

# PREHISTORY IN NORTHEASTERN ARABIA

THE PROBLEM OF INTERREGIONAL INTERACTION



ABDULLAH HASSAN MASRY

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PREHISTORY IN  
NORTHEASTERN ARABIA  
The Problem of Interregional  
Interaction

ABDULLAH HASSAN MASRY

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## PUBLISHER'S PREFACE

This manuscript in its original thesis form was published by Field Research Projects of Florida in 1974. It had a very limited circulation and was basically in the form of a mimeographed edition.

The version now published here represents the work for the first time as a proper publication in book form and has been revised and edited and is appropriately produced as a regular archaeological book.

The names of the archaeological sites have been left as given in the original manuscript since these are the forms in common use in the Kingdom and in the scholarly archaeological literature.

Fundamentally, this was and remains the seminal work on the subject and was the first in its field. It is an integral work of scholarship of permanent value. It is a work written in its own time and no attempt has been made to retrospectively interfere or change the nature of the text or its conclusions but to publish it for what it is.

The work has ushered in a series of field excavations and analyses that expand upon it and amplify the information already given in the work itself. Thus one could say that this original work has had a seminal and indeed catalytic impact on the archaeology of the Gulf over the last two decades.

To be more specific the following research is worthy of mention and builds on the original work of the author.

### Qatar

Reference: *Qatar Archaeological Report. Excavations 1973*, ed. Beatrice de Cardi. Published for the Qatar National Museum by OUP in 1978.

The following chapters in this publication are noteworthy in the present context:

Chapter 5

'Ubaid Mesopotamia and its relations to Gulf countries', by Dr JOAN OATES, pp. 39–52.

Chapter 6

'Al-Da'asa, site 46: An Arabian neolithic camp site of the fifth millennium', by G. H. SMITH, with a catalogue of pottery by Dr JOAN OATES, pp. 53–75.

Chapter 8

'Two prehistoric sites on Ras Abaruk, site 4', by G. H. SMITH, with a catalogue of pottery by Dr JOAN OATES, pp. 80–106.

Chapter 9

'Stone tools from Bir Zekrit, site 50', by G. H. SMITH, pp. 107–16.

Further, more notes and comments on this are provided by Dr Alasdair Livingstone of the University of Birmingham: Ubaid pottery similar to that studied by Masry were excavated at al-Da'asa and Ras Abaruk and found on the surface at Bir Zekrit. This represents a further extension geographically of the 'Ubaid area', if one can call it such, which was postulated by Dr Masry and adds additional material to his 'interregional interaction' hypotheses. This in itself is interesting enough, but it is highly significant that scientific analysis was carried out on certain groups of this Qatar pottery, as follows. Neutron activation analyses carried out at the Research Laboratory of the National Museum of Scotland, and the results tested against control groups from Mesopotamia itself (Ur), Pottery from Eridu, Tell al-Ubaid and Uruk was also analysed. The result was compelling evidence that the 'true' Ubaid ware from Qatar was very closely similar to that from Ur. A conclusion could be that it certainly came from Mesopotamia and probably from the city of Ur. A different type of related but coarser ware showed very small chances of coming from Mesopotamia: local ware. All this can of course be grist to the mill of Dr Masry's 'interaction' theories. In addition to the above analyses, petrographic and electron microscope analyses were carried out at the Massachusetts Institute of Technology. This agreed in general with the neutron analysis.

The above results raised several waves of speculation and reconstruction and the debate still continues.

Dr C. J. Oates. 'Seafaring merchants of Ur?' *Antiquity* 51 (1977), pp. 221–234.

The title of this speaks for itself and is reprinted here as appendix F of the book.

These works raise interesting issues but are really still subject to further

## PUBLISHER'S PREFACE

study. Was the contact related to pearling? How long did it last? What was the relation with the Arabian hinterland?

Reference: *Mission archéologique française à Qatar. 2ème campagne* (Paris and Doha 1977).

Here again Ubaid pottery was excavated. The interest here centers on a C-14 date, obtained from shell specimens associated with the pottery: 6,420 ± BP and from the point of view of ethnoarchaeological analysis the combined evidence leading to the sites characterisation as a dedicated fishing community.

### Bahrain

References: M. ROAF. 'Excavations at Al Markh, Bahrain: A Fish Midden of the Fourth Millennium B.C.' *Paléorient*. 2 (1974), pp. 499–501. M. ROAF. 'Excavations at Al Markh, Bahrain', *Proceedings of the Seminar for Arabian Studies* 6 (1976), pp. 144–60.

The site agrees with the above, in so far as Ubaid pottery in conjunction with evidence for a fishing industry is prominent.

### United Arab Emirates

From Fall, 1986, finds of Ubaid pottery have been made in Umm al-Qawain and Ras al-Khaima. These are conveniently referred to in the following.

Reference: D. T. POTTS. *The Arabian Gulf in Antiquity. Volume I From Prehistory to the Fall of the Acaemenid Empire* (OUP) 1990, pp. 53–4

These comments merely present significant research subsequent to Dr Masry's book in a very abbreviated form but the Publishers hope that there is enough detail within these introductory remarks which will be helpful to the reader and further demonstrate the importance of Dr Masry's pioneering work.

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# INTRODUCTION

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The present study is devoted to research on prehistory in northeastern Arabia. More precisely, it focuses on the problem of prehistoric connections between this region and adjacent nuclear southern Mesopotamia, to the northeast. Such connections are manifested by the presence of numerous Ubaid period settlements in northeastern Arabia (Bibby 1969; Berkholder 1972), Ubaid being the earliest known prehistoric cultural period in southern Mesopotamia. Earlier as well as later remains also occur; indeed, the antiquity of human occupation in the Arabian peninsula at large has never been a matter of doubt. However, of the entire Near East it remains the largest single domain whose ancient past has been, and to a great extent still is, very poorly understood.

The notable absence of earlier research on the subject (excluding southern Arabia where archaeological investigations have been going on for a long time, see Doe 1971) is less a result of an explicit lack of interest than of the combination of the physical ruggedness of the country and the socio-political isolation that has been characteristic of it until very recent times. To be sure, these factors tended to accentuate the belief about the marginality of the area, probably to an extent little justified by realistic environmental considerations. The old desiccation theory (Moscati 1959; but cf. McClure 1971: 75f.), now largely discarded, has if anything contributed to further confusion about the prehistoric role Arabia may have played with regard to the various developments in the ancient Near East.

