down.

We speculate that they may have been some kind of drainage device, but it remains a puzzle. In their original state, lined with a waterproof coat of bitumen, the pots were for storing liquids such as wine. Further large storage vessels of different shapes lay nearby, some also carefully modified.

The ditch beside which these vessels were all found had been used, as ditches often are, as a disposal area for broken crockery and general rubbish, including large quantities of bones, mainly of young sheep and goats, demonstrating that nearby householders ate well.



Row of storage jars along edge of ditch.



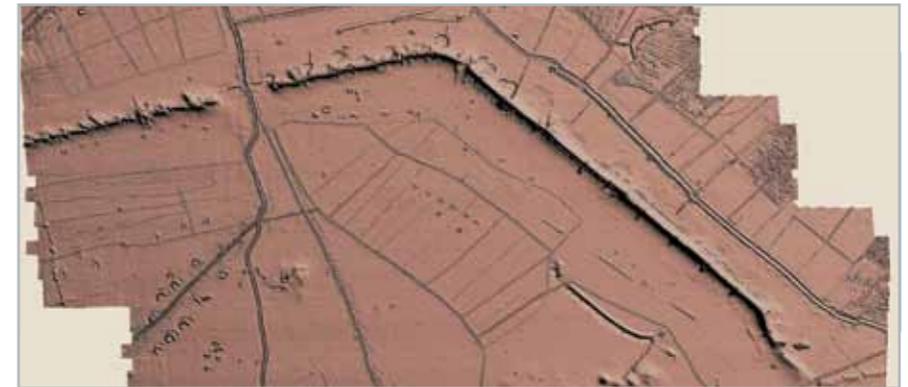
Black glazed jug (height 25 cm), glazed tripod bowl (height 14 cm).

Charax from the Air

The brick and earth ramparts that form the city limits of Charax still survive up to four metres high and are the dominant feature in the otherwise flat landscape. The northern rampart, 2.4 km long, is the best preserved. Stretches of the eastern and western ramparts still survive, but the southern one is no longer visible. The limit of the city to the south is defined by a looping ancient bed of the Karun River (the Eulaeus River of Classical sources).

Within these boundaries, the remains of the city are spread over at least five square kilometres. Mapping this area was a necessary first step to understanding the modern landscape of Charax, but how to do this in the most efficient way?

Our solution was to use a small aerial drone to create a digital elevation model of the site using photogrammetry. The drone was flown over the site at a height of 100m in a grid pattern fixed by on-board gps software. Blocks of approximately 500x500 m were covered on each flight, and



Drone photo and digital map of a section of the ramparts.

vertical photographs taken with an 80% overlap.

Almost twelve square kilometres were recorded in this manner, covering the probable extent of the city and part of the wider landscape. Five thousand photographs were taken,

forming the core record for site mapping.

These images are currently being compiled into a digital elevation model which will be used to generate topographical maps, including a contour map and shaded relief maps.

Charax below the Surface

Drone photography mapped the modern-day surface and features at Charax, but we also needed to find out what was left under the ground. For that we turned to remote-sensing techniques, and undertook a magnetometer survey. The advantage of any remote sensing survey is that it is non-invasive, i.e. the archaeological remains are not disturbed by the process and, if it works, it will give some prior knowledge of the places that might best repay full-scale excavation. This is much more efficient than guessing where to start.

A magnetometer measures tiny variations in the magnetic field of buried deposits, and at its best can distinguish, for example, mud-brick walls from surrounding debris. So during March Prof. Jörg Fassbinder and his team toiled across the salt-encrusted surface of Charax, walking continually up and down over a 40 m grid carrying 17 kg of gear. They covered a total area of 90,000 square metres in just eight days.

The area chosen for the survey was in the southern part of the city, close to where satellite images showed the loop of the old river system. Here the ground was not so badly littered with war debris (important because metal interferes with the magnetic signals) and there was a good scatter of pottery and artefacts on the surface.

The results were astounding. At the end of the first day everyone clustered around the minibus to watch as, sheltered from the wind, Jörg processed the results on his laptop. The appearance of the first images brought a great whoop of delight as the unmistakable outline of a large monumental structure emerged.

Subsequent work revealed entire rectangular blocks of the city, densely packed with buildings. The regularity of the grid suggests a city designed to the standard Hellenistic plan, so presumably reflects the layout as at the time of



Martin Gruber surveying at Charax. The caesium magnetometer is designed to be easily dismantled and transported.

its founding. If this is correct, the blocks shown up by the magnetometer, measuring approximately 156 x 85 m, are among the largest known in the ancient world, larger even than those of Seleucia-on-the-Tigris (150 x 71 m) and Alexandria in Egypt (100 x 50 m).

