BASRA
ITS HISTORY, CULTURE
AND HERITAGE

PROCEEDINGS OF THE CONFERENCE CELEBRATING
THE OPENING OF THE BASRAH MUSEUM,
SEPTEMBER 28–29, 2016

Edited by Paul Collins
# CONTENTS

Figures ................................................................................................................................. v
Contributors ....................................................................................................................... vii

**Introduction**  

**ELEANOR ROBSON** ..................................................................................................... 1

The Mesopotamian Marshlands (Al-Ahwār) in the Past and Today  

**FRANCO D’AGOSTINO AND LICIA ROMANO** ............................................................. 7

From Basra to Cambridge and Back  

**NAWRAST SABAH AND KELCY DAVENPORT** ........................................................... 13

A Reserve of Freedom: Remarks on the Time Visualisation for the Historical Maps  

**ALEXEI JANKOWSKI** ............................................................................................... 19

The Pallakottas Canal, the Sealand, and Alexander  

**STEPHANIE DALLEY** ................................................................................................. 23

Before Basra: The Port City of Charax Spasinou  

**STUART CAMPBELL, STEFAN R. HAUSER, ROBERT KILICK, JANE MOON** ............ 29

Ard Maysan and the Land behind Basrah in Late Antiquity  

**ST JOHN SIMPSON** ..................................................................................................... 35

The Founding of Basra and its Early Development  

**ROBERT G. HOYLAND** ............................................................................................. 49

The Archaeology of Early Islamic Basra: Challenges and Potential  

**ANDREW PETERSEN AND ALASTAIR NORTHEdge** .................................................... 53

The Christian Heritage of Basra  

**ERICA C. D. HUNTER** ................................................................................................. 59

The Genesis of the New Museum in Basra: An Iraqi-British Collaboration  

**JOHN CURTIS** ............................................................................................................. 65
1. Some of the workshop participants at the entrance to Basrah Museum at its official opening on 27 September 2016, with two members of the museum staff (photo courtesy of Qahtan Al Abeed). Left–right, front: Franco D’Agostino, Robert Killick, Jane Moon, Nicholas Postgate, Rogert Hoyland, Eleanor Robson, Qahtan Al Abeed, Lamia Al-Gailani, Joan MacIver, Paul Collins, Alex Bellem

1.1. Sites of cultural and environmental importance in southern Iraq. UNESCO World Heritage List

1.2. Left: Fishbones and plate from Building A, Room 1, Abu Theirah. Right: The so-called Masghuf of the Marshlands

1.3. Left: View of the reed-mat in Room 1, Building A, Abu Theirah. Right: Detail of a contemporary reed-mat

1.4. Left: Remains of reed bundle in Room 14, Building A, Abu Theirah. Right: Detail of a contemporary reed bundle

1.5. Left: Burnt traces of a hearth. Right: Post hole through a reed-mat in Room 9, Abu Theirah

2.1. “pencil drawings” by Kelcy Davenport. Copyright Kelcy Davenport

2.2. A mind map for synthesising a multidisciplinary approach to read the Holocene history of the Mesopotamian Plain

4.1. Sketch-map of Babylonia showing suggested lines of some canals, rivers, and locations of cities

5.1. The city walls of Charax Spasinou still stand to an impressive height

5.2. Geophysical prospection (left) and drone photography (right) provide complementary ways of revealing buried structures. Building 2 is shown here

5.3. Row of storage jars set upside down in the ground

5.4. Glazed tripod bowl (height 14 cm)

5.5. Carnelian bead (diameter 29 mm)

6.1. The minaret at Zubayr as it appears in a First World War British postcard. Reproduced by courtesy of the Trustees of the British Museum, BM EPH-ME. 1406

6.2. Statue of Christ as “the Good Shepherd”, found at Zubair. Reproduced by courtesy of the Trustees of the British Museum, BM 1919,1213.1 = 114262

6.3. Approximate location of the different intramural and extramural bazaars at Basra according to early Islamic written sources. After Naji & Ali 1981.

8.1. Aerial view of the Congregational Mosque in “Old Basra” taken by the RAF and dated 31st July 1935. Ref.SOP.GSR 5458. Courtesy of the National Archives, Kew

8.2. Sandstone column drums from the 1970s excavations within the Congregational Mosque (April 2017)

8.3. Compound wall with semi-circular buttress towers excavated during the 1970s (April 2017)

8.4. Hand mill made of black vitreous material found in a dry water channel to the south-east of the Congregational Mosque (April 2017)

10.1. The former Basrah Museum on Ashar Creek, photographed in 2013

10.2. Front view of Basrah Museum (September 2016)

10.3. View of Basrah Museum with new signage (February 2013)


10.5. Decorated woodwork above the front door of Basrah Museum with the name of Saddam Hussein and the date 1992 at bottom right (April 2010)


10.7. Trustees of Friends of Basrah Museum and Iraqi colleagues at the museum site in April 2010. From left Qasim Abdul Hamid al-Basri, Dr Lamia al-Gailani, Dr John Curtis, Mrs Zahra Hamza Albachari, the Hon Alice Walpole, Sir Terence Clark and Qahtan Al Abeed


10.9. Sir Terence Clark and Dr. Qais al-Rashid signing a memorandum of understanding on 1st December 2010 in the British Museum.
Contributors

Dr Stuart Campbell is Professor in Near Eastern prehistory at the School of Arts, Languages & Cultures, University of Manchester. He studied at the University of Edinburgh, is a co-director of the Charax Spasinou and Tell Khaiber Projects, and previously directed excavations in northern Iraq, Syria and Turkey.

Dr Paul Collins is Jaleh Hearn Curator for Ancient Near East at the Ashmolean Museum, University of Oxford. Since 2017 he has been the voluntary Chair of Council for the British Institute for the Study of Iraq.

Dr John Curtis was Keeper of the Middle East Department at the British Museum 1989 – 2011 and Keeper of Special Projects 2011 – 2013. Since 2014 he has been the Chief Executive Officer of the Iran Heritage Foundation. He is President of the British Institute for the Study of Iraq and has been involved in the development of a new museum for Basra since 2008; he is currently the Hon Secretary of the charity Friends of Basrah Museum. He was elected a Fellow of the British Academy in 2003 and was awarded an OBE in 2006 for ‘services to museums’.

Dr Franco D’Agostino is Senior Researcher, Assyriology, in the Department of Oriental Studies, University of Rome – Sapienza and Co-Director of the excavations at Abu Tbeirah and Director of the Excavations at Eridu (Abu Shahraim), Southern Iraq.

Kelcy Davenport is a PhD Candidate in Fine Art, an Associate Lecturer (Time-based Media / Photography Multimedia Practices / Creative Digital Media), and a member of LENS Reportage and Documentary Research Group, at the Cambridge School of Art – Anglia Ruskin University. Kelcy’s research explores how art functions as resistance today, including an ongoing and experimental enquiry at the intersection of geology and art with sedimentologist, Nawrast Sabah Abd Alwahab, in Basra.

Stefan R. Hauser is Professor for Archaeology of ancient Mediterranean cultures and their relations to the ancient Near East and Egypt at the University of Konstanz (Germany). He is the author of Status, Tod und Ritual. Stadt- und Sozialstruktur Assurs in neuassyrischer Zeit (2012). He currently directs projects on burial practices and the art of the portrait in Palmyra and on religion and identity in Hellenistic Mesopotamia.

Robert Hoyland is Professor of Middle East history at New York University’s Institute for Study of the Ancient World. He is the author of many works on the cultural and material history of the late antique and early Islamic Middle East, including Seeing Islam as Others Saw it (1997), Arabia and the Arabs (2001), and In God’s Path: The Arab Conquests and the First Islamic Empire (2015). He has also conducted archaeological projects in Yemen, Syria, Turkey and Azerbaijan.

Dr. Erica C.D. Hunter is Senior Lecturer in Eastern Christianity, Department of History, Religions and Philosophies, SOAS. She is Co-chair, Centre of World Christianity, SOAS, University of London, which focuses on the Christian communities of the Middle East, with a particular interest in the heritage of Christianity in Iraq and Syria. She convened the annual Christianity in Iraq Seminar Day (2004–2013) and is the editor of The Christian Heritage of Iraq: collected papers from the Christianity in Iraq I-V Seminar Days (2009).

Alexei Jankowski graduated from the Faculty of History of the Leningrad University in 1990. Between 1986–2018 he has worked as a researcher, editor and filmmaker in the field of documentary cinema in France, Germany, the Netherlands and Iraq. From 2007, he has led the Time on Maps project, studies the historical geography of the Southern Mesopotamia.
and coordinates projects between the Institute of Archaeology of the Russian Academy of Sciences and the Iraqi State Board of Antiquities and Heritage.

Dr Jane Moon and Dr Robert Killick co-directed major excavation projects at Tell Khaiber near Ur, and at Ancient Saar in Bahrain before embarking on Charax Spasinou. They studied at the universities of Cambridge and Birmingham, held posts at BISI’s base in Baghdad, and worked on several field projects in Iraq. Jane is an honorary research associate at Ludwig-Maximillian University, Munich.

Alastair Northedge is Professor Emeritus of Islamic Art and Archaeology at Université de Paris 1 (Panthéon-Sorbonne). He has worked in Syria, Jordan, Saudi Arabia, Kazakhstan and Turkmenistan, and conducted projects at Amman in Jordan, and Ana in Iraq, in addition to Samarra. He is author of Studies on Roman and Islamic Amman, joint author of Excavations at Ana, and published the Historical Topography of Samarra in 2005. The second volume of the project at Samarra, the Archaeological Atlas of Samarra, was published in 2015. He subsequently worked on the medieval city of Dehistan in Turkmenistan. After retirement in 2017, he is now working on the archaeological site of Old Basra at al-Zubayr.

Eleanor Robson is Professor of Ancient Middle Eastern History at University College London. She was the voluntary Chair of Council of the British Institute for the Study of Iraq, 2012–17 and co-organised the Basrah Museum Workshop with Qahtan Al Abeed and Paul Collins. She now runs the AHRC-GCRF-funded Nahrein Network (2017–21), together with Collins and Anwar Anaid (University of Kurdistan Hewler), a research project which emerged from discussions at the workshop.

Dr Licia Romano is Research Fellow in Archaeology of the Ancient Near East at the Department of Oriental Studies, University of Rome – Sapienza, and Co-Director of the Excavations at Abu Tbeirah, Southern Iraq.

Dr St John Simpson is an archaeologist and a senior museum curator at the British Museum where he is also Deputy Director of the Iraq Emergency Heritage Management Training Scheme. He specialises in Sasanian material culture and has excavated widely in Iraq, Turkmenistan and elsewhere. He is the author of numerous scholarly publications, books and exhibition catalogues and curated the Rahim Irvani Gallery for Ancient Iran (2007) and three major special exhibitions on Afghanistan: Crossroads of the Ancient World (2011), Queen of Sheba: Treasures from ancient Yemen (2002) and Scythians: Warriors of ancient Siberia (2017/18).
INTRODUCTION

ELEANOR ROBSON

The great city of Basra, founded in AD 635/14 AH, is a relatively new one by the standards of Iraq, a country with a history of more than five thousand years and a human prehistory many tens of millennia older. Yet when settlers arrived here in the earliest decades of Islam, they were by no means the first to find this a suitable place to live. There had been large port cities in the neighbourhood for at least a thousand years, while the marshes to the north had been home to diverse and thriving communities since the time of the Sumerians. The papers edited in this volume explore some of the continuities and discontinuities in the ancient and premodern lives lived in and around the Basra region, in landscape, religion, language and material culture.

Opening the collection, Franco D’Agostino and Licio Romano (Chapter 1) demonstrate very real continuities in the lifestyles of marsh-dwellers across 4,500 years. The archaeological site of Abu Tbeirah, close to the modern city of Nasiriyah, represents the remains of a 40-hectare settlement occupied in c.2500–2100 BC in what was then the heartland of the marshes at the head of the Gulf. Reeds therefore represented one of the most easily available and widely used domestic and construction materials, just as the revival of traditional mudhif architecture today. But more than that, D’Agostino and Romano show, by comparison with ethnographic photographs taken in the 1960s and 1970s, the precise manner in which reed artefacts were deployed around the home remained extraordinarily consistent across two and a half millennia. This evidence became a key argument in the successful bid to include archaeological sites in the Marshlands of Iraq’s bid for UNESCO World Heritage status in 2016.

Taking an even longer view, in Chapter 2 Nawrast Sabah and Kelcy Davenport tell the story of a collection of geological samples, made at the Zubair oilfield north of Basra in the 1960s and now stored at the Sedgwick Museum of Earth Sciences in Cambridge. In fact they tell three stories in one: the gradual geological formation of the land and watercourses around Basra and accompanying changes in the flora and fauna over the past 8000 years; the developing scientific understandings of that evidence over the past half-century; and the authors’ own collaboration to create new scientific and artistic knowledge from the remains.

Alexei Jankowski (Chapter 3) further explores the role of the marshes — ancient Akkadian māt tāmti, “Sealand”, modern Arabic ahwar (أحواز) — and watercourses in community structures of the region. Drawing inspiration from the work of Iraqi archaeologist Abdulamir Al-Hamdani, he describes a project in progress to visually map the changes in watercourses and human settlement in the marshes across the millennia. He aims to identify the critical junctures at which small scale changes in the environment and/or social and political life have accumulated sufficiently to result in catastrophic change in human habitation and exploitation of resources. Drawing parallels from similar natural environments across the world, he argues persuasively for the dual gifts of secrecy and trade opportunities that the marshes provide.

One particular Sealand watercourse, which provided a reliable communication link between Babylonia and the Gulf in antiquity, is the subject of Stephanie Dalley’s paper (Chapter 4). She investigates the textual evidence for the long life of the Apkallatu or Pallakottas canal to the west of Babylon, from perhaps the early second millennium BC to the time of Alexander. She also suggests that Alexander’s new city in the marshes,
Alexandria-on-Tigris, was a refounding of a Sealand town, Dūr-Enlilē or Durine, that had been prominent from the mid-second millennium to Achaemenid times, c.1500–500 BC. In Chapter 5, Stuart Campbell and colleagues report on their recent archaeological work at that same port city, in its various incarnations from the Seleucid to the late Sasanian period, c.330–600 AD. Satellite imagery, surface survey and geophysical analysis, have revealed the main contours of the city plan inside its monumental protective wall. Meanwhile, classic excavation methods have unearthed luxury goods that hint at Charax Spasinou’s key role in Gulf and Indian Ocean trade some two thousand years ago, when it served as capital of the marshland kingdom of Mesene.

St John Simpson takes up the story of southern Iraq in Late Antiquity in Chapter 6. Under Sasanian rule, the region became known as Ard Maysan and the city formerly known as Alexandria, latterly Charax, was renamed Astarabadh Ardashir after the founder of the dynasty. While the old Babylonian beliefs remained alive in some neighbouring village, the city itself had a large Christian population as well as populations groups from the Indus Valley and even Sumatra. But by this time it was but one of several large urban centres. As Simpson shows, there is an impressive array of evidence for Sasanian trade with the Western Indian Ocean and, via Sri Lanka, further east. By now, however, maritime trade had moved to the as yet unexcavated port of Ubulla, perhaps classical Apologos, further down the Tigris, as shifting watercourses, silting of the marshes, and changing sea levels in the Gulf had left the former city high and dry.

In Chapters 7 and 8, Robert Hoyland, and Andrew Petersen and Alastair Northedge, respectively tackle the historical and archaeological evidence for the first generations of Muslim life in Basra, at a site now known as Zubair, a few kilometres southwest of Ubulla. It was chosen, Hoyland’s medieval sources tell us, for its for its stony gypsum-laden soil — baṣra — that gave solid foundations, and ample building materials, for the new garrison town. It is difficult to reconcile contemporary descriptions of the first mosque and adjacent governor’s residence with the evidence from modern survey and excavation, carried out by Iraqi teams in the 1970s and 80s. However, new Iraqi-British work, which is just beginning at Zubair, will bring new historical and archaeological understandings. It will also deliver a viable management plan for this vitally important yet fragile site, which is increasingly vulnerable to encroachment from the modern city.

Erica Hunter gives an overview in Chapter 9 of the rich and varied Christian heritage of Basra, and of the Christian communities active in Basra today.

This set of papers began as a series of talks given at the The British Institute for the Study of Iraq’s international workshop in Basra on 28–29 September 2016 to celebrate the long-awaited opening of Basrah Museum (Fig. 1). As described in more detail by John Curtis in Chapter 10, the preparations over the previous decade had been complex and meticulous. For museum director Mr Qahtan Al Abeed, the day represented the culmination of nearly a decade of planning, fund-raising, and persistent optimism and ingenuity. Since 2008 he has worked with the Iraqi State Board of Antiquities and Heritage, the British Army and the British Museum, and latterly the British charities Friends of Basrah Museum and BISI, to turn one of Saddam’s crumbling former palaces into a state-of-the-art display space for Iraqi antiquities.

The new museum project began during the British occupation of Basra after the 2003 war. The old museum, a once-elegant Ottoman villa in the heart of the old city, was no longer fit for purpose, though it has since been refurbished as the local antiquities services’ offices. As part of its withdrawal plan, the British Army agreed to hand over one of the

---

1 Here and throughout this book, the city name المَصْرَة is transcribed as Basra, while the name of the museum itself represents the more traditional English transcription, Basrah.
buildings it was then occupying, a three-hall reception pavilion built for Saddam on the waterfront of the Shatt al-Arab. That decision created the opportunity to thoroughly rethink the content, aims and ethos of the museum. Most fundamentally, Al Abeed has implemented a new model of museum management for Iraq and the region. The Friends of Basrah Museum serves as the museum’s board of patrons, raising public and private sponsorship for museum display cases, high-quality security systems, and climate control. The museum also has a large group of local supporters and volunteers at its service, eager to help make the project a success, learn more about history and archaeology and to serve the local community.

Iraq’s provincial museums have traditionally all told the same national story, displaying a similar range of artefacts to that in the Iraq Museum in Baghdad. Basrah Museum is the first to present a local history, of Basra and its precursors in relation to the marshes and the Gulf, as well as the great cultures of Iraqi antiquity, Sumer, Babylonia, Assyria, that dominated the region in the fourth to first millennia BC when the Basra region was still underwater. A majestic hall, painted a deep purple-brown with a ceiling decorated in classical Islamic style, showcases artefacts from Basra and its immediate environs. The oldest objects include recently excavated pottery and coins from Charax Spasinou (see Chapter 5). Displayed objects from early Islamic Basra (Chapters 7–8) include elegant stone inscriptions and stucco decorations from the mosque and governor’s palace. The Ottoman period, a time of great trading wealth, is also well represented through luxury items such as perfume bottles and incense jars.
The British Institute for the Study of Iraq (BISI) is proud to have been involved in the development of Basrah Museum from the earliest days, through sponsorship of several of Al Abeed’s planning visits to the UK. In 2013 the Institute agreed to complement the official opening ceremony with a workshop and began planning for it in earnest in early 2016, as soon as the date was established. The workshop team comprised Qahtan Al Abeed, Lamia Al-Gailani, Paul Collins, John Curtis, and Eleanor Robson, with support from BISI Administrator Lauren Mulvee and volunteer workshop co-ordinator Agnes Henriksen. The programme was as follows, with simultaneous translation by Amir Doshi of Dhi Qar Writers Union:

**Basra: its history, culture and heritage**

* A conference to celebrate the opening of the Basrah Museum

**Wednesday 28th September**

Eleanor Robson (Chair of BISI) and Qais Hussein Rasheed (Director of SBAH): Introduction and welcome

Session 1 (Chair: Nicholas Postgate)

Jane Moon and Robert Killick (University of Manchester): Charax Spasinou: the city of Alexander the Great

* Adil Hashim (University of Basra): The waterways in south Mesopotamia and Charax

Stephanie Dalley (University of Oxford): The Pallukkatu canal, the Sealand, and Alexander

Alexei Jankowski (Alexander Foundation): “Time on maps” for southern Iraq

Session 2 (Chair: Abdulamir Al-Hamdani)

John St Simpson (British Museum): The land behind Basra in Late Antiquity

Robert Hoyland (New York University): The founding of Basra and its early settlement

Erica C. D. Hunter (SOAS): The Christian heritage of Basra

Franco D’Agostino (La Sapienza University): Abu Tbeirah and the marshes

Evening: visit to Old Basra

**Thursday 29th September**

Session 3 (Chair: Eleanor Robson)

Andrew Peterson (University of Wales): Islamic archaeology in the Basra region: challenges and prospects

* Jaaffar Darwesh (SBAH): The role of NGOs in protecting cultural heritage

* Banan al-Aeadah (University of Basra): A history of Basra through pictures

John Curtis and Qahtan Al Abeed (Friends of Basrah Museum & Basrah Museum): The genesis of the new museum in Basrah: an Iraqi-British collaboration

Questions and discussion

Evening: Boat trip on the Shatt al-Arab

**Introduction**

For more information see, e.g., BISI’s Newsletter 23 (May 2009): 26; 25 (May 2010): 5; and 42 (October 2014): 20; PDFs available for download at http://www.bisi.ac.uk/content/newsletter (accessed 1 July 2018).
**Friday 30 September**

Day trip to Chibaish and the marshes, courtesy of Dr Jassim Al-Asaadi and Nature Iraq.