Prehistory in Arabia commences roughly in the third millennium BC, at a time when 'true' history commences elsewhere (although the date of the latter is nowhere clearly established) (cf. Braidwood 1970). The chronological framework is established indirectly within the context of trade and commercial relations that the peninsula, especially its eastern part is known, from historical records, to have had with southern Mesopotamia (Leemans

1960). In the second millennium BC, during the Middle Assyrian period and later, Arabia is identifiable as that background region beyond the margins of settled Mesopotamian lands, a source of recurring tension and instability for the latter, caused by the pressure of its nomadic inhabitants. At times, these populations have perhaps decisively affected the internal political and demographic transformations in southern Mesopotamia. Later, in the mid-first millennium BC, we find the late Neo-Babylonian king, Nabonidus, taking up temporary residence in a central Arabian town, identified with present Tayma (Dayton 1967).

For a large part Arabian history may be properly said to begin in Greco-Roman times. Apart from south Arabia again, there are evidences of considerable Greek and Roman settlements, in eastern and northern Arabia, respectively (see Parr *et al.* 1970). The classical writers from Herodotus onward have provided the earliest detailed accounts about Arabia, surpassed in extent and scope only by the later Muslim chroniclers. Al-Hamdani's 'Sifat Jazirat al-Arab' is among the most comprehensive of the latter works. To those early classical writers we also owe the tripartite divisions of Arabia into 'Petraea', 'Deserta' and 'Felix', corresponding to western and northern, central, and southern Arabia, respectively.

Among the many eighteenth, nineteenth, and early twentieth century western travellers in Arabia, Doughty (1936) and Philby (1922) are most prominent in noting the manifestations of early stone age culture throughout the interior of the Peninsula. Since then, countless exploratory works and collections have been made of such and other remains (see Field 1971 for a full listing of such general works), although not even a preliminary systematic study of these data has ever emerged. Syntheses on the subject of ancient Arabian origins have in general been confined to ethnic, linguistic and other evidence, combined with rather uncertain historical conjectures (cf. Moscati 1959; Anati 1968). In a more recent work, with regard to palaeoenvironmental possibilities in early Arabia, some presumed prehistoric developments for the entire peninsula receive a cursory treatment (McClure 1971).

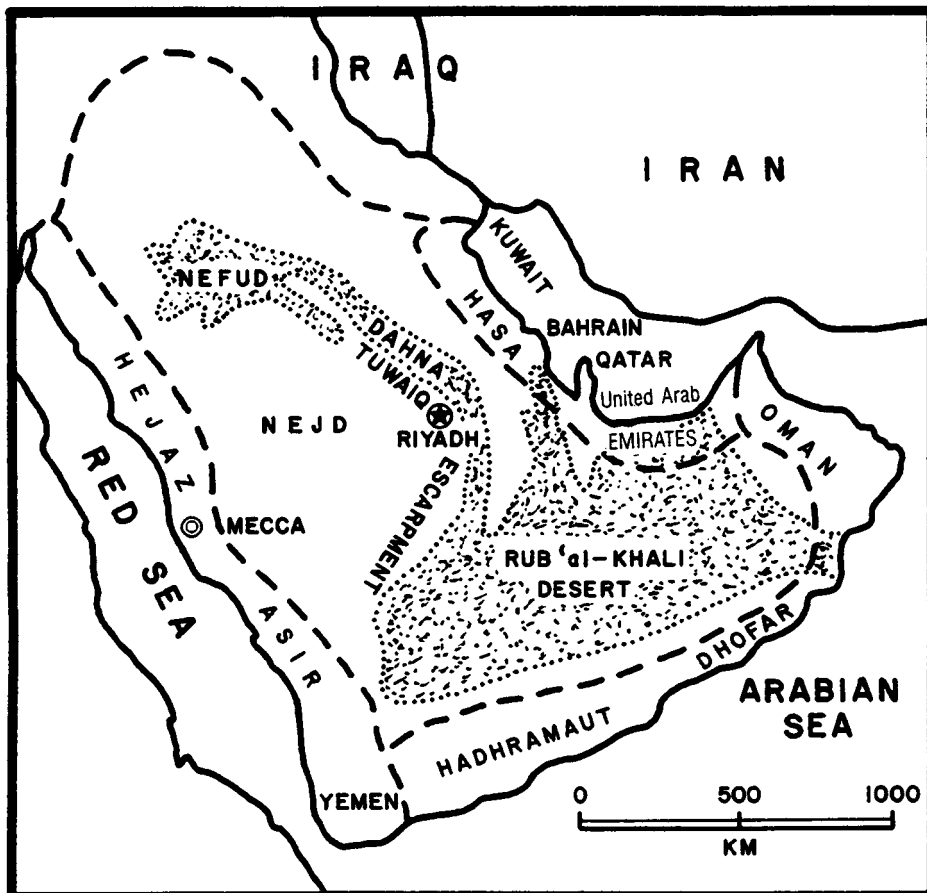
Results of recent scientific and systematic investigations have begun to establish a prehistoric sequence for certain parts of Arabia, especially the littoral of east Arabia and the Gulf islands (Bibby 1969; Frifelt 1970; Kapel 1967; Mortensen 1970). The impact of these results has yet to be fully appreciated, but already a new and different image of Arabian prehistory is being formed.

## INTRODUCTION

### General Physical Characteristics

As a separate geographical entity within the region of southwestern Asia, Arabia may be said to consist of the following gross subdivisions (Fisher 1971: 443) (see Map 1):

1. The western highlands: from the tip of the Gulf of Aqaba to the Aden promontory. This unit includes the traditional districts of Hejaz, Tehama, Asir and the Highlands of Yemen.
2. The southern coastlands: made up of modern South Yemen, formerly Aden and Hadhramaut, in addition to Dhofar, the old incense country.
3. The Oman highlands: Oman.



1. Traditional Geographic Divisions in the Arabian Peninsula

4. The eastern coastlands: comprising Trucial Oman, Qatar Peninsula, the Eastern Province of Saudi Arabia, and Kuwait.
5. The southern interior: occupied primarily by the sandy wastes of the Empty Quarter.
6. The northern interior: including the Nejd plateau, the Nefud and Dahna deserts, and the far northern steppelands which, imperceptibly, merge with the Syrian desert.

