

KUML



ÅRBOG FOR JYSK ARKÆOLOGISK SELSKAB
1955

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1955

With Summaries in English

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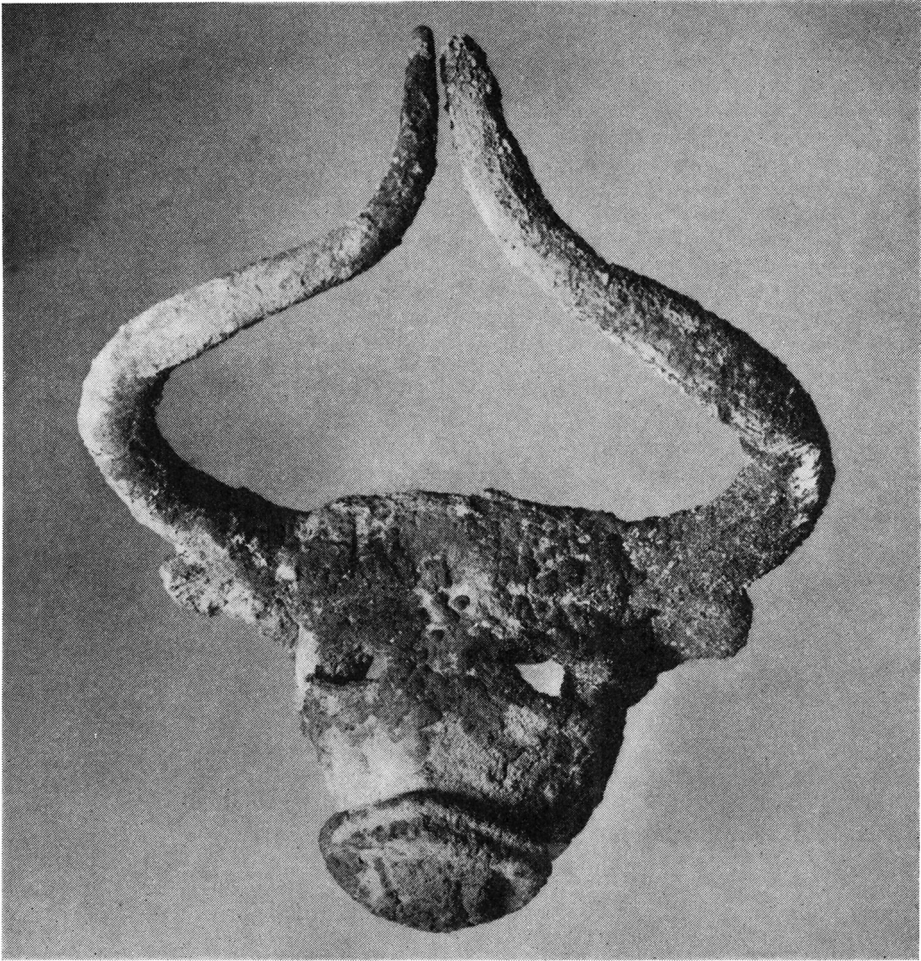


Fig. 1. Oksehoved fra Barbartempel II. C. 3/5.
Ox-head from Barbar, Temple II. Circa 3:5.

UDGRAVNINGER PÅ BAHRAIN

Dansk Arkæologisk Bahrain-Ekspeditionens 2. udgravningskampagne

Af P. V. GLOB

Da ørkenens fugtighede ånde og en slunken pengekasse i maj måned 1954 nødvendiggjorde afslutning på »Dansk Arkæologisk Bahrain-Ekspedition«s 5 måneders udgravningsarbejde på den lille palmekransede ø i Den persiske havbugt,

var så gode resultater opnået, at en fortsættelse blev en selvfølge¹). Den næste ekspedition sikredes da også hurtigt ved stor imødekommenhed og økonomisk støtte fra Bahraíns regering og ved betydelige tilskud fra Carlsbergfondet, olieselskabet BAPCO og Pennsylvania universitetsmuseum.

Gæstfrit blev ekspeditionens arkæologiske stab modtaget den 8. januar 1955 i Manama, hvor hovedkvarteret blev opslået indtil arbejdets afslutning den 25. marts. Bahraíns regent, Hans Højhed Sheik Sulman bin Hamad Al-Khalifah ydede os gennem regeringens medlemmer, deraf i første række Sir Charles Belgrave, al mulig støtte. I landsbyerne flokkedes vore gamle medhjælpere omkring os, ivrige efter igen at blive engageret til arbejde. Ekspeditionens medlemmer var foruden sidste års deltagere, T. G. Bibby, M. A., arkitekten, mag. art. Kristian Jeppesen og undertegnede, docent, mag. art. Mogens Krustrup og dr. Robert Dyson fra »The University Museum of Pennsylvania«. Bolig blev lejet og kosten indtaget i P. C. L. s Guest House, hvor David Cooper var vor elskværdige vært.

Medens vi sidste år måtte starte på bar bund og en månedstid gik med ivrig eftersøgning af egnede udgravningsobjekter, kunne vi denne gang straks fortsætte de undersøgelser, der så heldigt var påbegyndt. De større udgravninger af templerne ved Barbar og i oldtidshovedstaden ved Qala'a krævede imidlertid nogen forberedelse med fremskaffelse af tungt materiel, hvorved cheffingeniør Lees var os behjælpelig med stor imødekommenhed. Den halve snes dage, der medgik hertil, blev benyttet til undersøgelser i den sydlige ørken, hvor der sidste år blev fundet 12 lokaliteter med flintredskaber fra palæolitisk og neolitisk tid²). Dette antal blev øget med 15 nye pladser af samme karakter og alder som de tidligere



Fig. 2. Nordmurene i Barbartemplerne II-III (se fig 6 O og N).
The north walls in Temples II-III at Barbar (cf. Fig. 6, O and N).