The presenters of talks marked with an asterisk (*) did not submit a paper for this volume. We therefore provide brief summaries here. Dr May Schaer described in detail the UNESCO case for the southern marshes as a World Heritage Site, augmenting the overview given by D’Agostino and Romano (Chapter 1). Dr Adil Hashim’s paper, on the waterways of southern Mesopotamia and Charax, complemented the others in the first session (Chapters 3, 4, and 5) by comparing Classical Greek descriptions of the region in Alexander the Great’s time with archaeological evidence to determine the relationship between settlement and waterway in the late fourth century BC. Ms Banan al-Aeadah gave a captivating presentation of early photographs of Basra, which brought the late Ottoman and Mandate periods vividly to life. Dr Alex Bellem gave an overview of the extraordinary variety of Iraqi Arabic dialects and conducted live fieldwork research on the audience members, much to their delight.

The Basrah Museum workshop not only marked the culmination of a long process of planning. It also sowed the seeds of several new beginnings. In December 2016 both the Charax Spasinou project (Chapter 5) and Friends of Basrah Museum (Chapter 10) learned that they had received substantial funding from the British Council’s Cultural Protection Fund to continue and extend their work for a further three years. The Old Basra project (Chapter 8) was awarded a BISI Pilot Project Grant in 2017 while Dr Nawrast Sabah (Chapter 2) took up a BISI-Dangoor Iraqi Visiting Scholarship to further her collaboration with Dr Kelcy Davenport in Cambridge. Finally, conversations at the workshop between organisers Paul Collins and Eleanor Robson and the Director of the UNESCO Office for Iraq, Louise Haxthausen, led to a major four-year collaboration to foster the sustainable development of cultural heritage, history and the humanities in Iraq and its neighbours. The Nahrein Network, funded by the UK Arts and Humanities Research Council and the Global Challenges Research Fund, is based at University College London, the University of Kurdistan Hewlêr, and the Ashmolean Museum, Oxford, with many international partners including BISI, UNESCO Iraq and Friends of Basrah Museum. Together they offer a range of practical and financial support for interdisciplinary research to enable Iraqi universities, museums, and community groups to better serve local, post-conflict needs. Between them these new endeavours will substantially further our collective knowledge of Basra’s history, heritage and culture, and enable us to harness that knowledge for the social and economic improvement of the region in the years and decades to come.

**Bibliography**


---


4 See also Al Abeed (2016).

§1. On 17 July 2016, the Plenary Session of UNESCO held in Istanbul accepted onto the World Heritage List (WHL) the Marshlands of Southern Iraq and three Sumerian cities historically and culturally tied to the marshes: Ur, Eridu and Uruk (Fig. 1.1.; Table 1). The name of the file is *The Ahwar of Southern Iraq: Refuge of Biodiversity and the Relict Landscape of the Mesopotamian Cities*, and as the name itself suggests, it is a mixed natural and cultural environment. The authors of this paper had the honour to participate in the writing of the cultural file as part of the Iraqi and International Commission created *ad hoc* to support the assembling of the historical dossier, coordinated by the *Arab Regional Center for the World Heritage* housed in Manama (Bahrein).

Indeed, beyond the cultural or environmental-landscape sites, the UNESCO WHL also includes a list of thirty-two "mixed" sites (less than ten percent of the entire list), where the focus is distributed equally between the cultural-historical and the natural and environment characteristics of the selected area. In the Arab world only two such sites had been accepted

---

1 This text reproduces that read at the conference in Basra. §1 and fn. 4 by Franco D’Agostino, §2 by Licia Romano.
into the WHL: Tassili n’Ajjer in Algeria and Wadi Rum, a Protected Area, in Jordan. Now the Marshlands of South Iraq make a third. It must be stressed that in order for a cultural and environmental system to be recognized as heritage under the protection of UNESCO, it is mandatory to prove that only in that particular environment could a past civilization, to which the archaeological evidence is connected, develop and flourish.

The motivation of the Commission reads as follows:

The Ahwar is made up of seven components: three archaeological sites and four wetland marsh areas in southern Iraq. The archaeological cities of Uruk and Ur and the Tell Eridu archaeological site form part of the remains of the Sumerian cities and settlements that developed in southern Mesopotamia between the fourth and the third millennium B.C. in the marshy delta of the Tigris and Euphrates rivers. The Ahwar of Southern Iraq — also known as the Iraqi Marshlands — are unique, as one of the world’s largest inland delta systems, in an extremely hot and arid environment.

The main reason for coupling natural and cultural-historical traits in the same file is obviously due to the consideration of the progradation, or better aggradation, of the Tigris and Euphrates rivers across the millennia. A new and fresh approach to the paleo-geography of southern Mesopotamia, founded on the study of satellite imagery (especially of Corona images taken in the 1960s), has highlighted the exceptional importance that the deltaic and littoral environment and economy had on the development of organized life in the region. As Jennifer Pournelle (2003: 5) puts it, the hydrogeological analysis through satellite imagery offers:

an interpretive methodology especially appropriate to viewing regional scale interactive spheres inaccessible through single-site excavation, and establish a hypothesis emphasizing the essential nature, not merely of water, but of littoral ecotones, in supporting and shaping complex social institutions that underlay urbanization in southern Mesopotamia.

It is also clear that this situation lasted far longer than previously supposed and that the littoral ecotope heavily characterized the landscape of southern Mesopotamia at least until the end of the third millennium B.C.
In other words, notwithstanding the geographical situation, in which the three archaeological sites today lie quite far from the core of the environmental part of the request, it was not difficult to demonstrate in the file the hydrogeological relationship in antiquity between these cities and the delta and the littoral ecotope. §2. To cite one of the most significant archaeological pieces of evidence, the western and the northern harbours of Ur demonstrate quite easily the relationship the city had with the aquatic (deltaic) milieu surrounding it. The same kind of evidence, of course, can also be detected for Uruk and especially Eridu.

More important and complex was the need to demonstrate through the archaeological data from Ur, Eridu and Uruk their cultural relations with the biotope of the Marshlands, as is hinted at in the citation above. In fact, the central argument of the Iraqi request was focused on the cultural continuity represented by the life of the Ma’dan, the group of tribes settled in the marshes today, and the everyday life of the most ancient inhabitants of the very same area as it can be reconstructed by the excavations in southern Mesopotamia. This aspect was fundamental in order to show that here, and only here, that a relationship between man and landscape took place and developed, as the prerequisite of UNESCO, cited above, states. That does not mean, obviously, that the Ma’dan are the heirs of the Sumerians and, for the avoidance of doubt, this is not the interpretive approach taken in the file.

Evidence from the excavations of Tell Abu Tbeirah, of which the authors of this brief paper are co-directors, helped very much to establish this relationship between past and present, offering a first-hand view of the historical continuity of habits and technologies.

To start with a brief ethnographic culinary note, in Area 1, at the south-east of the mound, we recovered an upturned dish under which we found fish bones, turned completely black because of the way in which the fish had been cooked (Fig. 1.2. left). Now, a very typical way to cook fish, mainly carp, in the Marshlands today (and from here all over Iraq and the world) is called masghouf, literally “ceiling” (Fig. 1.2. right).

In this kind of preparation, a fish is:

split lengthwise down the belly, cleaned and spread out into a single flat piece. It is then partially scaled, gutted and cut in two identical halves from the belly up …, opening the fish in the shape of a large, symmetrical circle. The fish is then either impaled on two sharp piles of wood, or more commonly today placed in a big cast iron grill with a handle and a locking snare, designed specifically for this dish. The fish, together with the grill or the piles, is then placed near the fire of the ‘fire altar’ …

The name of this preparation, masghouf, seems to derive from the peculiar way in which the fish is put on the fire, almost forming a ceiling to the flame (well, at least it is the popular

Fig 1.2. Left: Fishbones and plate from Building A, Room 1, Abu Theirah. Right: The so-called Masghuf of the Marshlands

https://en.wikipedia.org/wiki/Masgouf
etymology our Iraqi friends offered us). Is it possible to consider the burnt fish bones of Abu Tbeirah as the remains of a meal of fish cooked using the masghouf method?

Be that as it may, much more direct evidence is found in the use of the most abundant and ubiquitous raw material of the area, nowadays as in the past, namely reeds. One of the most common reed artefacts recovered in Abu Tbeirah is the reed mat, although other reed objects have also been found, such as buckets, dishes and boxes. Maria Montorfani has recently written a dissertation on the imprints of reed objects in clay found at Abu Tbeirah, at Università la Sapienza in Rome by. She has been able to demonstrate that the weave of the artefacts known from excavation is ethnographically comparable with the one used today by the Ma’dan people in the marshes. Thus, the weave of a reed mat found in a room of Building A (SE) (Fig. 1.3. left) is similar to one made by Abu Haider, a friend from Chubaish, who prepared his mat using the typical reeds from the marshes, known scientifically as *phragmites australis* (Fig. 1.3. right).

In Abu Tbeirah we have evidence of the other important uses to which reeds were put in antiquity and that are also known through ethnographic studies; specifically their use for building. It is a pleasure to recall here our friend, the archaeologist Dr Abdulamir al-Hamdani, who was kind enough to share with us his immense knowledge of the historical way of life in the Marshlands, helping us to understand our archaeological evidence. In Rooms 14 and 15 of Building A we found fragments of clay with the imprint of reeds in a row, suggesting a fence used to divide the space inside the rooms themselves, a practice still found spaces inside the reed-huts where Ma’dan live today. Moreover, in Room 14 of the same building we found evidence of a bundle of reeds, known as reed pillars or arches for the building of the *mudhīf*, the reed house representing the heart of everyday life in the marshes (Fig. 1.4. left and right). Line 13 of Tablet I of the *Epic of Gilgamesh*, where the scribe invites the reader-listener to look at the magnificent walls of Uruk, can be translated, notwithstanding some epigraphic uncertainties, as: “Look at its wall, which is stro[n]g [bound] reeds!” hinting to us to the typical arches of a *mudhif*.

But perhaps the most striking discovery, linking in the most direct way the building habits of the ancient inhabitants of Abu Tbeirah and the Ma’dan, is represented by the evidence found in Room 9. Here we have found an exceptionally well-preserved reed mat, covering the entire floor of the room, cut in the middle in order to create an oval shaped space to host a hearth, as made clear by burnt traces. There was also evidence for post holes, clearly made after the reed mat had been put in position, as can be demonstrated by the fact that the intertwined reed was forcibly inserted into the wooden post holes, where we found them (Fig. 1.5. left and right). The complex archaeological context suddenly became clear by comparison with ethnographic evidence.

As is evident from the pictures taken in the 1970s by Nik Wheeler (Young and Wheeler 1977; 1980) the archaeological evidence can be easily explained: the Ma’dan use reed mats

Fig 1.3. *Left:* View of the reed-mat in Room 1, Building A, Abu Theirah. *Right:* Detail of a contemporary reed-mat

3 Author’s translation
to cover the beaten floor inside their rooms, cut in the centre so that a fire can be placed for lighting or cooking. The ceiling, itself made often by reeds bound together, is supported by wooden posts fixed directly into the reed mat. The photograph helps us to understand why the holes are so small, not exceeding 4–5 centimetres: the posts are in fact tapered at their ends.

During the sixth campaign we have begun to excavate the harbour of Abu Tbeirah (western sector), and we are confident that many more of our finds will be explained through comparison with life in the Marshlands today.4

Bibliography


---

4 Italian cooperation with the Iraqi request has also been through other means. The activity of Università la Sapienza at Ur, financed by the Italian Ministry of Foreign Affairs, was designed to prepare plans for the conservation of the main monuments of the ancient city. It helped to support Iraq’s concern for its heritage as well as to produce new information for the file itself.

The updated map of Ur used in the UNESCO file was drawn up by means of a drone (or rather Unmanned Aerial Vehicle, UAV) in 2014 put at its disposal by the project. At the same time, a 3D reconstruction of the Dubla-mah, with a proposed plan for its conservation until a complete restoration can take place, and of the Royal Tombs of Ur III, have been realized. Future work will be a complete ortho-photogrammetry with 3D reconstruction as part of a conservation plan, of the ziqqurat of Ur-Namma, restored by Taha Baqir in the 1960s.
Chapter Two
FROM BASRA TO CAMBRIDGE AND BACK

Nawrast Sabah and Kelcy Davenport

I am sitting at a large desk in the small research room at the Sedgwick Museum of Earth Sciences in Cambridge. I am here as an artist to research the Museum’s collection from the Hammar Formation. Working my way through a second drawer of samples I come across a series of twelve small packages, made up of heavy folded plain paper, and held together with a rubber band which crumbles apart as soon as I touch it. The packages are scrawled across with various notes. I recognise the handwriting as that of geologist William A. MacFadyen, whose diaries are on display at the museum. The packages, dated 50 years ago, are all intricately folded the same way, in such a manner as to prevent the contents from falling out, and any curious future researcher from being able to fold them neatly back up. The largest package is inscribed with the instruction ‘DON’T CRUSH’ in red pen. On opening this package I find the contents, presumably, already very much crushed. I spend some time viewing them — they look to be mostly grains of sand and some slightly larger fragments of shells — whilst gently moving them about under the microscope.

I create a short film by interspersing footage of the investigation of MacFadyen’s twelve packages with static shots of the other specimens shot through the microscope lens. The interplay of still and moving image, the material static and in motion, suggests a dialogue between the present and the past, as the moving target of the artefact is chased around the screen by the black vortex, both seeking it out and threatening to engulf it.

I wonder who MacFadyen imagined he was writing to all those years ago.

Kelcy Davenport

The Evolution of the Mesopotamian Plain
In 1966 a collection of geological samples from al-Hammar Marsh in Basra came to reside at the Sedgwick Museum of Earth Sciences in Cambridge. These included six new molluscan species which were later sent to the British Museum for classification. These artefacts, obtained via borings put down by the Iraq Petroleum Company and donated by geologist William A. MacFadyen, provide a departure point for a revived research dialogue, from Basra to Cambridge and back, half a century later.

The Hammar Formation
In Basra, Hudson et al. (1957) identified this marine fauna in the sands and silts of a collection of fauna from test boring Zubair well No.1 at the southern end of Al-Hammar
Marsh. They also correlated these fauna with deposits containing similar fauna at Nahr Umr well No.1 and 2 on the Shatt al-Arab close to the northeastern shore of Al-Hammar Marsh and in shallow wells at Fao. The fauna consists of small gastropods and lamellibranchs, scaphopods, bryozoans, corals, crab, and echinoid fragments. For the first time, this fauna provided geological evidence of the marine conditions during the recent Holocene. Accordingly, Hudson et al. (1957) proposed the Hammar Formation as a new formation in the stratigraphic record of Iraq. After that, many studies emerged to investigate this particular succession of marine sediments beneath the alluvium of Lower Mesopotamia Plain.

Table 2.1 shows the chronology the Hammar Formation based on subsequent studies as well as the development of ideas about sea level fluctuations. However, MacFadyen and Vita-Finzi (1978) reported a mixture of estuarine and marine fauna from test boring at various depths to twenty-one metres at Amara and Qurmat Ali. This collection of fauna, including marine foraminifera, was found by MacFadyen in 1936, and correlated with fauna of the Hammar Formation. Accordingly, the fact these delicate fossils were found largely undamaged in this location and at these depths, provided evidence that the ancient Tigris-Euphrates-Karun river delta previously extended northwest as far as Amara and Nasiriya, 250 kilometres from the shoreline of the Arabian Gulf today. Subsequently, numerous regional geological surveys, carried out between 1971 and 1981, provide data for different types of geological studies of the Hammar Formation and the stratigraphy of the Mesopotamian Plain.

Evolution of the Mesopotamian Plain Scenarios
The geological evidence of Hammar’s marine fossils, and the subsequent investigations of the extent of the marine transgression as far as Amara and Nasiriya, have revived the question of the origin of the Lower Mesopotamian Plain and the formation of the marshland. In fact, besides geologists, this inquiry is also vital among archaeologists, geographers, anthropologists, and clerics, because, “the earliest reference of sea-level change is in the Deluge and the story of Noah” (Coe 1990). This is what is inherited in the Mesopotamian marshlands record. At this point, Coe (1990) stated that, “While scientists, archaeologists, and clergy are debating about the veracity of this story; the question of geologists is the causes of sea-level change”.