The geology of Arabia can be simplified as follows: Structurally, the entire peninsula represents a single uniform block of ancient rocks, referred to as the Arabian Shield, separated from the larger mass of East Africa to the west and the folded system of the Iranian highlands to the east (Powers *et al.* 1965: 5). Morphologically, the block is made up of pre-Cambrian, metamorphosed, highly deformed sediments. Younger sedimentary rocks accumulated over the block, particularly in the eastern part of the peninsula. The overall slope of the strata is west-east, with corresponding early and later sediments appearing across the region, respectively.

Related to this structural unity of the region is its almost uniform climatic pattern. Excepting the highlands of Yemen, nowhere else does the average annual rainfall exceed 200 mm. Extremely hot and humid conditions are typical of all the coastal lands, while in all interior areas ultra dry climates normally prevail.

Today, no fewer than eight separate geopolitical entities are present within the Arabian Peninsula. In addition to those mentioned under the geographical subdivisions above, there is the Island of Bahrain opposite the middle Saudi Coast (see Map 1). The area of this study falls entirely within the boundaries of Saudi Arabia, specifically in the Eastern province along the Arabian Gulf shores. As indicated above, it is directed towards understanding the prehistory of northeastern Arabia as it relates to that of southern Mesopotamia as well as to other adjacent lands.

The immediate background of the research lies in the discovery of Ubaid period settlement sites along the coast and in the interior of the Eastern province by several amateur archaeologists (Burkholder and Golding 1971; Burkholder 1971 and 1972). These sites were found to be culturally and chronologically similar to those of southern Mesopotamia, where the whole period was originally identified and is much better known. Needless to say, the discovery at once raised the crucial question of what role, if any, this apparently marginal area of northeastern Arabia played in the prehistoric evolutionary processes of the presumably more 'nuclear' area of southern Mesopotamia. This, in turn, laid open yet another fundamental issue concerning the origins of the settled-agricultural subsistence adaptation, the

## INTRODUCTION

hallmark of the prehistoric developments in that area. To be sure, prevalent scholarly opinion has always looked at fundamental evolutionary development in terms of incipient adaptations in natural habitat zones that are intrinsically more suited to food production than was northeastern Arabia (Braidwood and Howe 1960).

Thus, primary evidence for the achievement of the transformation comes from various areas of the Near East, and may presumably still be found in yet additional ones. The generalized sequence suggested for the developmental stages can be summarized as follows:

- (a) The terminal hunting and food-gathering stage in Upper Palaeolithic times down to *c.*9000 BC: e.g., the Zarzian tradition of the Zagros flanks.
- (b) A stage of incipient domestication and cultivation. This was seen to have lasted until *c.*7000 BC and is exemplified by the Natufian tradition of Palestine.
- (c) Primary village-farming or sedentary intensive collecting communities. The former shows fully developed plant and animal domestication achieved by the early part of the seventh millennium BC in places like Jarmo, Ali Kosh and Beidha, in Iraq, Iran and Jordan respectively.
- (d) Fully developed village-farming communities, evidenced by Samarran-Hassunan and Halafian periods of Northern Mesopotamia, and extending down to *c.*4500 BC. This is seen as the stage that chronologically precedes and somewhat overlaps the earliest development in southern Mesopotamia, that is the Ubaid period.

Although the line of thinking pursuant to such classifications has since been considerably modified to account for broader environmental zones and a wider processual variability of the incipient adaptations themselves (Braidwood *et al.* 1969), it has nevertheless been thought that certainly an area as marginal as northeastern Arabia appears to be today could be excluded as a possible zone of similar prehistoric developments. Indeed, in view of this, the role heretofore accorded to Arabia was usually that of a backwater for the momentous transformations that subsequently shaped the character of the Ancient Near East.

With the discovery of Ubaid in northeastern Arabia and the other equally important recent findings elsewhere in east Arabia, however, it is inevitable that such views should be reconsidered.

