

Excavations at A'Ali Islamic site

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The early Islamic site of A'Ali is located at the Eastern border of A'Ali village, in the central region of Bahrain Island. The remains of houses were found inside a low mound. At the time of our excavations in 1988 and 1989, a date farm was located at the west end of the site and the A'Ali Highway was at the site's southern border. In 2007, we revisited the excavated site where the Bahrain Government has been preserved and found that the date farm had disappeared and the town of A'Ali had been built there. The main purpose of the excavation was to study early Islamic wares traded in the Persian Gulf during the early Islamic period. We had expected to find glazed wares from Mesopotamia and Far Eastern ceramics from the ninth century at the site. After the excavations, we are able to know an outline of the finds, especially concerning the variety or assortment, type, quantity, period and the place of production of trade ceramics, and how ceramics were used at A'Ali.

Location and archaeological setting of the site

The A'Ali site was located inside the local village of A'Ali at the time of excavation. The archaeological remains of houses were found inside of a low mound. The mound was 1 m high and measured 160 m east-west by 85 m north-south. A date farm was at the west end of the site, and the A'Ali highway and a large cistern were located at its southern end. An aerial photo from 1957 provided evidence of a wadi that ran from south to north near the mound. The north and east borders of the site are desert and flat ground when we had excavations.

A 5 m by 5 m grid system was established over the site. The grid lines were arranged in north-south and west-east directions. The grid was labelled alphabetically from north to south, and numerically west to east. The grid is named by the north-west point. Findings were registered in the form of Ali88-1, where Ali refers to the site of A'Ali, 88 is the 1988/89 excavation season and 1 is

the registration number.

A Japanese team excavated the mound for two seasons in December and January 1988/89 and 1989/90 and found several houses dating from the eighth/ninth century. The western section of the site was excavated during the first season and ninth and eleventh/twelfth century ceramics were found there. The eastern section of the site was excavated during the second season, revealing houses dating from the latter half of the eighth and the early half of the ninth centuries.

Progress of the Excavation

1988: Excavation of the mound began at grids 7Q and 8Q in the western section in 1988/89. Surface sand was soft, and was partly comprised of small cracked stones. A few pieces of glazed pottery and unglazed earthenware were collected from the surface layer. All finds were small shards of Islamic pottery and earthenware. Blue glazed Iraqi pottery from the ninth and tenth centuries was excavated. We found flat ground and the floor of a house 40 cm below the surface in grids 7Q, 8Q and 9Q. One rectangular room was excavated in grids 8Q and 9Q. Some parts of a wall and floor were covered with plaster. The base of the wall was made from yellowish sandy clay. Stones were piled on the clay base. Ovens arranged in a line, which were outside the rooms, were found in grid 9Q. One of these ovens was made from a single small earthenware jar. The others were made of several stones placed circle, and a large amount of grey ashes were found around these stones. Two rooms were excavated, and the broken base of a vase was found on the floor. We began the excavation of grids 7R and 8R to search for the extension of the house. In grid 8Q, one fragment of a Chinese white porcelain bowl was excavated with shards of Iraqi blue-green glazed pottery. From these shards, the date of this site can be presumed to lie between the ninth and eleventh centuries, or the Abbasid period. We cleared walls of the house in grids

7Q, 8Q and 9Q. On the clay base of those walls, two carbonized pillars were found. The northern part of grids 7Q, 8Q and 9P had already been excavated by a British team in 1976. The wall of the house in these grids still remained, though some of its stones had fallen into the deep trial pit. One fragment of glass was found in the southern part of grid 7P. This fragment was the bottom of a small vase or alabastron with a decoration of a white opaque trail, combed upwards, possibly made in Iraq in the ninth century. Grid 7P also held some shards of blue-green glazed pottery. A section was drawn in a line along Q from grids 7 to 10. A small date press and ovens were found there. These were constructed outside of the rooms. The wall surrounding the house was cleaned. In grid 10Q, a small wall of stone was found. Grids 7S, 8S, 9S, 10S, 10Q and 10R were excavated, but we only found flat ground there. The southern area or aforementioned grids were supposed to be the outside of the house. We then held a field observation meeting with the members of the Bahrain Historical and Archaeological Association. We examined the area below the wall in the main section of line Q, or central east-west section. A layer of shells was found just under the black layer of the face of level 2, and thickness of the shell layer is different in 7Q and 10Q, thinner in 7Q. The average thickness of the shell layer of level 2 was 80 cm in 10Q. We took photographs of the registered finds in the field house and fieldwork was ended.

1989: The second season's excavation was started in December 1989 at the east area of the same mound. A 20 m by 35 m area was excavated from the north end of the mound. Two tents and a barracks for the watchman were pitched, and two water tanks were placed at the site. We decided to excavate a low small mound, rising one metre above ground level to the south. Houses seemed to lie under this low mound before the excavation. This small mound was situated 70 m east of another low mound that was excavated during the previous season. A 5m by 5m grid system was set up on the new excavation area in the same manner as the previous year. This grid was oriented along a north-south axis, and each grid location referred to the beginning point at the northwest of the grid. We

also made a contour line map of the site at A'Ali.

The excavation of the mound began in grids 24T and 25T. The surface sand, which contained many small pieces of rough-hewn stones, was soft and 10cm deep. These rough-hewn stones may have been pieces of the collapsed walls of houses. A few pieces of glazed pottery and unglazed earthenware were recovered from the surface layer. All of the finds, except for some that were obviously very recent rubbish, were small shards of Islamic pottery and earthenware from the Abbasid period. The excavation was enlarged to cover grids 24-27S, 26-27T, 24-27U. There was a layer of mud and sand under the surface of these grids. In grids 24T and 25T, the walls of a house were found. The walls were made with large pieces of rough-hewn limestone and mud, and had been partially plastered with gypsum. Several shards of blue-green glazed Iraqi pottery from the eighth and ninth centuries were excavated from the muddy clay piled up around the walls. One round oven made of rough-hewn limestone was found in grid 24T. This oven was constructed outside the house on the same layer as the base of the house. Shallow layers of ash remained inside the oven and around it, but there were no traces of burnt red mud. Digging in grids 24-27, Q-W was initiated.

The excavated area was enlarged to 35 m by 20 m. Surface soil was removed from all grids. A stone wall was found in grid 26W. The level of this wall appeared to be lower than the ground level of the northern grids. The houses seemed to be very small, and there were few finds. The finds from this section were similar to what had been discovered previously. We found stone walls in the upper layers of grids 25T and 26U. In grids 24Q and 24S, there were two stones in the upper layer of each grid. The lower layers of the western part of the grids 24Q and 24S were excavated. During the last few days of this excavation, we found house walls in grids 24Q, 25S, 24T, 25T, 24V, 26U and 26W. These walls were made with hard white pieces of rough-hewn limestone. The western parts of the lower layers were further excavated. Some sections of the walls became very clear. In grid 26T, a large amount of black fertile soil containing

ash was found. Some fragments of glass and pottery shards were found in this soft black soil. This area must have been located just outside of some the houses. The central parts of the lower layers were excavated. The base of Level 1 seemed to have a gentle downward slope towards the southeast. The wall of a house in grid 25S was standing on yellowish sand containing many small rough-hewn stones. A drawing of the west half of the main section, line U from grids 24 to 26 was finished. The surface of the lower layers of grids 24-25, Q, R, and S was cleaned. The surface of these areas comprised of sand with many small rough-hewn stones, and houses were still standing on this surface. One whetstone was found in the deposits of a house located in the northern part of the excavation area, later named 'house 1'. Shards of blue-green glazed pottery and many earthenware shards were also excavated there.

The excavation continued. The central part was excavated. The lower layers of grids 26 Q to V were excavated. Some walls and floors of houses were found in these grids. The entrances of the rooms of some houses were easily identifiable. Most of the deposits of Level 1 were removed. Though the houses were standing on several layers, these layers belonged to the same cultural level, and probably nearly the same cultural period. The walls of these houses were cleaned in order to draw a plan. A date press was found in grids 27U and 27V. A blue-green glazed jar and a large earthenware jar were found in grid 26V. A bronze spoon and a bronze stick were found 15cm below the surface layer, just beside one house's stone floor that was 50 cm higher than the floor of room or the base of Level 1 in grid 27S. We removed the corrosion from these bronze pieces. The plan of the northern section of the houses was drawn at 1/50 scale. The walls of houses were cleaned. The lower layers of the grids located in the south were excavated. Many earthenware shards were found lumped together outside of a house in grid 26V. We found some burnt stones and carbon below these earthenware shards. Ovens must have existed here. We took photographs of the jars, the lumped earthenware shards in grid 26V and the date press in grid 27V. Grids 25-27W were excavated.