There are three main scenarios for the evolution of the Lower Mesopotamian Plain. The first one is the sea-level fluctuations. De Morgan (1900) and Lloyd (1949) suggested that a marine transgression from the Arabian Gulf occurred across the hinterland of the Mesopotamian Plain for a distance at least 200 kilometres northwest of today’s shorelines. Many geological studies have supported this hypothesis, including, Hudson et al. (1957), MacFadyen and Vita-Finzi (1978), and Aqrawi (1993; 1995, 2001).
<table>
<thead>
<tr>
<th>Date</th>
<th>Type of investigation</th>
<th>Location</th>
<th>Results of note</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957</td>
<td>Fauna identification and classification of Recent age</td>
<td>Zubair well No.31, Nahr Umr well No.2</td>
<td>Identified and named the marine Hammar Formation, which provided evidence for the position in the recent past of the shoreline at the head of the Persian Gulf.</td>
<td>Hudson et al. (1957)</td>
</tr>
<tr>
<td>1966</td>
<td>Recorded of three new species of Bivalvia and four new species of Gastropoda</td>
<td>Zubair well No. 31, Nahr Umr well No.2</td>
<td>One of the species of Bivalvia and two of the species of Gastropoda are each placed in a new genus, and one of the species of Gastropoda is placed in a new subgenus identification some small collections of molluscs, from a few borings in the Recent Hammar Formation in southeast Iraq.</td>
<td>Dance and Eames (1966)</td>
</tr>
<tr>
<td>1978</td>
<td>Record the faunal evidence for marine or brackish conditions in relatively recent times in Mesopotamia</td>
<td>Test borings at Amara on the River Tigris and at Qurmat Ali</td>
<td>The Hammar deposits were laid down in estuarine conditions. Marine or brackish water conditions are shown to have prevailed in recent times over a distance of at least 250 km northwest of the present head of the Persian Gulf.</td>
<td>MacFadyen and Vita-Finzi (1978)</td>
</tr>
<tr>
<td>1981</td>
<td>Recorded estuarine fauna</td>
<td>Hammar Lake</td>
<td>Identified of estuarine fauna including oysters and gastropods with oolitic limestone, indicates recent change along the southern shores of Hammar Lake.</td>
<td>Yacoub et al. (1981)</td>
</tr>
<tr>
<td>1983</td>
<td>Identification of marine fauna</td>
<td>Nasiriyah and Suq Al-Shuyukh</td>
<td>Recorded marine fauna of foraminifera and ostracods in a sequence of grey and green clayey silt, and sandy clayey silt which indicate the very shallow marine environment.</td>
<td>Raji (1983)</td>
</tr>
<tr>
<td>1985</td>
<td>Regional geological mapping of the Mesopotamian Plain</td>
<td>Borings below ground surface in Amara, Qurna, Nasiriyah and Suq Al-Shuyukh</td>
<td>Reported estuarine sediments at levels top range of 3 to 10 m in borings below ground surface surface in Amara, Qurna, Nasiriyah and Suq Al-Shuyukh.</td>
<td>Yacoub et al. (1985)</td>
</tr>
<tr>
<td>1993</td>
<td>Implication of sea-level fluctuations, sedimentation and neotectonics for the evolution of marshlands</td>
<td>Marshlands (Ahwar) of southern Mesopotamia</td>
<td>Neotectonic activity together with sea-level fluctuations affected the evolution of Holocene deltaic sequences of Lower Mesopotamia and its associated inland lakes and marshes (Ahwar) in southern Mesopotamia. However, the effect of sea-level fluctuation may have been ended nearly 3000 years BP.</td>
<td>Aqrawi (1993)</td>
</tr>
<tr>
<td>1995</td>
<td>Dating of organic rich sediments using C¹⁴, and correction of Holocene sedimentation rates for mechanical compaction</td>
<td>Several samples of surface sediments and subsurface from shallow boreholes in Lower Mesopotamia Delta</td>
<td>Determine the age of oldest sample of brackish/marine of Hammar Formation as Late Holocene (less than 8500 years BP), and the youngest sample as Middle Holocene (more than 5000 years BP). The accumulation rates of the oldest sediments of brackish/marine is 0.3 mm/year, which is relatively of higher rate comparing with youngest sediments of lacustrine/marsh sediments (0.2 mm/years).</td>
<td>Aqrawi (1995)</td>
</tr>
<tr>
<td>2001</td>
<td>Stratigraphic signatures of climatic change during the Holocene evolution of the Lower Mesopotamian Delta</td>
<td>Several samples of surface sediments and subsurface from shallow boreholes in Lower Mesopotamia Delta</td>
<td>Divided the Middle Holocene brackish/marine sediments of Hammar Formation into four subunits, which related genetically to two coarsening-up sequences. The deposition of these sequences synchronous with marine transgression started at 9000 years BP in the head of Persian Gulf and prograded northwards toward Basra at 8000 years BP. However, this transgression reached the Nasiriya-Amara arc at about 6000 years BP.</td>
<td>Aqrawi (2001)</td>
</tr>
</tbody>
</table>

**Table 2.1: Chronology of Hammar Formation investigations**
The second scenario is tectonic subsidence. In 1952, Lees and Falcon related the creation of the lake and marshes to tectonic subsidence and local marine flooding during the recent past of the Mesopotamian Plain evolution.

The third scenario is tectonic uplift due to the local tectonic uplifting of domes and oilfields, as well as subsurface seismic activities at the shallow levels. This hypothesis is supported by the general geodynamic system of the Mesopotamian Plain as part of an active tectonic foreland basin (Al-Sakini 1986; Aqrawi 1993; Numan 1997; Jassim and Goff 2006).

De Morgan’s early suggestion, in 1900, of the transgression of the Gulf northwards, was revived by many other researchers between 1975 and 2001 (Table 1). However, Aqrawi (2001) and Aqrawi et al. (2006) demonstrated that the Holocene deltaic sequences could be affected by all of the above scenarios of sea-level changes and neotectonic activities, which both affected the climate changes and sedimentation rates. To fully understand the evolution of the Lower Mesopotamian Plain, however, further synthesis studies of sedimentology, palaeontology, chem stratigraphy and radiometric dating are required.

The World as Resource

The extensive regional geological surveys of the Mesopotamian Plain, especially by GEOSURV, show that the stratigraphy of the Holocene Unit of the Mesopotamian Plain comprises sedimentary deposits from different origins. These are: flood plain sediments, shallow depression fill sediments, marsh and lake sediments, inland sabkha, subsurface estuarine/marine sediments (Hammar Formation), anthropogenic and irrigation canal sediments, and aeolian deposits (Yacoub 2011).

However, the anthropogenic and irrigation canal sediments, along the main abandoned river courses — and its recognizable reliefs on the almost flat-lying surface of the plain — are less than one metre in thickness, but more than several meters in some archaeological sites (Yacoub 2011). These sediments may date back to the third millennium B.C. (Jacobsen and Adams 1958 in Yacoub 2011). Furthermore, destroyed ancient settlements, which are either transported or accumulated in situ, are the main source of these artefact stones (Yacoub 2011). Obviously, such mixtures of natural, anthropogenic and irrigation canal sediments add further complexities to the stratigraphy of the Mesopotamian Plain.

To read the Holocene history of the Mesopotamian Plain we need to synthesise different types of information (Figure 2). These include geological evidence, historical and/or ecological events, archaeological findings and the complex system of the Mesopotamian Plain.

The natural processes in the Mesopotamian Plain offer assistance in enabling us to re-read and interpret archaeological findings, to establish the ancient shorelines, and consequently to determine the locations of ancient cities. The prospects for these various subjects are heightened by the inclusion of earth science concepts and scenarios pertaining to the Mesopotamian Plain. Through our collaborative enquiry we reflect on the theme of World as Resource in the widest sense, taking inspiration from the archives of the earth, the museum, and human memory, as sources of explanation and as motivation for creative responses to particular conditions of the present moment.

The ecological catastrophe of the last draining of the marshes of southern Iraq (between the 1950s and 1990s) hugely reduced their extent. However, in March 2004 about twenty percent of the original extension of marsh area (15,000 square kilometres) were re-flooded (Richardson et al. 2005), and in December 2006 it returned to fifty-eight percent of its total extension in comparison with the extent of pre-drainage marshland in 1973–76 (IMOS 2016). In 2009, the area of marshes was at thirty percent of their original size due to the continued dam construction upstream and water use in Turkey, Syria and Iran (Muir 2009). In fact, all of these man-made events could be included in the proposed anthropocene record.
The cyclic lesson of nature will continue to give us more stories about the ancient earth and its civilizations. Earth will continue to preserve its cycles, the life of people and their places. The signature of the last draining of the marshes, as an environmental change, will imprint in the earth as no more than the tiny lamina of sedimentary structures, but through our earth sciences research and museums we will preserve it forever in human memory.

**Bibliography**


A RESERVE OF FREEDOM: REMARKS ON THE TIME VISUALISATION FOR THE HISTORICAL MAPS

ALEXEI JANKOWSKI

The present essay came out of the development of a GIS project, “Time on Maps”, aimed at showing historical events in motion. Its difficulties are, as can be easily guessed, not in the technical realisation, but in the methodology. Contrary to other GIS uses with a time parameter, history never offers us sufficient data at a useful scale. We would like to share some ideas and ad hoc remarks resulting from our work, which we hope to be useful for educational and exhibition purposes.

Since in Lower Mesopotamia the dynamics of historical events are closely associated with the natural features, we thought that physiography in motion could bring us closer to useful time-based visualisations, and therefore choose this region for a pilot study. More precisely, the region of our interest is the māt tāmti, “Sealand”, of the Akkadian sources, the area roughly south of 32° N. This region is occupied by the changing channels of the Euphrates and the Tigris, their tributaries, artificial canals, seasonal and permanent lakes and marshes. There appears to be a consensus that the initial development of complex social structures, urbanism and state in Southern Mesopotamia took place in the interaction between the marshy habitat and the zones of irrigated agriculture (Van de Mieroop 2007: 13; Kozyreva 2016: 26 with recent literature).

We support Abdulamir al-Hamdani’s view (2015: 177) that māt tāmti is the marshy area, with swathes of open and deep water, and not the open sea far downstream from any centres of urban development. Due to its seasonal and changing character, the marshland should not be visualised as a single solid polygon in GIS terms, but rather as a changing set of polygons with uncertain borders, interleaved with cultivated lands traversed by irrigation and drainage canals. This interleaved picture is important for an educational or museum setting, even in a simplified form, to help understand the conditions of the interaction. Al-Hamdani shows that the Tigris gradually shifted eastward, below approximately 32°30’ N, together with its entire system of tributaries and marshes. His schematic maps, based on satellite imagery and ground surveys, show how the marsh system moved from Old Babylonian to Abbasid times (c.1800 B.C.–A.D. 1000), from the old urban centres such as Ur on the western side of the system, to the newer ones, on its eastern, Khuzestan side, the most famous among them being Charax Spasinou (see Campbell et al. in this volume). However, this shift was a tendency that could be locally contradicted.

Founded by Alexander in 324 B.C., the city that bore, in succession, the names of Alexandria, Antiochia, Charax Spasinou, Astarabad Ardashir and Karkh Maysan is an example of an urban centre at the margin of the māt tāmti, which survived from Late Antiquity into Middle Ages and through into Islamic times, being mentioned for the last time by Mustawfī in a.d. 1340 (Hansman 1967: 27). Though its lifetime was twice as short as Ur, it is of the same order of magnitude: around 1900 years for Charax, 3500 years or more for Ur. This approximate duration must reflect some combined socio-economic and hydrographic reality: a time period after which a Lower Mesopotamian ancient city could no longer afford to struggle against the silting of the riverbed and the changes in its position.

1 Institute of Oriental Manuscripts of the Russian Academy of Sciences, St. Petersburg
To show the shift of the river-marshland system realistically, we have to show it dynamically, with the periodical development and abandonment of the canal system. Since we do not have nearly enough data to correctly place the canals, we intend to simulate most of them with a fractal tree function. Despite its toy-like appearance, this can be a useful tool to suggest visually what the reality might have been; it also can serve as a model which can help adjust our conceptions to the geographical reality. Another toy, perhaps less useful than the canal system but no less spectacular, is a mathematical function showing how the river channel shifts through meandering (Frascati and Lanzoni 2013).

The evolution of the hydrography follows the mechanism found in a large number of natural processes and is described in the Bak-Tang-Wiesenfeld “sandpile model” as a “self-organised criticality”, whereby an accumulation of small events leads to catastrophic changes in the state of the system (Bak 1996). Human society adapts to these catastrophic events, but is itself subjected to its own self-organised criticality through its own accumulation of small events and catastrophic changes, which are foreseeable in principle but unpredictable on a precise time scale (Jankowski 2011: 74). Both systems, the natural and the human, are “dissipative”, that is, they need an external source of energy to function.

The maximum development of the canal system was attained in Sasanian times. What can be said about its corresponding “energy state” in local society? Igor Diakonoff (1999: 7) insisted in *The Paths of History* that: “the social activities of man depend on their socio-psychological evaluation”. In a functioning society the balance between coercion and freedom is a delicate one; it appears that the “freedom” part of the equation represents the input of energy, without which the social structure, as a “dissipative system”, would collapse. Social tasks are poorly achieved without a sense of agency in the individuals performing them.

Khosrow’s maxima, as related by Masōūdī:

Royal power rests upon… the land-tax, and the land-tax upon agriculture, and agriculture upon just administration, and just administration upon integrity of the government officials, and the integrity of government officials upon the reliability of the vizier, and the pinnacle of all of these is the vigilance of the king in resisting his own inclinations,…

(Smith 2003: 200 from Al-Masoūdī, Mūrūj al-Thahab wa Meʿadin al-Jawhar [Meadows of gold and origins of diamonds].

Without this component—the personal involvement of individuals—the perfect pyramid of the Sasanian state becomes wishful thinking: the integrity of government officials vanished or never existed, the levying of tax became more and more extortionate, and the sophisticated network of canals became silted and fell into disuse in a system collapse, when the state could not afford or did not choose to invest in the overgrown irrigation system. Its post-Sasanian collapse and the shrinking of the cultivable land is an event well demonstrated on our map. But the city of Charax–Karkh Maysan seems to have survived this collapse for many centuries.

Once the main physiographic features are drawn, we have to move on to more specifically human interactions, starting with trade. Charax was positioned at the confluence of Karkheh, flowing from Susiana, and the Tigris with its marshland system, a pathway from northern Mesopotamia and Syria to the Persian Gulf and India. This entailed the transport and storage of vast quantities goods; merchants who had to hide from many predators, including robbers and state actors both in and out of office. A useful comparison is the Old Assyrian trade outpost at Kanesh near modern Kaiseri, Turkey, of the early second millennium B.C. (Jankowska 1968: 41, 47–49). While the main office of this trade organisation was close to the palace and had to submit goods to it, everyday trade depended on the villages along the way, and namely, on the opportunity to store and conceal goods in them. Inconspicuous places of storage play an important role in the trade of our own time as well. It would be only natural to imagine that the marshland, which served as a refuge for
all kinds of fugitives, from Sargon’s time to Saddam’s, also helped the international trade of Charax, since it was impossible to gain access from Petra or Palmyra without crossing the māt tāmti.

There are also several examples of ancient or medieval trade centres established in a protective environment, helping to control access to the city itself and to its storage and transport facilities. The desert trade hub of Palmyra is one well-known example, but others can also be cited. For instance, Arwad, a small town occupying an entire island off the Syrian coast, with a water source underneath the sea, was prominent in the Amarna period, c.1350 B.C., but was mentioned on a number of occasions up to Strabo’s time and is still in existence today (Yunusov 2015: 317). Venice, founded by the Roman refugees fleeing from Germanic and Hun invasions, is another famous example of an important trade hub protected by its position within a marshy lagoon.

Al-Hamdani in his unpublished dissertation suggests that in periods of instability for a central power—on the alluvial plain for the earlier periods, and outside of it for the later—the marshland gave birth to “shadow states”. He puts special stress on its statehood and political independence, but for our purposes here we would shift the accent from the “state” to the “shadow”. Michal Gawlikowski (1994: 31) draws a very similar picture for the desert part of the Palmyrene trade route: “the success of each caravan… depended entirely on relations with the nomad tribes. A complex fabric of hospitality, dependence, even parentage, is to be imagined between the desert chief and the city notables.” The same can be said of the marshland chiefs as well.

A predictable structure is needed to avoid lawlessness, but a mutual-aid confederation which does not need to institutionalise itself is another approach. Even if such an arrangement is impacted by too much brigandage, the more informal a structure, the more it can be beneficial for trade. This does not preclude a state leader from having titles and pageantry. The marshland, only nominally belonging to central political entities, may have supplied more than reed mats, dairy products and fish to the surrounding cities: it supplied people brought up within their tradition, from places where state control was difficult or impossible, and where the sense of agency, the “input energy” of a human society, was necessary for their survival.

Bibliography

“It was a refuge for everyone who was afraid and a shelter for all those who were disqualified. If a fearful person fled from Baghdad, which is ruled by the house of Bani al-Abbas (the Abbasids), Buyids and Seljuks, his destination will be al-Baṭiḥa where is no way to reach him even with armed force”. Hamdani (2015: 86), from Yāqūt al-Ḥamawi (1977: 415).

Owing to the marshy nature of the terrain southeast of Amara during the past two centuries, that area is poorly known to archaeologists. But the situation is changing with the work by several Iraqi and international teams, among them Stuart Campbell, Jane Moon and Robert Killick at Alexandria - Charax Spasinou (see this volume); and the British Museum under the direction of Sebastian Rey and others at Girsu. Research on those sites may focus in part on periods of time and building levels that are later than those of special interest to many Assyriologists and cuneiformists such as myself, but I hope it is appropriate to look at different areas that were marshes in southern Iraq in early antiquity, how management of canals and river branches gave rise to different areas of marshes, and a background to understanding Alexander’s choice of location for his new Alexandria. A particular focus is on the Pallacottas canal, aiming to gather evidence for a very long and continuous use, no doubt with episodes of maintenance and alterations.

In early historic times some dynasties were labelled “Sealand” in cuneiform king-lists, and some of their kings were called Chaldean, a term which still defies a satisfactory definition, but has clear associations with Sealand. The relationship of old cities such as Larsa, Uruk and Ur with Sealand people in the marshes was no doubt affected by the management of canals and the control of flooding particularly in agricultural land, for floods came down the Tigris and Euphrates when the harvest was almost due, and could do immense damage. Urban officials were in charge of their management in good times; but in bad times those cities may have been reduced to religious and ceremonial centres on the citadels with floods all around them.

The marshes southwest of Amara
Some of us in the West who have enjoyed reading Wilfred Thesiger’s book The Marsh Arabs might think that the marshes in Iraq were mainly situated in the region south of Amara, particularly to the west of the Tigris’ current course (see Jankowski in this volume). Some modern sketch-maps that show marshes in ancient times concentrate on that area. Others show the area around the Shatt al-Arab around where the Tigris and Euphrates converge, with various possible dotted lines guessing at the ancient coastline. Much recent work carried out by survey and by using satellite photos has helped to indicate the lines of particular changes in the courses of rivers, their branches and their tributaries, but it is difficult to date their first occurrence, as well as the time when they fell into disuse or were revived after a period of neglect.

The best known Sealand city, in the late eighth century and early seventh century B.C., was Dur-Yakin, a settlement still not located, refuge of the Sealand king Merodach-Baladan II. He ruled Babylon on two separate occasions during the reigns of the Assyrian kings

---

1 It was a great privilege and a pleasure to support the installation of the new Basrah Museum, taking shape under the energetic and effective leadership of Qahtan Al Abeed and his staff from the State Board for Antiquities and Heritage. I am glad of this opportunity to engage with them in the rich history of the most ancient and civilised culture of the ancient world.
Sargon II (721–705 B.C.) and Sennacherib (704–681 B.C.); and their inscriptions and palace sculptures make it clear that the area around Dur-Yakin was indeed marshland at that time, but maybe temporary, since flooding may have been deliberate as a defensive measure.

The marshes east of Borsippa, and the name Pallakottas

Steven Cole (1994) used evidence in cuneiform texts to show that the countryside west of the Euphrates near Borsippa, a few miles southwest of Babylon, consisted mainly of marshes. The period he covered was during the early sixth century B.C. up until the time of Alexander the Great. That area was also known as “the Sealand”, tęmtu; so one of the city gates of Borsippa was called “Sea Gate”. There was a sluice gate too, perhaps more than one, to control the flow at that time. The canal that drew water off from the Euphrates on its western side was the apkallatu-canal “canal of the [female] sage”, the word “sage” meaning a “primeval wise person”. The name for the canal with unambiguous spelling is first attested in the mid sixth century B.C., in the time of Nabonidus (556–539 B.C.). Opinions are divided over whether this canal is the same as the much earlier one which is written with logograms in two different ways: ID ÁB.GAL (in a year-name of Halium, ruler of Kish in the early second millennium B.C.) which seems to mean, rather incongruously, “large cow canal”; or as ID NUN.ME, which is an alternative writing of AB.GAL, “sage canal,” possibly created in the late third millennium B.C. (Edzard & Farber 1974: 252–53). ÁB.GAL with the sign AB₂ may be an alternative writing for the sign AB₁₁. At that early time, the protection of Babylon was perhaps less important than it became later, so the primary purpose of bringing extra water southward on the west side of the Euphrates’ branches may have been for the irrigation of agricultural land around Ur and Erišu, as well as for improving transport by boat, or to divert seasonal flood water away from Borsippa and Babylon. Almost certainly some of the canals named in cuneiform sources by Babylonian kings were re-workings, extensions and widenings of earlier water-courses, and it is likely that the different writings all refer essentially to the same canal.

Three different etymologies can be given for apkallatu. Scholars now associate it with the Greek Pallakottas as named by Roman authors. This means transposing two consonants in the Babylonian version apkallatu to give aplakkatu, associating it with the verbal root PLK meaning “to divide, split”. This would link it with the name Fallujah, implying that the location of the modern town Fallujah was roughly the point at which water from the Euphrates was directed into the canal. But some scholars think that is too far north for the start of the canal, preferring a point only a short way north of Sippar. The second etymology relates it to the sages, who were shown in art as half-fish, half-human, wise primordial creatures who came up from the Apsu and brought the arts of civilisation to mankind. We might infer that the marshes were considered to be part of the Apsu where fresh water came up through the surface of the earth, because Ea (Sumerian Enki) was god of wisdom and so appropriate as patron of sages. The people of the Sealand, whose special god he was, thus had a specific association with wisdom.