## Ubaid: The Period and its Archaeological History

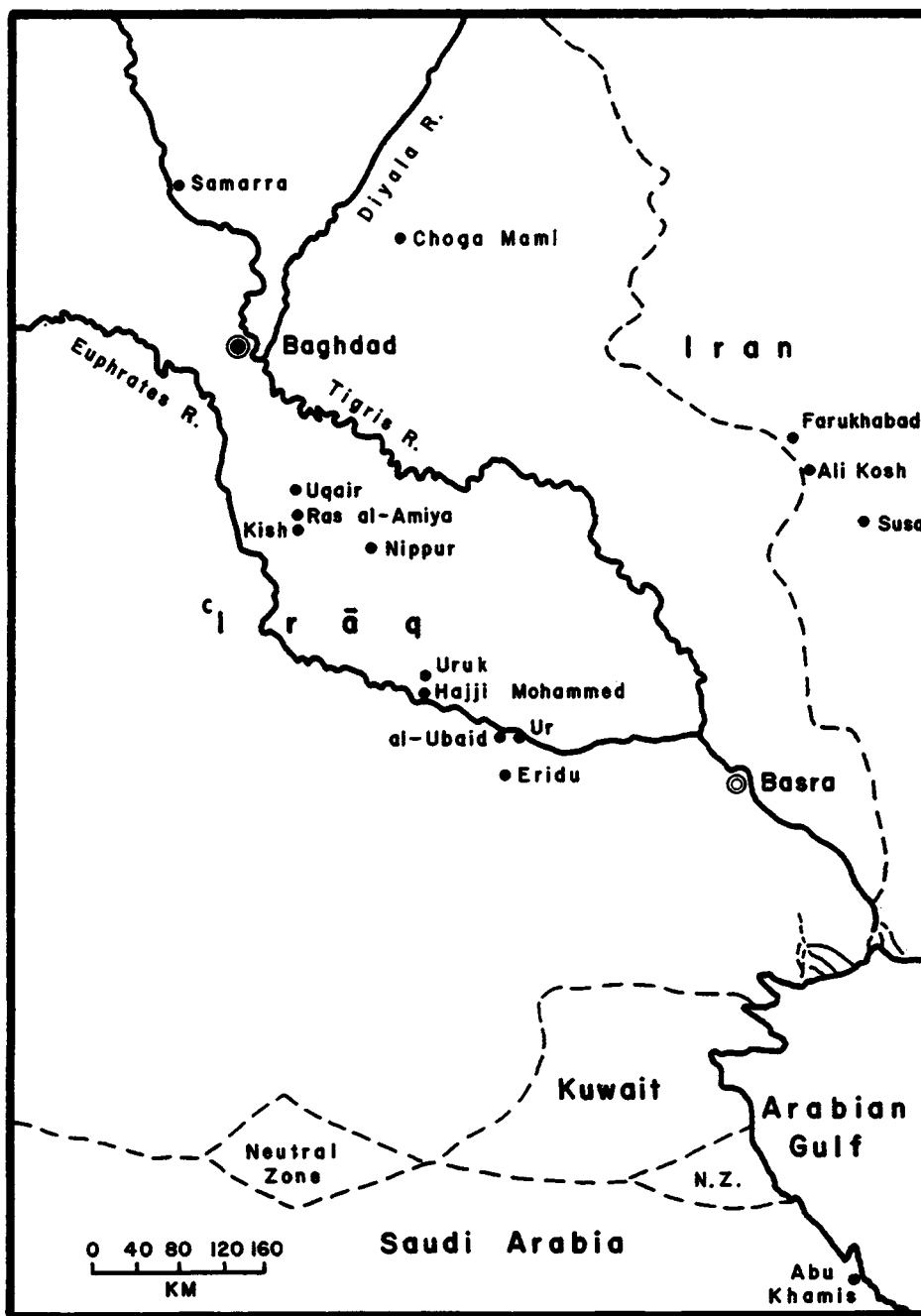
Ubaid as a particular pottery tradition constitutes the earliest documented prehistoric period in the alluvial plain of southern Mesopotamia. It was first discovered in 1922 as a result of the excavation by C. L. Woolley and H. R. Hall at al-Ubaid, the site after which the period was named. At Ur, beneath the Royal Cemetery and elsewhere, substantial remains of the period were also discovered (Woolley 1927; 1955). In 1941, another site in middle Babylonia, that of Uqair, was found to contain Ubaid occupations underlying Protoliterate and Early Dynastic levels (Lloyd and Safar 1943). Meanwhile, the German expedition uncovered similar occupational remains at Uruk and slightly distinct earlier ones at the nearby site of Qalat Hajji Mohammed. The latter was designated the 'Hajji Mohammed phase' (Ziegler 1953). It was at the type site of Abu Shahrain, ancient Eridu, that the Iraqi Antiquity Department in 1947-8 uncovered a full sequence inclusive of those at al-Ubaid-Ur and that of Hajji Mohammed, and in addition a yet earlier and again slightly distinct occupation which the excavators designated the 'Eridu Phase' (Lloyd and Safar 1948; Safar 1950). During the 1960s other Ubaid settlements were also excavated. These include Ras al-Amiyah, principally of Hajji Mohammed phase (Stronach 1961), and the site of Choga Mami in the Mandali region (see Map 2), where a stratified Samarran-Hassunan transitional phase was found with Ubaid elements mainly on the surface (Oates 1968; 1969). In addition, Ubaid settlements were already recorded from several third millennium sites near Kish and Nippur (Oates 1960: 39). More important for the overall distribution of Ubaid period sites are the settlement survey results for the Diyala, Uruk, Nippur and Kish regions (cf. Adams 1965; Adams and Nissen 1972; Adams 1972a).

Chronologically, Ubaid in southern Mesopotamia was divided into four phases with an essentially continuous tradition expressed in painted pottery styles and architectural features (Oates 1960). The Eridu and Hajji Mohammed phases are the earliest, spanning a considerable time-period from the late sixth to mid-fifth millennia BC. The succeeding two 'standard' Ubaid phases appear to have lasted well into the fourth millennium BC (Porada 1965). Considerable uncertainties exist as to the precise beginning and duration of each of the phases owing to the lack of absolute determinations from any of the important type sites.<sup>1</sup>

Outside southern Mesopotamia, Ubaid influences, in terms of ceramics at least, have been found to range over a wide area within the 'Fertile Crescent'

<sup>1</sup> The only available C-14 determination for Ubaid in Southern Mesopotamia is the date from the lower levels at Uruk, late Ubaid or transitional Ubaid-Uruk (4120 ± 160 BC; cf. Braidwood 1970). However, C-14 dates have been released for the Hajji Mohammed phase from the transitional site of Choga Mami (Oates 1972), see below in Chapter V.