We terminated the excavation and took photographs of each house, and then researched the details of the walls and floors. We drew a plan of the constructions at the site and took photographs of the registered finds. We classified all ceramic shards by fabric and colour of glaze, and then tried to assemble them in order to make drawings. We investigated the foundations of the walls to determine what layer they were standing on. We put shards together with glue and made drawings of their principal types and forms. Desk work continued in our quarters in Muharaq. We gave a report of the excavation of A'Ali to the Ministry of Information and went to the Embassy of Japan to meet the Ambassador. We gave a lecture on the ceramic trade in the Indian Ocean at the Bahrain Historical and Archaeological Society. We received permission from the Director of Tourism and Archaeology to bring some ceramic shards to Japan for chemical analysis. We made a final check of the walls of houses at the site, and fieldwork at the A'Ali site concluded in January 1990.

Layers

1988/89 season. Level 1 is the upper layer, on which the base (or the interface of Levels 1 and 2) of houses and ovens were found. The average thickness of Level 1 is 50 cm around the houses. In the western section of the excavation, this layer is 56 cm in depth. In the eastern section it is only 10 cm. We stopped excavation at the base of Level 1, or the surface of Level 2. The main section was drawn in line Q from grids 7 to 11 in the western area of the 1988/89 excavation. Level 2 was only excavated in small areas of grids 7Q and 10Q to examine the depth of cultural layers. A black ash layer was observed at the top of Level 2. A shell layer was found below this, especially on the east side. The thickness of the shell layer differed in 7Q and 10Q. The average thickness of this layer in these grids was 17 cm in 7Q and 80 cm in 10Q. Shells seem to have been thrown by former resident from the east side after the house on Level 2 was abandoned, but before the house on Level 1 was built. The thickness of Level 2 could not be determined. We found a stone wall and hard floor in 7Q

and 10Q and stopped excavation at the top of this wall.

1989/90 season. There are seven shallow layers in Level 1 in the eastern area of the 1989/90 excavation. We only excavated Level 1 and stopped our excavation at the base of Level 1. Layer 1 is made up of surface yellow sand and has been made very soft by weathering. The average thickness of Layer 1 is 10cm near the centre of the low mound. Layer 2 is black fertile soil and 20 cm thick. Layer 3 is yellow clay and 6 cm thick, and the walls that were later added on to houses 5 and 6 are standing on this base. Layer 4 is also yellow clay that is 12 cm thick. House 6 and the attached walls of house 5 are standing on this base. Layer 5 is black fertile soil and 8 cm thick. House 5 is built on this layer. Layers 6 and 7 are the principal layers of this excavation. We discovered the foundations of the main houses in these layers. Houses 1, 2, and 3 were standing on the base of Layer 7, or base of Level 1, and house 4 was on the base of Layer 6. Layer 6 is yellow clay mixed with sand. Layer 7 is the lowest, and made up of fertile black soil. Yellow sand and pebbles were spread under Layer 7. In this season, we stopped the main excavation on the surface of this yellow sand, or the surface of Level 2. The main section was drawn on line U from grids 24 to 28. The houses or fences were standing on the base of every one of the layers. Level 2 was partially dug out around some houses, and we found that it consisted of yellow sand with small chipped stones.

Layout and stage of Houses

Several houses standing in the eastern area were built gradually over the same period. The foundations of some houses were standing on the different thin layers of the same period. This shows us that houses were built in turns or were added to during the latter half of eighth and the early half of ninth centuries. It clarifies how new houses were built next to already built house in a line or in a vacant lot of land. Houses 1, 2 and 3 were built at the same time on the base of Layer 7. House 4 was added to the pre-existing three houses on the base of Layer 6. House 5 was added to those houses on the base of Layer 5. House 6 was built and House 5b was added at the same

time on the base of Layer 4. House 5c and House 6b were added at the same time on the base of Layer 3.

Plan and construction of houses and other structures

The basic layout of the houses is rectangular, and they are divided into several sections by inner walls. The lower parts of the house walls were made from rough-hewn lime stone and clay. The main walls were constructed of cracked stones and yellowish clay. Some parts of the walls and floors were plastered white. Stone walls were cut off to make entrances. Entrances and door socket stones remained in their original locations in some rooms. A fine yellowish sand layer was found below the floor of rooms. The plan and process of building houses were already discussed (Sasaki 1997).

1988/89 season. In the western area, or the area excavated during the 1988/89 season, 4 houses, one date press and some ovens were excavated. The houses stand on the base of Level 1, or the surface of Level 2. Only the bases of the houses remain. The shape and number of rooms, corridors and the location of doors were examined, but the western side of the wall was completely missing. Accordingly, it is difficult to establish the whole plan of this house. There is a difference in the direction of the wall between the east and west sides. The east side has a symmetrical arrangement of rooms and corridors on the north and south. One room measures about 3 m by 4 m. The west side of the house is not clearly defined because the west wall is completely missing, but the line of the walls as they disappear might indicate that it was straight. Outside this line there are thin black carbonate layers which might be date leaves. The level of this surface was the same and extended over all the excavated area, and the house is built on this layer. Walls attached to the main wall are sometimes found to be plastered. We could not see gypsum or plaster between stone and clay in any wall. Many floors of rooms are only clay. Some, but not all parts of the floors are hard. Some parts of the floors in the two east rooms are plastered. Below the floor, we found sea-shell layer in some areas, especially in the north-eastern part of the excavated area. These shells seem to have been thrown from the east onto the

ground by the inhabitant of a western dwelling outside the excavated area.

A date press, the place of production of the juice known as date honey, was found outside the rooms attached to the wall of the east room, probably in what would have been the courtyard. Date honey is made by pressing dates piled up on the floor of a date press. The opening of the date press faced the south in order to take advantage of the sun. The north or back wall was broken, but there were traces of it remaining. Short walls on both the east and west sides are only evidenced by traces of some mud. The width of the west wall is 55 cm. The floor of the date press is a sloping channelled platform coated with hard gypsum. The rectangular platform is 340 cm long by 96 cm wide. Fifteen narrow parallel channels were exposed on it. The platform measures 80 cm long by 15 cm in width with a depth of 3-5 cm. The channels are separated by 15 cm wide low dams. The channels slope slightly towards the south where they flow into one larger channel, but we could not find a bore-hole or a sunken receptacle in or outside the channel.

Ovens were found in 3 areas. One group was located just south of the date press on the same flat ground outside the eastern part of the rooms. The extent of ash and fired clay is 150 cm by 70 cm around these ovens. This evidence shows that this area was used as a cooking place over a protracted period. Oven 1 is made from the bottom of an earthenware jar. The diameter of the jar bottom is 28 cm. The height of the remaining shard is 8 cm. Piled within the jar are an ash layer, a fired clay layer and another ash layer. Oven 2 is made of small stones placed over the thick ash layer. Some stones have changed colour due to the heat from the fire. The outside diameter of the circular stones of Oven 2 is 45 cm. Some stones were also found between the ash layers of Oven 2. Oven 3 was found outside of the room. Ovens 4, 5 and 6 were located along the wall inside the room in western areas.

1989/90 season. In the eastern area, or the area excavated during the 1989/90 season, 6 or more houses, one date press (madbasa) and ovens or hearths were found in Level 1. The directions of the walls of the

houses were roughly north-south and east-west, inclining slightly toward west. The average size of the rooms measured about 4-5 m by 5-6 m. The lower parts of the walls of houses, which were the only remaining parts, were constructed of rough-hewn limestone and yellowish clay. Some parts of the secondary walls attached to the main walls were often plastered, though the main walls were not. We could not see any gypsum or plaster inside the walls. The average thickness of house walls was 50-60 cm. In many parts, the floor surfaces had disappeared, although occasionally we found traces of them. Some parts were soft clay, covered with a very thin layer of ash, and some parts of the floors were hard clay. This fact seemed to indicate the floors were made of clay. We could not find any pieces of stone in the floors. The residents must not have used tiles on the floors and walls. Only the floors of small rooms were plastered. Below the floors, we found a layer of fine yellowish sand in all areas, and in some parts this sand included small chipped stones. We saw no objects on the floors of the rooms, except for a pair of large stone mills in a small room located in house 3.

We could clearly see the entrances of houses and rooms. Most entrances were indicated by gaps in the stone walls that were level with the floors. There was no specific direction for the opening of entrances doors. In grids 25Q and 27W, we found exceptional traces of two entrances. There were some stones set in the ground in a doorway between two walls in grid 27W. On the eastern side, the stones were covered with gypsum next to the wall, and there was a hole where the gypsum dipped down to the level of the floor of the room. We found a similar construction covered with gypsum in grid 25Q. These appeared to be doorways and post holes for doors.

A date press, or madbasa, which was used for producing date honey, was found outside a house between houses 3 and 5, or beside a house and in the backyard of house 4. Date honey was made by pressing dates that had been piled up on the floor of the date press. The date press was faced to the south to take advantage of the sun. The north or back wall was broken, but a thick stone wall foundation still remained. The width of

the north wall was 60 cm. The west side of the date press was straight, and the south and east sides had curved sides. This indicates that there was a wall on the west side of the date press. The floor of the date press was a sloping channelled platform coated with hard gypsum. The rectangular platform measured 170 cm long by 150 cm wide. Six narrow parallel channels were exposed on the rectangular platform. Each channel measured 140 cm long by 10 cm wide with a depth of 7 cm, and each was coated with hard gypsum. The channels were separated by low dams, each 12 cm wide. The channels sloped slightly towards the south where they flowed into one larger channel, and then to a bore-hole or a sunken receptacle outside the channel. The bore-hole had a mouth that was also coated with hard gypsum. A complete earthenware jar was found in the centre of the bore-hole. The rim of this jar was set in the hole with gypsum. We found soft clay below the hard gypsum.