The Babylonians loved playing with words and the roots of words, so those etymologies for Pallakottas may both have been enjoyed in antiquity. Even the “big cow” option, the third one, may be considered if we remember that wisdom is female in some contexts, and the cow’s head, for instance, on Nuzi seals, has the large ears that were a sign of wisdom, where the word hasīsu has two meanings: “ear”, and “wisdom”. It was the Sealand environment that produced many of the arts and institutions of civilised life.

In the time of Alexander, when the hero-king was returning from his eastern adventures, he was advised not to approach Babylon from the east, but he found that an approach from the west was impossible because it was so marshy. Ignoring advice based on divination, he reached the great capital city from the east, and died soon afterwards. The existence of a canal just to the west of the Euphrates from the Old Babylonian period until the time of
Alexander (with restorations or revivals) suggests that agricultural land around Borsippa was sacrificed for marshland because the main aim, certainly by the time of Nebuchadnezzar II (605–562 B.C.) was to protect the city of Babylon and its agricultural hinterland from flooding. Robert Koldewey’s excavations showed that the buildings of that time on the main citadel mound had to be rebuilt very frequently, with floor levels raised overall by up to seven metres, and a huge embankment was constructed to prevent the side of the citadel being eroded. Therefore a major aim of canal works was to control flooding around the great cities Babylon and Borsippa. This probably resulted in more water reaching the marshes. There is so much confusion and disagreement, however, on the course of the Pallukkatu canal that one may suppose different parts of it may have had different names at various periods.

The choice of site for Alexandria-on-Tigris / Charax Spasinou
When an archive of cuneiform texts from the First Dynasty of the Sealand, dated to the mid-second millennium B.C., came to light, it was rumoured that the tablets came from the region of Amara. I was initially quite sceptical about the reliability of the claimed provenance, but now, with the new focus of Charax Spasinou, I realise that it could contain an approximate truth. The place-names in those texts (Dalley 2009) were known, in some cases, to be close to Nippur; the Tigris area south of Nippur was inhabited by the Puqudu tribe whose members went to Nippur to celebrate festivals, according to an eighth century B.C. text from Nippur (Cole 1996: nos. 27 & 46), and southwards towards the harbour town Charax Spasinou, mentioned by Pliny (NH 6, 31.1.138) as the site of an older town called Durine. Herzfeld (1968: 9) suggested that Durine was a garbled form of Dūr-Enlil. In the texts of the First Sealand Dynasty, the most frequently mentioned place-name is Dūr-Enlilē — although it is uncertain whether Dūr-Enlil and Dūr-Enlilē are variant spellings of a single place-name (Nashef 1982: 90–91). As for Alexandria-on-Tigris, many of the places founded by Alexander and Seleucid kings were older towns whose names were changed to reflect
the new emperors, for instance Dura-Europos (Damara), Seleucia-on-Tigris (Upe), Apamea (Niya), Seleucia-by-the-Eulaiaos (Susa).

Greek sources maintain that Alexander founded his new Alexandria shortly before his death, with several purposes: to build ships capable of sailing down into the Gulf and exploring the Arabian coast including the islands of Failaka and Bahrain; and to create a link between the Royal Road to Susa, and Babylon, whether the link was made by road, canal or river, or by a combination of those. This might imply that there had never been such a link in the past, yet the conclusions reached for the third millennium B.C., that it was probably possible to travel by water from Ur and Larsa to Susa, make that unlikely. The transport of Lebanese timber from Babylon to Susa in Achaemenid times, known from an inscription of Darius I (r. 522–486 B.C.), suggests that there were already settlements of some importance along the way, both for garrisons to protect from invasion, and for intermittent harbours to facilitate trade by boat and the collection of taxes.

Herzfeld’s suggestion that the site for the city founded by Alexander was not a virgin site, but made its base upon an earlier Babylonian garrison at Dūr-Enlil(ē), allows the likelihood that a major harbour town on the Tigris already existed from the mid second millennium B.C. This would imply that the shoreline of the Gulf was already near to the junction of the Karun river with the Tigris rather than shifting later when Charax was built (Gasche & Tanret 1998: 27). In much later times Carian troops were stationed there, men originally under the command of Darius I’s naval captain Scylax, men who knew how to build and repair ships. Pliny wrote that the new Alexandria, Charax, was settled with Carians from a royal fortress, basilēion teichos, named in Greek as “Durine”. Many Carians, some of them from Egypt rather than directly from Caria, are identified in texts of the Murašû archive found at Nippur, living there during the reigns of late Achaemenid kings. By tracing the presence of Carians in southern Mesopotamia from the Achaemenid period to the time of Alexander, we can identify a significant group already in the population of the Sealand when the new Alexandria was founded there.

In Babylonian texts place-names formed with Dūr ‘wall, fort’ followed by a divine or a royal name were usually located at or just above the junction between two water courses, obviously strategic nodes where trade could be protected, taxes collected, and unusual traffic monitored.

Dūr-Enlil(ē) “Wall of the Enlils” (several Enlils, clearly intended according to the use of a plural marker) was important in the time of the First Sealand Dynasty, around 1500 B.C., and in the following Kassite period (van Soldt 2013). In the First Sealand Dynasty Schøyen archive the place was of sufficient importance to be named in Year-name H in the reign of Ayadaragalame, when the king rebuilt the “old usukku”, a word which has only recently been discovered to refer to waterworks in a metaphorical use of the basic meaning “cheek” (Dalley forthcoming). Around the same period tablets found at Nippur mention irrigated agricultural land Namgar-Dūr-Enlil.

One can suggest, therefore, that Alexander, wanting to improve and monitor traffic between Babylon and Susa, wanting also a naval base from which he could explore the Arabian coast of the Gulf, discovered at Dūr-Enlil(ē) a “royal garrison” basilēion teichos, now centuries old, already strategically placed as a town with a river harbour, around which he could construct his largest and last Alexandria.

Bibliography
——. forthcoming. The First Sealand Dynasty: Literacy, economy, and the likely location of Dūr-Enlil(ē) in southern Mesopotamia at the end of the Old Babylonian period, eds. T. Clayden and S. Paulus.
Basra has always been a seafaring city, its position at the head of the Gulf guaranteeing its prosperity. In Abbasid times, its sailors and traders ranged far and wide across the Gulf and Indian Ocean in search of goods and profit. Success brought great wealth: some Basra merchants of that time had an annual income of more than one million dirhams, equivalent to as much as $250,000 today (Hitti 1996: 132–3). But what about earlier times when the waters of the Gulf still covered the area? Archaeologists and historians have identified two cities further north that were in their day as wealthy and as prosperous as Basra. During the centuries immediately preceding Islam, the city of Forat was the main port of entry for maritime goods. The remains of this city lie thirty-five kilometres north of modern Basra. Close by is an even earlier city, Charax Spasinou.

Charax Spasinou, (“Palisade of (Hy)spaosines”), called Karkh Maysan in Aramaic and Arabic sources, was the capital of Mesene (Maysan) and the most important harbour of the Gulf from the third century B.C. to the sixth century A.D. It was a foundation of Alexander the Great, partly washed away and re-founded by Antiochos V. Eupator, probably in 166/165 B.C., and again destroyed by floods. The new city was renamed after Hyspaosines, the former Seleucid governor of the “Satrapy of the Erythrean Sea”, who declared himself independent in approximately 140 B.C. After his defeat by the Arsacid king Mithridates I, it became the capital of the kingdom of Mesene, the southernmost of the three Arsacid provinces situated in what is now Iraq, and the “place where the merchants of the East meet”.2 It remained the seat of the king, i.e. the local ruler subordinate to the “King of Kings” at Ctesiphon, throughout the Arsacid period and for much of the Sasanian, mostly governed by members of the respective royal families. Situated at the confluence of the Tigris and Eulaeus (Karun) rivers,3 its harbour served as point of exchange for the trade between India and Babylonia.

1 The work at Charax Spasinou is supported by Baron Lorne Thyssen-Bornemisza at the Augustus Foundation, The British Embassy, Iraq, and the British Institute for the Study of Iraq. Since spring 2017, the project has also been in receipt of a grant from the Cultural Protection Fund, funded by the Department of Digital, Culture, Media and Sport through the British Council. We are also grateful to SKA Group for providing logistical support in Iraq.

The project is a partnership between the University of Manchester, the University of Konstanz, and the Iraq State Board for Antiquities & Heritage (SBAH). Professor Jörg Fassbinder of Ludwig-Maximilian University, Munich, carried out the magnetometer survey in 2016. We would also like to thank the staff of SBAH for their support, particularly Mr Qahtan Al Abeed, Director of SBAH Basra, who introduced us to Charax Spasinou and encouraged us to work there.

Our thanks also go to our team members of the two preliminary seasons for their unwavering professionalism, no matter how hot and uncomfortable the conditions: Ahmed Abdullah Al-Mamouri, Dr Martin Gruber, Abdul Razak Kadhim, Dr Simone Mühl, Adrian Murphy, Dr Mary Shepperson, Fay Slater and Rosalind Wade-Haddon.

2 As Maysan is called in the “Hymn of the Pearl”, a third century A.D. Syriac poem, which was later included in the slightly later “Acts of Thomas”, a text on the mission of the apostle Judas Thomas, deemed apocryphal in the sixth century: see, for example, Schuol (2001: 165–67, with further literature).

3 On the changing courses of the Karun and Karkheh rivers, see Heyvaert et al. (2013).
the economic heart of the empire of the Arsacid dynasty of Parthia. It also served trade with the Mediterranean, in particular via Palmyra.

Alexandria, Antiochia, Charax Spasinou, Karkh Maysan, possibly also Astarābād-Ardashīr: the city had many names in antiquity, reflecting the various dynasties and empires that sought to control it. It is well documented in the ancient sources, from the Roman author Pliny who describes its foundation (*Natural Histories*, Book VI. xxxi. 138–9), to the Persian scholar Al-Ṭabarī who records the death in battle of its last ruler (Bosworth 1999: 13–14), but its location was a puzzle until fifty years ago, and exploration of its remains did not begin until 2016.

The city walls of Charax Spasinou still loom large today above the flat alluvial plain, the only feature for miles around except for the flare stacks of nearby oil wells (Fig. 5.1.). Their height at times has been their misfortune. Lying close to the frontier with Iran, the protective ramparts proved too tempting for the military planners of the Iraq-Iran war. Evidence of this lies all around: tank emplacements dug into the ramparts, sheltered areas inside cleared for military camps, and large quantities of spent shell casings and other *matérial* scattered about, slowly rusting away in the salty soil. Lying so close to Iran, the city has effectively been off limits to archaeologists and other visitors for much of recent history. Environmental conditions have also had a negative impact on the archaeological remains. Until the mid-twentieth century, the area was regularly underwater as a result of annual flooding by the nearby rivers, washing away the remains in some areas, while depositing layers of silt in others. Today, the earliest city lies two metres or more below the modern land surface. Deflation too has been extensive: the baking of the summer sun, coupled with the wind and the rain, has repeatedly crusted and then removed the topsoil. Small wonder then that the archaeologist who first identified the remains of Charax Spasinou thought that nothing much of interest had survived within the ramparts (Hansman 1967).

So it was with some trepidation and not really knowing what we might find, that our team of archaeologists from Britain, Iraq and Germany began work in spring 2016. Our initial objectives were straightforward: to make a map of the site over an area of some five square kilometres and to determine the extent and depth of the archaeological remains through geophysical prospection and limited excavation. Mapping was carried out by using a small aerial drone. Flying in a grid pattern, the drone took over 11,000 photographs of the modern land surface. These were then compiled into a single photomosaic from which contour maps and digital elevation models have been generated, providing invaluable tools for the survey now taking place on the ground.4

---

4 The drone was flown at a height of 100 m in a grid pattern fixed by on-board GPS software. Blocks of approximately 500 x×500 m were covered on each flight, and vertical photographs taken with an 80% overlap. Twelve square kilometres were recorded in this manner, covering the probable extent of the city and part of the wider landscape. Sixty ground control points were temporarily established, using a high precision GPS with an optimal accuracy of +/- 7 cm. Subsequent maps were produced using commercial software (AgiSoft PhotoScan Pro). Maximum resolution of the photomosaic is c. 5 cm per pixel.
The area chosen for geophysical prospection was in the southern part of the city, close to where satellite images showed the loop of an 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.

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 its founding. If this is correct, the blocks shown up by the magnetometer, measuring approximately 156 × 85 metres, are among the largest known in the ancient world, larger even than those of the former Seleucid capital cities Seleucia-on-the-Tigris (144.7 × 72.35 metres corresponding to 500 × 250 Attic-Ionic feet; Gullini 1967) and Antioch-on-the-Orontes in Syria (115.8 × 57.9 metres corresponding to 400 × 200 feet; Downey 1963: 22; De Giorgi 2016: 61). 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 underlying structures prior to its construction (Fig. 5.2.).

To the south, the survey reached the edge of the old river course which had 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 Spasinou and the floodwaters of the nearby rivers.

The read-outs from the magnetometer survey clearly showed 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 across the outer walls 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 metres 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.

The linear feature demarcating the boundary between city blocks presented us with a puzzle. Two parallel walls were identified, presumably representing the boundaries of adjoining blocks, but between them we encountered a strange and unexplained feature. Seven inverted storage jars were set in a row, along the southern side of a ditch demarcating the boundary of the housing quarters (Fig. 5.3.). Each jar was over a metre long, thin, with perfectly straight sides, a neckless rim and gently tapered base. In their original state, lined with a waterproof coat of bitumen, the pots were for storing liquids such as wine. But they all had the bases neatly cut off, and were standing upside down in a line, set in solid clay.
We speculate that they may have been some kind of drainage device, but it remains a puzzle. Further large storage vessels of different shapes lay nearby, some also carefully modified.

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 (Fig. 5.4.). 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 B.C. and the first century A.D. (Salles 1990).

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 (Fig. 5.5.). 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 military activities (Fig. 5.6.). We also found a single, skilfully cut-glass cube, which must once have belonged to a glittering mosaic.
Charax Spasinou once connected the metropolitan areas of Babylonia with India, and for centuries facilitated the trade of luxury goods between China, India, Babylonia and the eastern Mediterranean. Our encouraging preliminary results demonstrate the potential for following the survey with a major multi-disciplinary project on this important political and economic centre.

Bibliography
CHAPTER SIX
ARD MAYSAN AND THE LAND BEHIND BASRA IN LATE ANTIQUITY
ST JOHN SIMPSON

Introduction
The agricultural and urban development of southern Iraq reached its highest point of complexity in Late Antiquity with considerable continuity from the Sasanian into the early Islamic periods. The northern portion features heavily in the Babylonian Talmud (Bavli) and this gives a huge amount of information on life then (Simpson 2015). The staple crops were wheat, barley and dates, as they had been for millennia before. Although arable agriculture dominated the landscape the significance of other economies should not be overlooked. Sheep, goats and cattle were important types of livestock and sources of secondary products, fibre crops sustained textile industries and in riverine areas and in the far south, while fishing must have been an important part of the food economy. Archaeological surveys indicate that the entire region was covered by canals which connected the Euphrates, Tigris and their tributaries and integrated them into a complex network of water supply and transport (Adams 1981). Urban and rural growth went hand in hand as each relied on and stimulated the other, and there is matching evidence from western Khuzestan (Adams 1962; Eqbal 1976: 116, table 20, fig. 49; Walstra, Heyvaert and Verkinderen 2010), Susiana (Wenke 1975/76; Moghaddam and Miri 2003: 103–105) and the Deh Luran plain (Neely 1974). Moreover, it was during this period that Bushehr and its immediate hinterland also saw intensive settlement (Carter et al. 2006) and the results of surveys in the Kur river basin and other parts of Fars suggest a similar intensification and also offer evidence for the exploitation of more marginal lands (Hartnell 2014). The intensification of agriculture had several significant effects on the Sasanian economy. It increased the population-carrying capacity of the land, as well as the volume and regularity of product from agro-industries, ensured greater supplies of fuel for pyro-industries, and generated increased revenue through taxation of crop yields. Fertile regions therefore must have been regarded by the state and private individuals alike as important assets. It is not surprising to see investment being made in these regions, and not simply through water engineering works but also through intensive urban infrastructure and rural settlement programmes (Simpson 2017).

The natural setting
The Mesopotamian alluvial plains correspond partly to the early Sasanian province of Asoristan (later Arab Sawad), which was later sub-divided into the provinces of Ard Babil, Ard Kaskar and Ard Maysan (Morony 1982). Most previous studies have concentrated on the evidence from the first two of these and most modern authors have suggested that their southern equivalent was covered in marsh and therefore of minor significance. This paper now re-examines the evidence for this southernmost province. It begins with a review of the natural environment and how that has shaped the economy of this important region of Iraq, and follows with a short discussion of the equivalent historical and archaeological evidence from Late Antiquity.

This part of the alluvium consists of deltaic estuaries extending into the Persian Gulf with mudflats, lakes and marshes extending behind and is characterised by an extremely
shallow gradient and a very high water-table. River and canal banks are easily breached and minor fluctuations in the water-table can result in areas beside the Tigris and Euphrates becoming seasonally or permanently flooded. A change from seasonal to permanent marsh is particularly susceptible at phases of river channel re-alignment or temporary tectonic down-faulting, and even minor changes in sea-level can have dramatic effects. The lowermost area of marshes forms an intertidal estuary zone where the level of (partially saline) river water rises and falls twice a day by approximately two metres in the Shatt al-Arab and adjacent creeks. Irrigation of salt-resistant or salt-tolerant strains of barley, plus date palms and rice, is facilitated along the narrow strips of raised land beside the rivers and major streams. The major traditional resource of the marshes was the reed ($\text{Phragmites communis}$) which grows throughout the region. It is usually harvested in summer and traditionally sold in the market towns for use in construction and weaving mats. The latter were primarily used in making huts or platforms but were also used as crop covers and grain stores in the huts and fields. Reeds were also used in making furniture, offered an important source of fuel and, when young and fresh, are used as fodder. Certain tribes specialised in gathering reeds and during the last century the local centres for the woven matting industry were the villages of esh-Chibaish and al-Kharfiya, from where mats were shipped as far as Basra and Baghdad (Bawden 1945: 393; Salim 1962: 104–12). Bulrushes, which only grow in the Hor al-Hammar, were used as fodder for the buffaloes, for binding reeds and for wind-proofing huts. Finally, salt was widely exploited along the southern edges of the Hor al-Hammar. It was extracted via wells in summer and sold or bartered for cereals, rice, etc. in neighbouring villages and in the Amara and Gharraf districts (Salim 1962: 19–20). In addition, good camel and horse grazing areas are available in the vicinity and as late as 1919 the five main products exported from Basra were dates, grain, wool, hides and horses (Dowson 1921: 43).

Most studies of the marsh region have focused on the Mi’dan tribes, or so-called “Marsh Arabs” (Thesiger 1964; Thesiger and Maxwell 1958; Maxwell 1959; Young and Wheeler 1977; Ochsenschlager 2004). They traditionally lived in reed huts which varied in number from thirty to five hundred and were situated near the rivers or on mounds in the area of the permanent wetlands. During the flood season, small settlements were created on floating platforms constructed of reeds, bulrushes and earth, or on raised reed islands. The economy of these tribes was based on the herding of water buffalo, whose rich milk was made into clarified butter, which was prized throughout Iraq for its use in cooking. The tribespeople also caught fish, especially carp, and winter migrating birds, particularly ducks and geese, for local consumption. However, they relied on nearby market towns for most of their necessities, ranging from canoes, water-pots and clothes to cereals and rice.

