

The Royal Mounds of A'ali in Bahrain

The Emergence of Kingship in Early Dilmun

Steffe Terp Laursen



The Royal Mounds of A'ali in Bahrain

The Emergence of Kingship in Early Dilmun

by Steffen Terp Laursen

**with contributions by
Gianni Marchesi, Jesper Olsen & Thomas Van de Velde**

Jutland Archaeological Society, Moesgaard Museum, Denmark

Bahrain Authority for Culture & Antiquities

The Royal Mounds of A'ali in Bahrain

The Emergence of Kingship in Early Dilmun

© Steffen Terp Laursen 2017 and individual authors

ISBN 978-87-93423-19-0

Jutland Archaeological Society Publications vol. 100

Digitizing plans and sections: Jonatan Rose Andersen, Steffen Terp Laursen, Karl Hjalte Maack Raun

Drawings: Jonatan Rose Andersen, Casper Skaaning Andersen, Peter Moe Astrup, David Pretzel Bennetsen, Claus Feveile, Jakob Fink, Lene Behrmann Frandsen, Andreas Nymark Jensen, Michael Vinter Jensen, Steffen Terp Laursen, Uffe Lind Rasmussen, Karl Hjalte Maack Raun

English revision: Lisa Yeomans & Sharon Rhodes.

Graphic design: Jonatan Rose Andersen, Steffen Terp Laursen, Lars Foged Thomsen

Layout and cover: Louise Hilmar / Ea Rasmussen. Cover photo: P.V. Glob

Photos: Casper Skaaning Andersen, Peter Moe Astrup, David Pretzel Bennetsen, T.G. Bibby, Claus Feveile, Jakob Fink, Lene Behrmann Frandsen, P.V. Glob, Flemming Højlund, Andreas Nymark Jensen, Jens Velle, Michael Vinter Jensen, Nanna Kirkeby, Steffen Terp Laursen, Uffe Lind Rasmussen, Karl Hjalte Maack Raun, Juris Zarins, Bahrain Authority for Culture & Antiquities, Cartier Heritage Department, CVMVS Museum Mumbai, Moesgaard Museum

E-book production: Narayana Press

Published by: Jutland Archaeological Society in cooperation with Moesgaard Museum and Bahrain Authority for Culture & Antiquities

Distributed by Aarhus University Press
Finlandsgade 29
DK-8200 Aarhus N
www.unipress.dk

Published with support of the Carlsberg Foundation

Content

1. Introduction.....	9
2. The early explorers and exploration history of A'ali.....	11
An anonymous Englishman, before 1782.....	11
Captain (later Sir) Edward Law Durand, 1878-79.....	11
Officers of HMS Sphinx after May 1886 and before February 8 th 1889.....	12
James Theodore and Mabel Bent, 8 th -18 th February 1889.....	12
André Jouannin, 1903.....	13
Lieutenant Colonel Francis Beville Prideaux, 1906-1908.....	14
Jacques Cartier, 1911.....	16
Ernest John Henry Mackay, 1925.....	16
Ronald Sinclair's unconfirmed report of German archaeologists, 1929.....	17
Charles Belgrave and the RAF, 1944.....	18
Danish Gulf Expedition, 1960-63.....	18
Abdul Aziz Suweileh, 1982.....	19
Bahrain National Museum, c. 1987, c. 1998 and 2009-2012.....	19
Extract from Nāṣir al-Khayrī 2003.....	19
3. Gazetteer of elite burial mounds previously investigated in A'ali.....	21
4. Recent investigations.....	85
Introduction.....	85
Research objectives and strategy.....	85
Dates and participants.....	87
Excavation reports.....	88
Mound A (Gazetteer no. 2).....	89
Mound D (Gazetteer no. 6).....	95
Mound E (Gazetteer no. 7).....	99
Mound H (Gazetteer no. 10).....	118
Mound L (Gazetteer no. 14).....	122
Mound M (Gazetteer no. 15).....	130
Mound N (Gazetteer no. 16).....	130

The central parts.....	147
The eastern area.....	157
Artefacts	160
Main results and reconstruction.....	162
Mound O (Gazetteer no. 17).....	167
Mound P (Gazetteer no. 18).....	188
Mackay Tomb 29 (Gazetteer no. 28).....	195
Mackay Tomb 30 (Gazetteer no. 29).....	201
Mound OA 204 (Gazetteer no. 32).....	208
Mound BBM no. 62.754.....	217
Royal Mound 8 (Gazetteer no. 40).....	220
External architecture.....	220
Internal architecture.....	224
The central parts.....	229
Artefacts	232
Al Maqsha Royal Mound	246
Dating by artefactual evidence.....	249
Survey of previously excavated A'ali mounds	255
5. Carbon sampling and radiocarbon-dating.....	265
Mound A (Gazetteer no. 2).....	266
Mound E (Gazetteer no. 7)	267
Mound L (Gazetteer no. 14).....	267
Mound N (Gazetteer no. 16).....	268
Mound O (Gazetteer no. 17).....	269
Mackay Tomb 29 (Gazetteer no. 28).....	270
Mound OA 204 (Gazetteer no. 32).....	271
Royal Mound 8 (Gazetteer no. 40).....	272
Bahrain Burial Mound no. 60.788 (Aziz Mound/Gazetteer no. 38).....	272
Mound OA 208 (Gazetteer no. 33)	273
Additional radiocarbon dated burial mounds.....	273
Al Maqsha Royal Mound	273
Mound OA 514 (Janabiyah Chiefly Cemetery).....	274
Bahrain Burial Mound no. 6.370 (Mound 53 Janabiyah Chiefly Cemetery).....	275
Mound OA 695 (Bahrain Burial Mound no. 20.907 Wadi as-Sail).....	277
Mound OA 252 (Unknown BBM no., Dar Kulayb Mound Cemetery).....	277
6. Burial and death rituals	279
Burial and death ritual	279
The intermediary period.....	279
The final ceremony.....	281
Anthropology and politics of royal death.....	285
Politics of dynastic succession.....	285
The spatial logic of dynastic cemeteries.....	286
The royal remains.....	287
Royal burial monuments	287

Royal death in Babylonia and the Upper Euphrates	288
Mourning rituals and the phase of separation.....	288
The mortuary chapel (<i>ki-a-naĝ / bīt kispim</i>).....	290
The burial ritual and rites of passage and incorporation.....	290
The rites of succession.....	291
The ascension to heaven ritual.....	292
The cult of past kings.....	293
The afterlife.....	294
 7. The origins and evolution of the burial mounds.....	297
Origin of Dilmun's burial mound tradition.....	297
Saudi Arabian and Kuwaiti mainland sites.....	299
Evolution of Dilmun's burial mound tradition.....	309
The Early Type.....	309
The Late Type.....	324
Competing forms of burial.....	335
 8. Social status typology and relative chronology.....	341
Selected architectural features.....	341
Chamber and alcoves.....	341
Access and doorway.....	348
External features.....	349
Correspondence analysis.....	350
Chamber orientation.....	353
Principal component analysis.....	355
Chronology of Royal Mound 8 and Mound N.....	357
Conclusions on social stratigraphy and typological chronology	361
Horizontal stratigraphy and spatial analysis.....	363
The relative typological chronology of radiocarbon dated Royal Mounds	370
 9. Radiocarbon chronology based on Bayesian modelling	
<i>By Steffen Terp Laursen and Jesper Olsen</i>	371
The Bayesian model "Royal Sequence"	371
Results.....	374
 10. Conclusion and discussion	377
Historic developments – a sketch.....	379
Discussion.....	390
The Amorite issue and social organization.....	390
Tomb building.....	392
Burial rituals.....	393
The institution of the Royal Cemetery.....	394

Appendix 1. A'ali pottery in Mumbai

<i>By Steffen Terp Laursen</i>	397
Bibliography	401

Appendix 2. Analysis of bitumen from the Royal Mounds

<i>By Thomas Van de Velde</i>	403
Early Dilmun period bitumen	403
Analysis of the data	405
Bibliography	410