Located outside of the house walls were ovens that were generally made of several cracked stones and filled inside ash. A kitchen area with ovens, a large jar buried in the ground, several vases and blackened earth was found outside the north wall of house 3. Large stone mills were found inside a small room of this kitchen.

Five ovens were found, but it is certain that more had been used because ash and blackened places suggested the existence of ovens and fire places. Ovens 1-4 were made with large rough-hewn and small chipped stones. Oven 1 was found on the west side of House 6 on the same level as Layer 3. Some rough-hewn stones were reddish in colour owing to the heat from the fire. The outer diameter of the circularly arranged stones was 35-60 cm and the inside was measured at 35 cm; the height of the stones was 11 cm. Two black layers of ash 13 cm deep remained inside the oven. Oven 2 was found on the north side of House 3. The stones were arranged in a rectangular fashion, measuring 120 cm by 55 cm. Some stones had turned red and a very thin layer of ash was left inside. Oven 3 was found to the west of Oven 2, 250 cm away. The rough-hewn stones remained at intervals in a rectangle measuring 140 cm by 110 cm. The southern area of these stones had turned red. Oven

4 was found inside a room in House 3, attached to the wall just south of the entrance, which was in the middle of the wall. Only three small stones remained in a burnt red semicircle; these stones were 70 cm in diameter. The height of the remaining stone wall was 18 cm, which was detectable because the stones turned red from the fire from the upper part of this oven. Oven 5 was found in grid 27R, outside of and attached to the wall of House 1. We could only see a burnt red circle 40 cm in diameter; there were no stones. The stones must have been taken away at some point. Between Ovens 2 and 3, a large jar was buried. The top of the jar was the same level as the base of the ovens. A pit 65 cm in diameter had been dug, and the jar was buried inside it. The depth of this pit was 60 cm, and the bottom of the jar was at the base of the pit. This area must have been a kitchen and the jar was apparently used as a storage vessel for some kind of liquid. Many ceramic shards were found scattered around and over Ovens 2 and 3, and between Houses 3 and 5 in grid 26V. These shards seem to have been covered by the collapse of House 5.

Finds

Many objects used in the inhabitants' daily lives were excavated at the site, with earthenware accounting for the largest number, followed by glazed pottery. Bronze and iron objects, glass and stone vessels and objects, bone and shell objects, etc. were also excavated. The people at A'Ali used a large number of blue-green glazed ware, opaque-white glazed ware, cobalt blue painted ware, green painted ware, and luster painted ware from Mesopotamia which might have been transported via the Arabian Gulf. Several kinds of earthenware from Mesopotamia and other areas, including Sind and those produced locally, were found. Very small numbers of long traded Chinese ware were found. Material including the bones of animals, fish and shellfish were excavated. No coins were found. Some clay objects were able to be reassembled from earthenware shards. Ali88-158 is a spindle wheel. Ali88-120 is a fragment of a large jar with two holes. Ali88-69 and Ali88-160 were shards of jars with only one hole and seem to be weights. Most of the

pieces of glass were very small crushed fragments from vessels. Ali88-45 was a fragment of a bangle. Small jars (jarlets) and vases seem to account for the majority of the artefacts. The colour of the glass that was found at the site is black. Most fragments have no decoration. Ali88-57 is the bottom of small black alabastron with a white opaque trail, combed upwards. It was produced in Iraq in the ninth or tenth century. One well-made bone spoon was found, Ali88-234. Four fragments of bronze were found. Three small fragments of a bronze bowl were found, Ali88-231, 232 and 233. A needle forms part of the surface collection, Ali88-230. Cooking pots, a grinding stone, some small balls, some round stones, and beads of stone were also found. Each kind of object is made of a different kind of stone. Two stone cooking pots were found. Ali88-82 is the shards of a large cooking pot with vertical sides. Mending holes were plugged with copper strings. The outside surface of the pot is roughly planed and covered with black soot. Ali88-103 is the shards of a small cooking pot with a handle. This type of cooking pot seems to have had two handles. The material the pot is made from is soft dark grey coloured stone. Ali88-170 is a grinding stone. Ali88-49, 50, 71 and 107 are balls for a hammer: small hard balls made of flint. Some parts of these balls have been cracked by being hit. They are suitable for a nut-cracking hammer. Ali88-70, 72, 73 and 127 are round stones. Ali88-70 and Ali88-72 have one hole on both sides. Ali88-1 is a bead made from Lapis lazuli that is square in shape and has one hole. These artefacts are from a surface collection. The finds from the second season (1989/90) have more variety than the first season, but there is no space to introduce them here.

There was a very rare find of a fragment of an earthenware jar, on the surface of which are inscribed three words written in black ink. It is difficult to determine that the words are Arabic or Persian, but it could be 'Ma'rou (?) min XXXX (not readable)'. The end of a word is also seen at the upper-left, so it could be the end of a short sentence. 'Ma'rou (?)' (if read correctly) is not really understandable by itself; it could be the name of a thing, or - less likely - a person. A possible meaning could be 'something from ...' or 'somebody from...'

(according to the suggestion of Dr. Pierre Lombard). This jar might have been transported to A'Ali by seaborne trade.

Ceramics found from the western area in the 1988/89 season

2,739 shards of earthenware, 455 shards of glazed pottery, 2 shards of glazed stoneware and 1 white porcelain shard were found in Level 1 during the first season's excavation (Sasaki 1990). The ratio of glazed ceramic shards to earthenware shards is 14.3% and 85.7%. Three small fragments of Chinese ceramics were found: one white porcelain bowl from the Fujian province and two dark brown glazed stoneware objects from the Guangdong province, a large jar and a basin. Chinese ceramics represent 0.64 % of all the glazed ceramics. Ali88-56 is a shard of the scrolled rim of a white porcelain bowl, which had a diameter of 16.2 cm, from the end of the eleventh or early half of the twelfth century. Dark greenish-brown glazed stoneware from the ninth-eleventh centuries was also found. Ali88-136 is a shard from the body of a large jar. Ali88-151 is a shard from the base of a basin.

455 fragments of glazed Islamic pottery were found. These represent 99.34% of all glazed ceramics found at the site. Many of those were made in Iraq during the ninth and tenth centuries, and some of them were made in the eleventh and twelfth centuries. So finds from the two periods should be mixed. The colours of the glazes are blue-green (including blue-green, blue and green), white, brown, brown-green, yellow and polychrome (yellow, green, brown). Blue-green (blue-green, blue, green) glaze accounts for the majority of glazed ware. The majority of discovered fabric is creamy-yellow and greenish-yellow in colour. Rouge and pale rouge fabrics are the next most frequent. The creamy-yellow fabric can be divided into two subgroups: fine and normal. Fine fabric is smooth, powdered and without inclusion. Fine examples are very few in number. Incised and painted techniques are used for decorations. Incised sgraffito decoration was scratched through the white slip on fabric with a sharp point and then covered with a three-colour glaze. The painted decoration was in cobalt-blue,

copper-green and yellow glazes. The designs are simple floral patterns, cross-stripes, zigzags, scroll patterns and others.

The fine creamy-yellow fabric was produced in Iraq. Only 4 shards of this fabric were found. Three of them are fragments of a cobalt-blue painted decoration with copper-green glaze splashed on a tin-white glaze. One is a yellow glazed shard.

The creamy-yellow fabric was produced in Iraq, probably at Basra. This type of fabric occupies 47.6% of all the glazed ceramics. The most popular colours of discovered glazes are blue-green, blue and green. These three glazes can be classified into the same fundamental group. Some of these glazes have changed colour, even during the excavation. The blue-green (blue-green, blue, green) glazed ware of this fabric has no decoration and occurs in 95.9% of creamy-yellow fabric shards. Vases represent the largest number of discoveries at 29.4%, bowls are 22.5%, large jars are 19.2%, jars are 13.8% and basins 6.9%. White, yellow, brown and green coloured glazes were uncommon. A copper-green splashed glaze can be slightly seen on the tin white glaze. Brown painted decoration is drawn under the yellow glaze. Only three shards of tin-white glazed large bowls were found along with one such glazed shard of a smaller bowl. Only one bowl of manganese-brown glazed ware made of creamy-yellow fabric was found. Two large bowls with iron-yellow glaze with brown painted decoration over creamy yellow fabric were found. A manganese-brown painted floral design was drawn under the iron-yellow glaze. One large bowl with iron-yellow glaze and incised decoration in the creamy-yellow fabric was found. Only one large bowl with green glaze over creamy-yellow fabric was found. This green glaze is not the same as the blue-green (blue-green, blue, green) glazed type. Only one large bowl of brown glazed ware made of creamy-yellow fabric was found. The colour of the body was creamy-yellow, but the fabric is a little different from the normal creamy-yellow fabric. The area that this bowl was produced in might be different from the others.