Fig. 3. Østmurene i Barbartemplerne I-II-III (se fig. 6 M, N og O).
The east walls in Temples I-II-III at Barbar (cf. Fig. 6, M, N and O).

fundne, men gav dog en del nye typer, ligesom flint fra to lokaliteter under klippefremspring nord for Jabal Ad Dukhan synes at være udskyllet fra dækkede lag. Desværre blev der ikke tid til at underkaste disse en nøjere undersøgelse, men der vil blive gravet ved første lejlighed.

Den største indsats blev ydet ved Barbar, hvor den 3 m høje grusbanke, som det øverste tempel var blevet dækket med, efter at det er blevet nedrevet til grun-



Fig. 4. Barbartemplernes vestside. I fundamentsten til billedstøtter; II rampe til tempel II; III ydermur i tempel III; A syldsten fra ældste anlæg (se fig. 6 H, I, P og S).
 West side of the Barbar temples. I - plinth-stones for statues; II - ramp to Temple II; III - outer wall of Temple III; A - stones from earliest building level (cf. Fig. 6, H, I, P and S).

den, blev fjernet, således at det 3600 m² store tempelanlæg blev blotlagt³). Ved første års undersøgelse påvistes tre tempelanlæg liggende over hinanden, idet de ældre anlæg var blevet nedrevet til grundstenene, inden de senere templer opførtes over deres fundamenter. I det væsentlige blev de indre anlæg af de to øverste templer fremdraget (fig. 2), og ved profilgravninger blotlagdes dele af det underste tempel (fig. 3). Yderligere påvistes vestligt i anlægget enstensætning af utilhuggede blokke, der stammer fra et endnu ældre anlæg (fig. 4 A).

Templernes opbygning blev klarlagt gennem en øst-vestlig profilgrøft, der førtes helt til bunds i tempel III.s indre gård. Før tempel I.s opførelse er terrainet blevet rensat for overjord og på jomfruelig undergrund er en ca. 1,5 m høj banke af rent blåler blevet opkastet på et sandlag, der varierer i tykkelse fra nogle få cm til 40 cm. Denne er derefter blevet dækket med et rent sandlag og måler knapt 2 meter i højde. De ældste anlæg, hvoraf kun en del af et cirkulært alter af ukløvede sten og gipsmørtel endnu er afdækket, er opført på denne høj, som har været omsluttet af en stenmur (fig. 3 I), der i kvadrat ser ud til at have omsluttet et areal på 400 m². I modsætning til de bygningsrester, der er fundet fra tempel II-III og som er af sten, hentet på den lille klippeø Jida ud for Bahrains nordvesthjørne, er dette murfundament opført af sten, brudt på Bahrain. Ved nedbrydning af tempel I har man ladet det centrale kultnanlæg stå og direkte oven

på dette anlagt de nye altre, hvoraf et blev delvis fremgravet, en meget fintdrejet cirkulær stenblok, 0,43 m høj, 1,2 m i diameter foroven og lidt mindre forneden, så formen bliver ganske let konisk. Oversiden af dette cirkulæralter er let konkav. Dette har hørt til tempel II og direkte på det hviler stenfliserne omkring alteranlægget i tempel III, hvis gulvniveau ligger ca. 2,8 m over undergrunden. Værd er det at bemærke, at man ved nedbrydningen af templerne har ladet kultanlæggen i alle tre templer næsten urørte.

Da man opførte den høj, hvorpå tempel I er blevet anlagt, er der i det svære rene lerlag ca. 0,5 m over bunden og i en udstrækning på ca. 5 m i øst-vest blevet henlagt en snes lerbægre (fig. 5), samt et kobberbæger og et smalt guldbånd⁴). Et andet sted lå samlet i en lille dyngede forskellige dele af kobber, hvorimellem et økseblad og en 13 cm bred kobberskive⁵). Et lignende økseblad blev fundet i stenbrydningslaget ved tempel III.s østside. Da den profilgrøft, hvori disse sager blev fremdraget, kun er 9 m lang og 1 m bred, kan tempelhøjen endnu gemme mange skatte. Med sikkerhed kan siges, at kun en mindre del af lerbægrene er optaget, idet flere af disse endnu hensidder i profilens vægge både i nord og syd. Bemærkelsesværdigt er det endvidere, at der en snes cm over bunden og indlejret i lerlaget var påført ganske tynde lag af jomfruelig gullig undergrundsjord af samme art, som dækkede gulvfliserne omkring tempel III.s alteranlæg.

Hørende til tempel I er 8 store tilhuggede stenblokke, der i dobbeltrække er opstillet ved dets vestside (fig. 4 I og 7). Disse blokke går ind under en rampe, der fra vest fører op til tempel II (fig. 4, II), og denne er igen dækket af tempel III.s ydre mur (fig. 4, III), der dog på billedet er fjernet over rampen. Disse stenblokke, der måler omkring 1 m i længde, $\frac{1}{2}$ m i bredde og er godt $\frac{1}{2}$ m høje, har på oversiden udhugget to firkantede huller og er således af samme type,



Fig. 5. Lerbægre fra centralhøj under tempel I. C. $\frac{1}{4}$.
Pottery beakers from the central mound under Temple I. Circa 1 : 4.