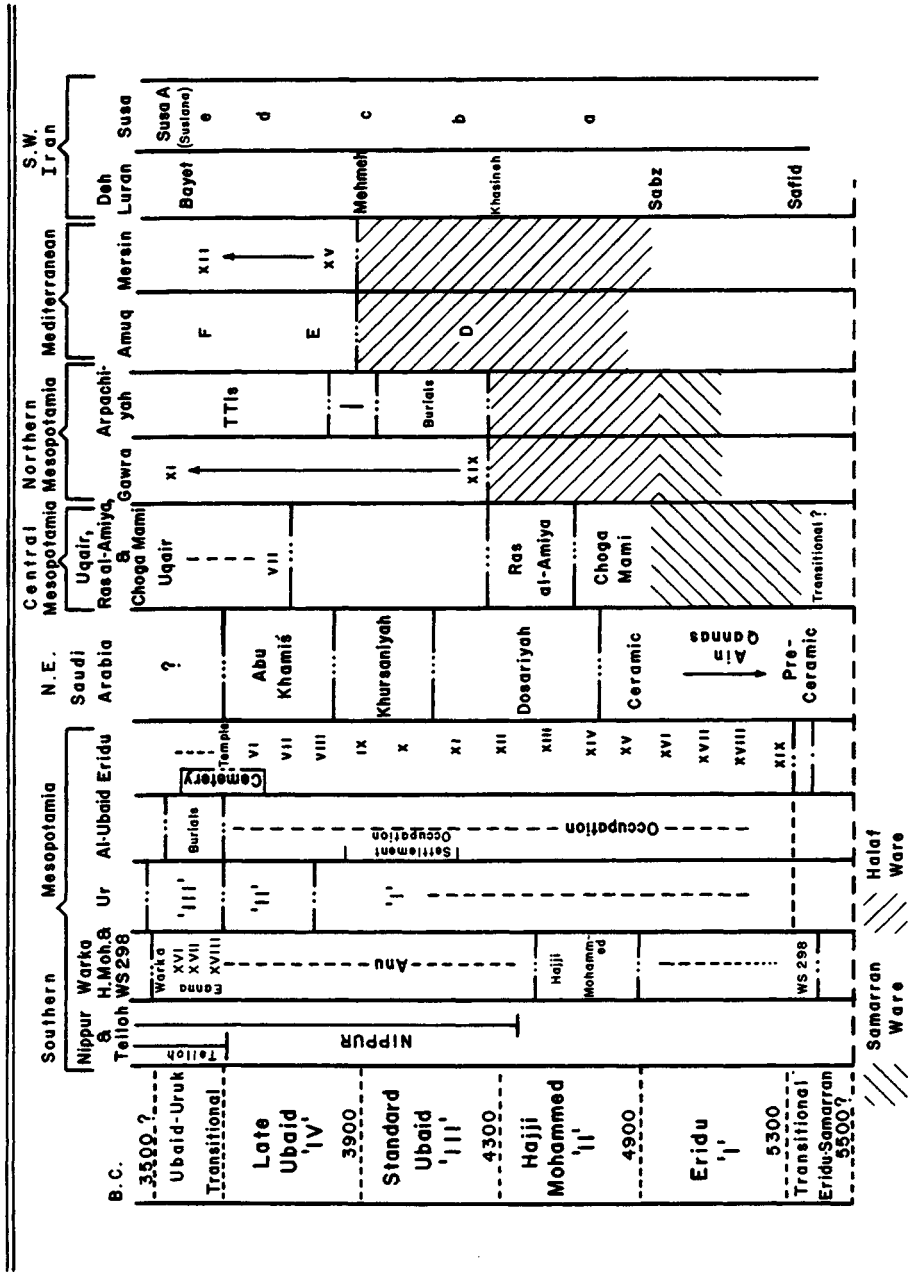
INTRODUCTION



2. Ubaid and Related Sites in Mesopotamia (Note distance of Abu Khamis, northernmost known Ubaid site in northeastern Arabia)

PREHISTORY IN NORTHEASTERN ARABIA

Table 1. General Distribution of Ubaid and Related Painted Pottery Styles in the Near East



## INTRODUCTION

(see Table 1). In northern Mesopotamia the post-Halafian sequence at Tepe Gawra has been termed a northern variant of southern Ubaid on the basis of both chronological and some material equivalents (cf. Tobler 1950).

Westward along the Mediterranean littoral, Ubaid equivalents and influences were found at many sites in Syro-Cilicia (for example, Mersin and Amouq (cf. Garstang 1953; Braidwood 1960)).

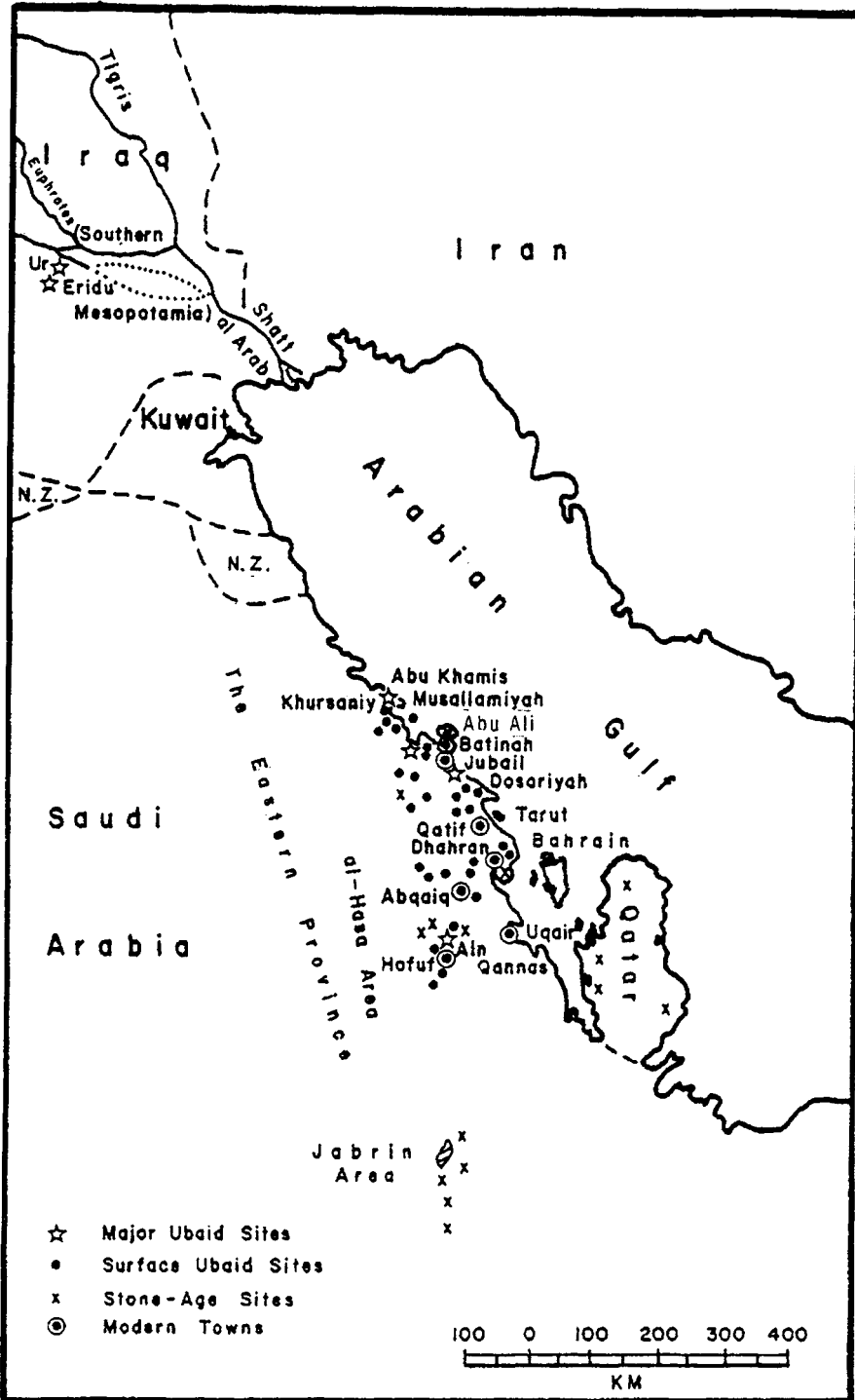
To the east, in southwestern Iran, the early Susiana sequence, for example, Susiana a and b has long been equated with the early Ubaid onward. Moreover, parallels in pottery designs have suggested the possible Iranian origin of Ubaid ceramics (cf. Perkins 1949 and Le Breton 1957 for a comparative stratigraphy). Sites with distinctive Mesopotamian Ubaid pottery were reported to occur around the Bushire coast in Iran (Woolley and Hall 1927: 9). Bushire is approximately opposite the latitudes of the northern Ubaid sites in Arabia. This suggestion has been variously contested on the grounds of insufficient, and in some cases, misconstrued evidence. Nevertheless, the existence of overall similarities in pottery designs between Ubaid and the early Susiana sequence is very much established (Oates 1960: 40).