Basra is the largest city in the region but in its hinterland lie a number of market towns: Amara, Suq ash-Shuyukh, Qal’at Salih and Qurna. There are also many villages at the edges of the permanent marsh, occupied by different Arab tribes, including the Beni Hasan, plus smaller numbers of Solubba or Mandaeans. These grew winter wheat and barley along the river or canal banks upstream, and planted rice ($\text{Oryza sativa}$) and great millet ($\text{Sorghum vulgare}$) in lower lying areas in the summer once the spring floods had receded. Successful rice cultivation is dependent on continual water supply, hence its popularity in this region. Common millet ($\text{Panicum}$) was also cultivated as a summer crop, particularly along the Shatt al-Hai. It is a highly drought resistant variety capable of producing high yields under weed-free conditions and is the only summer crop attested from southern Iraq. In addition, vegetables were grown and dairy cattle kept, particularly near the Tigris.

Finally, another important population group are the Bedouin who used to occupy the wetlands on a seasonal basis before moving into the southern desert or the foothills of southwest Iran to exploit areas of fresh grazing. Prior to the enforcement of modern borders, there was regular movement between modern Iraq, Iran and Kuwait. In the area northeast of Amara, the Bani Lam used to move their flocks in summer into the Iranian foothills.
(Drower 1940: 371) and as late as the 1970s the Hadij Bedouin used to spend the months from August to January in the marsh area near al-Hiba in southern Iraq, “when the recession of the marshes furnishes pasture for their herds”, but “when the marshes again begin to expand owing to the winter rains and the increased use of the irrigation canals which empty into the marshes, the Hadij move south to Kuwait and the great deserts of Saudi Arabia before returning to this area in Iraq in July or August during the hottest part of the summer” (Ochsenschlager 1974: 162–63). Dickson (1949: 545–49) described these movements in greater detail, differentiating between a tribe from Old Basra known as the Zubairiyah, the Zauba and Rifi’at tribes of the Shammar confederation, and the Albu Salah, ‘Ajwad and Bani Malik tribes of the Muntaliq confederation. All of these herded sheep, left the Euphrates basin in mid-October each year and travelled either side of the Wadi al-Batin: “during February and March the shepherd tribes cover the whole of the area lying to the south and west of Kuwait” but returned northwards, “usually about the end of April or early in May when water becomes scarce and sheep have to get back to the Euphrates before the desert grazing dries up” (Dickson 1949: 547). They were welcomed by the local Bedouin, “since they bring with them cheap mutton, excellent dehen (clarified butter), much wool for tents and red and white sheepskins, always in demand for camel saddle-coverings” (Dickson 1949: 546). These transhumant patterns also illustrate the fact that there are different types of Bedouin herding economies and a close economic relationship between tribes inhabiting the desert margins of Mesopotamia and northern and eastern Arabia which has existed since the early second millennium B.C.

The wetlands often have been denigrated as a backward region but, as this short summary indicates, it is a dynamic environment of fluctuating size. It was rich in renewable resources, the narrow strips of raised land alongside the waterways are suitable for the cultivation of date palms, salt-tolerant barley and rice, and there was good grazing potential. The marshes offer a diversity of eco-zones capable of sustaining small secluded communities, as well as larger population centres on the main river channels. The latter in turn served as corridors of transportation and Basra has been famous since the medieval period as a bustling and cosmopolitan city, Iraq’s only sea port and a vital entrepot for Persian Gulf and Western Indian Ocean trade. We turn now to the historical and archaeological evidence for this region in Late Antiquity.

**Ard Maysan**

Although the sources are not as rich as for other regions or as in the early medieval and later periods, it is nevertheless clear that a similar economic pattern existed during the Sasanian period when this region fell within the eastern and southern portion of Ard Kaskar (see above) and the separate province of Ard Maysan (Morony 1982: 30–39; Hansman 1984). The latter province was formed from the southern portion of the former kingdom of Characene and Mesene. Under the terms of the late Sasanian administrative quadripartite division of the empire, Ard Maysan was part of the so-called “Quadrant of the South” which was centred on Fars and included the Persian Gulf. This suggests that its economic orientation was re-orientated accordingly, whereas the remainder of Mesopotamia fell within the “Quadrant of the West” and faced Rome to the west.

Three Sasanian cities are attested within the province of Ard Maysan, and all lay on major navigable river channels. The first was Astarabadh Ardashir, on the site of the earlier capital of Characene, Charax Spasinou (“Palisade of Hyspaosines”, named after the protective embankments built around it by this ruler), and which survived into the medieval period under the name of Karkh Maysan (“Fortress of Maysan”). This is located near the junction of the river Karkheh (Eulaeus) with the left bank of the old Madhar channel of the Tigris and is represented by the fortified archaeological site of Naisan, and was first identified as such by Hansman (1967: 36–45, pls. V–VIII). Although partly submerged under alluvial deposits
and scoured by the down-cutting of the Karkheh, a recent geophysical survey has produced spectacular evidence showing domestic architecture packed within a rectangular street grid, with the housing partially replaced during a later phase by monumental buildings set within the same orthogonal plan (Killick et al. [2016]; and in this volume). The Nestorian synod of 544 describes the bishop of Bahman Ardashir as the metropolitan of the entire province of Meshan (Chabot 1902: 89, 94, 345, 350). The second city was known as Bahman Ardashir and was identified by Hansman (1967: 46–53) with the walled site of Maghlub, again located on the left bank of the Madhar channel. It was also known as Pratta or, in the early Islamic period, Furat Maysan. Finally, the unexcavated Sasanian port of Ubulla, situated on the right bank of the Tigris channel at present-day Ashar, probably on or next to the site of the classical port of Apologos, handled maritime trade with India (Morony 1982: 37).

The presence of these urban centres and a maritime port clearly indicates that Ard Maysan was a flourishing province during the Sasanian period. As in recent times, there was probably a complex relationship between the settled urban populations, traders and the local rural populations of the wetlands, river valleys and desert margins. Written sources also point to a diverse range of communities occupying this region in Late Antiquity. Shapur II (309–379) is said to have moved as many as ninety families professing belief in the Babylonian goddess Ishtar from Maysan to a village near Kirkuk (Morony 1984: 386). Communities of Zutt (or Sindi) and Sayabija Indians from the Indus Valley and Sumatra had settled here and were raising water buffaloes by the Umayyad period, if not before (Kröger 1981; Asa Eger 2011: 77). Until recent decades, this region was home to a large Mandaeans community and a number of chance finds imply that there were resident Mandaeans in this region already during Late Antiquity. There have been repeated finds of lead scrolls with Mandaean inscriptions, which are generally believed to date to about the sixth century, at Ishan Abu Shudhr [Abu Shajar], an unexcavated:

island of dark, bare earth, three hundred yards across and perhaps ten feet high at its highest point … The soil was impregnated with salt and nothing grew on it. There were no stones or pieces of rock, indeed I saw none anywhere in the Marshes. Judging by bricks and bits of pottery that lay about on the ground, Abu Shajar appeared to be the site of some forgotten city. Sadam said, ‘They say there is gold buried on this island; the Madan have hunted for it. Look, do you see where they have dug?’ and he pointed to some shallow pits. He added, ‘They have not found any.’ (Thesiger 1964: 76–77; cf. Young and Wheeler 1977: 40)

The earliest of these reports was by Henry Rawlinson who states that these “few rolls of sheet lead inscribed in the Chaldaean legends” were acquired by J.G. Taylor in 1853 and “seem to have [been] deposited with the bodies of the dead in their sepulchral jars” (British Museum archives/Middle East/Correspondence, letter dated 4 March 1853; quoted by Sollberger 1972: 134). The substance of this account was repeated at a meeting of the Royal Asiatic Society on 21 May that year, when it was reported that Rawlinson had sent a copy of an inscription, “being one of a numerous collection of inscriptions written upon thin pieces of sheet-lead closely packed in sepulchral jars, which were found at a place called Abushudhr” (anon. 1853). The statement that the scrolls were placed in pots is surely true but these may not have been in tombs as surmised. Similar finds may have continued to be made at this site more recently as one was offered to Thesiger, which he described as “a small piece of lead sheeting covered in scratches … The man who gave it to me said it had been part of a large roll which they had melted down for bullets” (Thesiger 1964: 78; cf. Young and Wheeler 1977: 41). Incantation bowls with Mandaeic inscriptions, probably dating to about the sixth or seventh century, have been reported from the Amara area and Chatran al-Muntefik (de Morgan 1904: pls. I–II), and Goetze (1946: 17–18, fig. 9) illustrates a jar and bowl with Mandaeic inscriptions which had been “acquired in the ruins of the old Sabaean colony of Hawiza on the Kerkha”.

38 ARD MAYSAN AND THE LAND BEHIND BASRA IN LATE ANTIQUITY
After the Arab Conquest Ubulla was replaced by the Arab garrison town of Zubair (Old Basra) which was founded in 635/639 on the Hor Zubair, then the main outlet of the Euphrates to the Persian Gulf (Gasche ed. 2007: fig. 69). This was in the vicinity of as many as seven Sasanian desert frontier forts, one of which may be the site of Tulul ash-Shu’aiba, located seven kilometres east of Zubair and twenty kilometres southwest of Basra. Excavations carried out here on a mound about 500 metres from the main Umayyad complex revealed a small square mudbrick fort with simple stucco decoration. The associated pottery included stamped sherds decorated with crosses and zoomorphic designs that could, from the description, be late Sasanian in date (Majhul 1972; Postgate 1972: 145). The site of Zubair is now covered by the western suburbs of Basra: despite its previous accessibility, it was barely mentioned by early European travellers or archaeologists although it regularly features in First World War postcards produced for British troops stationed nearby (Fig. 6.1.). It was somewhere here that a reused eastern Mediterranean Late Antique limestone
statue showing a youthful Christ as the “Good Shepherd” was found and presented to the British Museum in 1919 by Sir Arnold Talbot Wilson (1884–1940), then Deputy Civil Commissioner in Baghdad (Fig. 6.2.). The first recorded investigations at the site were in 1907/1908 when the standing minaret of the Great Mosque was recorded by Ernst Herzfeld (Sarre and Herzfeld 1911: vol. I, 249–52, vol. III, pl. XXXVII). This building was partly excavated during 1972/73 by an expedition directed by Dr Khalid al-A’dami from the Department of History in the University of Basrah which revealed its plan and remains of the collapsed facade with Kufic inscriptions and decoration in cut brick (Postgate 1973: 191–92). In 1978 large-scale excavations were renewed by Dr Kadhim al-Janabi and on behalf of the State Organisation of Antiquities, and revealed part of an early Abbasid residential quarter but only summary details are published, and the archives and finds were lost during looting after the First Gulf War (Postgate and Watson 1979: 147–48). Limited rescue excavations were conducted more recently, which produced early Abbasid pottery and an oven or kiln (pers. comm., Qahtan Al Abeer 2010).
Basra soon grew in economic importance, replacing the Sasanian cities further upstream. It included a substantial Iranian community, many of whom probably transferred from Ubulla (cf. Morony 1984: 196). Descriptions by early Islamic writers indicate it had numerous bazaars and was a centre of production as well as commerce. The location and physical orientation of these (as yet unexcavated) bazaars give vital clues which indicate its capitalising on old as well as emerging markets (Fig. 6.3.). Copper-smiths, cup-makers and glass vendors or makers were situated in the Great Suq on the Bilal canal. A pottery suq existed near a fish market by the Sayhan canal in the southeast corner of the city. The Suq al-Mirbad, on the southwestern edge, popular with caravans and Bedouin, included vendors of camel halters, sheep, birds, fat and, perfumes and drugs (Naji and Ali 1981). It was because of this location at the meeting of river, sea and desert that Basra therefore grew from a military camp to a port of the desert as well as the sea, and what one tenth century writer described as “the microcosm of the world.” He went on to quote al-Jahiz:

Whoever comes to this river-channel and sees the palace of Anas [b. Malik], will see a land as white as camphor and will see the lizards which can be caught, gazelles, fish and fishermen, and he will hear the sailor singing at his helm and the chant of the camel-driver urging on his beast. (Tha‘alibi 1968: 123)

Similar bazaars are attested from eighteenth century Basra: “at Suq al-Qazzazah, for example, one could find silk and materials for embroidery, while Suq al-Safafir specialized in copperware. There were also markets for cloth, knives, pens, camels, sheep, horses, fish, vegetables, incense, and many other articles” (Abdullah 2001: 24). In both cases, these probably resemble those of Basra’s pre-Islamic predecessors but the growth of the Bedouin market is probably a direct reflection of the change in the political situation after the Arab
Conquest and the boom in the Arabian economy which followed. Beginning in the mid/late seventh century and continuing as late as the early ninth century, there is a huge increase in the number of archaeological sites in Arabia as the previous Bedouin communities began to settle down. They imported large amounts of pottery, glassware and probably many other items from southern Iraq and elsewhere. This was also a boom period in the development of the Eastern Church. A large number of parochial churches and monasteries are archaeologically attested from this period, extending from near Najaf on the edge of the Iraqi Western Desert to the islands of Akkaz, Failaka, Kharg and Sir Bani Yas in the Persian Gulf (Simpson 2018). The discovery of extensive eighth century settlement around the Bay of Kuwait, as well as eighth and ninth century settlements at Murwab in Qatar and Jazirat al-Hulayla near Ras al-Khaimah in the United Arab Emirates, are part of the same economic boom (Kennet, Ulrich and Le Maguer 2013; Guérin and Al-Naimi 2010; Sasaki and Sasaki 1996).

The land behind Basra

The Basra region is one of the least archaeologically explored areas of Iraq. During the late 1950s, Georges Roux recorded eight partially submerged mounds along the southern edge of the Hor al-Hammar with surface pottery dating between the second half of the third millennium and the Islamic period (Roux 1960). The subsequent draining of most of the marshes during the 1990s and the redevelopment of land for agriculture has resulted in many more mounds being discovered, implying that these areas were less marshy when they were occupied, although most sites have not yet been closely dated (Gasche ed. 2007: fig. 65). However, the recent discovery of Sasanian sites following canals east of the Shatt al-Ghuraf confirms that the northern part of this region was originally an extension of the alluvial plains, and that the Sasanian towns at Ruqbat Meda’in and al-Mada’in, either side of Telloh (ancient Girsu), were part of this network (cf. Ghirshman 1936). Further south, the plains turn to marsh but the physical extent of the marsh region in antiquity, particularly during the fifth and sixth centuries, has excited different views. These range from there being little change from now (Lees and Falcon 1952) to the entire region south of Uruk being viewed as part of the region described in post-Conquest Arab sources as al-bata‘ih (“the great swamp”) with little associated settlement (Adams and Nissen 1972: 59–62, fig. 21). The episodic nature of tectonic activity implies that the exact shore-line of the Persian Gulf has fluctuated. Geomorphological research indicates an even more complex geological picture resulting from variations in sea-level and climatic change (Larsen 1975; Kirkby 1977; al-Asfour 1978). Some written sources suggest that the profile of the head of the Persian Gulf has not changed significantly in the past two and a half millennia (Hansman 1978), but others imply it may have been more dynamic (Gasche ed. 2007: 54). Radiocarbon dated cores show that the heart of the wetlands represented by the Ahwar marshes, Hor al-Hammar and Hawr al-Hawiza were formed in the early Islamic period, as was the Shatt al-Arab (Pournelle 2003: 126–27). In this case, the growth of the southern Iraqi wetlands in the early medieval period corresponds to a pattern noted in the Amuq region and Ghab valley of the central Orontes in Syria, which suggests that they are products of human mismanagement of water resources rather than timeless natural environments (Asa Eger 1011).

According to Ibn Rustah, “before Islam” boats from India were able to pass along the Madhar channel, i.e., the present easterly course of the Tigris, and could reach as far as Ctesiphon (Le Strange 1966: 27–28). According to Yaqt, this channel was blocked by Varahran V (421–439) in order to divert water into the western Kaskar channel. The effect of this was to deprive water from areas of the Ard Jukha, between Khaniqin and Khuzestan, as it was required for new field systems on freshly drained land east of Warka. During the reign of Kavad I (488–531), according to al-Balādhurī, there was flooding in this district,
although it was later restored to cultivation. But additional flooding in about 629 proved disastrous and formerly centralised irrigation schemes were abandoned (Hitti transl. 1916: 453). Abu’l Feda and al-Qazwini repeat al-Balādhurī’s statement that this later flooding was caused by a breakdown in the maintenance of the canals as the Persians “were kept too busy fighting to mind the breaches which would burst and no one would mind them; and the feudal lords [sīhkān] failed to block them” (Hitti transl. 1916: 454). The Arab accounts support a picture whereby the state invested in large-scale irrigation schemes but these were susceptible to breakdown if they were not maintained. The wetlands then began to expand and offer an alternative lifestyle.

**Persian Gulf and Western Indian Ocean trade**

A comparison of these different written and archaeological data-sets implies that the Basra region was as important to the Sasanian imperial economy as it continued to be in the early Islamic period. The establishment of two new urban foundations and the existence of a Persian Gulf port, all within the Basra area, imply high-level patronage, a thriving mercantile class, effective administration, substantial populations, a substantial agricultural support base and integrated transport networks.

The extent and effectiveness of Sasanian land and water management has been discussed in many studies based on archaeological surveys from Iraq and Iran, and the equivalent evidence for Sasanian urbanism and military planning has also been explored elsewhere (Simpson 2017; Sauer et al. 2013). The significance of maritime trade to the Sasanian economy and development of the Persian Gulf has been emphasised in several studies but the scale and organisation of this is still unclear. Most authors have followed Whitehouse and Williamson (1973) in arguing it was highly developed and similar to that known from the Abbasid period (Daryae 2003; Morony 2001/02), while others have been more cautious, arguing that local agricultural production was of greater importance along the northern Persian Gulf, questioning the Sasanian dating of the earliest levels at Siraf and drawing attention to the modern political context behind the promotion of Iranian naval supremacy in the Persian Gulf (e.g., Priestman 2005). Moreover, on the southern side of the Persian Gulf, a re-assessment of earlier surveys combined with more recent work shows that the extent of permanent settlement in eastern Arabia during this period is considerably less than previously assumed (Kennet 2007).

However, despite the lack of much direct evidence from Iraq or Iran, there is growing archaeological evidence for Sasanian (and Byzantine) maritime trade in the Western Indian Ocean (Howard-Johnston 2017). Tellingly, Procopius refers to how “the Persian merchants always locate themselves at the very harbours where the Indian ships first put in (since they inhabit the adjoining country) and are accustomed to buy the whole cargoes” (*Wars* I, XX, 12). Much earlier, the first century *Periplus of the Erythraean Sea* refers to “big vessels” sailing to Ubulla [Apologos] and another Persian Gulf port [Omana] from Bharuch [Barygaza] in Gujarat. These boats were laden:

> with supplies of copper, teak-wood, and beams, saplings, and logs of sissoo and ebony … Both ports of trade export to Barygaza and Arabia pearls in quantity but inferior to the Indian; purple cloth; native clothing; wine; dates in quantity; gold; slaves. (transl. Casson 1989: 71–73)

The size of the cargoes is hinted at by the fact that the ship *Hermapollen*, described on the mid-second century “Muziris” papyrus, has been calculated as carrying more than 620 tons, of which pepper represented about 86% (De Romanis 2015: 139). Procopius’ reference to bulk buying implies large-scale trading by Iranian merchants although the fact that the ships themselves were Indian is unsurprising as there is a shortage of appropriate boat-building timber along the Persian Gulf. The Indian ship owners must have got rich
through this arrangement, hence a reference by Fa Hsien to merchants known as sa-po or sārthavāha owning “stately and beautiful” homes in Anuradhapura in the early fifth century (Banaji 2015: 125). The scale of the economic boom is underlined by the sheer number of South Asian ports listed in the first and sixth centuries, of which fifteen can be reasonably well identified (Banaji 2015: 115). Large numbers of Sasanian torpedo jar sherds reported from the pepper-exporting port of Muziris in southern India illustrate the scale of export of wine and/or oil in these transport amphorae and explains the origin of the large quantities of pepper seen by Heraclius’ troops in the royal stores at Dastagerd (Tomber 2007; cf. Greatrex and Lieu 2002: 215). Underwater discoveries of torpedo jars and military equipment off the Iranian coast between Gonaveh and Bushehr indicate that ships were sailing the region (Tofighian, Nadooshan and Mousavi 2011). Sasanian glazed tablewares, pitchers, torpedo jars and glass bowls, as well as southeast Iranian painted finewares, have been found at sites in eastern Arabia (de Cardi 1972; Kennet 2004; Andersen 2007).