Greenish-yellow fabric was produced in Iraq. This type of fabric occupies 31.2% of all the glazed ceramics.

Large jars with decorations and carved wavy lines are typical examples of objects with this glaze and fabric. Though shards of large jars without decoration are more common, most of the large jars seem to be of the same type. This type of blue-green glaze is only used on a greenish-yellow fabric. The glaze on the outside was mainly dark blue-green or green in colour and thick, but the inside glaze was pale greenish-white and thin. Basins represent the largest number of objects made from this fabric at 56.2%; large jars are 26.7%; vases are 13.3% and 38 unknown shards were excluded. Compared with creamy-yellow fabric, this greenish-yellow fabric was used mainly for large pottery objects like basins. Ali88-91 is a large basin, 60.4 cm in diameter, with many mending holes, and glued together with bitumen by the previous owners.

Only one fragment of pale rouge fine fabric was found. Ali88-15 is the base of a bowl with a stripe design in green glaze. Outside of the base is unglazed and base type is ring foot.

Pale rouge fabric type of fabric occupies 9.4% of all the glazed ceramics. 6 shards of polychrome glazed ware made of this fabric were found. Only green and yellow glazes remain on the surface. Ali88-55, 157, 169 and 199 are bowls and a large bowl with a green semi-circular and yellow dot design. 1 shard of green glazed ware with painted bowl was found, Ali88-54. 3 fragments of green glazed bowls which were slightly different type with the former one were found. Ali88-54, 145 are two shards of bowls with white glaze and dark green paint. There were five shards of bowls with white glaze on this type of fabric, and one shard of a jar. There was one shard of a jar with brown glaze on this fabric. Ali88-92 is a large bowl with yellowish-brown glaze with painted ware and made of pale rouge fabric. A manganese-brown cross stripe design painted on a white slip, covered with yellowish brown glaze with pale rouge fabric was found. Objects found with yellow glaze or antimony-yellow glaze made of this pale rouge fabric were 10 fragments of bowls, 1 fragment of a large bowl and 2 fragments of jar lids. 10 shards of yellow painted bowls made of this fabric were found. Ali88-17 is covered with white slip and the glaze

was peeled off. 2 shards of bowls with yellow glaze and incised decoration made of this fabric were found. Ali88-65 is a large bowl with a deeply incised zigzag pattern. Shards of rouge fabric occupy 9.8 % of all the glazed ceramics. 1 fragment of a yellow glazed large bowl with rouge fabric was found, Ali88-130. Another 1 fragment of a large bowl with brownish-yellow glaze with rouge fabric was found. Ali88-97 is incised with the cross stripes pattern. Polychrome glaze with an under glaze and incised decoration (sgraffito) are common with this type of fabric. Brown, green and yellow glazes were used for polychrome glaze. 27 fragments of bowls, 15 fragments of a large bowls and 2 unknown shards were found. 9 bowls fragments have a wavy rim. Ali88-108 is a large bowl with a polychrome glaze without incised decoration. Ali88-178 is a fragment of a jar with dark iron glaze made of dark rouge fabric.

2,739 shards of unglazed earthenware were excavated from Level 1. The fabric of the earthenware is very different from the fabric of the glazed pottery, and was classified into 18 types. Undecorated ware represents the majority. There was no moulded or stamped ware found. 42 shards of incised ware and 2 shards of black painted ware were found. 17 shards of red polished cooking pots were found, possibly of Indian make. Most of the earthenware is supposed to have been produced on the Island of Bahrain.

Ceramics and other finds from eastern area, 1989/90 season

Most of the finds were ceramic fragments, shards of earthenware being the largest in number, and glazed ceramics were the next most common. Some glass vessels and objects, stone objects, bronze objects, iron nails, a few bones and shells were also excavated. The finds from the second season belong to the latter half of eighth and the early half of ninth centuries. There is no sgraffito or multi-colour glazed ware in the finds from the tenth and eleventh centuries, which were found during the first season. Two small fragments of painted stoneware bowls, Chinese Changsha ware of the early half of ninth century, were found. Blue-green glazed ware, white-opaque glazed ware and luster ware are Islamic glazed

ware. 1,233 fragments of glazed Islamic pottery were found. Many of those were made in Iraq during the latter half of the eighth and ninth centuries. The glaze colour of Islamic pottery represent blue-green (blue-green, blue, green), white, and yellow. Blue-green (blue, green) glaze is the most common among the artefacts. There are yellow glazed ware with painting, and yellow luster ware. Multi-colour incised ware and other multi-colour wares were not found in the second season because of the occupying date limited before the 10th century. This indicates that the distribution of multi-colour wares mainly began after the 9th century in the Arabian Gulf. The most common fabric of the excavated wares is greenish-yellow and creamy-yellow in colour, and pale rouge fabric also exists. Creamy-yellow fabric, produced in Iraq, represents more than half of all glazed wares. The most common colour of glaze for this fabric is blue-green, including blue and green. White, yellow, brown and green colour glazes are uncommon compared with the blue-green glaze. Greenish-yellow fabric, produced in Iraq, is the next most common to creamy-yellow fabric and used only for blue-green glazed ware. There were only a few types of ware made of pale pinkish fabric and this fabric was not found in the United Arab Emirates. Chemical analysis represents the same components with two types of fabric.

Some Remarks on the Ceramics

It was usual to find a few Chinese porcelain pieces and a comparatively large number of Iraqi glazed ware together with a great amount of local and imported unglazed earthenware from the ninth and tenth centuries in the Arabian Gulf and the Coast of the Arabian Peninsula before the A'Ali excavation (Sasaki 1987, 1989). Those combination of ceramics are also found in the site of A'Ali. However, Chinese ceramics were few at this site, and only a few small fragments were excavated. A white porcelain bowl, Ali88-56, with a scrolled rim was made in the Fujian province in the early half of the twelfth century. This type of white porcelain bowl was widely exported around the Indian Ocean and the Arabian Gulf. The Changsha ware bowl is from the ninth century. Two

shards of large dark brown glazed stoneware jars were found. Ali88-136 was made in the ninth-tenth centuries in the Guangdong province. This jar might have been brought as a container of trade goods. A fragment of a large basin, Ali88-151, was also made in the ninth or tenth century in the Guangdong province.

Glazed pottery originating from Iraq (Mesopotamia), Iran and the Arabian Peninsula were excavated in much larger numbers than Chinese ceramics. Shards of Islamic glazed pottery represent 99.3% of all the glazed ceramics from the first season. A creamy-yellow fabric type is the most common and occupies 48.5%. Next most common is the greenish-yellow fabric, occupying 31.2%. These types of fabric were produced in Iraq and occupy 79.7% for the first season's excavated artefacts. The pale rouge fabric makes up 1.5% of all fabric, and rouge fabric represents 9.8%. Total of pale rouge and rouge fabrics occupies 11.3%. Shards with blue-green glaze were the most common, occupying 76.9% of shards. Three colour glazed ware with incised decoration (sgraffito) occupies 9.6%. Yellow glaze represents 4.8% of shards. Finds of white-opaque ware, green ware and brown ware were small in number, and yellow luster ware was rare. There is no multi luster ware. Bowls and large bowls made up 29.9% of finds, jars were 23.1%, vases were 17.6% and basins were 16.3%. Typically, the pottery had the blue-green type of glaze on creamy-yellow and greenish-yellow fabric. Other types of glaze and fabric are mainly used for bowls or for small table wares. Most of the glazed ware was brought from Iraq through the Arabian Gulf. The excavated ware from the second season is limited the dates of the eighth and ninth centuries, and there is only blue-green, white and yellow monochrome glazed wares from this period. There was no stonepaste ware found because it was made later. Unglazed earthenware was excavated in large amounts, many of which were plain or undecorated. Incised wares were found in small quantities. A huge variety is seen in large jars, large vases and large dishes. Most of the earthenware with red fabric seems to be the product of the Island of Bahrain.

Chemical analysis of the white-opaque glaze found at

A'Ali was reported (Sasaki et al 1992, Sasaki et al 1993, Sasaki et al 1994a, b). White-opaque glazed ware was made in Iraq. The white-opaque glaze was composed of quartz originally, and tin was added later (Sasaki 1993).

Nature of the village or town of A'Ali

The excavated areas were 20 m by 25 m and 20 m by 35 m. We only excavated one layer, Level 1, and found houses with ovens and date presses. The preservation of the architecture of Level 1 in this site was not good. The wall of the house was made from clay and stone without baked brick or cement. Only the broken bases of walls remain. From our finds, especially the Iraqi glazed pottery and Chinese Changsha ware; we can presume the date of Level 1 to be the latter half of the eighth and early half of the ninth centuries. There are some mixed shards from the eleventh to twelfth centuries in the west area, though there is no mixed ware in the East area. The site of A'Ali is a village from the early Islamic period in the Arabian Gulf. We found a comparatively great number of ceramic shards and a few fragments of glass. The kinds of excavated materials were very limited. No coins were found. This may show that the excavated houses were the local settlement of a wealthy farmer.