Appendix 3. The stone building materials

<i>By Steffen Terp Laursen</i>	413
Stone types	413
Sources	413
Samples	416
Bibliography	419

Appendix 4. Ceremonial platform Mound OA 256

<i>By Steffen Terp Laursen</i>	421
Bibliography	422

Appendix 5. Inscriptions from the Royal Mounds of A'ali (Bahrain) and Related Texts

<i>By Gianni Marchesi</i>	425
§ 1. The Inscriptions from A'ali	425
§ 2. Related texts	427
§ 4. Dilmun's kings and Dilmunite kingship	428
§ 5. The question of Ag/karum	430
Abbreviations	433
Bibliography	434

Acknowledgements	439
------------------------	-----

Bibliography	441
--------------------	-----

1. Introduction

After millennia with a low degree of social organization, several groups within the Near Eastern societies initiated the process of state formation. Within any given society and region particular attention should be paid to these first attempts at state building because they took place without an existing plan to which one could turn for guidance. In setting up fundamental institutions of statecraft such societies had to conceive their own solutions in provisioning the local requirements, possibly with the aid of inspiration from neighbouring states. Consequently, whilst we tend to focus on their similarities, the structure of early states must have been rather diverse. When exploring ancient states N. Yoffee has pointed to the advantages of using an analytical approach that focuses on individual institutions (2005: 131-135). It is possible to explore through the lens of a carefully selected institution from which data can be made available the complexity and unique characteristics of an ancient society and the evolution of its organization. Ideally, an institution-level approach should be adopted without forcing the available data into a single theoretically predefined template.

There are particular types of institutions, which in one form or another, almost invariably seem to have been present in state societies and the presence of these have become defining traits in the classification of early states. These individual institutions are not of primary concern here, but for established states the types of institutions into which resources were allocated depended on a combination of economy, politics, historic conditions and established traditions. In the first attempts of early societies to construct states one specific important institution recurrently seems to have developed in tandem with the emergence of the state, namely that of *the royal cemetery*.

In general, there is a very strong association between the advent of state-building and the introduction of a political authority based on kingship. Royal cemeteries often developed either in an intramural location, such as within a palace, or in full public view at a visually prominent location. Both types appeared to be part of an

ideological and political process aimed at securing the dynastic line of succession, cementing the royal family's hierarchical position and legitimizing the incumbent monarch's right to rule. Located below palaces, royal tombs were controlled and the cult of the dead royal family was exclusive and private. In contrast the visually prominent dynastic cemeteries were more integrated institutions where extensive state rituals could be performed in the public sphere. The makeup of the royal cemetery as an institution has the potential to reveal many important aspects about an early state and the conception of its institution of kingship and political power.

The purpose of this study is to examine the *Royal Cemetery* and *Kingship* as institutions in Early Dilmun society, c. 2250-1600 BC. The features of kingship under consideration are those pertaining to the office of, and government by, a king. The absence of written sources from Dilmun means that the institution of kingship has to be indirectly addressed since the principle evidence is archaeological, in the form of public architecture and royal tombs. The core of the current study is formed by the results of a series of new excavations at the Royal Mounds of A'ali in Bahrain. This evidence alongside a re-examination of previous data from the site and other burial mounds of Bahrain sets out to write a new chapter in the archaeology of Early Dilmun society.

The site of the royal mounds at the village of A'ali in the centre of Bahrain consists of a collection of extraordinarily large burial mounds lying north of a compact cemetery of normal-sized burial mounds. In the course of this study it will be argued that in the northern distribution of larger burial mounds there existed a distinct Royal Cemetery proper which consisted of the 12 to 14 largest and northernmost burial mounds (cf. Fig.9-13 below).

The burial mounds are generally assumed to date from around 2050-1700 BC and for a long time there has been speculation about the association of the largest of these tombs with the rulers of Dilmun. In spite of almost 140 years of sporadic research, the data on A'ali, prior to this project, failed to provide conclusive

evidence to support or reject this assertion. The gaps in our knowledge are not only related to the chronology of the burial mounds but also to the social span of the hierarchy that is represented at the site.

The study presented in this book provides conclusive evidence in support of the A'ali cemetery's function in Dilmun as the royal cemetery of a dynasty of Amorite ancestry. Furthermore, the absolute dating of the royal mounds is presented and based on a reliable sequence of archaeological data and radiocarbon dates. Targeted investigations into the vast corpus of archaeological data generated from the burial mounds of Bahrain reveal new aspects of the ideology behind the Dilmunite burial rituals opening up this aspect to a more informed and detailed analysis.

This volume begins with a brief introduction to the previous investigations at the Royal Mounds of A'ali and a few central events in the history of the archaeological site (Chapter 2). Following this overview of the research history of the royal mounds, a selected corpus of data from the previous excavations including photos and plans is presented in a comprehensive Gazetteer (Chapter 3). A substantial part of this book is then devoted to the presentation of the data from the recent investigations at A'ali by the Bahrain-Moesgaard team (Chapter 4). A short chapter presents the systematic sampling of ancient carbon from the chambers and the resulting radiocarbon dates (Chapter 5).

After the empirical foundations have been pre-

sented, the following chapter has been dedicated to burial and death rituals. Special focus is placed on important theoretical aspects, and additional ethnographic, anthropologic and historic analogies which are central to the analysis are put forth (Chapter 6). In Chapter 7 the origin of the burial mound tradition is explored through a brief survey of the Pan-Arabian burial mound phenomenon and analysis of the evolution of Early Dilmun burial customs. Hereafter follows analysis of the architecture of the burial mounds aimed at creating a typology of social status and relative chronology of the royal mounds (Chapter 8). The radiocarbon dates from burial mounds positively identified in the social status analysis as royal tombs and the established relative chronology are subsequently used to determine more accurate absolute dates of each royal tomb by means of Bayesian modelling (Chapter 9 co-authored with J. Olsen). The final chapter presents the broader conclusions drawn from this study (Chapter 10).

Five appendices follow. Appendix 1 provides a presentation of the Early Dilmun pottery from A'ali stored in India, Appendix 2 presents the analysis of the bitumen sampled from the royal mounds (by T. Van der Velde), Appendix 3 contains data on the main types of stone used as building material in the A'ali mounds, Appendix 4 presents a platform mound from the A'ali cemetery previously excavated by the Danish expedition, and the cuneiform inscriptions found in the royal mounds are dealt with by G. Marchesi in Appendix 5.

2. The early explorers and exploration history of A'ali

Amongst the populations of Bahrain and the adjacent mainland there has obviously always been an awareness of the visible traces of "the ancients" which surrounded them. The arrangement of these relics in a linear historical sequence did not evolve until the rise of archaeology. Because of the fact that during the Age of Enlightenment modern historic and ultimately archaeological thought emerged in Europe, European agents have dominated the early archaeological exploration of Arabia.

An anonymous Englishman, before 1782

Less than 20 years after Carsten Niebuhr, the last surviving member of the Danish expedition to Arabia Felix had passed by Bahrain in 1765 without setting foot on the islands (Hansen 1964: 310-312), another European apparently disembarked with the purpose of exploring the area.¹ The unknown Englishman in question visited Bahrain during the reign of Shaikh Nasr Al Madhkur (c. 1753-1782) and his interest in the ancient monuments of Bahrain is the earliest documented. Our knowledge of this visit is exceedingly scarce and is only known to us through correspondence between the Qajar dynasty of Persia's Minister for Internal Affairs (*Vizier*) Mirza Mahdi Khaan Astarabadi and Sheikh Nasr. A transcript of the relevant Arabic paragraphs in these letters is included at p. 19.