The individual monumental buildings showing most clearly in the survey are perhaps from a slightly later time: at least one is slightly offset to the grid, and the area around it appears to have been cleared of



The districts and monumental buildings of the city show up clearly in the magnetometer survey (grid squares are 40 x 40 m).

underlying structures prior to its construction.

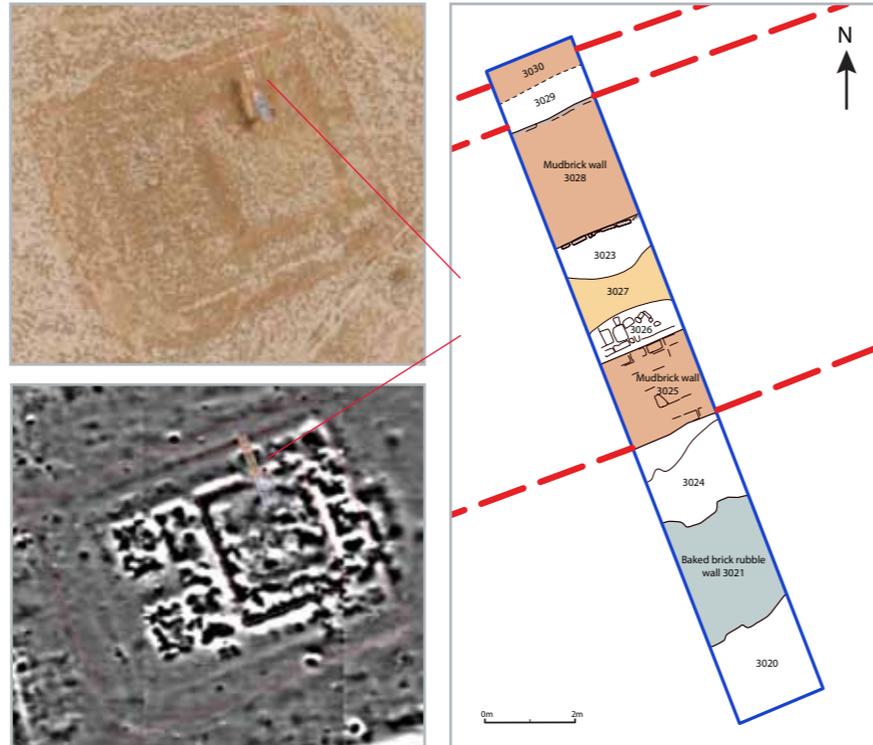
To the south, the survey reached the edge of the old river course which had clearly eroded away the archaeological remains of this part of the city. This was confirmed by the results of a test pit placed in the old riverbed. Water-laid deposits suggested at least two major flooding events, a stark reminder of the constant battle between the citizens of Charax and the floodwaters of the nearby rivers.

Excavating Charax

The read-outs from the magnetometer survey strongly suggested the presence of substantial structures under the ground, but we still needed to correlate the results with the physical archaeological remains.

We decided to excavate at three key points: across the edges of two buildings identified in the survey (Buildings 1 and 2) and across one of the linear features demarcating the city blocks. The two evaluation trenches across the buildings revealed walls on the alignment suggested by the survey, although in different configurations.

Building 1 is a square structure 45 m in length, with a central courtyard set on a mud-brick platform, and perimeter walls of baked brick. Conversely, Building 2 has external walls of mud-brick, but the internal courtyard appears to be paved with baked brick. This courtyard has a single row of rooms on three sides, with a possible entrance along the northeastern wall.



Building 2: Drone photograph, geophysics plot and plan of excavation.

The linear feature demarcating the boundary between city blocks turned out to be a ditch bounded by walls running parallel on either side. It was here, along the southern side, that we encountered the strange and unexplained feature of large storage jars set upside down in solid clay.

We excavated to a considerable depth in this evaluation trench, reaching 2.5 m below the surface, where we were still encountering archaeological deposits. This shows that substantial remains of the city still survive below the surface, and promises well for future exploration of Charax Spasinou.

Charax Spasinou

Team

Dr Jane Moon, Project Co-director
Professor Stuart Campbell, Project Co-director
Dr Robert Killick, Project Co-director
Qahtan Al-Abeed, Director, Basra Museums, SBAH

Professor Jörg Fassbinder, Head of Geophysics Team
Martin Gruber, Geophysicist
Dr Simone Mühl, Geophysicist

Ahmed Abdullah, Archaeologist, SBAH
Abd al-Razak Kadhim, Archaeologist, SBAH
Adrian Murphy, Photographer
Dr Mary Shepperson, Archaeologist
Fay Slater, Archaeologist



The University of Manchester

info@charaxspasinou.org



State Board for Antiquities & Heritage