In northeastern Arabia there are over thirty-odd Ubaid sites. At least four of these represent substantial settlement occupations; the rest are mere surface locations surrounding each of the former. The painted pottery and other material artefacts found on these sites are identical to those of southern Mesopotamian Ubaid. The sites themselves are distributed over a wide range of territory within the eastern province of Saudi Arabia (see Map 3). Interior as well as coastal settlements occur. The former tend to occur in more southern latitudes, whereas the latter are more common in more northern ones.

The research we originally proposed to execute in examining the Ubaid problem called for ascertaining the nature, origin and distribution of the settlements in northeastern Arabia, on the one hand, and determining their relationships to Ubaid in Mesopotamia and the succeeding cultural periods in the Gulf area, on the other. It also seemed essential that we postulate a theoretical framework in which the problem could most appropriately be viewed and analysed.

Under consideration in this study, then, is the existence of parallel, identical cultural manifestations in two slightly different environmental areas. The identity is established, to be sure, only through certain aspects of the common material culture, primarily restricted to ceramic remains. This alone cannot possibly imply the identity of the underlying subsistence pattern and ecologic adaptation in each of the two areas. There has never been any clear indication at all that the settlements in northeastern Arabia were based on settled agriculture. Hence, it became imperative that we adopt a general perspective particularly concerned with interregional contact situations that

PREHISTORY IN NORTHEASTERN ARABIA



3. Prehistoric Sites (Ubaid and Earlier) in Eastern Province, Saudi Arabia

could commonly result in parallel cultural developments. Such situations are amply illustrated in the archaeological literature.

Consequently, the theme of 'interaction spheres in prehistory', first adumbrated by Caldwell (1964), has been introduced as a working hypothesis for the conduct of the research on the Ubaid problem. Central to this conceptualization is the proposition that interactions among separate societies results 'in what appears to be a distinctive set of phenomena' (ibid.: 135). The process itself may centre on one or more aspects of culture, for example, religion, economics, etc. Likewise, there exist various levels of gradation in intensity and complexity in these interactions. The role of cultural innovation and change is seen to be commensurate with such differentiated complexities of the process. Building upon this broad conceptual scheme of spheres of interactions in prehistory, Struever and Houart (1972) have further refined the idea by introducing the notion of small- to large-scale gradations or nodes of interaction between several contiguous regional and sub-regional cultures. Thus it becomes possible to identify separate spheres of what are called 'interlocal' versus 'interregional' networks (Struever and Houart 1972: 78; see below, Chapter VIII for more details and R. M. Adams 1972c for a critical examination of the problem of interaction and prehistoric trade in recent anthropological theory).

The significance of these theoretical orientations to the problem at hand can be readily perceived from the two basic premises of this study: First, that the time-period represented by the Ubaid period in southern Mesopotamia stands for the formative era upon which the subsequent high Mesopotamian civilization was based. Second, that the prehistoric cultural tradition in north-eastern Arabia, as manifested by both the pre-ceramic and ceramic settlements, may have played a substantial contributory role in the formation of those earliest cultural settlements in southern Mesopotamia. This is seen to have been accomplished through long-term interregional contacts between the two areas, perhaps simultaneous with other contacts between southern Mesopotamia and the adjacent areas to the north and east.

A more elaborate model of explanation, perhaps also developed for different areas, may become necessary in the future if adequate data become available. At present it is sufficient to suggest, in general form, a theoretical outline that would further illustrate the nature and conduct of prehistoric interactions.

The model of the 'Olmec Tradition' in prehistoric Mesoamerica (Flannery 1968a) is perhaps even more useful as a conceptual framework, provided that certain modifications are made so that it may reasonably be applicable to the situation at hand. In essence, this is an attempt directed toward a processual examination of the interregional interaction between the high Gulf Coast Olmec cultures and the slightly less complex contemporary

highland cultures in the Oaxaca area. Networks of raw material exchange between the two areas appear to have been directed toward the consolidation of the patterns of social differentiation and ranking in the higher culture. The consequent pattern of interactions was more evident on the level of religious-ritual ideology (*ibid.*: 101) (See Chapter VIII for further details.) The subsistence systems in each area seem to have been little, if at all, affected by such interactions. The generalized scheme of interpretation that emerges from the above model emphasizes the role of raw material exchange mechanisms in inducing socio-cultural influences and/or changes among the suppliers and consumers of the exchanged items. Suppliers, for example, tend to adopt the behavioural patterns of the more advanced consumers.

Northeast Arabian-southern Mesopotamian relations during the Ubaid time-period can, as will be shown, be approached from the perspective of the above model. Fundamental to this consideration, however, is the postulation that prior to this process there already were established contacts between the two regions based on subsistence differentiation. Cyclical migratory patterns of hunting/gathering populations from east Arabia may have induced settlement of the alluvial plain and later contributed to the emergence of cultural interactions. During the Ubaid period the settlements in northeastern Arabia formed part of an exchange network based upon marine resources and, perhaps, stone materials. Though as yet there is no outstanding evidence from Mesopotamia to suggest the existence of any such contacts, the importance of fishing economy and its attendant cultural aspects in the religious symbolism of the southern Mesopotamian Ubaid, as well as in later cultural epochs, could testify for a primary influence of the marine subsistence adaptation prevalent in early settlements in the estuary part of the alluvium and further south along the Gulf littoral.

In short, it is proposed here that the continuity of the Ubaid settlements in northeastern Arabia was the outcome of an interaction mechanism involving this area with southern Mesopotamia and which was perhaps based on a network of raw material exchange. Such a pattern may essentially have been a part or an outgrowth of ongoing subsistence adaptational connections between the two regions, that is, cyclic migration of herders or generalized hunter-gatherers. The contrastive subsistence economies that developed in each region (presumably broad-spectrum hunting/gathering, fishing, and herding in East Arabia and evidently irrigation agriculture in southern Mesopotamia) were probably related to, and enhanced the process of, material exchange and cultural interrelationship.

The field research undertaken to test these formulations included:

- (a) Test excavation of several major Ubaid settlements in northeastern Arabia.