Green-glazed water pipes were the most special finding that helps us consider the nature of A'Ali. The people that lived there imported the glazed pipes from Iraq. The majority of finds here are similar to the rich finds of Samara in Mesopotamia (Sasaki 1995), though multi-colour lustre, Chinese white porcelain and green dotted porcelain of the 9th century, and some special materials are missing in A'Ali. The excavated area is located beside an old wadi in the south, which can be seen from an aerial photo taken in 1959. These facts may point to the possibility that the A'Ali site in the central region of Bahrain Island was that of a rich local farmer's settlement or village that provided dates, cereal, fish, sheep/goats and cattle, as well a trading town that traded glazed ware, glass vessels, bronze objects, bone objects, stone vessels and locally made objects. Excavations at A'Ali have shed light on the formation of early Islamic villages and the materials used in daily life on Bahrain

Island during the Abbasid period, especially in the latter half of the eighth and the early half of the ninth centuries.

Acknowledgment

We are most grateful to Sheikh Rasid Bin Khalifa Al-Khalifa, Assistant Undersecretary of Directorate of Tourism and Archaeology; to Dr. Kadhim E.Rajab, Director of Tourism and Archaeology, to Dr. Abdulaziz Ali Sowaileh, Superintendent of Archaeology, and to the staff of the Directorate of Tourism and Archaeology, for the willing help and friendship they extended to us at all times during our excavations. Daud Yousif, Ahmad, Mohamd Jaffar, Isse al Masser, Abdul Rashid, Saleh, archaeologists of the Directorate of Tourism and Archaeology worked with us at the site and were of great help. The excavations were conducted 20 years before and their position and status were in those days.

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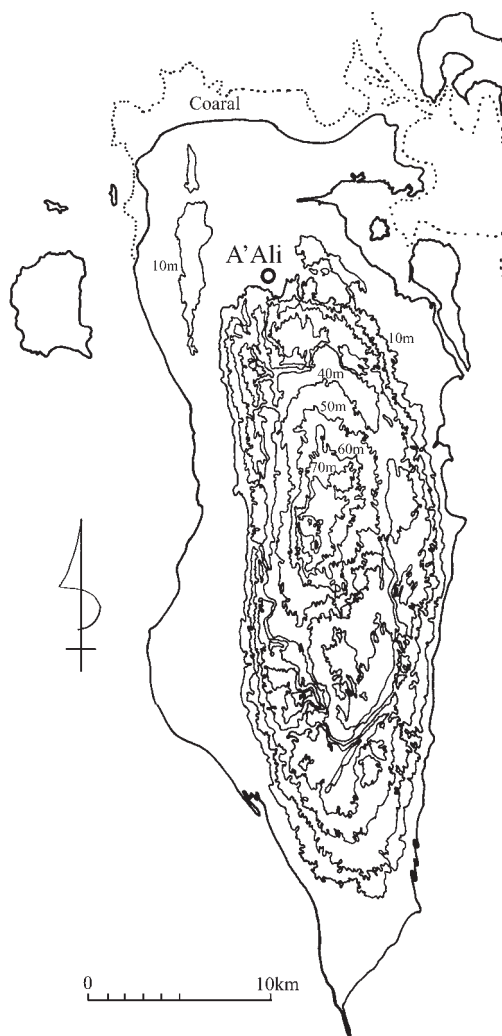


Figure 1 Location of A'Ali, Bahrain

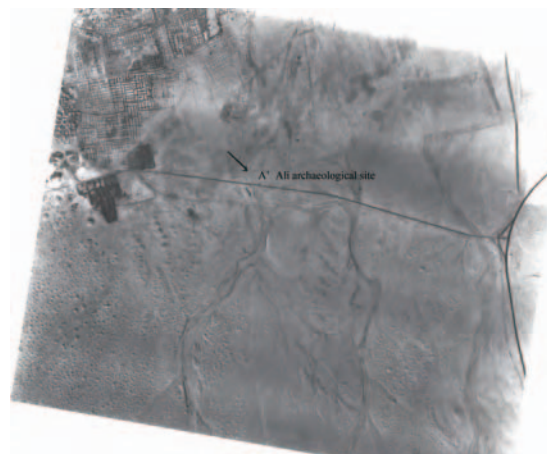


Figure 2 1959 Aerial photograph of A'Ali

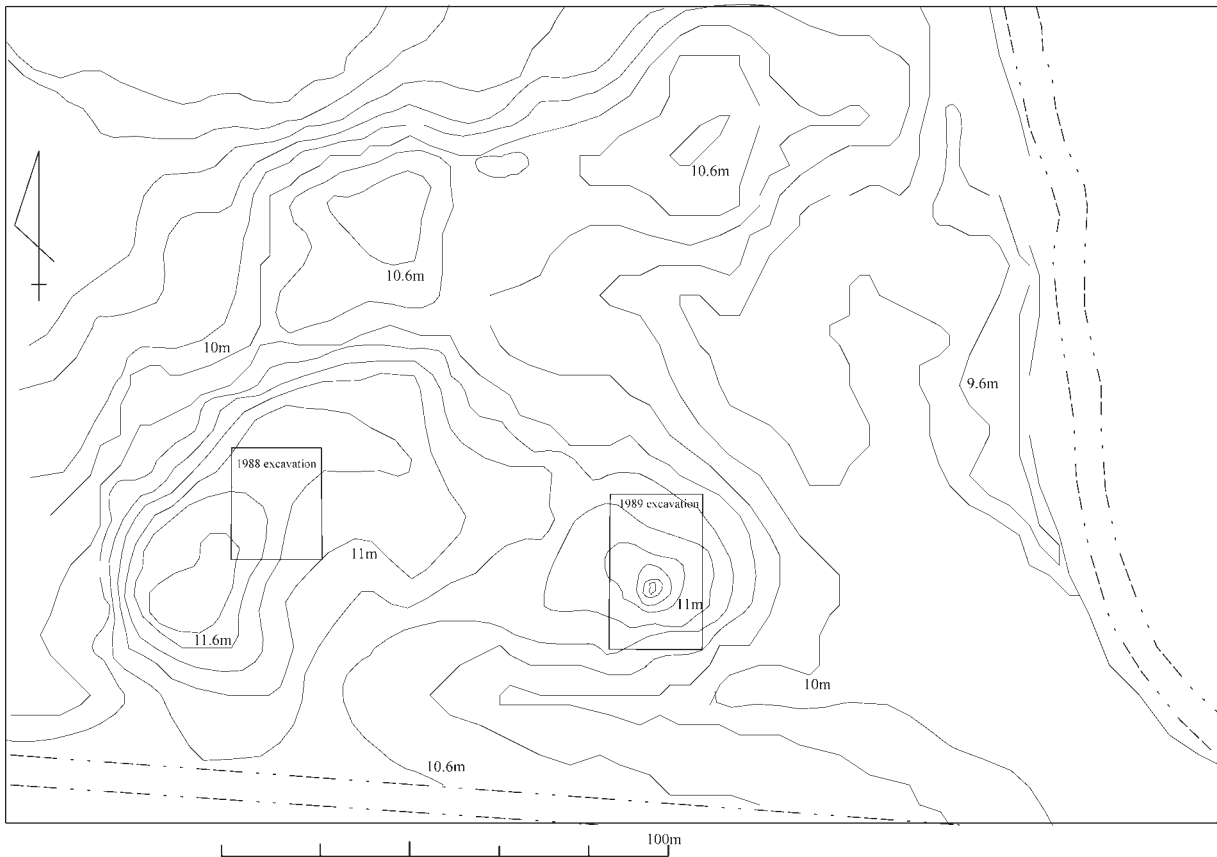


Figure 3 Contour map of the A'Ali site.