The correspondence in question was reproduced in the manuscript of Nāṣir bin Jawhar bin Mubarak al-Khayrī (1876-1925) who listed a paper published in India in 1911 as his source.² The manuscript of al-Khayrī was published by A. al-Shuqair ([Khayrī *post hum*]2003). According to the letters, the Englishman had requested permission to start "*investigating the hills of Bahrain (burial mounds) and digging [i.e., excavating] its lands and*

tells" ([Khayrī]2003: 17.41.27). Sheikh Nasr, who saw it as his obligation to exercise hospitality, received the Englishman as his guest in Bahrain. As part of this communication the Persian Vizier M. Astarabadi, who represented the *de facto* overlord of Sheikh Nasr, expressed extreme discontent with the Sheikh for hosting this Englishman and for having agreed to his request to wander around the island in order to observe its ancient ruins and dig in its lands and tells. It appears that the Persians felt certain that the Englishman's interest in Bahrain's ancient remains were merely a pretext for spying. He outright calls Sheikh Nasr naïve for telling the Christian Englishman about the conditions in the Gulf and Bahrain. As an alternative to the perhaps not unjustified concern of the Persian vizier, it is equally possible that this Englishman was a pioneer antiquarian of the sort that appeared during the Age of Enlightenment. Whether the Royal Mounds of A'ali were explored on this visit remains entirely unknown, however, given their impressive appearance it appears most likely that they were the focus of some attention.

Captain (later Sir) Edward Law Durand, 1878-79

Captain Durand, who carried the title of First Assistant to the Political Resident in the Persian Gulf, arrived in Bahrain in 1878 with orders to survey the Island's antiquities (Rice 1984: 10). The background for Durand's visit and the impressive list of discoveries he made in Bahrain is treated elsewhere by Rice (1984: 9-11) and of significance here are the excavations he undertook in and around the Royal Cemetery of A'ali (Durand 1880a and 1880b).

It is from Captain Durand that we have the earliest account of the Royal Cemetery of A'ali, which he

1 I cordially thank Dr. Abdulla Al Sulaiti for bringing this information to my attention. Thanks are also due to Dr. Waleed M. Al-Sadeqi for advice relating to this matter.

2 Al-Habl Al-Mateen no. 13. 1329 Hijri (1911).

described as “a most singular group of mounds... they number about 25 to 30... all being of a size to ensure notice.” (Durand 1880a: 9). During a period from March to April 6, 1879, Durand excavated two burial mounds near the A’ali village and he thus also became the first official excavator of Bahrain’s burial mounds on record.

Durand commenced his work by excavating a burial mound in the western periphery of the royal cemetery where he encountered a stone built central chamber in the shape of a capital Latin letter H (see Chapter 3: no. 1). The second mound he investigated – subsequently named Mound A by F.B. Prideaux (see below) – is one of the largest burial mounds in Bahrain and belongs to the exclusive group, which constitutes the royal cemetery (see Chapter 3: no. 2). Durand was assisted by a detachment of the 21st Native Infantry and Captain Pringle from HMS *Vulture* and thus had ample access to explosives. In the internal version of his report he explicitly states that he repeatedly used gunpowder to blow his way into the mound (1880a: 15). Once Durand reached the central stone built chamber of Mound A he found that this, probably in part due to his harsh method of entry, had caved in. Consequently, large fallen stones left either by his series of gunpowder blasts or earlier tomb raiders prevented Durand from exploring the interior of the mound (Durand 1880a: 14-17).

The few finds which Durand recovered in A’ali were presumably kept along with his other artefacts from Bahrain including the famous foot shaped stone fragment with the cuneiform inscription “Palace of Ri’mum, Servant of Inzak, of Akarum” (see Appendix 5). The latter stone is known to have been destroyed during the Blitz bombing of London in World War II (Reade and Burleigh 1981: 75) and it is almost certain that Durand’s other finds from the A’ali mounds shared the same fate.

Officers of HMS *Sphinx* after May 1886 and before February 8th 1889

The next activity at A’ali on record is loosely assigned to ‘officers of HMS *Sphinx*’. The exact time and circumstances of this operation still evade us, but it is possible to extract some basic information from the scanty evidence available. The *Sphinx* was commissioned for service in October 1883 and from this time contemporary newspaper reports place her outside the Persian Gulf until May 1886. In February 1887 the ship left the

Persian Gulf only to return in May 1887 and stay until March 1889.³ We further know that the officers were active after Durand, but before the arrival of Mr. and Mrs. Bent in 1889 (Bent 1880a and below). In Mrs. Mabel Bent’s journal entry for February 8th, 1889 she mentions that some mounds in A’ali had been opened by Durand and officers of the *Sphinx* and that: “they found very little” (Brisch 2010: 14; [Mrs. Bent 1889]). On February 16th 1889 Mrs. Mabel Bent further noted in her journal that 3 officers of the *Sphinx* had, on that day, paid a visit to their excavation camp at Mound B (Brisch 2010: 25; [Mrs. Bent 1889]). The British Museum holds no information about the *Sphinx*’s activities in A’ali, but according to Julian Reade the British Museum records reveal that two of the ship’s officers, by the names of Christian and Henderson, corresponded with the British Museum on another matter (1981: 75). The antiquarian interest demonstrated by these two individuals may be taken as an indication that they could have been involved in the alleged excavations at A’ali. Moreover, the presence in 1906 in Mound O (Chapter 3: no. 17) of “...a cutting made horizontally across its summit in fairly recent times...” and signs of a similar intervention at Mound P (Chapter 3: no. 18) led Prideaux to propose that these two mounds likely were those which had been entered by the unnamed officers of the *Sphinx* (Prideaux 1912: 67).

James Theodore and Mabel Bent, 8th-18th February 1889

In 1889 the self-proclaimed globetrotters and excavators Theodore and Mabel Bent made a brief stop in Bahrain and obtained permission from the ruler of Bahrain Sheikh Isa ibn Ali Al Khalifa to excavate two mounds at A’ali (Fig. 1) (Bent 1890b). The purpose of their investigation was to ascertain the date and cultural affinity of the burial mounds (Bent 1890a: 13) and was inspired by Durand’s earlier report. The Bents excavated a mound in the periphery of the Royal Cemetery proper (Chapter 3: no. 4) and a very large mound – subsequently named Mound B by Prideaux – which should probably be assigned to the Royal Cemetery proper (Chapter 3: no. 3). In Mound B, which was dug first, the Bents found a large H-shaped chamber superimposed over a chamber of a corresponding layout and thus became the first to document a classic two-tiered Dilmun burial chamber. Importantly, in her diary Mabel Bent stated about their smaller mound that it “...turned out to be of

3 Thanks are due to anonymous member of the ‘World Naval Ships Forums’ Navalists for help in locating the relevant records with information about the whereabouts of HMS *Sphinx*.



Fig. 1. Theodore Bent and local dignitaries at A'ali. Photograph was taken by Mrs. Mabel Bent in 1889 (reproduced after Bent & Bent 1900: 24).

the same plan [as their larger mound] on a smaller scale." (Brisch 2010: 25; [Mrs. Bent 1889] brackets are mine).⁴

T. Bent proposed that ivories found in the chambers of Mound B showed a Phoenician origin (Bent 1890a: 16); a suggestion for which he had probably been inspired by a comparable statement proffered previously by Durand (1880a: 13). Be that as it may, the idea never really became accepted by the scholarly community and was soon disputed (Hogarth 1920: 464) and what eventually became known as Bent's 'Phoenician Hypothesis' was by the 1950's considered entirely disproven (Bowen 1950: 5). As had been the case with the excavations of Durand those of the Bents did not in any satisfactory way resolve the question of the origin of the burial mounds. As alluded to above, Mrs. Mabel Bent was a keen journal writer (Brisch 2006; 2010; 2012) and she wrote a short but vivid account of their stay in Bahrain. In connection with the excavation of Mound B

in A'ali she made two charming sketches in the margin of her journal (Figs. 2 and 3). Most of the finds made by the Bents including the copper and ivory fragments are now with the British Museum (Reade & Burleigh 1981). After having read his obligatory paper at the Royal Geographical Society at the Evening Meeting, November 25th 1889, Mr. Bent deposited glass plate negatives of their Bahrain photos with the Society. Regrettably, they were discarded around 1950 due to their poor condition (pers. comm. Gerald Brisch).⁵

André Jouannin, 1903

In 1903 a French or Belgian national by the name of André Jouannin arrived in Bahrain on his way to Baghdad and Mosul and conducted a small excavation in A'ali. Even though his A'ali work was subsequently published in the *Mémoires de la Délégation en Perse*, he

4 Whether Mabel Bent here meant that the chamber of the smaller mound also was of the two-tiered type is less clear.

5 Gerald Brisch has also kindly informed me that no original documentation from the Bents' Bahrain excavation is deposited with the Hellenic Society in London.