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- (b) A small-scale survey of the areas around and between the major settlements.
- (c) Examination of the reported third millennium BC and later settlement mound on the island of Tarut for the existence of possible earlier occupation, thus providing a chronological frame of reference. (The island lies off the middle coast of the Eastern province, see Map 3.)

The results of these various investigations form the bases for this study. Here we will only briefly outline the major findings, with an emphasis on their significance for the main theme of regional interaction that is elaborated throughout the study.

Preliminary observations on the sites and their material contents have disclosed a definite pattern of chronological-spatial succession from southern and interior areas to northern, chiefly coastal zones. In the south, earlier Ubaid manifestations appeared to predominate while relatively later phases of the period were more abundantly represented farther to the north. A single southern site near Hofuf revealed some pre-ceramic, presumably pre-Ubaid, occupations which underlie pottery-bearing early Ubaid-like strata. In a brief reconnaissance around the Jabrin Oasis, nearly 300 kilometres farther to the southwest, it was recognized that the apparently aceramic stone age sites there bear striking resemblance, at least in material content, to the pre-ceramic occupations of the Hofuf site. Several C14 determinations from the latter indicate a late sixth millennium BC date for the pre-ceramic occupations.

In most of the investigated Ubaid settlements no substantial later occupation was present, particularly of those of the succeeding periods in southern Mesopotamia, that is, Uruk or Protoliterate. Earlier occupation, with the exception of the Hofuf site with its pre-ceramic remains, was also non-existent. All evidence, especially in the interior and in the south, indicated a generalized hunting/gathering adaptation. Large mammals, e.g., equid and *Bos*, are most represented in the southern sites, while sheep, goats, gazelle and other medium-small mammals are common in the coastal sites. Some of these species, especially *Bos*, appear to be domestic. In the coastal settlements, a strong accent on fishing and marine resources, as well as localized herding, appear to have complemented such a subsistence base. It is quite likely that a form of 'primitive' or 'incipient' cultivation was practised at some of the settlements as a minor supplement to the natural resource base. No evidence of Ubaid settlement was found on the Island of Tarut. Instead, the significantly later occupation sequence exposed there was found to bear close, perhaps direct, relations to the wider Arabian Gulf cultures of mid-third millennium BC and afterwards, for example, the Bahrain Island settlements (Bibby 1969).

One possible way to systematize these findings is tentatively to suggest the existence of three more or less distinct cultural components in east Arabia during the prehistoric periods under consideration. One is distinguished by an exclusively stone-tool industry, probably representing some of the earliest subsistence adaptations in the region as a whole (cf. Kapel 1967) and perhaps elsewhere in the interior of Greater Arabia also. The second is formed by the Ubaid settlements with their direct ceramic and other parallels to those of southern Mesopotamia, resulting, presumably, from long-term cultural interaction between the two regions. The third and last component, evidenced by the Tarut Island settlement, is of a yet different culture-chronological order. As pointed out above, it probably belongs in the network of multi-regional commercial interrelationships of the third millennium BC and later in which the Gulf shores seemingly played an important role (Dales 1971; During-Caspers 1972).

Stratigraphically, the two earliest components were found in direct relationship at the site of Ain Qannas in the interior, southwest of the Eastern province (see Map 3). Moreover the sediment analysis from this site provides an important evidence for a cyclical pattern of occupation which reflected the palaeoclimatic moisture conditions in the area. I am indebted to the kind efforts of Professor Karl W. Butzer for the analysis and interpretation of these data (see Appendix A). Thus it is possible to infer from this that long-range population movements may very well have been frequent, probably involving periodic migrations to different environmental areas, for example, the alluvial valley of southern Mesopotamia. The significance of such a pattern, if it existed, for the development and continuity of cultural contacts and exchange between the two regions cannot be overemphasized.

It is possible to further conjecture that the Ubaid settlements in Arabia, especially those along the coast, were involved in a reciprocal pattern of raw material exchange with their counterparts in southern Mesopotamia. Shells, pearls, and other marine products, in addition to some stone materials, can be suggested as the probable items of exchange from coastal Arabia. The presence of obsidian in sites of the latter area might represent one of the exchanged materials from the north, channelled through southern Mesopotamia.<sup>1</sup>

At the present stage of our knowledge, only a general outline of the overall implications of the Arabian Ubaid evidence can be offered here. That the earliest prehistoric contacts between east Arabia and southern Mesopotamia, in conjunction with contacts and influences the latter sustained with other adjacent regions (cf. Oates 1969; Wright 1972), was perhaps very instrumental in the development of an interaction sphere centred in

<sup>1</sup> See Wright 1969 for a discussion on obsidian sources and distribution in the prehistoric Near East.

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the alluvium during the Ubaid time-period (as the latter is distinguished by a particular painted pottery style which lasted well into the fourth millennium BC). Moreover, not only can we speak of a contributory role Arabia has played in the formation of that interaction sphere,<sup>1</sup> but also it is possible to infer that later developments in Mesopotamia, for example, urbanization, were significantly affected by the termination of Ubaid in Arabia and the consequent population dislocation. Already, current scholarly thinking on the subject appears to lend some support to the assumption that major population increments from outside the Mesopotamian plain were crucial for the rise and configuration of urban centres there toward the end of the fourth millennium BC (Adams and Nissen 1972: 87).<sup>2</sup>

It hardly needs emphasis that these research results are still quite preliminary. For northeastern Arabia in particular they represent no more than a provisional, general outline of an otherwise obscure prehistory. Our aim, at best, is to establish a framework, however tentative, for understanding the vastly complex problem of cultural origins and diffusionary processes involving the northern half of the Arabian peninsula. Caution must thus be observed in attempting to draw any general conclusion from the constructions to be offered throughout. While I would hope that at least the broad outline of this assessment will endure the test of future investigations, it can safely be assumed that major revisions of present conclusions are likely to be necessary once additional sites become known both within and outside the area of the present research.

Aside from their tentative and preliminary status, the conclusions of this study may be found to suffer from yet another defect. This involves the lack of palaeoenvironmental data for the research one. Moreover, hardly any comprehensive work on recent geomorphological processes or coastline evolution has ever been undertaken. As a result, our understanding of the palaeoecology and palaeoclimate in northeastern Arabia remains grossly incomplete and perhaps defective. It would not be difficult to overestimate the value of such data to any cultural reconstruction in the area, particularly with respect to a theme such as the one pursued here. However, we are partially compensated in that regard by sediment analysis information from one of our major Ubaid sites in the Hofuf oasis, consisting of cultural deposits imbedded in a natural sedimentary sequence of what appears to be an ancient spring zone. The data from the latter indirectly provide indications of macroclimatic conditions in the area. More precisely, they are

<sup>1</sup> Noting that this time-period is equivalent to the 'agricultural revolution' in southern Mesopotamia (Childe 1952; Flannery 1969).