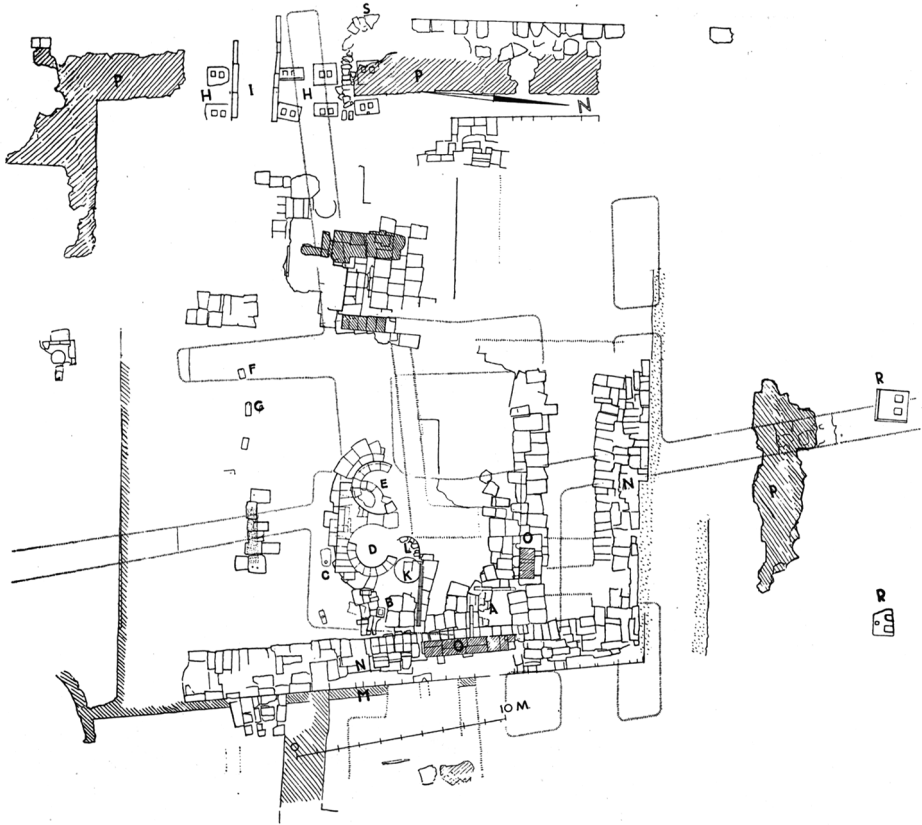


Fig. 6. Plan over den udgravede del af Barbartemplerne (opmåling v. Kristian Jeppesen). Tempel I: H fundamentsten til billedstøtter, L alteranlæg, M østmur. Tempel II: K cirkulæralter, I rampe, N øst- og nordmur. Tempel III: A offerbrønd, B alter og altersten, C, F, G stenblokke med hul, D-E cirkulære anlæg, O indre øst- og nordmure, P ydre vest- og nordmure, R fundamentsten til billedstøtter. Ældste anlæg: S syldsten.

Plan of the excavated portion of the Barbar temples (plan constructed by Kristian Jeppesen). Temple I: H plinth-stones to statues, L altar complex, M east wall. Temple II: K circular altar, I ramp, N east and north walls. Temple III: A pit of offerings, B altar and altar-stones, C, F, G pierced stone blocks, D-E circular structure, O east and north inner walls, P west and north outer walls, R plinths for statues. Earliest structure: S stone setting.

som de blokke, der hører til tempel III og som gav sporet til templernes opdagelse, og hvoraf to er fremdraget ved anlæggets nordside⁶). De er af noget vekslende størrelse, og en af dem har foruden de større firkantede huller et mindre cirkulært hul midt på den ene side og nær kanten (fig. 4 yderst til højre). Hvor disse huller ikke var oprensede, fandtes der i dem en muffe af kobberblik, der på ydersiden og indtil stenen var opfyldt med jordbæg (bitumen). Gennem blikket var der slået rækker af kobbernagler, der spidsede til indefter, og hvorimellem trærester påvistes i flere tilfælde. Disse nagler, der findes i stort antal overalt i anlægget, er tidligere omtalt⁷), men deres bestemmelse er først nu klar. At de har tjent til at holde træstøtter fast i stenhullerne er nu indlysende. Disse

træstøtter har været ca. 20 cm. i tværmål. Måske har stenblokkene tjent som fundamenter for menneskefigurer, gudebilleder af træ, idet der i hvert hul har været anbragt et ben. På den blok, hvor der findes endnu et hul, kunne man tænke sig, at figuren har støttet sig til en stav eller lignende. På en af disse blokke er der på den ene side udhugget to menneskefigurer i en grov teknik, der svarer til de nordiske bronzealderhelleristningers (fig. 7). Man ser derpå to menneskefigurer, den ene med nedadvendte, den anden med opløftede arme. Måske viser disse billeder os et par af de figurer, der har været anbragt på fundamentstenene. Yderligere et par figurer er antydnet på samme stenblok til højre.

Et fund af største interesse og sandsynligvis hørende til tempel II blev fremdraget i hjørnet mellem to sammenstødende murfundamenter fra tempel I og centralt i anlægget. Det bestod af et prægtigt oksehoved af kobber (fig. 1) og en større samling kobberblik i 15–20 cm brede bånd, helt gennemslet af rækker af kobbernagler. Det lå i et par lag indenfor et areal på 1,2 m², og sammen med det fandtes en kobberring og et 4,5 cm bredt kobberbånd af sværere gods, alt sammenkrøllet og bukket. Måske har disse kobberstrimler været fæstnet på en trægenstand, hvorpå også oksehovedet har været anbragt.