Figure 4 Excavation of 1988/89 season, A'Ali



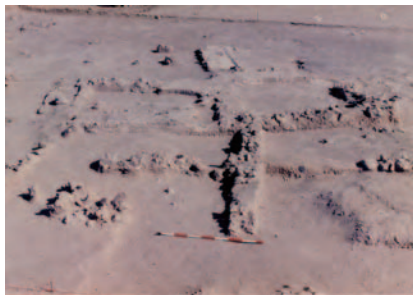
Figure 5 Excavated houses, excavation of 1988/89 season, A'Ali



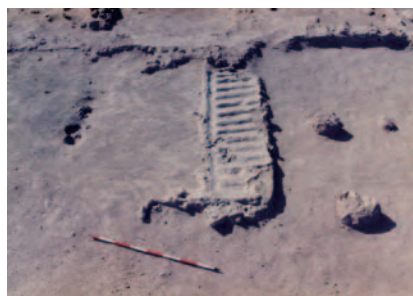
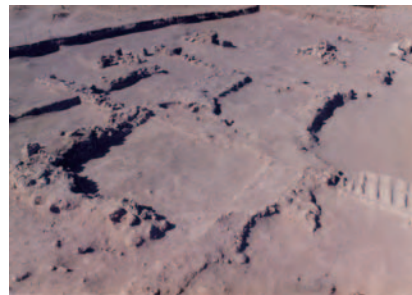
Excavation



Excavated houses



Houses



Madbassa



Room and palm tree pillar inside wall



Layers of Level 1

Figure 6 Excavated houses, 1988/89 season, A'Ali

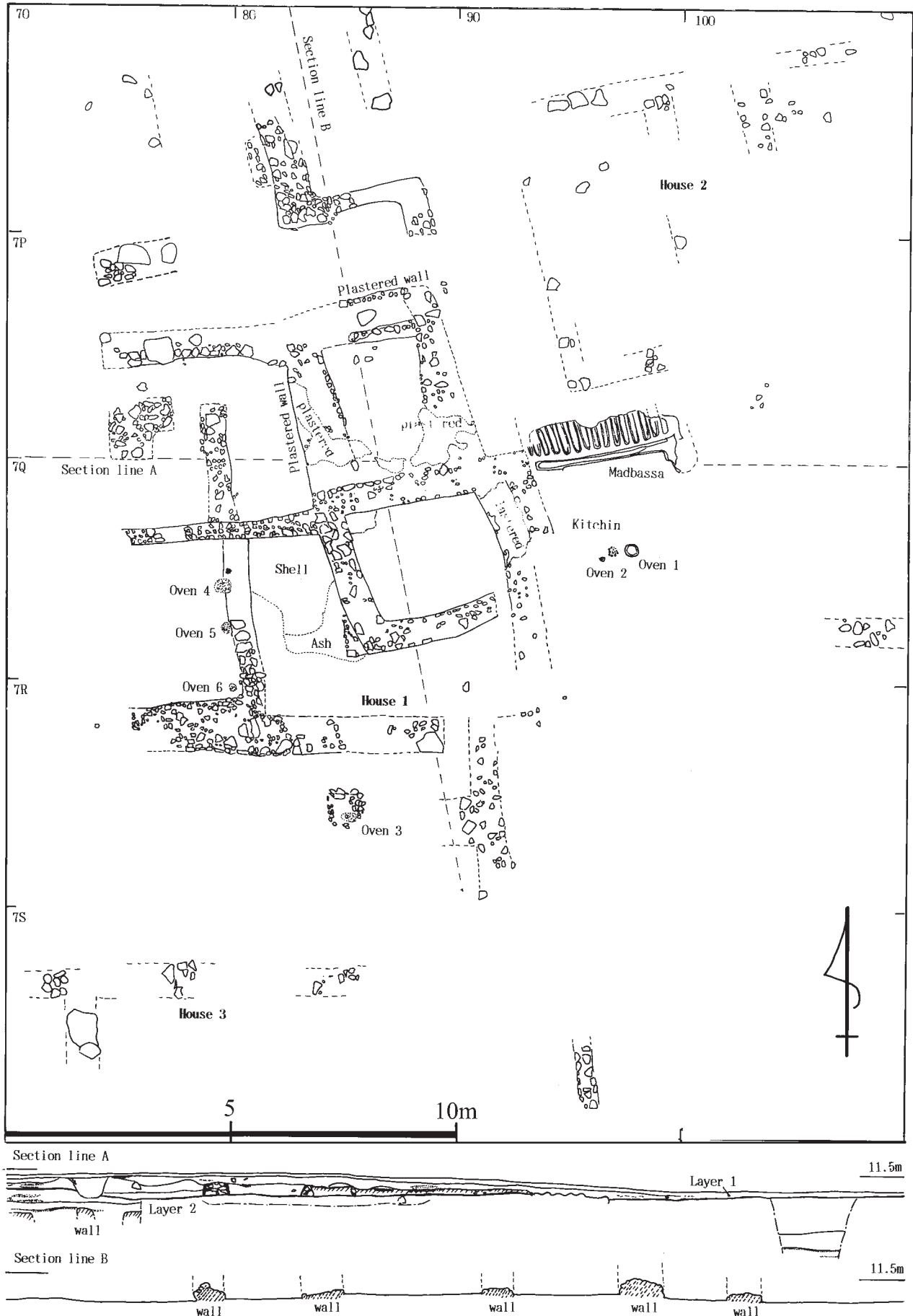
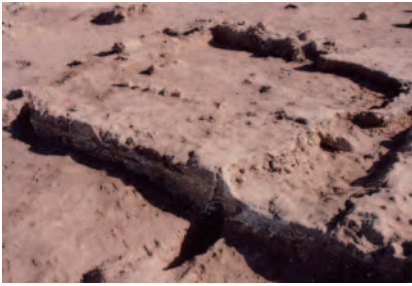


Figure 7 Plan and section of houses, 1988/89 season, A'Ali



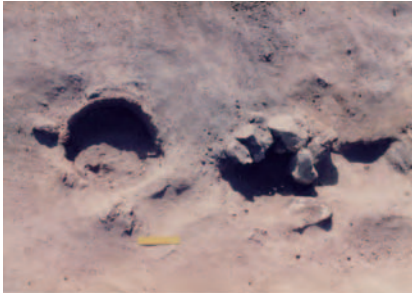
Plastered room



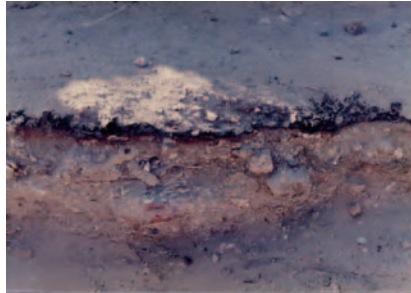
Madbassa



Lower level houses were found in a trench



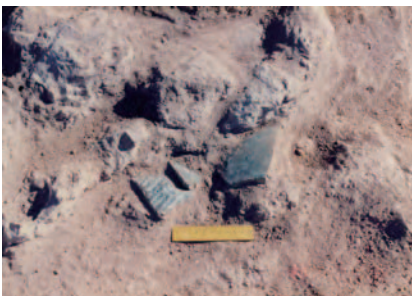
Hearths with pottery and stones



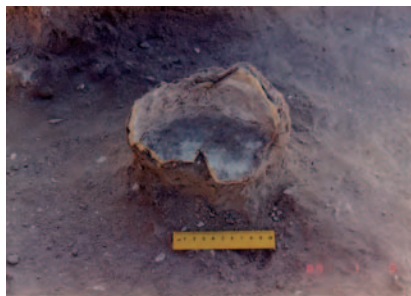
Hearth



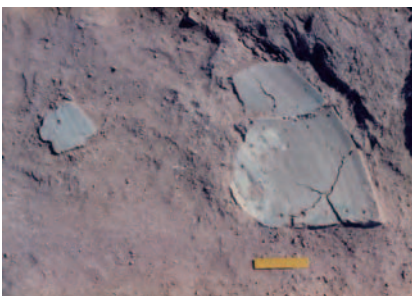
Corner inside the room



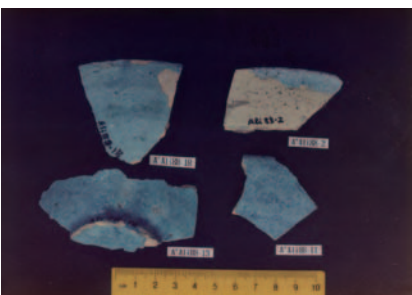
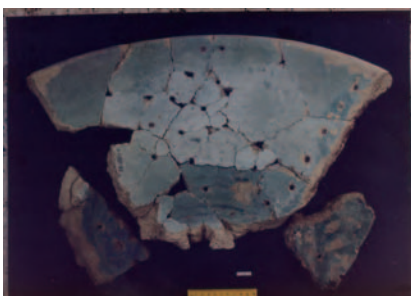
Fragments of blue-glazed ware jar



White glazed vase painted cobalt blue and copper green



Blue-green glazed ware, large basin with mending holes



Blue-green glazed ware bowls and vases

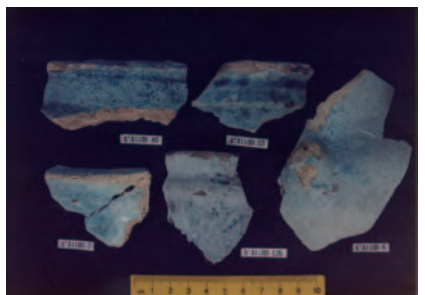
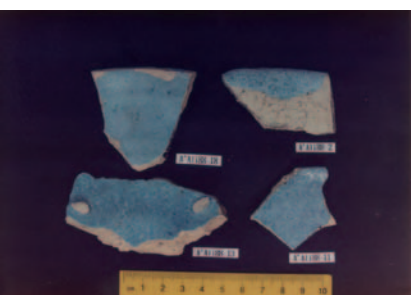
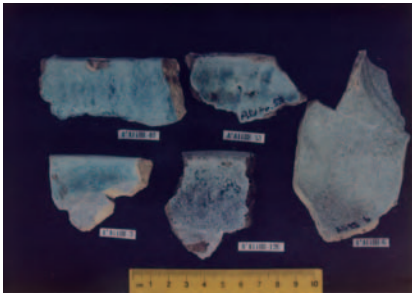
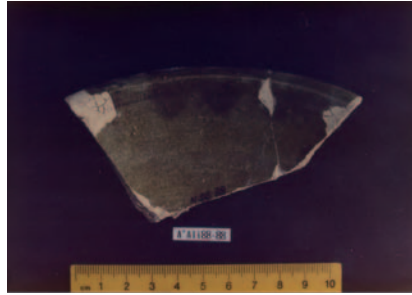