Sri Lanka marks the pivotal point between Western and Eastern Indian Ocean trade networks. A Sasanian bulla was excavated at Mantai in 1984 (Carswell 1991: 199, fig. 11.2), and torpedo jars have been found at Anuradhapura, the asphalt lining of which originates from a southwest Iranian source (Stern et al. 2008). Further west, fragments of southeast Iranian painted tablewares and a cut glass bowl have been published from the South Arabian port of Qana (Simpson 2007b), and low numbers of Sasanian glazed wares have been recovered from third to late fourth or early fifth century contexts at Shabwa (Rutten 2009), and early sixth century and later Aksumite contexts at Aksum and nearby Bieta Giyorgis (Phillips 2000: 326–27, fig. 284; Manzo 2005: 60–62). Although the quantities of these finds are mostly small, they confirm the circulation of a mixture of tablewares, packaging and sealed documents within a similar distribution pattern to that of earlier Roman and contemporary Byzantine goods in the Western Indian Ocean and which, unlike the early Islamic period, are not yet attested from East Africa south of Ras Hafun.

Conclusions
During Late Antiquity the Basra region was crucial in connecting the imperial Sasanian Quadrants of the West and South, corresponding to present-day Iraq, southern Iran and the Persian Gulf. The economic significance of these being united then within a single administration cannot be under-estimated. The fact that multiple urban centres are attested along main river channels proves that there was significant investment in their infrastructure as well as maintenance of the waterways, and these were closely connected with large-scale land and water management schemes in Susiana, Khuzestan and southern Iraq. The Sasanian port of Ubulla was the immediate forerunner of Basra. It must have served as the main maritime gateway connecting Mesopotamia with the Persian Gulf and Western Indian Ocean and been a magnet for state and private investment. Excavations at a port such as this would probably completely change our understanding of Sasanian maritime trade, just as the recent decades of research in the Red Sea have shown that this region was considerably more dynamic in Late Antiquity than previously recognised (Sidebotham 2011; Tomber 2007). Much also remains to be understood about the wetland hinterland of Ubulla/Basra and how this related to the cities upstream and the cultivated alluvium beyond. The excavation of one or more of the newly discovered late-period sites east of the Shatt al-Ghuraf will help resolve questions over their dating.

Bibliography


A Syriac chronicler, writing in southwest Iran around the year 660 A.D., tells us that Basra was built “to settle the Arabs, at the point where the Tigris flows into the great sea, situated between the cultivated land and the desert” (Hoyland 1997: 186). This confirms what our surviving ninth-century Arabic sources say, namely that Basra was established at a very early time in order to provide a settlement for Arab soldiers and their dependents. But what do we actually know about the city in its formative years? Since space is limited, I will focus on the physical aspects of early Islamic Basra and I will confine myself to the accounts of Khalīfa ibn Khayyāṭ (d. 240/854) and Ahmad ibn Yahyā al-Balāḏurī (d. 279/892).

These two scholars, besides being authors of the two earliest extant Muslim histories, also had good access to information about Basra. In Ibn Khayyāṭ’s case, he and his family were natives of Basra and a large proportion of the sources that he cites were born in Basra. Two of them were also cited by al-Balāḏurī, namely Abū ʿUbayda Maʿmar b. al-Muthannā (d. 209/824), a resident of Basra who wrote a history of the city, and al-Walīd b. Hishām b. al-Qaḥdhamī, who died in Basra in 222/837. His family had had a very long attachment to Basra, beginning with an ancestor of his who had been captured during the Muslim conquest of Isfahan and become a freedman of the family of Abū Bakr al-Thaqafī, himself a freedman of the Prophet. This family settled with their clients in Basra and thus began the long association of the al-Qaḥdhamī family with this city. Crucially for us, one of this family, usually called Qaḥdham ibn Abī Qaḥdham, worked in the Muslim administration at Basra for the first four decades of the eighth century, becoming chief of the tax office there for the Umayyad governor Yūsuf ibn ʿUmar al-Thaqafī. This position gave him access to documentation pertaining to material life in Basra that he passed on to his grandson and through him to Ibn Khayyāṭ and al-Balāḏurī.

Location

Now that we have some familiarity with our two main informants on early Basra, we can move on to talk about its founding. Ibn Khayyāṭ (p. 128) opens with the following report, which he places in the Hijra year 14 (= 635 A.D.):

‘Utba ibn Ghazwān passed by the place of al-Mirbad and he then encountered the coarse stony soil (al-kadhdhān) and said: ‘This is Basra, settle it in God’s name’.

He cites as his authorities for this information: Ṣafwān ibn ʿĪsā, Abū Naʿāma and Khālid ibn ʿUmayr. An expanded version of this report is given by the later historian Muḥammad al-Ṭabarī (d. 310/923), relying on the same three transmitters plus a certain Shuwaysh (1.2379):

‘Umar ibn al-Khaṭṭāb dispatched ‘Utba ibn Ghazwān, saying to him: ‘You and those with you should set off, and then when you are in the furthest part of the land of the Arabs and the nearest part of the land of the Persians (ʿajam) set up camp there’. So they marched on, and then when they were in Mirbad they found the coarse stony soil (al-kadhdhān). They said: ‘What is this rough gravelly soil’ (al-baṣra)?
In both cases the soil type is a crucial aspect of the location, and it is commented upon in various other foundation accounts. For example, al-Ṭabarī quotes an earlier author, Sayf ibn ‘Umar (d. 180/796), for the following account:

When ‘Utba ibn Ghazwān went from Mada’in to the sea, he camped on the sandy shore facing the Arabian Peninsula. He stayed for a while, then moved on. After three attempts at settling, when the men complained about the clayey soil, ‘Umar ordered ‘Utba to settle on the stone. So on the fourth time they established a settlement on the baṣra, that is, land where the stone is white gypsum (1.2380).

The point seems to be that ‘Utba’s army left the desert and clay lands, unsuitable for permanent habitation, and moved just inside the terrain where stone was to be found, which provided both the foundation and materials for construction of housing for an army many thousand-strong.

The next sentence in this report reveals another factor in the location of Basra: “He (‘Utba) ordered them (to make) a canal to have (water) flow from the Tigris” to the proposed new settlement. So they dug a canal to it for drinking water. Al-Balādhurī, relying on Abū ‘Ubayda, also notes the proximity of water, and he indicates one extra benefit of Basra: availability of grazing land:

‘Umar wrote to ‘Utba: Assemble your men in one place and let it be near to water and pasture and write to me of its description. Accordingly, ‘Utba wrote to ‘Umar: I have found a place with many reeds, on the edge of the desert towards the cultivated land (p. 346).

The phrase “on the edge of the desert towards the cultivated land” (fī ṭarf al-barr ilā l-rīf) echoes the words of the chronicler of Khuzistan quoted above and also the slightly more literary formulation that Ibn Khayyāṭ gives in connection with the selection of the site of Kufa: “it touches the desert but blends with the cultivated land” (ta’anat al-barriyya wa-khālaṭat al-rīf). And it presumably reflects the early Muslims’ wariness towards the rural lands, whose residents were alien to them and potentially hostile, whereas the desert offered familiarity and a means of escape if that proved to be necessary.

Another reason for the siting of Basra can be surmised from the fact that all the early Muslim garrison towns are in relatively close proximity to a major existing settlement: Kufa to Hira, Fustat to Roman Babylon, Muslim ‘Aqaba to Roman ‘Aqaba, and so on. Though it is not stated explicitly, it is evidently closeness to the busy port city of Ubulla that played a part in determining where the Muslims would settle in south Iraq. If it is the same as the Ubulu of Assyrian inscriptions, Ubulla is very ancient indeed; and if it is to be identified with the Apologos of the first-century A.D. maritime trading manual known as the Periplus of the Red Sea, then it remained active for a very long time. In the latter text it is described as “a market town designated by law”, and it is plausibly its commercial status that encouraged the Muslims to establish their base just a short distance to the west of it.

The Mosque and Governor’s Residence

‘Utba’s first major undertaking once the site of Basra had been determined was, according to Ibn Khayyāṭ (p. 129), to lay out the mosque, which he is said to have had built with reeds, a fact repeated by al-Balādhurī (p. 346). This was perhaps because it was intended as a stopgap until the conquests had become entrenched, or it may reflect ‘Utba’s sense of the world’s impending collapse. His first sermon conveys this mood, beginning as follows: “This world is ending, retiring fast. Only a small part of it remains, like a dribble of water in a vessel” (al-Ṭabarī, 1.2379).

“Right by the mosque and in the square”, says al-Balādhurī (pp. 346–47), was the governor’s residence (dār al-imāra), which also incorporated the prison and chancellery (dīwān). It too was constructed from reeds, and it is said that during the raiding season the
buildings were packed away and put back together again on their return. After some time, though, people started to mark out their own plots and to build solid houses. This apparently took place during the governorship of Abū Mūsā al-Ashtarī (AH 17–29/638–650), who did the same for the mosque and governor’s residence, converting them to dried brick and clay (libn wa-ṭīn) and roofing them with grass. He also took the opportunity to expand the mosque.\(^1\)

However, it is with the coming of the governor Ziyād ibn Abī Sufyān (44–57/664–677), adoptive brother of the caliph Mu’āwiya, that we see the biggest changes made to Basra’s public buildings, as al-Baladhurī tells us (pp. 347–8). Firstly, because he considered it inappropriate that “the governor, when he came to prayer, would make his way through the worshippers to the front (walking) on a dividing wall”, Ziyād moved his official residence to the south side of the mosque so that he could pass between the two via a door in the qibla wall. Secondly, Ziyād embarked upon a major restructuring of the mosque. Al-Baladhurī’s main Basran source, al-Walīd ibn Hishām al-Qaḥdhamī, says there were five main elements to this restructuring. Firstly, Ziyād “made the front aspect five columns” and “on each column were four arches”, making it clear that we are talking about a covered portico; excavations at the mosque of Kufa reveal the same layout, so this must have been a very early feature of mosque architecture. Thereafter it appears in the mosques of Wasit, Medina and San’a. Secondly, “he built a manāra in stone”. At this time manāra does not mean minaret, – that is, the edifice from which the call to prayer was delivered – but either a lighthouse, which marked the way or a boundary, or else some sort of tower. The latter was a common appurtenance in Late Antiquity for farms, monasteries, villas and forts, serving as a lookout, a landmark, an aggrandizing feature or a combination thereof, and it is plausible that Ziyād was here following this tradition. Thirdly, “he was the first to make an enclosure (maqṣūra)”, which is usually explained as a cordonned-off space at the front of a mosque established for the use of the ruler or agent thereof to address subjects or dispense justice. Presumably it is meant that he was the first to introduce this feature in the mosque of Basra in particular, rather than the Muslim world in general, since Muslim sources mostly agree that Mu’āwiya was the one who came up with the concept, though a couple attribute its invention to the caliph ‘Uthmān.

The maqṣūra is linked with the fourth element in al-Qaḥdhamī’s notice, that Ziyād “moved the governor’s residence to the south of the mosque”, which meant that he could pass from his residence directly to the mosque without having to pass through his subjects. This is likely to have been the purpose of Mu’āwiya’s maqṣūra in Damascus too, though Muslim sources tend to explain the adoption of the maqṣūra as a response to a security breach, such as infiltration of the mosque by a rebel or a dog. Fifthly and finally, “he built it with dried brick and clay” (libn wa-ṭīn), or, according to the Basran grammarian al-Asma’ī (d. 828), “baked brick and gypsum (ājurr wa-jiṣṣ), who adds that “he roofed it with teak” (saqqafahu bi- l-sāj). However, al-Baladhurī also cites a contemporary poet, Ḥāritha b. Badr al-Ghudānī (d. after 86/705), via Yūnus b. Ḥabīb al-Naḥwī (d. 152/769 or 182/798), a philologist and litterateur of Baṣra, for the opinion that the mosque was constructed from stone rather than clay. Possibly stone was used at key points where strength was required, and for prestige features, such as the tower, which al-Qaḥdhamī agrees was made with stone.

Private Property
Al-Baladhurī’s section on Basra is notable for two reasons. The first is its length: at twenty-seven pages it is almost twice as long as the section on Kufa, three times as long as that for Baghdad and almost ten times longer than the section on Wasit. The second is its detailed knowledge about items of private property: houses, villas, estates, canals, baths and so on. A

\(^1\) Note that here the account of Ibn al-Faqīh, 230, follows word for word that of Bal. 347.
large proportion of this data would seem to go back via al-Walīd ibn Hishām al-Qaḥdhamī to his senior bureaucrat grandfather, who evidently passed on official information in some form to his descendants. For example, al-Balādhurī cites in the first person the statement of al-Walīd’s grandfather that when he was appointed in charge of the register of the Arab army, he had looked at the record for the soldiers of Basra in the days of Ziyād ibn Abīhi and found them to number 80,000 with 120,000 dependents (p. 350). At another point (p. 367) he notes that a particular plot of land was “known in the register as the fief (qaṭī‘a) of ‘Umar ibn Hubayra”. And on one occasion (p. 351) al-Walīd says that he found in his possession a letter written by the scribe Mu‘ayqīb b. Abī Fāṭima on behalf of Caliph ‘Umar I to Mughīra ibn Shu‘ba about a field in Basra. Most of these reports from al-Qaḥdhamī concern a certain category of place, be it a house, field, street, bath, estate, canal or the like – and its owner, plus some additional snippet of information, such as how its owner came to acquire it, or what changes he made to it or how he passed it on. In fact, so detailed is the information that it would be possible to draw a map showing who owned what where and when, but I have already reached my word limit here, so that will have to be the subject of another paper.

**Sources**

**Bibliography**
The historical and cultural importance of Basra as one of the first urban Muslim settlements cannot be overstated. Information from early Islamic sources has enabled historians to identify many features of the social composition of the city including tribal groupings, religious affiliations as well as the identification of certain physical features such as the location of markets, water courses and cemeteries (Hoyland in this volume). However, the relationship between the historical information and the modern topography of the area is not always clear. There is also the problem that much of the historical information comes from later periods and may reflect subsequent re-interpretations of the development of the city. In view of these problems the archaeology of the city presents substantial opportunities for gaining an insight into the physical and social development of the city.

Location
One of the most difficult aspects of understanding the archaeology of the city is the movement of the main settlement between the Shatt al-Arab and the desert area to the south west. During the Sasanian period the main urban settlement in the region was located at Ubulla (Ἀπολόγον Εμποριον) next to the Dijla al-Awra (modern Shatt al-Arab). This Sasanian period settlement was located close to or probably on the site of the modern city of Basra (Kramers 2000). The early Islamic settlement of Basra founded in the 630s was located in the desert to the south west of Ubulla and separated from it by an area of marshland liable to inundation during the winter. The Islamic settlement developed around the remains of a small Sasanian period town, Vahistabdh Ardashir known to the Arabs as al-Khuraybah, “the small ruin”. During the tenth century a combination of factors, including attacks of the Qaramita from Bahrain, then the name for the Eastern Province of Saudi Arabia, caused the focus of settlement to shift again back to the banks of the Shatt al-Arab where the modern city of Basra evolved around the Ashar Creek (Longrigg 1979). Already in the tenth century Ubulla was described as being larger than Basra (Kramers 2000). However, it is probable that the site of the early Islamic city was not entirely abandoned and starting in the 1500s the areas around al-Zubayr ibn al-Awwam’s tomb began to develop into a small town. The population of the new town of al-Zubayr expanded in the eighteenth century with the arrival of Arab tribes seeking to escape the fanaticism of the Saudi Wahhabs (al-Qatrani 2015).

Origins
According to the Arab sources when the tribes first settled at Basra they chose to locate themselves on the west or desert side of the river so that they could be near their homeland.

\[1\] This research would not have been possible without the enthusiastic and support and encouragement of Qahtan Al Abeed and the State Board for Heritage and Antiquities in Iraq. The authors are grateful to the British Institute for the Study of Iraq for both logistical help and financial support for the early Islamic Basra project. The Max van Berchem Foundation has provided invaluable additional funding to support for further fieldwork. We also had considerable help from Juliette Desplat at the National Archives who helped us access to aerial photographs, maps and reports on old Basra.
It is also noticeable that they did not choose to settle within or near the existing Sasanian settlement of Ubulla. Whilst this may be correct Werner Nutzel has also pointed out that it would also have been very difficult for the Arab tribes to settle around the banks of the Shatt al-Arab, as it would have been inundated with water at the time due to the river Tigris breaking its banks in the year 629 (Nutzel 1982b: 149). This was probably not a man-made catastrophe but was an event caused by the rupturing of dykes or levees alongside the river (Nutzel 1982a: 148). The dykes probably ruptured because of additional pressure created by an accumulation of silt which raised the bed of the river above the surrounding plains. In any case the result was the creation of a vast inland lake (Lake Hammar) between Kufa and the present position of Basra. Whilst the port of Ubulla may have escaped inundation it would certainly not have been a desirable location at this time.

**Exploration**

First, it should be pointed out that the site of the early Islamic city was never entirely forgotten and was known to both residents and visitors to the area. For example, when the Ottoman Admiral Sayyid Ali Reis came to Basra in 1554 to take command of the Ottoman Indian Ocean fleet after the execution of Piri Reis, he made a visit to the ruins of the early city to see the tombs of Hasan Basri, Talha, Zubayr ibn Awwam, and Anas ibn Malik (Sayyid Ali Reis 1577). In the eighteenth century the German Danish explorer Carsten Niebuhr came to Basra on his return from India and made a visit to the site of the early Islamic city. He observed the ruins of the ancient city and also speculated on the reasons for its decline (Niebuhr 1780: 297–300). The first systematic attempt to reconcile the modern topography of the site with historical sources was carried out by Louis Massignon based on a brief visit in 1907 and a more extended visit in 1945 (Massignon 1954). This account has served as the basis for most subsequent reconstructions of the early Islamic city and remains the most important work on the subject. The first archaeological investigations of the site took place during the 1970s and 1980s in the face of the expansion of the modern settlement of Zubayr and were carried out by the State Organization of Antiquities of Iraq (see below).

**Topography**

The present-day topography of the Zubayr region is extremely complex and contains a multitude of features from different eras. It should also be noted that the region has suffered extreme environmental degradation in recent times as a result of the growth of industrial installations, military activity and processes associated with climate change (Jabbar and Zhou 2011). As a result some of the surface features which may have given some indication of the history of the site have either vanished or have been obscured by later events. Despite these problems there are certain major features and landmarks which can help in reconstructing the ancient topography of the town.

In the first place there are the graves or shrines of prominent early Islamic figures of Hasan al-Basri, Talha ibn Ubayd and Zubayr ibn ‘Awwam which have in some form survived to the present day. The historic testimony of figures such as Ibn Battuta, Sayyid Ali Reis and Carsten Niebuhr lends some authenticity and continuity to the identification of these shrines. Added to these is the mosque of Imam ‘Ali (al-Khatwa) which is known both through the historical sources mentioned above, and through archaeological and standing remains (see below).

The second category of features is canals and watercourses. These are more problematic as there have been many later irrigation, drainage and navigation channels which have been excavated within the area. As early as 1764 Carsten Niebuhr observed the significance of a water channel linking the Euphrates near Kufa in the north to an inlet from the Persian Gulf known as Khor Abdullah. In the eighteenth century this channel was known to the local inhabitants as Dsjarra Zaade or Hasfe Zaade. Niebuhr identified this channel as
the ancient Pallakoppas canal excavated in the Neo-Babylonian period perhaps as early as the seventh century B.C. (see Dalley in this volume). Carsten Niebuhr observed that in his time the channel was dry and suggested that this was one of the reasons that the early Islamic city was abandoned. It is not certain when the water in the canal stopped flowing but the presence of a fifteenth or early sixteenth century bridge, Qantarat Kiri Sa’ada, over the canal near Kufa suggests that it was still full of water at this date.