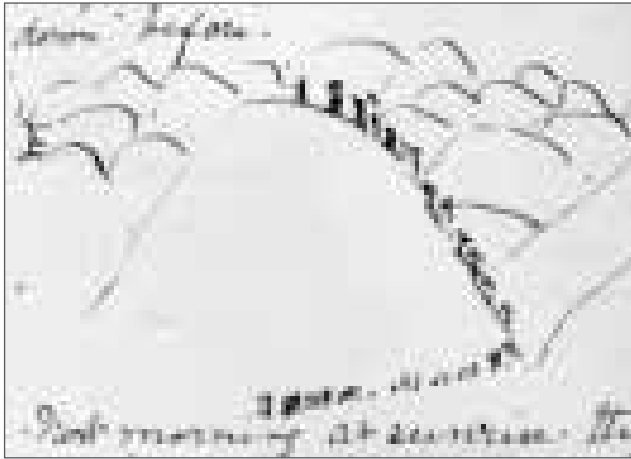


Fig. 2. Sketch drawing in Mrs. Bent's diary (Joint Library Diary Number 8 (1)) dated 11th of February 1889 showing Mr. T. Bent and the "diggers" commencing work on their larger mound. © Gerald Brisch, reproduced by permission of the Joint Library of the Hellenic and Roman Societies.



Fig. 3. Sketch drawing in Mrs. Bent's diary (Joint Library Diary Number 8 (1)) dated 14th of February 1889 showing the workman Murad working on the larger mound. © Gerald Brisch, reproduced by permission of the Joint Library of the Hellenic and Roman Societies.

was not officially associated with the French Delegation as one would expect. Conversely, Jouannin was associated with the *Comité de l'Asie Française* where he held the position of *Secrétaire General*. Jouannin states that he had become intrigued by the burial mounds of Bahrain after reading the Bents' report in "Southern Arabia" (Bent & Bent 1900) and later by personal inspection of the mounds on September 5th 1903 (Jouannin 1905: 149).

Jouannin obtained permission to excavate a mound from HH Sheikh Isa and began his work by re-investigating the chambers of Mound B which 14 years earlier had been excavated by the Bents (see Chapter 3: no. 3). Jouannin then proceeded to dig a tunnel into a mound located immediately south of the Royal Cemetery proper which later was named Mound D by Prideaux (see Chapter 3: no. 6). Inside Mound D he succeeded in locating the upper chamber of a two-tiered chamber structure which contained the rifled remains of a burial and various grave goods (Jouannin 1905: 149-158).

It has, until now, been unclear if some of Jouannin's discoveries from Mound D had survived and J. Reade inquired about their whereabouts in both the *Musées Royaux d'Art et d'Histoire* in Brussels and in the Louvre in Paris (Reade & Burleigh 1981: 71). However, on the basis of a letter by Cambridge Assyriologist Leonard W. King sent from Mosul on the 29th of October 1903 addressed to British Museum Philologist E.A.W. Budge it can now be concluded with sufficient confidence that Jouannin did not bring anything with him from A'ali.⁶

In the letter L.W. King refers to a visit of "...a certain Monsieur André Jouannin...[who]...stopped at Bahrein and did some digging for a week or two in a mound near the town. He says he found two well-built stone chambers one over the other full of human and animal bones – evidently it was a big mausoleum but he found nothing to show their date or that was worth bringing away." (after D'Andrea: 1981a-b [bracket is mine]).

Lieutenant Colonel Francis Beville Prideaux, 1906-1908

The Political Agent to Bahrain, F.B. Prideaux became the first major excavator of the burial mounds of Bahrain and the most active at the Royal Cemetery proper. In 1906 he began excavation in A'ali on behalf of the Archeological Department of the Government of India. As with those who preceded him, the investigation of Prideaux was officially motivated by "...the question of the origin of the necropolis" (1912: 68) and "...if any inscriptions existed within these mounds..." (1912: 72).

During the cold season from October 1st 1906 to the 31st of March 1907 a total of eight mounds (Chapter 3: nos. 5 and 7 to 13) were excavated in and around the Royal Cemetery proper. In addition to these, 35 smaller mounds were opened in the compact mound cemetery to the south, but the exact location of these are unknown. In the spring of 1908 Mounds L and M (Chapter 3: nos. 14 and 15) were excavated in the

⁶ I cordially thank Dr. Julian Reade for bringing a copy of this letter to my attention.

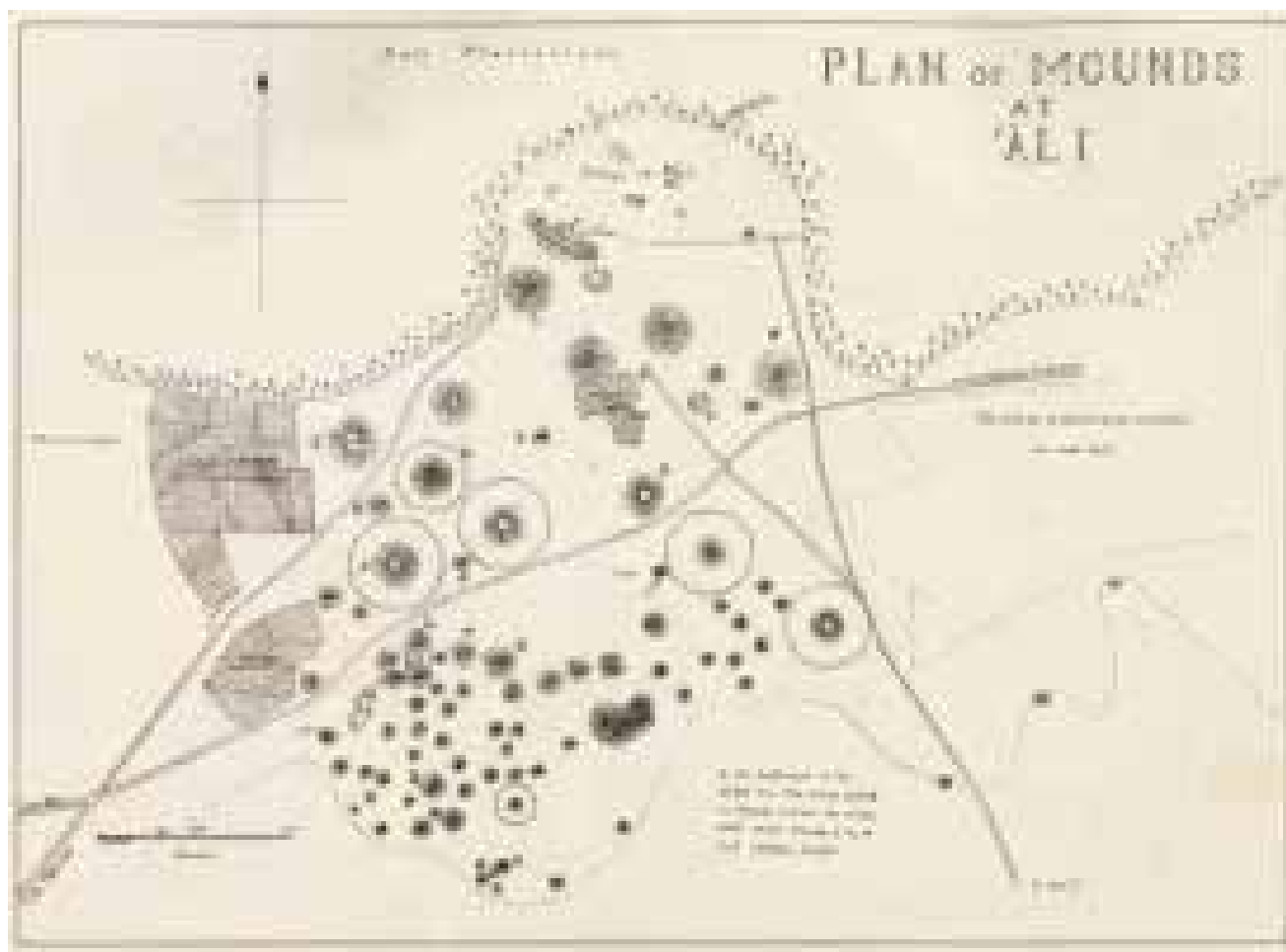


Fig. 4. 1906 map of the Royal Cemetery of A'ali by Commander Walter Hose (after Prideaux 1912: Pl. XVI).