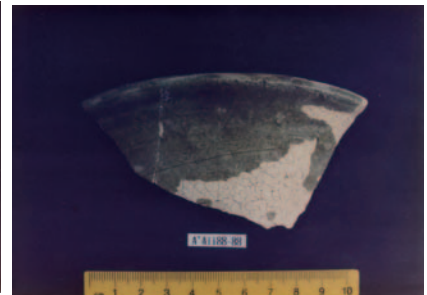
Figure 8 Glazed ware from the 1988/89 season, A'Ali



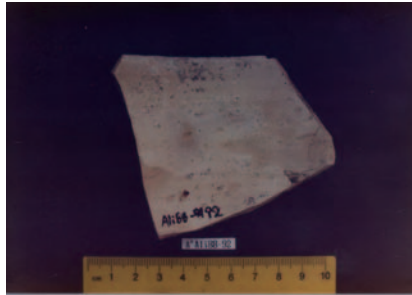
Blue-green glazed ware



Green glazed ware



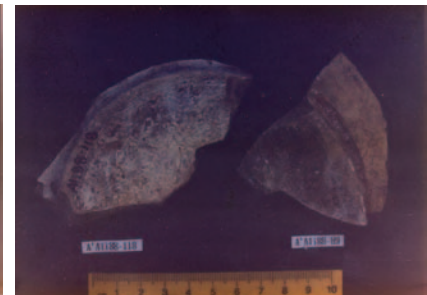
Painted glazed ware



Painted glazed ware



Painted glazed ware



Yellow glazed ware



Red polished earthenware jar



Red polished earthenware jars



Earthenware jars and vases

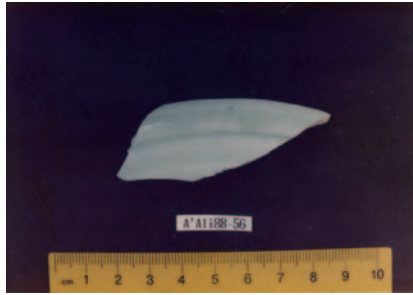


Earthenware jars and vases

Figure 9 Finds from the 1988/89 season, A'Ali



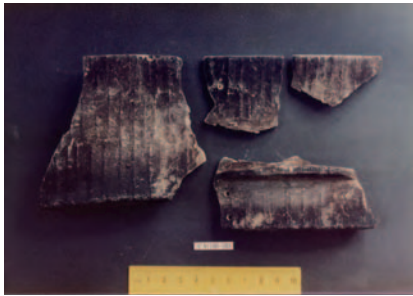
Earthenware jars and vases



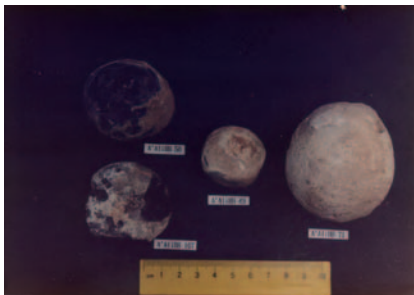
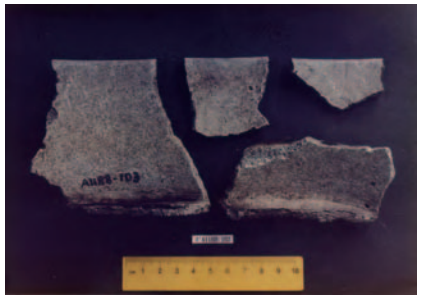
Chinese white porcelain bowl



Fragment of pottery with holes



Stone cooking pots



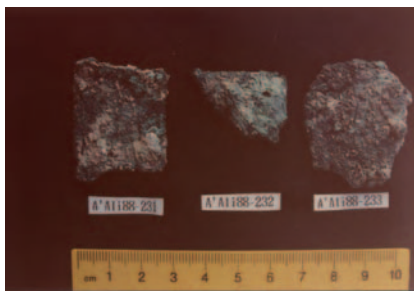
Stone tools



Stone tools



Stone tool



Fragments of bronze



Bronze needle



Shell



Bones

Figure 10 Finds from the 1988/89 season, A'Ali



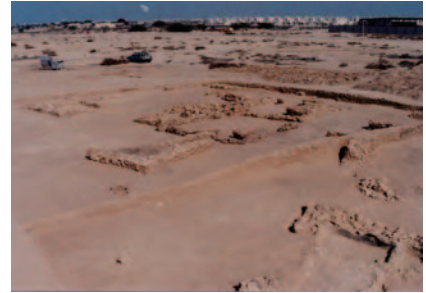
Figure 11 Glazed ware from the 1988/89 season, A'Ali



Figure 12 Preservation of the A'Ali site. Photo taken in Dec. 2007. Sign of archaeological site.



Figure 13 Excavated houses, 1989/90 season, A'Ali.



Excavation of the 1989/90 season, A'Ali



Houses of the 1989/90 season, A'Ali

Layers of the excavated area



Layers of the excavated area



Houses of the 1989/90 season, A'Ali

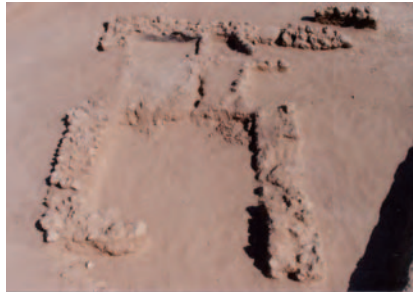
House 1

House 1, west part

Figure 14 Excavated houses, 1989/90 season, A'Ali



Houses 2, 5 and 4



House 2



House 3



Houses 3 and 5



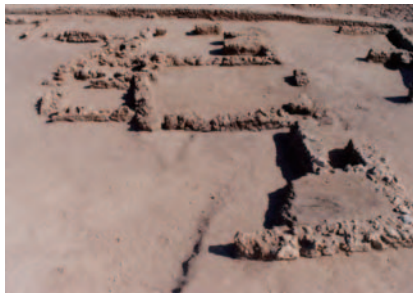
House 3 and Madbassa



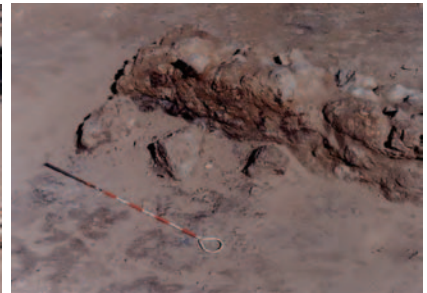
Courtyard between Houses 3 and 5



House 4



House 4



Stone hearth



Stone hearth (oven 1)