Massignon built on the work of Niebuhr and was able to identify two further canals mentioned in historical sources, the Nahr al-Ma‘qil and the Nahr al-Ajjana. The first was identified through aerial photographs and the second by a geologist from the Iraq Petroleum Company. Satellite images of the site from 2017 show the area between the Hammar Lake to the north and Khor Zubayr (formerly known as Khor Abdullah) are now connected by the Basra canal, Shatt al-Basrah, which was completed in 1983. It is not clear to what extent this new canal replicates the route of the ancient canal although Massignon locates the Pallakottas canal further west, between the mosque of Imam ‘Ali and the town of Zubayr. He also places the original settlement on the west bank of the Pallacopas canal which, if correct, means that it would be on the opposite side from the congregational mosque, which seems unlikely. One of the more useful attempts to reconstruct the city uses the canal network as base map for locating the suqs. However, the base map is schematic and although the relationship between the canals may be correct their exact form and relationship to known features is difficult to decipher. There have been several other attempts to reconstruct the layout of the early city but all have met with the same problem that there are few sources which give physical descriptions (see for example Wheatley 2001: 245, fig. 17).

Archaeological Excavations

The archaeological excavations of the 1970s and 1980s were mostly carried out by the State Organization of Antiquities to mitigate against the expansion of the modern town of

Fig. 8.1. Aerial view of the Congregational Mosque in “Old Basra” taken by the RAF and dated 31st July 1935. Ref.SOP.GSR 5458. Courtesy of the National Archives, Kew.
Structures uncovered included a large compound enclosed within a wall strengthened by semi-circular buttresses, a series of houses decorated with stucco, each with its own prayer room marked by a raised floor with a stucco panel indicating the mihrab. One of the most interesting excavations revealed an industrial oil press. Also in 1976 a map was produced showing the limits of the archaeological site within which building was restricted. In addition, the University of Basra carried out excavations within the vicinity of the Great Mosque aimed at establishing the dimensions and architecture of this very important building, revealing its immense size and the presence of sandstone columns quarried from Jabal Sanam. Since 2006 there have been further excavations within the area of Old Basra, mostly in advance of new construction projects.
Ceramics
In 1952 some kiln furniture and a series of ceramic fragments of bowls and cups reportedly found in the region of Basra were presented to the Metropolitan Museum of Art in New York. Whilst the circumstances of the find are obscure it is generally accepted that the reported location is correct and that the ceramics date to the ninth and tenth centuries. Petrographic studies of the ceramics carried out in 1990 indicate that similar ceramics from a large number of sites throughout the Gulf and Indian Ocean region were also probably made in Basra (Mason and Keall 1991). This finding has been tempered by more recent research (Priestman 2011) suggesting that there may have been a number of production centres in southern Iraq. Yet the fact remains that archaeological investigation of ceramics from Basra is of international importance.

Survey Work in 2017
In April 2017, a preliminary field trip to Basra was carried out by the authors to assess the archaeological potential and extent of threats posed to the archaeological sites. This is ongoing work but a number of preliminary observations are possible which will guide further fieldwork. The availability of satellite imagery has made it possible not only to relate known features but also to detect previously undetected features. This work will be extended in January 2018 with a high-resolution 3D map produced from vertical UAV images. The map will be used as a basis for locating all known archaeological excavations which have
taken place in the city since the 1970s and serve as a basis both for management of the archaeological resource and as a means for guiding further research, including excavations.

References
Priestman, S. M. 2011, Opaque glazed wares: the definition, dating and distribution of a key ceramic export in the Abbasid Period. *Iran* 49: 89–113
For almost two millennia there has been a Christian presence in southern Mesopotamia. The city of Charax Spasinou and the later foundation of Basra have both played major roles in the dissemination of Christianity in southern Mesopotamia as well as its export along the maritime trade routes through the Gulf to India.

Second Century: Legendary Origins
The origins of Christianity in southern Mesopotamia are shrouded in the mists of antiquity, but the region is linked with one of the greatest apostles, St. Thomas. The second century Acts of Judas Thomas, written in Syriac, relates how the reluctant apostle Thomas was bought by a merchant named Habban and sent to King Gundaphar, who required a craftsman to build a new palace in his Indian kingdom (Wright 1871; Klijn 1963). Thomas’ journey from Syria followed the Tigris-Euphrates rivers to the port at the head of the Gulf, from where he embarked for the epic voyage to India where he purportedly implanted Christianity in that distant land.

Third to Fourth Centuries: Episcopate and Mission
Clearer evidence for a Christian presence in southern Mesopotamia emerges in the third century when episcopates (bishoprics) were established throughout the length and breadth of the Sasanian Empire. In keeping with its prominent mercantile profile, Charax Spasinou (see Campbell et al. in this volume) was the point for the export of merchandise and missionaries down the Gulf and to India. David, bishop of Charax, went to India to evangelize (Neill 2004: 41). The emigration of Syrian Christian merchants from Edessa, under the leadership of Thomas of Cana, that purportedly took place about 345 to the Malabar coast was via the sea-route from southern Mesopotamia (Gillman and Klimkeit 1999: 167).

Fifth to Sixth Centuries: Metropolitan Status
Solid historical evidence for the Christian profile of southern Mesopotamia emerges in the fifth century, continuing into the sixth century. One of the most important sources for the history of Christianity in Mesopotamia between the fifth and eighth centuries, thus spanning the Sasanid-Islamic transition, is the Synodicon Orientale, a collection of reports of the ecclesiastical synods that were held between 410 and 775. In particular, the Synodicon Orientale supplies the signatories of the bishops who endorsed the decisions of various synods, thus giving valuable insight into the demographic spread of dioceses throughout the Sasanian and later Islamic empires.

Various synods mention the participation of the metropolitans (archbishops) of Pherat de Maišan, the diocese that was located at the head of the Gulf. The Synod of Isaac that was held at Seleucia-Ctesiphon in 410 established the diocesan hierarchy of the ‘Persian’

---

1 The synods were edited in the eighth century. See Chabot (1902) for the Syriac text and English translation of the manuscript Alqosh Syr. 169. See Vosté (1929: 63–9) for a description of this manuscript.
church. The principal bishopric located in the Sasanian capital was sustained by six metropolitanates, each of which had jurisdiction over a number of subordinate dioceses. The inclusion of the metropolitanate of Pherat de Maišan (Prat d’Maishan)—which later became identified with Basra—in this listing of senior dioceses confirms that the region, at the head of the Gulf, had become a major centre of Christianity by the fifth century.

The signatories to the Synod of Isaac included Zabda and Miles, who were both designated as bishops of Pherat, as well as Marai, who was named as the bishop of Karka de Maišan (Chabot 1902: 274). Zabda also was also a signatory to the 424 Synod of Dadisho that was held at Markabta-of-the-Arabs (Markabta de-Tayyaye), a location probably in the vicinity of Hira, which significantly declared the ‘Persian’ Church’s independence from Byzantium (Chabot 1902: 285). The signatory of the bishopric of Karka de Maišan was Narsai, indicating a succession from the previous incumbent Marai in the intervening fourteen years.

Amongst the twenty-five signatories as attending the Synod of Acacius that took place in 486 was Ḥai, bishop of Pherat or Karka de Maišan (Chabot 1902: 306). At the Synod of Mar Babai that was held in 497, listed amongst the thirty-nine signatories, in fourth and sixth places respectively, were Anphai and Márai, who were named as bishops of Pherat and metropolitans of Maišan (Chabot 1902: 315). Simeon, the metropolitan of Pherat de Maišan, is named as a participant at the Synod of Mar Ezekiel that took place in 576, whilst Joseph who was titled the bishop of Pherat and metropolitan took part in the 605 Synod of Gregory (Chabot 1902: 368, 478).

Sixth to Ninth Centuries: Continuity amidst Transition

The mid-seventh century ushered in monumental changes for the Church, with the arrival of the Arab horsemen in southern Mesopotamia who founded in 636 the garrison encampment that developed into the city of Basra (see Hoyland; Peterson and Northedge in this volume). In the mid-ninth century, Timothy I (780–823) can be ranked as one of the greatest patriarchs of the Church of the East and, as learned scholar of Aristotelian philosophy, debated with the caliph Mahdi. He ordained Hananišo as bishop of Basra, indicating an ongoing presence of Christians in the city.

Išo’denah of Basra, as metropolitan of Prat de Maišan, contributed to the intellectual climate of the ’Abbasid era in the mid-ninth century. His Ecclesiastical History has been lost, but parts were incorporated in the Chronography of the eleventh-century writer Elias of Nisibis that was considered to be a major source concerning the history of the Sassanians. Išo’denah’s Book of Chastity or History of the Founders of Monasteries in the realms of the Persians and the Arabs—which has survived—provides important insight into the development of monasticism in Mesopotamia, beginning with Mar Augen, who was reputed to be the traditional founder of monasticism in fourth century Mesopotamia and continuing to the mid-ninth century (Chabot 1896: 1–80, 225–91).

The Book of Chastity also provides a rare biographical account of one of the greatest Christian mystics of all times, Isaac of Nineveh. He was born in Qatar, but after a very brief stint as bishop of Nineveh returned to the monastery of Rabban Shabbour in Khuzistan, where he wrote his seminal works over a period of forty years (Brock 1997: 260–1). How

Chabot (1902: 472) under the sub-heading, Sièges qui sont honorés, place l’un après l’autre, selon la grandeur du ville for a detailed description of the listing of metropolitanates according to seniority and the suffragan bishops under the jurisdiction of each of the metropolitanans. The bishops under the authority of the metropolitan of Maišan are named on page 473.

In order of seniority these were: Kaškar (southern Mesopotamia), Beth Lapat, otherwise known as Gundeshapur in Khuzistan (now modern Iran), Nisibis (now in modern Turkey), Pherat and Maišan (at the head of the Gulf), Arbela (Erbil in the modern KRG administered region) and Karkha de Bet Selokht (modern Kirkuk).
this personal information came to Išoʾdenah’s attention is intriguing. The rich literary activity and the considerable material evidence that has been found at various sites along the Gulf coastline attest the vibrancy of monasticism during the eighth and ninth centuries. Archaeological evidence has not—to date—come to light in Basra, but the region must have been part of this dynamic oikumene.

Thirteenth Century: Authorship
Metropolitans were still being consecrated in the thirteenth century. Solomon became bishop of Basra in 1222. In the same year he also was at the consecration of the Church of the East’s Catholicos-Patriarch, Sabrišo IV (1222–1224) in Baghdad, his presence indicating the important standing of his diocese. Solomon wrote his work, Book of the Bee that was essentially a religious and philosophical history of the world from creation to the coming of the Antichrist and the afterlife (Brock 1997: 74–5). Taking his cue from a bee collecting nectar from flower to flower, the book consists of fifty-five chapters discussing various topics including the creation, heaven and earth, the angels, darkness, paradise, Old Testament patriarchs, New Testament events, lists of kings and patriarchs, and the final day of resurrection.

Sixteenth Century: New Dimensions
When Afrasiyab, a powerful local landowner, managed to shake off Ottoman rule that had been implemented in 1534 and appointed himself as the sovereign of the Shatt el-Arab region, new Christian dimensions emerged. To consolidate his power, he entered into relations with the Portuguese, who set up a trading post, and he gave them permission to build a Carmelite monastery outside Basra. This can be seen on a map that was included within the twenty-seven-volume collection, Galérie agréable du Monde, which was produced by the Leiden publisher, Pieter van der Aa (1659–1733) (Fig. 9.1.). The map also depicts various churches and mosques within the city captioned ‘Bassora’. Over and above the local Christian communities, the monastery catered for the Portuguese who were involved in the lucrative spice trade with India following Vasco da Gama’s discovery of the sea-route to the Malabar coast in the fifteenth century.

Twentieth Century: Anglican Presence
In 1914, after Britain occupied the city following the Battle of Basra, St Peter’s Anglican church was built, primarily to cater for the military and air force personnel, but the Iraq Government owned the land. The advent of the Basra Oil Company (a subsidiary of the Iraq Petroleum Company) and the presence of large numbers of British forces in the 1940s boosted the congregation’s numbers. St. Peter’s also served British sloops and merchant ships that called in at the port (Adeney 1938–9). Apart from the British, the congregation included Indian Christians as well as Armenians and ‘other orthodox faiths’ (Matchett

---

4 For the most recent overview and discussion of the archaeological evidence of Christian presence at various sites in southern Mesopotamia and down the Gulf see, St. John Simpson 2018.
5 Assemani (1728: II 453). Assemani derived this information from the Arabic chronicle of patriarchs in Kitab asfar al-asrar that was compiled by Saliba b. Yuhanna. See the edition by (Gismondi 1896–9: II 116, line 3).
6 See Budge (1886) for an English translation and the Syriac texts edited from manuscripts in London, Oxford and Munich.
7 See Assemani (1728: III 309) for a lengthy account of the contents of Solomon’s work.
8 van der Aa included more than 3,000 copperplates.
9 Archdeacon Harold Buxton, communication following his visit to Iraq in November and December 1931. Unpublished correspondence [JMECA (Jerusalem and Middle Eastern Church Association) Archives, St. Anthony’s College, Oxford].
Relations with other Christian churches in Basra were very good with reciprocal visits and exchange of greetings at festival times. In 1948 Rev. Matchett wrote that it was ‘realistic to hear the native language’ when he attended the Nativity play at the Syrian Orthodox Church. In April 1957, St Peter’s church was gutted by fire and a temporary structure erected.\(^{11}\)

\(^{10}\) Matchett was ‘Civil Chaplain, Basrah and the Persian Gulf, and Port Chaplain, The Missions to the Seamen, Basrah’.

\(^{11}\) April, 1957 Report published in *Bible Lands. Journal of the Jerusalem and Middle East Church Association.*
The vicissitudes of the Iran-Iraq War (1981–8) and the First Gulf War (1991), coupled with the aftermath of the US-led occupation in 2003, have led to a sharp decline in Christian communities residing in Basra. Today the Chaldaean Catholic Church, a Uniate Church with Rome, forms the largest congregation. It is led by Habib al-Naufaly, Chaldean Catholic Archbishop of Basra since 2014, who has initiated a wide range of projects serving both Christians and Muslims. The Chaldaean Catholic community currently numbers around 350 families. The Syrian Orthodox and Armenian Orthodox, as well as the Evangelical and Adventist denominations, also host small communities in Basra. The churches function openly; crosses juxtaposed with minarets dot the city skyline, recalling the scene that was presented by the eighteenth-century map in *Galérie agréable du Monde*.

The Virgin Mary Cathedral for Chaldaean Catholics, which was begun in 1907, is the largest and most prominent church in Basra, while the Chaldean Catholic Church of Saint Thomas, built in 1886, is the oldest. Situated in the old quarter of Basra, this brick-built church is a rare architectural feature with its façade featuring a tymphaneum and a dentil frieze as well as rounded Georgian-style windows. The church was functional until 2004, but a leaking roof meant that it could no longer be used for worship. The roof has recently been repaired and the water damage to the plaster could be made good. With refurbishment, the church could return to usage, something that Abouna Aram Pano, the resident priest, would like to see and which could be realised at not too great an expense.

Concluding Comments
The Christian presence in Basra is a precious heritage spanning almost two millennia, suffering many vicissitudes but which still is continuing today. The overall situation is bolstered by the fact that Christians and Muslims continue to live side by side in Basra, as they have done for centuries. The contribution and value of the churches to Basra’s culture has been recently acknowledged in a booklet produced by the Minority Rights Group campaign, which details the city’s religious institutions. All churches in Basra are included together with brief details about their dates of construction and history. The booklet, which was edited by Bassam Al Alwachi (2015) under the supervision of the Antiquities Inspector of Basra region, Qahtan Al Abeed, is a fitting testament to a religious diversity that still has a foothold in this southernmost city of Iraq and which has been maintained for more than two millennia.

Bibliography
Chapter Ten

The Genesis of the New Museum in Basra: An Iraqi-British Collaboration

John Curtis

The project to develop a new museum for Basra had its origins in a lunch at the British Museum on 24 September 2007. Lieutenant General Barney White-Spunner had recently been appointed Commander-in-Chief of British troops in Iraq and General Officer Commanding the Multi-National Division South-East. He was due to be deployed to Iraq in February 2008, and was anxious to know what he might do to help protect Iraqi cultural heritage. In this respect, he was almost unique amongst British political, military and diplomatic figures, and he deserves much credit for this. Following his enquiry, he was invited to a meeting at the British Museum with Neil MacGregor, then Director of the British Museum, Dr John Curtis, then Keeper of the Department of the Middle East at the British Museum, and Charles Moore, former editor of the Daily Telegraph. At the lunch, it was suggested that the greatest need would be to arrange for the inspection of archaeological sites, many of which were known to have been badly looted, and the protection and refurbishment of museums within the area occupied by the British army. White-Spunner promised to see what he could do.

He was as good as his word. He appointed Major Hugo Clarke as the manager of the project, and before their deployment to Basra in mid-February 2008, Clarke met with Curtis several times in late 2007.1

Once in Basra, Clarke soon decided that for security and logistical reasons they would have to focus on establishing a museum in the city. By late February he had discovered the identity of the Director of Basrah Museum, and in early March, at great risk to himself, Qahtan Al Abeed made the first of a number of visits to British army headquarters in their airport base.2 Around this time, three possible sites were being considered for the new museum. The first was the original Basrah Museum, which had been looted in the aftermath of the First Gulf War, and about half the contents stolen. The remainder was transferred to Baghdad, and the museum closed in 1991.3 It is in an attractive house on the north side of Ashar Creek in central Basra, with balconies and much intricate woodwork decoration, probably built around 1919–20 (Fig. 10.1.). The house was originally owned by Reuben Suleiman, a Jewish date merchant who worked with the British army in World War II. After his death it became the Greek consulate in 1945, and remained so until 1971 when it was transferred to the State Board of Antiquities and Heritage (SBAH). The second location considered was the building known as “Gertrude Bell’s house”, and the third was a former palace of Saddam Hussein known as “the Lakeside Palace”. Al Abeed confirmed that the

---

1 On 19 November 2007 in the British Museum; on 26 November 2007 at a reception for the launch of the now defunct British-Iraq Friendship Society at the Middle East Association in Bury Street, London; and on 11 December 2007 at HQ3 (UK) Division, in Bulford, Wiltshire, when John Curtis also lectured to troops shortly to be deployed to Iraq about safeguarding cultural heritage.

2 For the first meeting with the army Al Abeed came with the Inspector of Antiquities for Basra, Mohammed al-Azzawi. The previous Inspector had been shot dead, in the presence of Al Abeed, on 10th July 2006.

3 The house still belongs to the SBAH and is now (October 2017) used as the Department of Antiquities office.
original museum was in a dilapidated state and as its size and location (for reasons of security and access) rendered it not fit for purpose, it was not further considered. The Iraqi side was lukewarm about the Gertrude Bell house, which left the palace of Saddam Hussein. Qahtan Al Abeed was asked whether a building with Saddam’s monogram on it would be acceptable, and after getting local opinion, he confirmed that it would. The Lakeside Palace was therefore adopted as a possible candidate for the museum (Figs. 10.2–4.).

In the period 12–16 April 2008, Curtis was invited to Iraq to stay with the army and to progress the project. Firstly, it was established that an inspection of archaeological sites, travelling by helicopter, would be feasible. It was possible at this time to fly by helicopter over Warka and Ur, land at Eridu, and visit Ur from Tallil Airbase. With regard to the museum part of the project, on 15 April, Qahtan Al Abeed came for a meeting at army HQ with Curtis, Clarke, Burridge, Holloway, Captain Burns of the US army, PR consultant William Reeve and “Hash”, the translator. Burridge was able to show us plans of the Lakeside Palace, which he had already visited, and Al Abeed showed to the meeting letters from the Council of Ministers and from Basrah Provincial Council authorizing him to choose a building for a new museum. All agreed that in principle the Lakeside Palace would be the best option for a new museum, and next steps were for Burridge to arrange for the Royal Engineers to make a detailed plan of the building and for Qahtan Al Abeed to visit it as soon as possible.