I tempel III afdækkedes forskellige sten af betydelig interesse. Første år fandtes bag de cirkulære anlæg en væltet sten med afrundet overside og gennemboret med et cirkulært hul⁸). Endnu en sten af samme type, stående på plads, blev da fremdraget, og på række med denne fandtes i år to lignende sten, hvoraf een er for-



Fig. 7. Fundamentsten til billedstøtte med helleristningsfigurer (tempel I).
Plinth-stone for statue, with carved figures (Temple I).

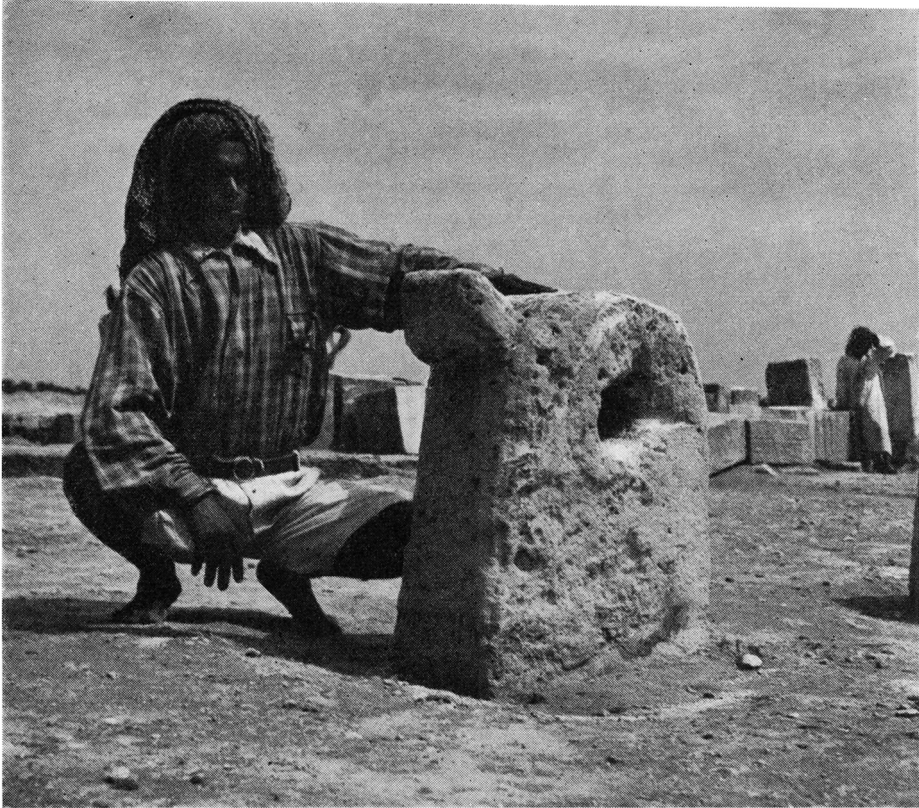


Fig. 8. Stenblok med dyrehoved og hul (se fig. 6 G).
Stone block with hole and animal head (cf. Fig. 6, G).

synet med et dyrehovedlignende fremspring (fig. 8). Disse sten, der måske har været beregnet til at binde offerdyr ved, hvilket stærke slidmærker fra hullet og ud til kanterne kunne tyde på, blev sat i forbindelse med Induskulturens ringsten⁹). Den sammenligning støttes yderligere af en noget beskadiget sten af denne type, hvor ringen er fremhugget, og som fandtes løstliggende i stenbrydningslaget (fig. 9).

En sten af særegen art fandtes liggende syd for alterstenene i tempel III og har måske ligget som gulvsten bag disse. Det er en 64 cm lang, 26 cm bred og 20 cm tyk flise, der på midten har en 12 cm bred og 6,5 cm dyb skålgrube, samt en c. 2 cm bred og 8 cm dyb rille, der når ud til den ene sidekant (fig. 10). Måske har der i dette hul oprindeligt været anbragt en lingafigur. Gruber af samme betydning fandtes under første kampagne på en stenblok ved Diraz, men den er nu indmuret i en moske og ikke mere synlig¹⁰).

Hvad der tidligere er fremsat om Barbartemplernes grundplaner¹¹) kan nu på grundlag af den større afdækning revideres med mere sikkerhed, selv om endelige mål endnu ikke kan opgives (fig. 6). Det første tempel, tempel I, har været anlagt ovenpå omtalte kunstigt anlagte høj af ler og sand, hvis omsluttende mure



Fig. 9. Ringsten med hul.
Ring-stone with hole.