periphery of the royal cemetery on Prideaux's own initiative and at his expense. He is responsible for introducing the current alphabetic lettering system of the A'ali mounds which names them in order from A to P according to the time of their excavation. Prideaux was aided in matters of surveying by Commander Walter Hose of HMS *Redbreast* who prepared the first map of the Royal Cemetery (Fig. 4). Unfortunately, no excavation plans made it into the 1912 publication even though Prideaux explicitly refers to "plan-making" in his report (1912: 69). Although this makes it likely that excavation plans were drawn up in the course of excavation, and perhaps excluded in the last stages of production, the present author has been unsuccessful in tracking down any such unpublished material.⁷ Prideaux, who presumably had anticipated finding

more objects of intrinsic value expressed dissatisfaction with the outcome of his excavations and concludes his report to the Archaeological Survey of India by stating that his results had been "meagre" (1912: 78).

Until now the only existing documentation of the grave goods recovered in the 42 mounds excavated by Prideaux is a photo which shows an arrangement of complete and fragmented pottery vessels on a table (Fig. 5) as well as a photo of two beads and a gold ring (Chapter 3: no. 8). A preface to Prideaux's report mentions that the artefacts were to be deposited in the Prince of Wales Museum in Bombay (Vogel 1912: 37). For a long time all the artefacts appeared to have been lost, but in 1981 J. Reade found confirmation in an old museum guide (Gyani 1931) that the Prince of Wales Museum of Western India had, by all appearance, amal-

7 Searches in pursuit of Prideaux's materials have been made at a number of institutions including: The British Library, Department of Asian and African Studies and the India Office Map catalogues, The British Museum, The National Archives (UK), the National Archives of India and the Archaeological Survey of India.



Fig. 5. Pottery from the A'ali Mounds (after Prideaux 1912: fig. 7).

gated the objects with another collection (Reade & Burleigh 1981). In connection with the study at hand the present author made further inquiries into the matter and subsequently succeeded in verifying that at least 6 pottery vessels from Prideaux's A'ali excavations have survived in the Chhatrapati Shivaji Maharaj Vastu Sangrahalaya Museum, Mumbai (formerly Prince of Wales Museum of Western India). The re-located pottery from A'ali is presented separately in Appendix 1.

Jacques Cartier, 1911

The next notable character to enter the scene was celebrated French jeweller Jacques Cartier who, during a business trip to the Gulf in spring of 1911, paid a visit to the Royal Mounds of A'ali. Sheikh Khalifa bin Ahmed al Ghatam hosted a banquet for J. Cartier in a hunting camp that was set up in the southern periphery of the Royal Cemetery of A'ali. On this occasion the Sheikh instructed his sons to provide Cartier and his companions with a tour of the burial mounds. Although he did not conduct excavations he is mentioned here since he brought a photographer who recorded a number of important photos. Aside from taking a photo of the entrance to Mound B (see Chapter 3: no. 4), which was the favoured motif of most 20th century visitors, he also recorded informative photos of and from Mound E which add to our understanding of this and the surrounding monuments (see Chapter 3: no. 7). In one photo Cartier, Mugbil Al Thukair and probably Cartier's sales assistant Maurice Richard can be seen posing on the edge of Prideaux's excavation trench on Mound E (Fig. 6). The end of the upper chamber's north-eastern alcove can be seen in the lower left corner. The large anonymous and still unexcavated royal mound

(BBM no. 63.467) can be seen in the background. To the right the excavated remains of both Mound G (Chapter 3: no. 9) and Mound F (Chapter 3: no. 8) appear in the distance with the trenches made 5 years earlier by Prideaux still visible.

Ernest John Henry Mackay, 1925

Sir Flinders Petrie, one of the founding figures of Egyptology, also developed an interest in Bahrain and particularly in understanding what role the island could have played in ancient Egyptian trade. After a failed attempt to recruit T.E. Lawrence (later to earn the epithet "of Arabia" in 1914 (Rice 1994: 47-48), Petrie in 1925 seized the opportunity of his former student Ernest J.H. Mackay being in the region and directed him to work out "the nature of the tombs and their contents" (Rice 1984: 129-131).

In a brief bibliography Gregory Possehl described Mackay as: "... a solid journeyman archaeologist [and] a very good excavator for his times" (2010: 43). Early in his career Mackay had for several years (1912-1916) been occupied with the photography and documentation of the Theban tombs in Egypt (Possehl 2010: 41) and this valuable experience must have contributed to the quality of his later work in Bahrain.

Mackay excavated 34 mounds in what he described as "a very brief season's work at Bahrein" (Mackay 1929: 3) and all things considered he managed to document his work reasonably well. Among those mounds which he excavated, 11 were located in and around the Royal Cemetery proper (Chapter 3: nos. 19-30), while the remaining 19 excavations were directed towards smaller mounds in the large compact mound cemetery to the south.

Mackay concluded, incorrectly as it eventually turned out, that "the people who were buried in Bahrein were nomads" and that they had been "brought from some part of the mainland" (1929: 27). This unfounded hypothesis of "an island for the dead" or "international burial ground" was to persist for a long time (Lamberg-Karlovsky 1982; During-Caspers 1984) but is now considered utterly disproven. However, it must be granted that Mackay was able to more accurately date the burial mounds than any of his predecessors. By comparing the Babylonian vessels he had encountered in the chambers with examples from Tello (ancient Girsu) and Kish as well as socketed bronze spearheads he found in Mesopotamia with those he found in Bahrain (Mackay 1929: 24), Mackay proposed an approximate date of 1500-1200 BC (1929: 28). The majority of the artefacts found by Mackay were donated to the British Museum by



Fig. 6. Jacques Cartier (right) and two companions posing on Mound E in 1911. The anonymous Royal Mound BBM no. 63467 is visible in the background. Published by courtesy of the Cartier Heritage Department. © Cartier Heritage Department.

Flinders Petrie while the fate of the rest of the finds, his drawings and photos remain unaccounted for (Reade 1981: 77).⁸

Ronald Sinclair's unconfirmed report of German archaeologists, 1929

In 1953 G. Bibby purchased a copy of the book in which Mackay's report was printed in preparation for the Danish Bahrain expedition (Bibby 1969: 16). The volume, which incidentally turned out to be Mackay's personal signed copy, contained an article in the form of a newspaper clipping from the "Illustrated Weekly of India" dated October 19, 1930. The newspaper article which presumably had been enclosed in the book by Mackay himself was written by Ronald Sinclair and mentions in brief the recent work of Mackay. The article was accompanied by a unique photo showing a pano-

rama of the Royal Cemetery proper seen from the south (Fig. 7). Most interestingly R. Sinclair goes on to speak of hitherto unknown German archaeologists:

"According to recent reports a party of German archaeologists who have been working in Bahrein during the past cold weather have made a number of further discoveries. They appear to have been fortunate in finding some unrifled tombs, one, at least, of which comprised four separate chambers, each above the other. In them they found the bones, not only of the dead man, but of his wife, slaves, and domesticated animals, all of whom, it is supposed, were sacrificed when he died. On the ground floor the bones of animals, on the first floor those of the slaves; the man himself was interred in solitary state on the third floor, while the top floor were the skeletons of his wives." (Sinclair 1930: 13).