<sup>2</sup> Archaeological evidence from southwestern Iran, however, also appears to indicate drastic depopulation of the region, presumably with an influx into southern Mesopotamia, around the same time-period - 'middle Uruk' (Johnson 1972).

helpful in inferring local climatic fluctuations which might have been directly related to the Ubaid interaction process throughout northeastern Arabia. The technical results of the sediment analysis will be found in Appendix A at the end of this study. Despite this, needless to add, we are still far from having a basic outline of the sequence of palaeoenvironmental conditions in the area. Until such is reasonably established, the status of our cultural construction cannot be definite.

Thus, it is necessary, in lieu of more complete palaeoenvironmental and archaeological evidence, to avoid direct questions about palaeoecology. Future research on the subject undoubtedly will have to utilize a multidisciplinary approach in order for a more comprehensive picture of prehistory in northeastern Arabia to finally emerge.

## CHAPTER I

# The Physical Environment and History of the Area

This book details the results of research in an area within what is today the Eastern province of the Kingdom of Saudi Arabia (see Map 4). The Eastern Province is one of the six administrative divisions of the Kingdom, which claims over two-thirds of the area known as the Arabian Peninsula. It occupies the coastal area and extends to the interior of the part of the Arabian Gulf stretching south from the United Arab Emirates and north to the Kuwait border, excluding Qatar.

Throughout the book the terms 'northeastern Arabia' and 'east Arabia' will be used interchangeably with that of the Eastern Province, although neither exactly corresponds to the province. Strictly speaking, 'northeastern Arabia' would include the state of Kuwait while 'east Arabia' encompasses the whole eastern coastal region of the peninsula, as well as a number of islands in the Gulf.

### **Description**

The strategic island of Bahrain (part of ancient Dilmun) lies less than 40 kilometres off the middle coast of the province, in the northern part of the narrow bay formed by the north-south orientation of Qatar. Geophysically Qatar is an extension of the open steppe desert that characterizes the southern and southeastern parts of the province. In the extreme southeast, beyond Qatar and the United Arab Emirates, the province is adjoined by a different typological zone formed by the Oman coast and its interior highlands. Here the coast is dominated by high mountains and cliffs that run down to the sea. Fertile valleys, cutting through this mountainous coast, emerge into small interior plains that have seen intensive cultivation and centres of

dense population. For these physical reasons, the area of Oman has always represented a largely separate sub-region within east Arabia.

In terms of internal topography, the Eastern province is noted for its two major oasis tracts which have traditionally supported the bulk of the settled population (these will be discussed in detail in the next chapter within the context of subsistence adaptations of historic times). The largest is al-Hasa, located in the southern interior part of the province. The other, slightly smaller oasis is that of al-Qatif, lying on the coast 130 kilometres northeast of al-Hasa. Outside the oases the major topographic features of the province can be separated into the following north-to-south sub-divisions, which largely follow Lorimer's classification of the area (1970).

### ZOR AREA

The Zor area lies in the extreme northeast of the province, covering the region from Kuwait south to the Musallamiyah bay. The coast consists of low-lying beaches alternating with vast coral stretches with inlets reaching quite a distance inland. Several promontories or 'ras' dot this coastline. Among these is al-Bidya (Ras az-Zor) which forms the northern entrance point to the Musallamiyah bay. The most northerly major Ubaid site is located on this promontory. Water wells are quite abundant, especially in the southern parts. The immediate hinterland of the coast passes from rolling coastal plains into the gravel deserts found further inland, occasionally being broken by extensive marshy depressions. After the autumn rains the coastal plains are usually covered with a thick grassy vegetation which is very favourable to intensive grazing. Various nomadic groups from the interior exploit the area in this season. Small, widely dispersed fishing hamlets and former pearling banks are found along the southern parts of this coast.

### HUZUM AREA

Immediately south of the Zor area, extending nearly 40 kilometres to the latitude of Abu Ali Island, is the Huzum area. A flat, sandy coastal desert, the most prominent physical feature of the Hazum area is the hilly promontory ending with Jebel al-Bukhara, which forms the southern point of al-Musallamiyah bay. With the exception of the characteristic shallows, broken inlets and small sabkhas (salt-flats) this area cannot easily be distinguished from the Zor area. Opposite the coast of Huzum lie several small but historically important islands. From north to south these are:

### *Jinnah*

Jinnah measures 2 kilometres by 3 and is located 2 kilometres from the coast approximately 5 kilometres south of Ras al-Bidya, which allows the only sea access to the island. A 15-metre-high cliff occupies its northeastern corner, while to the west the surface is relatively low. A village comprising some 100 households of the Amir and Bani Khalid groups used to live near the northeastern corner (Lorimer 1970: 940), while a small Turkish garrison lay adjacent to the settlement on the cliff. Although half a dozen pearling banks were in use in the northwestern part of island, today it is entirely uninhabited.

### *Mussallamiyah*

The island of Musallamiyah gives its name to the bay which encloses it and Ras al-Bidya, eight kilometres to its northwest. Running north to south it is six kilometres in length, low and flat, separated from the coast on its south side by a narrow, shallow channel. On the mainland side stand the high cliffs of Jebel al-Bukhara. 400 households once occupied the south end of the island (Lorimer 1970: 1283), but it is now deserted except for a small coast guard station.

### *Abu Ali and Batinah*

Abu Ali and Batinah are twin islands separated by a narrow unnavigable passage, easily crossed at low tides. Batinah is both the smallest and the closest to the mainland, to which it is now connected by a narrow causeway. Abu Ali is a barren uninhabited island, measuring 18 kilometres by 6 kilometres. Pearling banks were once situated on its southern end.

On each of the islands described above there is ample evidence of Ubaid settlements.

## BIYADH AREA

The largest coastal zone in the Eastern province is that of Biyadh, which means 'a flat, light-coloured sandy area'. It extends from the latitude of Abu Ali in the north down to the upper limits of the southeastern coastal Jafura desert.

Although the Qatif Oasis lies within this area's boundary, it should be treated as a separate zone. Al-Hasa Oasis also partly lies within this area and should also be excluded from the following considerations.