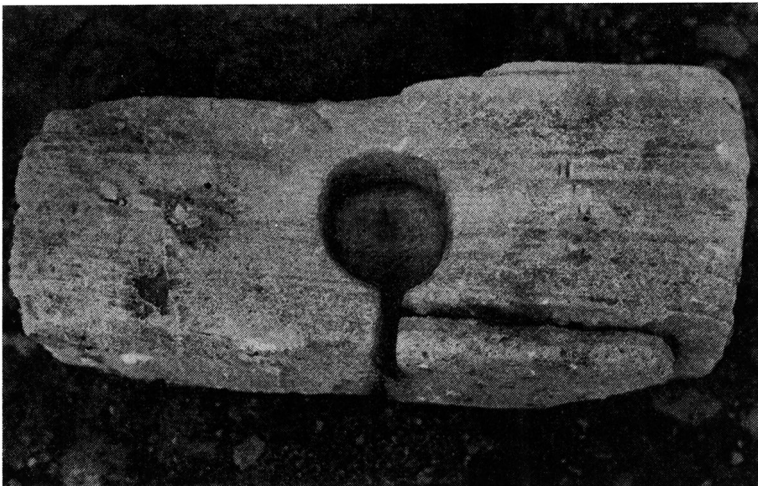


Fig. 10. Stenblok med skålgrube og rende.
Stone block with cup-mark and runnel.

ser ud til at have dannet en firkantet figur. Dens sider har været ca. 20 m lange. Udenfor denne mur har der både mod syd og øst været forskellige bygninger, hvoraf dele af fundamentene er afdækket. Mod vest har de 8 store basestenblokke været anbragt. Tempel II har haft en indre nogenlunde kvadratisk kerne på ca. 25×25 m og med en murtykkelse på godt to meter. Muren er opført massivt af fint tilhuggede, firkantede stenblokke af forskellig størrelse, men omhyggeligt sammenpassede og sammenholdt med gipsmørtel (fig. 2-3). Også til den hører ydre



Fig. 11. Vestkamre i tempel III.
West chamber in Temple III.

anlæg, bl. a. i vest en stensat rampe (fig. 4). Stenene fra tempel II er utvivlsomt i stor udstrækning blevet benyttet ved det sidst opførte tempel III, hvis indre gård er noget mindre og ca. 16×16 m. På vestsiden af denne gård ses rester af kamre, hvoraf et måler 3 m i bredde, men dets længde kan ikke bestemmes på grund af stenplyndring (fig. 11). Måske har dette kammer oprindeligt hørt til tempel II. Omkring tempel III har der været opført en svær mur af utilhuggede blokke i gipsmørtel. Den ser ud til at have dannet en kvadrat på ca. 40×40 m i ydre mål, og udenfor nordsiden af den har de to store basesten været anbragt¹²). Den ydre mur til tempel III har været af betydelige dimensioner, omtrent 4 m bred og med skalmur af firkantede tilhuggede svære stenblokke, der er bevaret på et længere stykke på vestsiden (fig. 6).



Fig. 12. Lerkar fra kulturlag ved ydersiden af østmuren i tempel III C. ¼.
Pottery vessel from occupation level at the outer side of the east wall in Temple III.
Circa 1:4.

På grundlag af første års fund i tempel III blev dette dateret til 3. årtusinde¹³), men måske er det betydeligt ældre. Et skår af et vægstenskar, ornamenteret med koncentriske kredse, fra gulvlaget i tempel III kendes i samme type fra en grav i Ur, der må henføres til predynastisk tid¹⁴). Til samme tidsrum henviser sandsynligvis også keramikken. Karakteristisk for denne er en rødlig eller rødbrun, fast overflade dækket med horisontale riller (fig. 12). Denne keramik dominerer fuldstændig i alle tre tempellag og er utvivlsomt karakteristisk for Bahrain. Hvor lang levetid den har haft der kan endnu ikke afgøres, men det er sandsynligt, at det er eksport herfra, der i tre eksemplarer kendes fra predynastiske grave i

Ur¹⁵), således at Barbartemplerne må henføres til tiden omkring år 3000 og måske endnu nogle århundreder tidligere. Derved knyttes en fast forbindelse mellem Bahrain og Ur i dette tidsrum af aller største betydning. En sikker fastlæggelse af denne meget vigtige forbindelse mellem Bahrain og Ur i predynastisk tid kan selvsagt kun en direkte sammenligning mellem keramikken give, da en bestemmelse af denne, som kun kendes gennem publikation, altid vil være usikker, når det som her drejer sig om almindelige brugskar.

Meget mangler endnu, før Barbartemplerne er endelig undersøgt og materialet behandlet, men arbejdet vil kunne afsluttes i løbet af et par udgravningskampagner. Når de her omtalte templer ligger en mindre ruinhøj, der ser ud til at være fra samme tidsrum og måske har været knyttet dertil. Den må også inddrages i undersøgelsen.

Ved Qala'a, hvor der sidste år påvistes betydelige bygningsrester, og hvor Bahrains oldtidshovedstad har ligget¹⁶), blev arbejdet fortsat på to punkter. Fra kysten gravedes et snit ind mod ruinhøjens midte. Betydelige dele af bygningsrester blev påvist, og en lang række horisonter med islamiske bosætningsanlæg fra 1500-tallet og tilbage til partisk tid blev undersøgt. Det store keramiske materiale derfra vil give udmærket grundlag for kronologisk inddeling af dette tidsrum.

Afdækningen af den store bygning, der påbegyndtes midt på ruinhøjen under første udgravningskampagne, fortsattes, og den blottedes i 8 meters længde, uden at en afslutning nåedes. Dens bredde var 3,7 m. Sekundært var den opdelt i fem mindre rum. Mellem de to underste gulvlag fandtes lerkarskår af samme type med riflet side som fra Barbartemplerne, hvilket sandsynligvis giver en datering til slutningen af 4. årtusinde.