It has not been possible to obtain any independent verification of this report. The description of the discoveries allegedly made by German archaeologists seem

⁸ Professor McGuire Gibson, Chicago, kindly informs me that he did not come across Mackay's Bahrain materials during his own extensive but also unsuccessful search for Mackay's records on the excavations at Kish. According to Dr. Joanna Kyffin of the Egypt Exploration Society there are no records on Mackay in their Archive catalogue. According to Curator Dr. Alice Stevenson the Petrie Museum of Egyptian Archaeology also does not hold any of Mackay's records from Bahrain. Dr. Laurie McNamee of the University College London Special Collections has also informed that none of Mackay's materials are housed there either.



Fig. 7. *The Royal Mounds of A'ali 1930 (after Sinclair 1930).*

more fitting to the Royal Cemetery of Ur excavated by Sir Leonard Woolley between 1922 and 1934 (Woolley 1934). However, since Sinclair also mentions Woolley's Ur excavation in passing in his introduction, a confusion of "German archaeologists" with the ongoing excavations at Ur can probably be ruled out.

Charles Belgrave and the RAF, 1944

A piece of correspondence between C. Belgrave, advisor to the Government of Bahrain and Major T. Hickinbotham, the British Political Agent in Bahrain discloses an unfortunate episode of systematic removal of stones from the royal mounds. In the years after the major excavation campaigns of Prideaux and Mackay the Royal Mounds of A'ali probably suffered some minor damage due to the stone plundering activities of locals in need of limestone for house construction and lime burning. However, in 1944 C. Belgrave learned, to his dismay, that the RAF had set up an "...*elaborate stone crushing machine and various other apparatus...on one of the larger mounds...*" (Belgrave unpublished letter [May 17th 1944]). Belgrave subsequently found that the stones were intended to be used for the construction of an air base on Muharraq island. In a letter to Major Hickinbotham, C. Belgrave urged that he should contact the RAF and insist that stones were instead taken from the smaller burial mounds on the hills of Riffa where such materials had previously been procured. According to an answer from the RAF six days later, an instruction to cease stone quarrying at A'ali was given immediately. Furthermore, the British Liaison Officer regretted the incident and stated that although permission from the Government of Bahrain had been obtained, it was the lack of historical knowledge on the part of the Air Ministry Works Directorate that caused them to think that "...one heap of stones was as good as another..." (Parker [May 23rd 1944]).

Danish Gulf Expedition, 1960-63

Under the directorship of P.V. Glob, members of the Danish Gulf expedition excavated a number of mounds in A'ali during the cold seasons of 1961-62 and 1962-63 (Bibby 1965: 103). The Danish excavations in A'ali were a combined research and salvage operation (Højlund 2007: 49). In and around the Royal Cemetery proper the expedition investigated the mounds OA 201, OA 204 and OA 208 (Chapter 3: nos. 31-33) and re-excavated Mound A (Chapter 3: no. 2). In the large compact mound cemetery to the south and south-east of the Royal Cemetery, 42 smaller mounds were excavated in "Group-A" and "Group-B" (Bibby 1965: 107; Frifelt 1986: 125-134; Højlund 2007: 49-115).

In Mound OA 201 the chamber was found to have been recently opened (Højlund 2007: 57-58) and in Mound A the very same fallen capstones which had prevented Durand from penetrating the chamber in 1879 also deterred the Danish expedition from entering (Bibby 1965: 103). Similarly, in Mound OA 204 the Danish team encountered a collapsed chamber which could not be further explored (Bibby 1965: 103). OA 208 produced a full chamber plan and yielded one of the most diverse collections of pottery (Højlund 2007: 62-66). The mounds examined in "Group-A" and "Group-B" of the compact mound cemetery represented tombs of two different classes. A population of 'commoners' was associated with the Group-B mounds whilst the mounds in the A-group reflected the slightly wealthier segment of society (Bibby 1965: 107).

A set of painted drinking goblets and three fine ware bowls found broken in the dromos passage of Mound A/OA 203 (see Chapter 3: no. 2) and a small ornamental gold spiral ("A-Group" Mound OA 211) are currently on display in the National Museum of Bahrain while bone, pottery and artefacts from the remaining mounds are housed at Moesgaard Museum.

Abdul Aziz Suweileh, 1982

Archaeological superintendent Abdul Aziz Suweileh of the Bahrain National Museum excavated what is popularly referred to as the Aziz Mound located to the south of the Royal Cemetery proper (Chapter 3: no. 38). The mound is a rare example of a multiple chambered tomb with multiple shaft entrances. The excavation plan of the mound was misplaced in the archives of the National Museum of Bahrain, but a series of drawings of pottery from the mound is available to verify that the mound originally was constructed in the Early Dilmun period.

Bahrain National Museum, c. 1987, c. 1998 and 2009-2012

Around 1987 the National Museum of Bahrain conducted a brief investigation of a very large mound in the Royal Cemetery proper (Chapter 3: no. 39). The mound was subsequently removed in order to extend a modern cemetery. There is no report about what was done or found during the investigation and it is unknown who was responsible.

Plans to build houses prompted the excavation of Mound N around 1998 (Chapter 3: no. 16). After the uniqueness of the monument became apparent plans to remove the mound were cancelled and the archaeological investigation stopped. Several of the archaeologists and excavators of the Bahrain National Museum participated in the partial investigation of Mound N. Before the excavation was halted the first two northern alcoves were completely exposed and the outline of the corresponding southern alcoves identified. The upper walls of the shaft and the upper portions of the main chamber were also identified. The top of a colossal dressed stone door was found protruding from the fill of the access shaft. There is no report about what was found during the investigation but the excavation site was roughly surveyed (see Chapter 3: Fig. 46).

From 2009 to 2012 the Directorate of Archaeology excavated A'ali Mound no. 4 season 2009, later formally named Royal Mound 8 (see Chapter 3: no. 40). Running parallel to this excavation was the joint Bahrain – Moesgaard A'ali excavation project which launched in October 2010 and during this work the majority of the excavated Royal mounds were reinvestigated over three field seasons (see Chapter 4).

Extract from Nāṣir al-Khayrī, 2003

Qalā'id An-Nahrain fi tareekh Al-Bahrain

Page 207

Wa sulimat ri'asat albilād ila Ashaykh Ghayth wa akhihi Ashaykh Nasr min āal Madkhoo thuma maāta Ashaykh Ghayth fasaāra Ashaykh Nasr huwa alhaākīm almutlaq atasruf fee al-Bahrain tahta ri'aāyat ad-dawlah al-eeraāniyah al-'afshāriyah.⁹

Wa dhakara ana fee ayaām Ashaykh Nasr jaā' ila jazā'ir al-Bahrain sayāhan afranjee mina al-inkileez wa nazala dayfan 'ala Ashaykh Nasr fa'akrama ashaykh wa fadathu fatalaba hatha mina Ashaykh Nasr al-idhin lahu bi-siyāha fi daākhliyat al-jazāa'ir lil-tafaruj 'ala āathāriha al-qadeema fa'adhina lahu bidhalika wa lamma balaghat al-akhbaār limasaāmi' ad-dawlah al-eeraāniyah saā'aha dhālik al'amal min Ashaykh Nasr wa kataba lahu wazeer daākhiliyatiha Mirza Mahdi Khāan yalumahu wa yuabikhahu 'ala ma fa'ala mina as-samaāhi lil-inkilizi' bil-jawlaān fee daākhliyat al-jazāa'ir – fee kitaāb haātha nasuh:

"Laqad balaghani anaka ijtama'ta birajulin masihii wa kalamtahu fee shu'un al-jazāa'ir wa al-khaleej wa taz'aum annahu sayaāhan fasar-raka bimanqulaāti khitaābihi wa maqoolaāt iyaābihi wa thahaābihi hata basata lahu bisātan manee'an.

Page 208

Wa shadata azraka lahu saree'an, ama qara'ta qawlahu ta'alaā: "Wa lan tarda 'anka al-yahudu wa la an-nasara hatta tatabi'a milatahum" fa'ini itab'ata hawāahu ba'da an fahimta hawāahu fa anta idhan min al-halikeen. Wa la takhfid janaāhka ila lil-mutaqeen wa as-salaāmu 'ala man ita'dh bimawaā'idh allah wa rahmatu allahi wa barakaātuhu". Al-imdaā' – Mahdi.