The Lakeside Palace is one of the many palaces built by Saddam throughout Iraq, some of them apparently illegally financed through the Oil-for-Food programme (OIP). For this helicopter tour our party consisted of Major Hugo Clarke, Major Rupert Burridge of the Royal Engineers, Major Tom Holloway (media officer), and two photographers. The OIP was established by the UN in 1995 to allow Iraq to sell oil on the world market provided it used the revenue to buy food and medicine to alleviate the suffering of Iraqi citizens following the imposition of sanctions. The Lakeside Palace, however, was apparently built in 1992 (see Fig. 5). Some of these palaces were “donated” by Saddam Hussein to various foreign potentates. Thus the Lakeside Palace was presented to King Hussein of Jordan, but he never visited.
It is on the outskirts of Basra, several kilometres downstream from Ashar Creek. After the invasion of 2003, the Lakeside Palace was used by the British army before they withdrew to Basra Airport in 2007. The front entrance to the palace consists of a columned portico facing a small artificial lake, while the rear of the building overlooks the Shatt al-Arab waterway. The decorative stonework and woodwork on the outside of the building bear
many inscriptions commemorating Saddam Hussein (Fig. 10.5.) and the interior is lavishly decorated with carved wood and painted plaster (Fig. 10.6.), much of it the handiwork of North African, possibly Moroccan, craftsmen. The ground floor included two large spaces and three smaller spaces that would lend themselves to being ideal museum galleries, with a total exhibition space of just over 1,000 square metres. This was reckoned to be ideal for a significant regional museum, and the building also had other spaces that would be essential to run a modern museum.

The purpose of this initial visit proved the viability of the project. We had established that it would be logistically possible to visit by helicopter some or all the sites on the list, provided there was complete agreement from SBAH. We had also identified a building that might prove suitable for a new museum for Basra. The next step was for these proposals to be presented to Iraqi officials and the international community so that they could be discussed and, hopefully, approved.

Consequently, a workshop was organized at the British Museum on 29 April 2008 with the title “Protecting Cultural Heritage in Southern Iraq”. The workshop, by invitation only, was attended by about sixty people with a special interest in Iraqi cultural heritage. It was particularly gratifying that four Iraqi colleagues were able to come. At the workshop, chaired by Neil MacGregor, Andy Burnham, Secretary of State for Culture, Media and Sport, Bahaa Mayah of SBAH, and Lieutenant-General White-Spunner all gave introductory addresses.

---

6 Many of the palaces were looted and badly damaged in 2003 and this is one of the few that were preserved relatively intact. As such, it is a record of a certain period in Iraqi history and in spite of its associations with Saddam Hussein (although he never went there) it is worthy of preservation in its own right. Because of this, the view has been taken by the Iraqi authorities that the inscriptions of Saddam on this building should be preserved in their entirety.

7 Namely Dr Mufid al-Jazairi, Chairman of the Cultural Committee in the Iraqi Parliament, Mr Bahaa Mayah, Advisor to the Iraqi Minister of Tourism and Antiquities, Dr Ismail Hijara, the Cultural Affairs Advisor in PRT Al Hillah, and Dr Saad Eskander, Director of the Iraqi National Library and Archives.
Fig. 10.5. Decorated woodwork above the front door of Basrah Museum with the name of Saddam Hussein and the date 1992 at bottom right (April 2010).

Fig. 10.6. Polychrome plaster decoration in the Lakeside Palace.
Major Hugo Clarke then outlined the project. Major Rupert Burridge and John Curtis gave more details of the Basrah Museum project and the Archaeological Project respectively, followed by audience discussion and analysis. In the afternoon there was a lively discussion about the Iraq National Library, led by Dr Saad Eskander. Major-General White-Spunner, Bahaa Mayah, and Dr Mufid al-Jazairi made concluding remarks. The Iraqi participants expressed warm support for both parts of the proposed project: Basrah Museum and the Archaeology Survey. With this mandate from the workshop, and with the full approval of SBAH, the next and main phase of the project was planned for the period 1–10 June 2008.

This consisted of a visit to Iraq by Dr John Curtis and Dr Paul Collins of the British Museum, Dr Margarete Van Ess of the German Archaeological Institute in Berlin, and Professor Elizabeth Stone of Stony Brook University, New York. The intention of this mission was twofold: to undertake condition assessments at selected archaeological sites, and to consider further the use of the Lakeside Palace as a new museum for Basra. The project manager on behalf of the British army remained Major Hugo Clarke, who was present throughout. The site inspections were undertaken over three days (5–7 June), flying out of Tallil in a Merlin helicopter. We were joined by three Iraqi colleagues: Qais Hussein Rashid, Director of Excavations in SBAH, Muhsin Hassan Ali, Deputy Director of the Iraq Museum, and Abdulamir Al-Hamdani. We were able to inspect eight different sites, namely Ur, Eridu, Ubaid, Warka, Larsa, Tell el-‘Oueili, Lagash and Tell al-Lahm. This work has been fully reported in the journal *Iraq* (Curtis et al. 2008). On 3 June 2008 we visited the Lakeside Palace (my first view of the building), and in addition to inspecting the building we met there with an Iraqi delegation and were also joined by Fiona Gibb, the UK Deputy Consul-General.

There was a wide-ranging and constructive discussion, and the officials from SBAH expressed enthusiastic support for the project, but it was recognized that further official steps would have to be taken before the project could be signed off. The Iraqi Prime Minister’s representative Saduq Sultan in particular was in favour of the project but was insistent that proper procedures must be followed. A project team would have to be established to take the plan forward. There were also uncertainties about possible sources of funding.

With no prospect of any British government funding, and the withdrawal of the British army in early 2009, the project was put on hold. It was resuscitated in the period 27 June to 3 July 2009, when John Curtis and Paul Collins were able to revisit Iraq and stay in the British Consulate in the Basra Airbase. It had been intended that they should be accompanied by Major Hugo Clarke, but in the event this was not possible. Unfortunately it was not possible to travel into Basra during this time because dust-storms prevented helicopter travel, but a number of very useful meetings took place in the Airbase. There were meetings with Qahtan Al Abeed (twice), with Mrs Zahra Hamza Albachari, a member of Basra Provincial Council and the head of its Committee on Cultural Heritage and Antiquities, and with the British civil engineering firm Mott MacDonald. We were informed that the Council of Ministers were still considering the possible use of the Lakeside Palace as a museum and had not ruled it out, but at the same time they also viewed the Naqib Palace on the corniche as a possible museum. It was suggested that SBAH and the Provincial Council should press ahead with both requests to use the Lakeside Palace and the Naqib Palace in the expectation that one of them would certainly be designated for use as a museum. The mood of the meetings

---

8 Dr Margarete Van Ess and Professor Elizabeth Stone both made valuable contributions to the discussion of the archaeological project.

9 The delegation comprised Qais Hussein Rashid; Muhsin Hassan Ali; Qasim Abdul Hamid al-Basri, the Director of Cultural Cooperation; Mohammed Hasuni Nasir, the Inspector of Antiquities for the Basrah region; Qahtan Al Abeed; Mrs Azhar Jaffar Hashim, Engineering and Maintenance Manager, Basra; and Saduq Sultan (Abu Maryam), apparently Prime Minister Maliki’s representative in Basra and responsible for the future of royal palaces.
was extremely positive and both Qahtan Al Abeed and Mrs Zahra Albachari were very enthusiastic about the development of a new museum. It was agreed that the final decision about which building to use for the museum should certainly be taken by the Iraqi side.

In July 2009 we received the long-awaited news that both Prime Minister Nouri al-Maliki and Basra Provincial Council had agreed that the Lakeside Palace could become the new museum for Basra. This excellent result was a tribute to ceaseless and untiring lobbying by Qahtan Al Abeed and other colleagues in Iraq.

In response to this new development, a meeting was called at the British Museum on Thursday 24th September 2009 to discuss how the project could be taken forward. There was great enthusiasm for supporting what could be regarded as a British legacy project, but it was clear that any funds would have to come from the private sector and not from the British government. At that time we estimated that around £10,000,000 would be needed to restore the Lakeside Palace and turn it into a museum. But we agreed a pragmatic approach would be to try and raise £650,000 start-up costs in the UK in the first instance and ask the Iraq government to cover the remainder. John Curtis was tasked with setting up a steering committee under the chairmanship of Dr Salah al-Shaikhly, a former Iraqi Ambassador to the UK.

This steering committee had its first meeting on 2 December 2009. It was suggested that the members of the steering committee should visit Basra as soon as possible and discuss the project with Qahtan Al Abeed and British Vice-Consul Alice Walpole. In the meantime, there was another meeting of the steering committee, now with the addition of Alice Walpole and under the chairmanship of Sir Terence Clark, on 23 February 2010.

On 20 April 2010 I found myself at a dinner where I had the good fortune to sit next to Clare Bebbington of BP, and I took the opportunity to describe the Basrah Museum project to her. She was extremely interested and encouraging. At that time Qahtan Al Abeed was in London, having come with four other Iraqi colleagues for a conference, and he and I were able to visit Clare in the BP headquarters in St James’s Square, London, on 23 April. In a subsequent email, Clare touched on the possibility that the BP Foundation might be able to make a contribution. She also suggested that Friends of Basrah Museum should be established as a registered charity in the UK, and that the charity should be formally launched at a reception in the British Museum. The charity would be a conduit through which organizations like BP could contribute funds.

The visit to Basra by members of the steering committee, referred to above, eventually took place in the period 27 April – 1 May 2010 (Fig. 10.7.). At meetings with the provincial governor Dr Shiltagh Aboud al-Mayah, and with the Chancellor of the University of Basra, Professor Dr Saleh E. Najim, warm enthusiasm and support was expressed for the project. It was reiterated that the Lakeside Palace had been designated both by the Provincial Council and by the Iraqi cabinet for use as a museum. The Iraqi side expressed hope that the necessary

---

10 Present at the meeting were Neil MacGregor (British Museum, Chair), the Hon Alice Walpole (then British Vice-Consul, Basra), Venetia Smith (Foreign and Commonwealth Office), Keith Nichol (Department of Culture, Media and Sport), David Stevens (Ministry of Defence), Andy Stephens (British Library), Jane Weeks (British Council), Keith Nichol (Department of Culture, Media and Sport), David Stevens (Ministry of Defence), Andy Stephens (British Library), Jane Weeks (British Council), Major Dominic Hayakawa (British Army, 3rd Division), Lamia al-Gailani Werr (Iraqi independent scholar), John Curtis, Katie Childs, Justin Morris, Paul Collins, Hannah Boulton and Angela Smith (British Museum).

11 Present were Dr Shaikhly (Chair), John Curtis (Secretary), Sir Terence Clark, Dr Lamia al Gailani Werr, Major Hugo Clarke, with Angela Smith taking the notes.

12 The group comprised Sir Terence Clark, Dr John Curtis and Dr Lamia al-Gailani Werr. The visit was made possible by a generous grant from the Department of Culture, Media and Sport. Our hosts in Basra were Alice Walpole (Consul-General) and Doug McMilan (Deputy Consul-General) who also organized meetings in Basra with Mrs Zahra Albachari, Qasim Abdul Hamid al-Basri and Qahtan Al Abeed.
refurbishment and conversion works could be done in the near future. It was stressed that the role of the Steering Committee was to work together with the SBAH to develop a new museum for Basra. The museum would be entirely managed by the Iraqi side, and it would be an Iraqi enterprise. There were no funds already in hand, but the Steering Committee would take an active role in attempting to raise some of the necessary funds. The Governor in particular was very appreciative of British efforts to help establish a new museum which would be worthy of Basra, and remarked that future generations would see this as a British legacy project, in much the same way as they view the ‘Red Bridge’ in Basra.

The visit also provided an opportunity for the members of the Steering Committee, the Consul-General and Iraqi colleagues to visit or revisit the Lakeside Palace. It was unanimously agreed that the palace would make a splendid museum, being exactly the size required with potential for expansion and enjoying an attractive location on the banks of the Shatt al Arab. Further, the palace had not been looted during the Iraq War and was felt to be in remarkably good condition. The only drawback noted was the extensive presence of Saddam Hussein monograms in the decorative scheme, but it was agreed that these were part of the history of the site and should not be removed. The team also met with Ian Elliot and Peter Hunt of Mott MacDonald. The latter kindly offered to do pro bono a new detailed survey of the building and an analysis of costs. This new cost estimate prepared in due course by Mott MacDonald came to $2,972,563, including showcases.

For the following meeting of the Steering Committee, on 30 July 2010, Christopher McCall, QC, very kindly supplied, pro bono, papers relating to applications for registration as a charity, together with a document he had drawn up entitled “Objects of the Charity”. At the next steering committee meeting, on 9 August, the charity Friends of Basrah Museum
came into being.\textsuperscript{13} Qahtan Al Abeed spent a month at the British Museum in autumn 2010 drawing up a space plan and a business plan for the new museum.

The new charity was launched at a reception in the King’s Library at the British Museum, kindly sponsored by BP, who generously gave up their booking of the museum for that evening, on 1 December 2010. It was gratifying that seven colleagues from Iraq were able to be present.\textsuperscript{14} Neil MacGregor, Qais al-Rashid, Bob Dudley, Chief Executive of BP, and Sir Terence Clark all delivered speeches. Booklets with a space plan (Fig. 10.8.) and an operating plan were distributed, together with appeals for funds. Also at this time, a memorandum of understanding between the SBAH and the Friends of Basrah Museum was signed by Qais al-Rashid and Sir Terence Clark, with both parties promising to collaborate to bring the new museum into being (Fig. 10.9.). There were also expressions of support from the British Institute for the Study of Iraq and the British-Iraqi Friendship Society. Shortly after the official launch, a number of generous donations were made to the charity.\textsuperscript{15} We were therefore able to start the project with assets of around £350,000.

\textsuperscript{13} The first trustees comprised Sir Terence Clark as Chairman, John Curtis as Secretary, and Lamia al-Gailani Werr, Salah al-Shaikhly, Clare Bebbington and the Hon Alice Walpole. RPS Energy was asked if they could suggest a Treasurer, and in due course Liane Butcher was appointed as a Trustee and Treasurer.

\textsuperscript{14} Namely Qais Hussein Rashid (now Chairman of SBAH), Dr Amira Edan (Director of the Iraq Museum), Mr Saad Khalaf Awad al-Musawi, Qahtan Al Abeed, Qasim Abdulhamid Jasim al-Hamdani (Inspector of Antiquities for Basra), Ayad Hassan Abed (Director of Legal Matters, SBAH), Mrs Zahra Hamza Albachary, and Mr Ali al-Zubaidy (Governor’s Office, Basra).

\textsuperscript{15} Namely BP ($500,000), Petrofac (£21,735), the Charlotte Bonham Carter Fund (£4,000), IPBD Limited (£3048), and a number of smaller donations from corporations and individuals; Pulse Brands (£1000), Dr Stephanie Dalley (£500), Mr R. Wilson (£200), Mr A. Ameen (£100), Mrs Joan Maclver (£100) and Ms Judith Nugee (£50). Particular thanks are due to Michael Townsend of BP who has taken a keen interest in the project throughout.
There was also a launch in Basra in spring 2011, organized by Alice Walpole. It was attended by officials from Basrah Provincial Council, the Chancellor of the University of Basrah, and the British Ambassador John Jenkins. Qahtan Al Abeed gave visitors a guided tour of the building. An initial complication was that the Lakeside Palace was now occupied by the Basrah Investment Commission (BIC), even though Basrah Provincial Council had earmarked the Lakeside Palace for use as a museum. However, BIC vacated the building before the end of 2011. The Trustees then decided to split the enabling works into two tranches, and the Iraqi construction firm Bur Alaman was contracted to do the work. The
first tranche of work,\textsuperscript{16} undertaken in 2012, and overseen by engineer Ali Abdul Hussain of Mott MacDonald, included bricking up windows (for security reasons), installing steel security doors, clearing drains and downpipes, refurbishing restrooms, clearing the area around the building, and placing security lights around the site.

In the period 12–15 February 2013 John Curtis and Lamia al-Gailani inspected the work done to date, and were very impressed by its extent and quality. They also had an opportunity to meet Mr Sabbah al-Bazooni, the Chairman of Basra Provincial Council (BPC), and Mrs Zahra Albachary, who informed us that BPC had allocated $3.7m for the project, which included $1m for the showcases.

After this, there was a hiatus until 2015, waiting for the money promised by BPC, which because of budget difficulties in Iraq was never forthcoming. Therefore, with the agreement of Qahtan Al Abeed and the Iraqi authorities, in 2015 the Friends of Basrah Museum decided to use their remaining funds to refurbish and open one gallery of the museum and an education room, with the expectation that once a part of the museum was open funds would soon be forthcoming to cover the remaining work. This one gallery would be devoted to the history of Basra and its environs, and named the Basrah Gallery. Mott MacDonald had by this time closed its office in Basra, but fortunately Peter Hunt stepped into the breach. He was the founder and joint-director of HWH and Associates, a civil engineering form with an office in Basra, and they kindly managed the rest of this part of the project \textit{pro bono}. Bur Alaman was re-engaged to undertake a second tranche of enabling works, and showcases for one gallery were ordered from the firm Reier in Germany.

The second tranche of works was undertaken by Bur Alaman in late 2015 and early 2016. It included repairing and replacing the marble and plaster décor wherever necessary, repairing and renovating woodwork on the inside and outside of the building, painting walls, installing the new showcases and arranging power supplies to them. The showcases were then delivered in spring 2016.

The end of this part of the story was on Tuesday 27 September 2016 when the Basrah Gallery was opened. The room looked splendid with its patterned tile floor, (now) purple walls, elaborate ceiling made of carved wood and painted plaster, and six columns round the edge of the room with polished stone overlay. Objects mostly from the Parthian, Sasanian and Islamic periods were displayed in twenty cases, and consisted mainly of pottery, glass vessels, terracottas, tiles and bricks, architectural ornaments, coffins and coins. Dr Paul Collins of the Ashmolean Museum, had written the information panels, acting for the British Institute for the Study of Iraq. About three hundred people and a number of TV crews and journalists attended the opening. There were speeches by the Governor of Basra, Qais al-Rashid, Maysoon Damluji (leader of the cultural committee in the Iraq parliament), John Curtis and Qahtan Al Abeed.

\textit{Postscript}

In August 2016 the Trustees of Basrah Museum submitted an application to the newly formed Cultural Protection Fund, administered by the British Council and the Department for Culture, Media and Sport, for a grant to complete the new museum in Basra. In December 2016 we were informed that our application had been successful and that we had been awarded £460,000. Following this good news, Joan Porter MacIver was appointed as the UK Project Coordinator to assist the trustees in delivering the project. A grant increase of £70,600 was approved in August 2017, and at the time of writing (December 2017) cases for the three remaining galleries have been ordered, further enabling works are in progress, and the completed museum is scheduled to open in spring 2019.

\textsuperscript{16} Prior to the work being undertaken, Liane Butcher was able to visit the site and provide feedback to her fellow trustees.
It is hoped that eventually the eighty-five hectare compound in which the Lakeside Palace is situated, delimited by a wall, will become a cultural park. Already, the Natural History Museum belonging to the University of Basrah has been relocated from a building on the corniche to a small palace or pavilion on the road between the gateway to the compound and the Lakeside Palace. Mr Jaffar Agha-Jaffar has proposed to establish a museum of modern Iraqi history in the Saraji Palace, reached from the Lakeside Palace via a small humpback bridge. Other suggestions for the compound include a building for a biennale.

**Bibliography**

---

17 The Saraji Palace was built by his grandfather in the late 19th century.