På to steder i bygningen førtes en skakt helt til ruinhøjens bund gennem ca. 2,5 m kulturlag med en halv snes kulturhorisonter, hvori fandtes enkelte skår af malet keramik med sort eller rød farve på gult gods. Keramikken synes at være knyttet til Induskulturen, men en sikker bestemmelse kan kun mere omfattende materiale give. Det nuværende stammer blot fra godt 2 m², men da lagene er meget righoldige, vil fremtidige undersøgelser give betydeligt materiale. Af vigtighed er det, at disse lag foruden keramik indeholder betydelige mængder af dyreknogler og trækul. Mod Induskulturen peger også en mikrolitblok fra et af de underste lag¹⁷).

En værdifuld opmuntring i det ofte vanskelige og anstrengende udgravningsarbejde var den interesse fra alle befolkningslag, vi blev mødt med. Til stadighed kom besøgende på udgravningspladserne og fulgte undersøgelsernes gang. Et par dage deltog bl. a. dr. Henry Field, Florida, U. S. A., i arbejdet ved Barbar og Qala'a, samt i en rekognoscering i det ørkenområde, hvor de palæolitiske pladser findes. Om ekspeditionens tidligere arbejde redegjorde T. G. Bibby den 25. januar i det nystiftede »Bahrain Archaeological and Historical Society«, og en festlig afslutning på udgravningskampagnen blev samme selskabs udflugt til udgravningerne den 18. marts under ledelse af selskabets præsident Sheik Rashid bin Khalifah Al-Khalifah og dets sekretær, forfatteren James H. D. Belgrave, der begge til stadighed har ydet ekspeditionen hjælp på mange måder. For stadig bevågenhed

og besøg på vore udgravningspladser takker vi Hans Højhed, Bahrains regent Sheik Sulman, regeringens rådgiver Sir Charles Belgrave og BAPCO's øverste ledelse vicepræsident E. A. Skinner og driftsleder C. R. Barkhurst.

SUMMARY

The Danish Archeological Bahrain-Expedition's Second Excavation Campaign.

When in May 1954 the humid heat of the desert and a shrunken purse brought the end of five months excavation on the little palm-crowned island of Bahrain in the Persian Gulf, the Danish Archeological Bahrain-Expedition had achieved such good results that a subsequent campaign was a foregone conclusion¹). The following expedition was moreover speedily ensured by the generous assistance and economic support of the Government of Bahrain, and by the receipt of considerable grants from the Carlsberg Foundation, the Bahrain Petroleum Company, and the Pennsylvania University Museum.

The archeological staff of the expedition was hospitably received 8th January 1955 in Manama, where headquarters were established from then until the termination of the work on 25th March. The Ruler of Bahrain, His Highness Sheikh Sulman bin Hamad Al-Khalifah, extended to us all possible support, through the medium of the members of the Government, in particular of Sir Charles Belgrave, K. B. E. In the villages our former workmen flocked around us, eager to be re-engaged for the work. In addition to the expedition's members from the previous year, T. G. Bibby, M. A., Kristian Jeppesen, M. A., and the present writer, the staff consisted of Mogens Krustrup, M. A. and Dr. Robert Dyson of the University Museum of Pennsylvania. A house was rented for accommodation, and meals were taken at the Guest House of Petroleum Concessions Limited, where David Cooper was our genial host.

While the previous year it had been necessary to start from scratch, and a month passed in examination of suitable sites for excavation, on this occasion we were able to turn immediately to the continuation of the investigations which we had already begun with such promise. The large-scale excavations of the temples at Barbar and of the prehistoric capital at Qala'a required, however, a certain amount of preparation including the obtaining of heavy equipment; in this the Director of Public Works, Mr. Lees, assisted us very generously. The ten days or so which were spent on this preparatory work were also used for an investigation of the southern desert where last year 12 sites were found containing flint artefacts from the Palæolithic and Neolithic Periods²). This number was increased by the discovery of 15 new sites of the same character and age as those discovered earlier. They produced, however, a number of new artefact types, while at two locations under the cliff outcrops north of Jabal Ad-Dukhan the flint appears to have been washed out from stratified deposits. There was unfortunately no time to investigate these sites in greater detail, but excavations will be carried out there at the earliest opportunity.

The greatest effort was set in at Barbar, where the 3 metre high gravel mound, which had been heaped above the upper temple after it had been razed to the ground, was removed, baring the temple precincts in their full area of 3600 square metres³). The first year's investigations had shown three temple buildings superimposed the one above the other, the earlier building having in each case been razed to the foundations before the next temple was built above them. The inner precincts of the two upper temples were, in the main, exposed (Fig. 2), and sections laid bare portions of the earliest temple (Fig. 3). In the western area of the site a stone setting unshaped blocks was moreover discovered, belonging to an even earlier phase of construction (Fig. 4 A).

The stages of construction of the temples were revealed by means of an east-west trench dug down to original ground level in the inner court of Temple III. Before Temple I was erected the topsoil had been removed from the area, and upon the virgin subsoil a mound of clean blueclay had been built up above a layer of sand which varied in thickness from two or three to 40 cms. This mound was thereafter covered with a layer of clean sand, the whole complex thus measuring a scant two metres in height. The earliest buildings, of which only

part of a circular structure of uncut stone and gypsum mortar has yet been excavated, were erected on this mound, which was surrounded by a stone wall (Fig. 3, I) which appears to have enclosed a square area of 400 square metres. In contrast with the remains of the buildings from Temples II and III, which are of stone brought from the little rocky island of Jida off the northwest corner of Bahrain, this wall foundation is constructed of the local stone. In dismantling Temple I the central cult-complex was allowed to stand and the new altars erected directly above it. One of these altars was partly excavated, a very finely turned circular stone block, 0.43 metres high, 1.2 metres in diameter at the top and slightly less at the base, so that the shape was very slightly conical. The upper surface of this circular altar is somewhat concave. It belonged to Temple II, and directly upon it rests the stone flagging around the altar complex in Temple III, the floor level of which lies about 2.8 metres above the ground surface. It is worthy of notice that, in the dismantling of the temples, the cult-complexes have in all three cases been left practically untouched.