Fakaāna jawaābu ashaykh nasr 'ala dhalika ma ya'ti:

"Ina ma dhakartum min mukaālamti ma' al-maseehii wa mawadatii lahu faman ballaghkum ghayr baāligh fa'antum ta'alamoon muwadabati fee al-thughoor wa diqati fi al-umoor mashhoor wa ghayra mankoor. Wa amma basta al-ferāash wa it'aam an-naās famin shiyam al-anbiyaā' al-salateen wa ameeruna lam yuhsin tarkaha wa as-salaām" – Al-imdaā' 'abdukum Nasr.

Fajaābahu al-wazeer biqawlihi: "Laqad wasalana kitabaka kal-khateeb al-saqi' lahu 'ibaraāt wa isharaāt wa tasreehaāt wa talweehaāt la yanf'ana wa la la yanfa'ak, idh laysa lana kalām fi al-it'aām min haythu al-halaāl wa al-haraām falihatha mawdi' ākhar min fiqh al-ahkaām wa 'inama kalaāmuna fi 'ilm as-siyasaāsah wa mawdu'aāt ar-riyaāsah fa ma ashbah halana ma'ak bihāal man qaāl 'ureehi as-sahar wa yureeni al-qamar, wa qad balaghani ana ar-rajul al-maseehi istajaāzaka fee kashfi jubaylaāt al-Bahrain wa hafri araādeeha wa tilaāliha wa inama aghdayt tarfi

Page 209

'an thālik wa hamaltuka 'ala ahsan al-masāalik li'ilmina bihusni seeratik wa daā' sareeratik, fa'malu lim tarawana lakum salāah wa ta'taqidoonahu injaādīt al-falaāh wa assalamu aleikum." – Imdāa' Mahdi.¹⁰

Fatra min hadha ana wazeer eerān lam yastahsin dukhul hathā al'ifranji ilā dakhiliyāt aljazā'ir wa lahu fi dhalika nadharāt wa mulāhadhāt siyasya s'ab idrakaha wa fahmaha 'ala al-ameer al'arabi' Wa lilahi fee khalqihi shu'un.

Wa fi 1197 hijri, hamala Ashaykh Nasr biquwa bahriya kabira 'ala al-'arab khalifa, sukāan az-Zubarah fi Qatar yaqsud tādebuhum wa alintiqaām minhum bisabab ma ajraohu min alta'diyaāt 'ala ba'd atraaf al-Bahrain "Satrah" wa lama wasalat himayatuhu ila az-Zubarah "areen alasad" ...

9 Mafaāteeh Al-adab.

10 Naqlan 'an jareedat Al-Habl Al-Mateen alti tasdur bil-hind, Rajab – 1329.

3. Gazetteer of elite burial mounds previously investigated in A'ali

This gazetteer introduces, in a summarized form, information on 40 of the most important burial mounds investigated in the Royal Cemetery proper and the adjacent compact mound cemetery of A'ali. The intention of the gazetteer is to provide access to data that can otherwise only be pieced together by consulting numerous unpublished reports or older and largely inaccessible publications. Background information including the history of exploration, graphic documentation, illustrations of relevant artefacts and selected numeric data is provided for all the monuments. Fourteen of the 40 burial mounds included in the gazetteer are among those which were re-investigated during the recent Bahrain-Moesgaard excavation campaign (see Chapter 4) and the remaining 26 burial mounds all represent A'ali tombs that can be associated with members of the social elite in the Early Dilmun period.

As will become apparent in other sections of this volume, the Early Dilmun burial ritual was part of an extremely formalized system in which the architectural layout of the chamber varied according to the social rank or class of the entombed individual (see Chapter 7). Generally the burial mounds included are also the largest known examples to have contained H-shaped chambers and/or comprised of two-tiered chamber construction. Burial mounds with single-tiered T-shaped chambers and a few burial mounds with exceptional chambers have also been included when the particular monument contributes significantly to our overall understanding of the Royal Cemetery.

Excluded from this Gazetteer are the hundreds of burial mounds of the Early Dilmun 'common' population excavated by the Bahrain Directorate for Archaeology and the Tunisian expedition in the southern part of the A'ali Mound Cemetery.¹ Also omitted are the so-called A- and B-Group burial mounds excavated in

the early 1960s by the Danish Gulf Expedition (Frifelt 1986) and recently published (Højlund 2007: 67-115). The burial mounds R-1 and R-2 excavated by the Japanese Archaeological Mission in 1987 in the south-eastern segment of the A'ali Mound Cemetery (Konishi et al. 1988) are not covered. While the gazetteer includes all burial mounds known to have been excavated in the Royal Cemetery Proper, it must be stressed that this does not represent an exhaustive list of all burial mounds excavated in the compact A'ali Mound Cemetery to date.

Artefacts believed to have originated from primary interments are briefly mentioned and discussed with emphasis on their chronological dating and the presence of imported materials. To the extent it has been possible, previously published or unpublished drawings and photos of relevant objects accompany each entry in the Gazetteer.

The types of data listed for each burial mound in the Gazetteer are mostly self-explanatory but the definitions of a few entries listed under "Basic data" need to be clarified. *Mound height* refers to the highest recorded height and does not in any case reflect the original height of the monument. *Mound diameter* describes the mound and the measurement includes the erosion skirt at the foot of the mound. *Ring wall diameter* refers to the ring wall proper which represented the original perimeter of the monument (Fig. 8: a). *Outer ring wall* refers to a low circular wall that originally surrounded some of the largest monuments placed a considerable distance from the foot of the ring wall proper constituting a sort of *Temenos* wall (Fig. 8: b). *Inner ring wall* refers to the circular wall (or walls) that were occasionally constructed several meters up on the mound at the level where the ring wall proper ends and is connected by the means of a horizontal terrace (Fig. 8: c). Presence/absence is

1 Unpublished excavations in the A'ali Mound Cemetery known to us are: Area: A'ali South, Seasons 1987-89; Area: A'ali South, Tunisian Expedition, Seasons 1986-88; A'ali Pipeline, Seasons 1987-88; Jary Al Sheikh, Seasons 2000, 2005-08. These campaigns involved the excavation and removal of as much as 500 burial mounds.

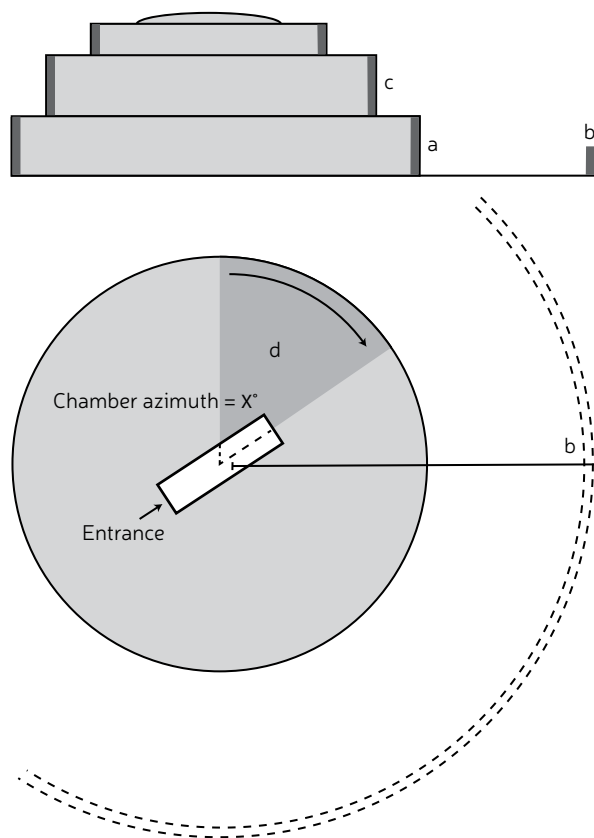


Fig. 8. Cardinal measures indicated on an idealized royal burial mound.

recorded for these features and the diameter is stated when available. *Chamber azimuth* gives the number of degrees which the longitudinal axis of the central chamber is orientated east of Geographical North (Fig. 8: d). *Chamber access* to the tombs in the Royal Cemetery mounds is typically either by means of a horizontal *dromos* passage or a vertical *shaft*. In other cases, in particular for the vast majority of smaller mounds, there was no formally constructed chamber access.