When the mound upon which Temple I was erected was under construction there was deposited in the thick layer of clean clay, about 0.5 metres above ground level and in an east-west extension of about 5 metres, a score of pottery beakers (Fig. 5), together with a copper beaker and a narrow gold band⁴). At another point lay a little heap of various objects of copper, including an axe-head and a copper disc 13 cms. broad⁵). A similar axe-head was found in the stone-quarrying layer by the east side of Temple III. As the section trench in which these objects were found is only 9 metres long and 1 metre wide the temple mound may well conceal many more treasures. It is at least known with certainty that only a small part of the pottery beakers has been recovered, as several of these are still *in situ* in the trench walls both to the north and to the south. A further noteworthy feature is that, about 20 cms. above ground level and enclosed in the layer of clay, were very thin layers of virgin yellow subsand of the same type as that covering the flooring slabs around the altar complex of Temple III.

Belonging to Temple I are 8 large cut blocks of stone, set up in a double row by its western side (Fig. 4, I and VI). These blocks run under a ramp which leads up from the west to Temple II (Fig. 4, II), and this ramp is in turn topped by the outer wall of Temple III (Fig. 4, III), which was, however, removed before the picture was taken. These stone blocks, which measure about 1 metre in length and $\frac{1}{2}$ metre in width and are about $\frac{1}{2}$ metre high, have two square holes cut in the upper surface, and are thus of the same type as the blocks associated with Temple III which were the cause of the discovery of the temples, two of which have been exposed at the northern side of the site. They are of somewhat varying size and one of them has, in addition to the large square holes, a smaller circular hole in the centre of one side near the edge (Fig. 4, extreme right). Where these holes had not been emptied a sleeve of copper sheathing was found in them, the space between them and the stone being filled out with bitumen. Through the sheathing rows of copper nails had been driven, with the points inwards, and in many cases remains of wood could be seen between them. These nails have been found in large numbers everywhere on the site and have been previously mentioned⁷), but their function is now for the first time clear. It is now obvious that they were used to secure wooden supports in the holes in the stones. These wooden supports have been of about 20 cms. in diameter. It is possible that the stone blocks have acted as foundations for human figures, wooden statues of gods, with one foot fitted into each of the holes. In the case of the block with the third hole it would be feasible to suppose that the figure held a staff or the like. On one of these blocks there was found on one side two figures of men crudely carved in a technique corresponding to that of the rock carvings of the Scandinavian Bronze Age (Fig. 7). The figures represent two people, the one with downturned arms and the other with arms uplifted. It is possible that these figures show us two of the statues which originally stood upon the plinth-stones. Two further figures can be dimly traced on the same block to the right.

A discovery of the highest interest, probably belonging to Temple II, was made in the corner where two wall foundations met. It consisted of a magnificent ox-head of copper (Fig. 1) and a large collection of copper sheeting in strips 15–20 cms. broad, all pierced with many rows of copper nails. It lay in two layers within an area of half a square metre, and together with it was found a copper ring and a copper band of thicker metal, 4.5 cms. wide. All were

buckled and folded. It is possible that these copper strips were originally attached to an object of wood on which the ox-head was mounted.

In Temple III various stones of considerable interest were discovered. During the first year an overturned stone with a rounded top and pierced with a circular hole was found behind the circular complex⁸). A second stone of the same type, standing *in situ*, was found at the same time, and this year two further stones, one with a projection in the form of an animal's head, were found in line with it (Fig. 8). These stones, which were perhaps intended for tethering sacrificial beasts, as considerable marks of wear from the hole out to the edges would suggest, were compared with the ringstones of the Indus Culture⁹). This comparison is further supported by a somewhat damaged stone of the same type in which the ring is emphasized by carving. It was found lying in the stone-quarrying layer (Fig. 9).

A stone of unusual character was found lying south of the altar stones in Temple III, and perhaps originally lay as a flooring stone behind them. It is a slab, 64 cms. long, 26 cms. wide and 20 cms. thick, with in the centre a cup mark, 12 cms. wide and 6.5 cms. deep, as well as a runnel about 2 cms. wide and 8 cms. deep, running out to one edge (Fig. 10). It is possible that a *linga* figure originally stood in this hole. Cup marks with the same significance were found during the first campaign on a stone block near Diraz, but this is now walled into a mosque and is no longer visible¹⁰).

The earlier descriptions of the ground plans of the Barbar temples¹¹) can now be revised with greater confidence on a basis of the greater area uncovered. Final measurements cannot, however, yet be given (Fig. 6). The first temple, Temple I, was constructed on top of the artificial mound of clay and sand already described, and its surrounding wall appears to have formed a square with sides about 20 metres long. Outside this wall towards both south and east have lain various buildings, portions of the foundations of which have been uncovered. On the western side stood the 8 large plinth-blocks. Temple II has possessed an inner core, approximately square and measuring about 25 × 25 metres, with a wall thickness of somewhat over 2 metres. The wall was built of solid ashlar, finely cut rectangular blocks of stone of various sizes but carefully fitted together and joined with gypsum mortar (Figs. 2-3). Here too an outer complex is to be found, including to the west a stone-set ramp (Fig. 4). Stones from Temple II were undoubtedly used to a wide degree in the construction of the last temple, Temple III, the inner court of which is somewhat smaller, measuring about 16 × 16 metres. On the west side of this courtyard are remains of rooms, one measuring 3 metres in width, its length being impossible to determine on account of stone-robbing (Fig. 11). It is possible that this room originally belonged to Temple II. A massive wall of unshaped blocks set in gypsum plaster was constructed around Temple III. It appears to have formed a square of about 40 × 40 metres, externally measured, and beyond its north side stood the two large plinth-stones¹²). The outer wall of Temple III was of imposing dimensions, being about 4 metres broad and faced with massive rectangular shaped blocks of stone, which are preserved for a considerable distance along the west side (Fig. 6).

On a basis of the objects discovered in Temple III during the first campaign this building was dated to the Third Millennium B. C.¹³); but it is perhaps considerably earlier. A fragment of a stone vessel, ornamented with concentric circles, from the floor level of Temple III is of the same type as a vessel from a grave at Ur which must be dated to predynastic times¹⁴). It is probable that the pottery also points to the same period. It is characterized by a hard reddish or red-brown surface covered with horizontal ridges (Fig. 12). This ware is completely dominant in all three temple levels and is undoubtedly the characteristic Bahrain ware of the period. It is still impossible to determine how long it has been in use, but it is probable that three specimens found in predynastic graves at Ur are exports from Bahrain¹⁵), with the results that the temples at Barbar must be attributed to the period around 3000 B. C. or perhaps a few centuries earlier. A definite connection of the first importance between Bahrain and Ur at that period is thereby established, though only a direct comparison of the pottery can, of course, confirm with certainty such predynastic connections; a comparison of ordinary unspecialised pottery will always be inconclusive when based only on the published drawings.

Much remains to be done before the investigation of the Barbar temples and the critical examination of the material thereby obtained is complete, but it should be possible to finish the work in the field in the course of a couple of excavation campaigns. Near to the temples

here described lies a smaller mound, which appears to be of the same period and perhaps belongs to the same complex. It must also be included in the investigation.

At Qala'a, the site of Bahrain's prehistoric capital, where considerable remains of buildings were identified last year¹⁶⁾, work was continued at two points. From the coast a section was dug in towards the centre of the "tell". Considerable remains of buildings were found and a long series of levels investigated from the Islamic settlement in the 16th century back to the Parthian period. The considerable collection of pottery from this excavation will provide an excellent basis for a chronological subdivision of this period.

The excavation of the large building in the centre of the "tell", which was commenced during the first campaign¹⁵⁾, was continued and a length of 8 metres was exposed without the end of the building being reached. Its breadth proved to be 3.7 metres. It had been divided secondarily into five smaller rooms. Between the two lowest floor levels were found sherds with ridged surface of the same type as those from the Barbar temples, which gives a probable date for the building to the end of the Fourth Millennium.

At two points in the building sondages were made right down to the bottom of the "tell" through about 2.5 metres of occupation deposits, revealing about ten occupation levels, in which a few sherds of painted pottery were found with patterns in black or red on a yellow ground. The pottery appears to show a connection with the Indus Culture, but only the discovery of further material can give a more certain basis for this view. The material at present obtained came from an area of only two square metres, but, as the levels are extremely rich in remains, future investigations should give a sufficiency of evidence. An important consideration is that these levels contain, in addition to pottery, considerable quantities of animal bones and charcoal. A further pointer towards the Indus Culture was a microlith core from one of the lowest levels¹⁷⁾.

A valuable encouragement in the often difficult and strenuous work of excavation was provided by the interest with which our work was regarded by all classes of the population. Visitors came constantly to our excavation sites and followed the progress of the investigations. Among others Dr. Henry Field, of Florida, U. S. A., took part for two days in the work at Barbar and Qala'a, as well as in reconnaissance of the desert area where the palæolithic sites are to be found. 25th January T. G. Bibby gave a survey of the earlier work of the expedition to the newly instituted "Bahrain Archaeological and Historical Society", while the visit of that Society to our excavations the 18th March, under the leadership of the Society's President, Sheik Rashid bin Khalifah Al-Khalifah, and its Secretary, Mr. James H. D. Belgrave, who have both given the expedition constant and many-sided assistance, formed a pleasant termination to the excavation campaign. For their continual interest and their visits to our excavations we would like to thank His Highness Sheikh Sulman, the Ruler of Bahrain, the adviser to the government Sir Charles Belgrave, and the management of BAPCO, the vice-president E. A. Skinner, and the general manager, C. R. Barkhurst.

P. V. Glob.

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NOTER

1) KUML 1954, s. 92-169. 2) KUML 1954, s. 106. 3) KUML 1954, s. 142. 4) John Marshall: Mohenjo-Daro and the Indus Civilization, Vol. III, pl. CXLI nr. 2 og 6 (1931). 5) Note 4, pl. CXXXIX nr. 3. 6) KUML 1954, s. 142. 7) KUML 1954, s. 147. 8) KUML 1954, s. 146, fig. 4. 9) KUML 1954, s. 145. 10) KUML 1954, s. 96, fig. 3. 11) KUML 1954, s. 143. 12) KUML 1954, s. 142, fig. 1. 13) KUML 1954, s. 149. 14) C. L. Woolley: Ur Excavations. Vol. II, pl. 245, nr. 53 (1934). 15) Note 14, s. 388 og pl. 257, nr. 105-106. 16) KUML 1954, s. 164. 17) Note 4, pl. CXXXI, nr. 13-16.