All measurements are given in the metric system; those collated from original publications and reports using Imperial measurements have been converted. Although some data has been incorporated from recent investigations, the entries in the Gazetteer generally represent the state of research before this study. For the recently investigated monuments Chapter 4 should be consulted for additional and sometimes more up-to-date data.

Spatial information

To begin with there was only limited spatial information available to locate the burial mounds that had been excavated in A'ali. *The Bahrain Burial Mound Project*

produced a highly representative and accurate vector map of the more than 75,000 burial mounds that were known in 1959 (Laursen and Johansen 2007; Laursen 2008), but in the case of the A'ali Mound Cemetery (Fig. 9) excavated burial mounds had not been individually identified in the project's GIS.

In order to shed new light on the older excavations and facilitate spatial analysis, considerable effort was put into the re-identification of the excavated A'ali mounds. The process of re-identification and mapping of the excavated burial mounds was severely impeded by the fact that more than 95% of the mounds in and around the Royal Cemetery have disappeared since 1959 (Fig. 10). As a consequence re-identification had to be based on the combined information from historic aerial photos, maps, photos, published descriptions and field observations.

With the exception of Prideaux who published a map in 1912 of A'ali naming 16 mounds including those excavated by Durand, the Bents and Jouannin (see Fig. 4) no other A'ali excavators produced location plans. Among the investigators whose excavations were most important to relocate were those of Ernest Mackay who did not publish any map of the 35 burial mounds he examined in 1925. Fortunately, Dr. Julian Reade had noticed that in Mackay's personal copy of Prideaux's 1912 report in the "Archaeological Survey of India" now held by the British Museum, pencil marks had been added by Mackay to the printed A'ali map to indicate the location of some of his own 1925 excavations. The annotations of Mackay were presented by Reade in a map that accompanied his 1983 paper and which is reproduced here (Fig. 11). Out of the total of 35 burial mounds which Mackay excavated he marked the names of his Tomb 10, 12, 15, 25, 28, 29, 30 and 33 in pencil. In addition to the eight identified by number, three mounds were marked by an "X" suggesting that these were also excavated by him but that Mackay failed to recall their exact number at the time of writing (Reade & Burleigh 1981).

Further confirmation that the numbered mounds are identical to those excavated by Mackay can be found on the aerial photos taken approximately 34 years later (Fig. 12). In the aerial photos it is possible to observe the trenches Mackay excavated into the mounds and occasionally the resulting spoil left by the base of these mounds. The location of the spoil as they appear in the aerial photos can in some cases be confirmed when such are present in Mackay's own published photos. By comparing the anonymous mounds which Mackay marked with an "X" against the photographic evidence it has been possible to relocate the two larger burial mounds Mackay's Tomb 7 and Tomb 26, with some

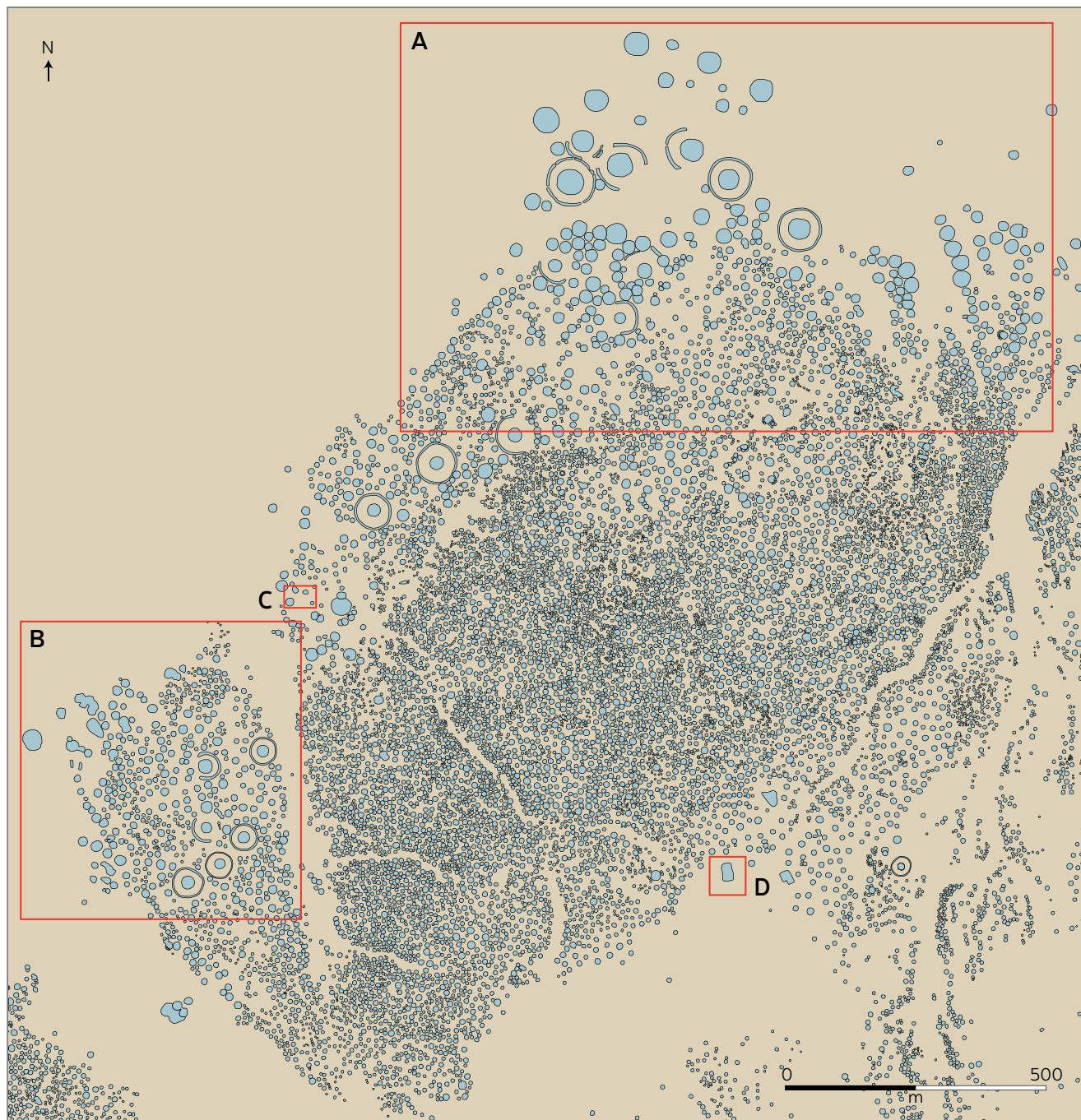


Fig. 9. Map of the A'ali Mound Cemetery. Boxes A to D mark the location of detailed maps mentioned in the text. The compact mound cemetery is comprised by the smaller, densely packed burial mounds. The larger mounds in box A are traditionally called the Royal Mounds of A'ali. The overall largest mounds to the north represent the Royal Cemetery proper.

confidence. For the larger mounds Tomb 6, Tomb 8 and Tomb 35, a number of potential candidates have been identified but the available information does not suffice to make a final identification. The exact location of the smaller burial mounds which Prideaux and Mackay both reported as having been excavated in the compact mound cemetery must be considered lost.

Several other larger burial mounds have been successfully relocated and the evidence on which the individual re-identification was based is briefly mentioned

for each entry in the Gazetteer. In total 37 excavation sites were identified to a particular burial mound, but in six cases the identification is uncertain to a varying degree (Fig. 13). The three burial mounds included in this gazetteer as nos. 34-36 are located approximately 1.5 km south of the Royal Cemetery in the opposite end of the A'ali Mound Cemetery (Fig. 14). A few burial mounds not included in the Gazetteer but surveyed during the recent investigations (see below) are also located in the south of the cemetery (Fig. 9:c).