Stone hearth



Entrance to the room, house 3

Figure 15 Excavation of the 1989/90 season, A'Ali

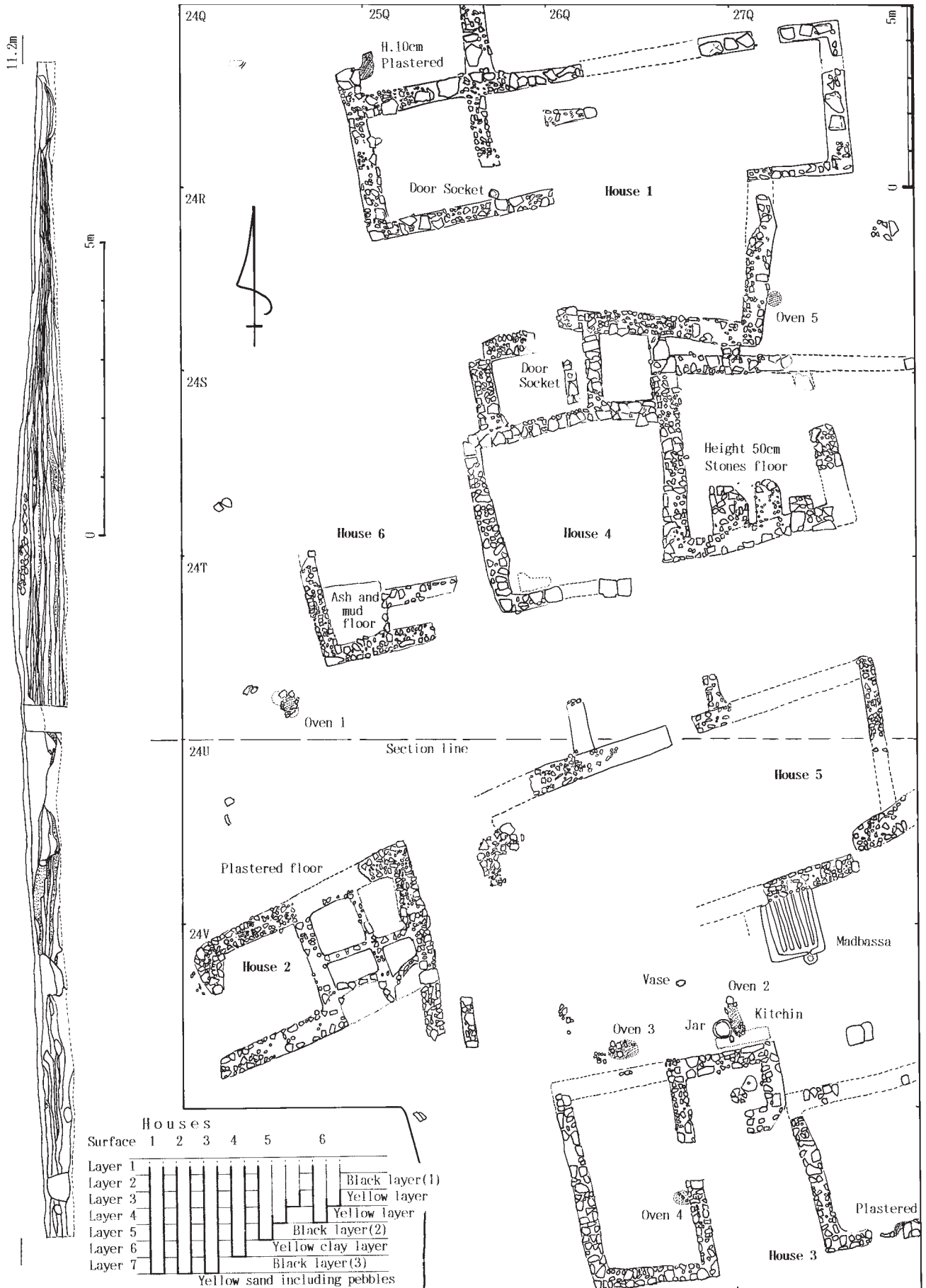


Figure 16 Plan and section of houses, 1989/90 season, A'Ali



Figure 17 Four stages of houses, 1989/90 season, A'Ali



Kitchen area outside House 3 and deposit of broken pottery



Buried earthenware jar for storage in the kitchen area outside House 3 and stone hearth (oven 2)



Stone hearth (oven 2) near the storage jar

Door socket at the entrance to room, House 4

Entrance to the room, House 3



Excavating pottery in the room

Stone mill in the room of House 3

Hearth

Figure 18 Excavated ruins, 1989/90 season, A'Ali

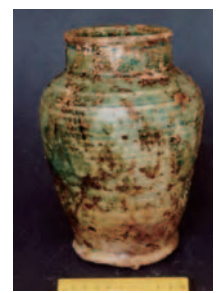
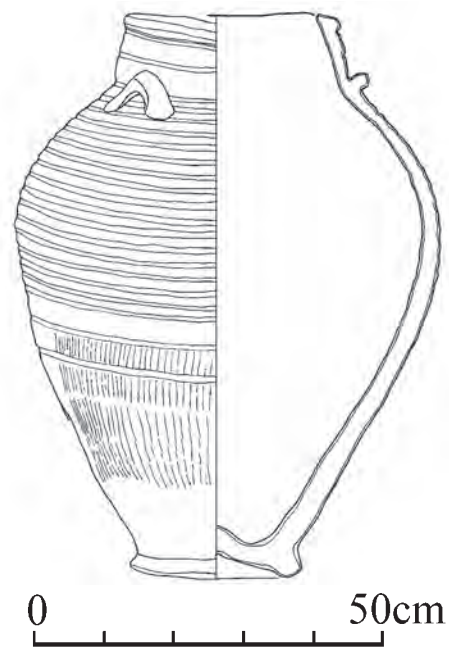
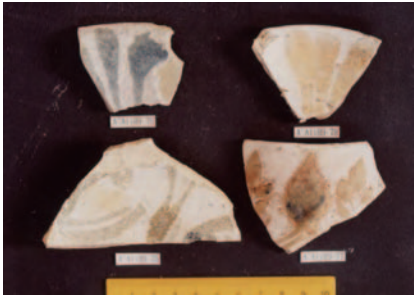


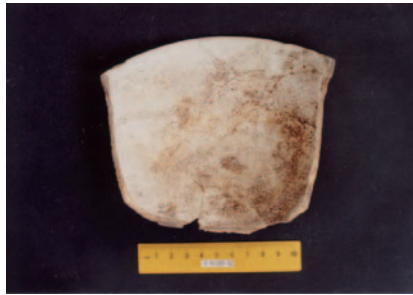
Figure 19 Kitchen outside of House 3 and blue-green glazed vase, 1989/90 season, A'Ali



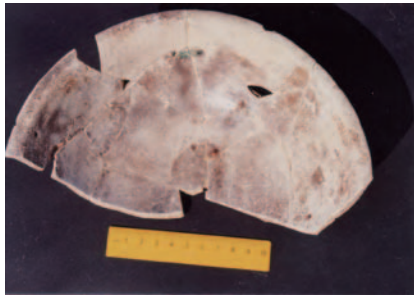
Figure 20 Madbassa (Date press) outside of House 5, and red polished earthenware vase, 1989/90 season, A'Ali



Cobalt blue painted ware bowl,
Gold lustre ware bowl



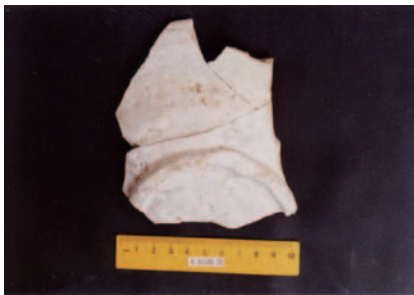
White glazed ware bowl



White glazed ware bowl



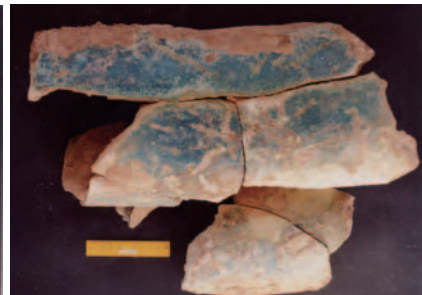
White glazed ware bowl



White glazed ware bowl



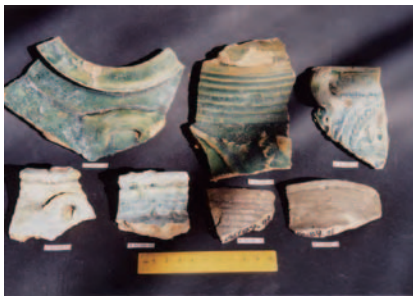
White glazed ware bowl



Blue-green glazed tiles



Blue-green glazed jar



Blue-green glazed jars



Blue-green glazed jars



Blue-green glazed vases

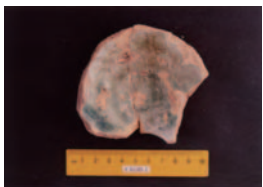


Figure 21 Finds from the 1989/90 season, A'Ali



Fragment of pottery with Arabic inscription



Earthenware vase



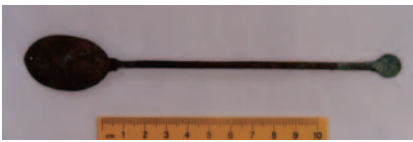
Earthenware vase



Earthenware vase



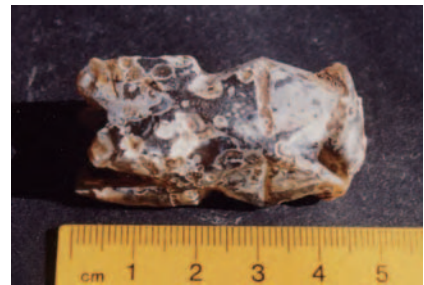
Earthenware bowl



Bronze spoon and rod



Bone spoon



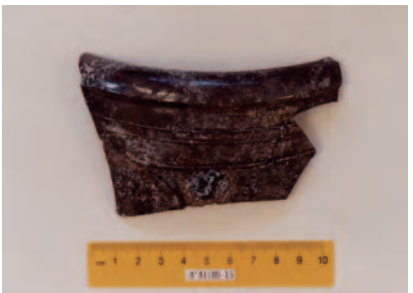
Glass vase



Glass vases



Glass vases



Glass vase

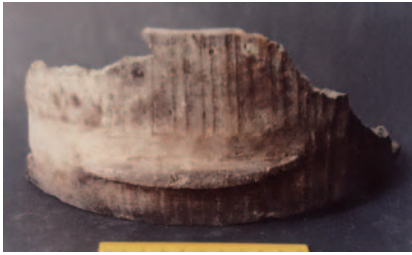


Iron nails and knife

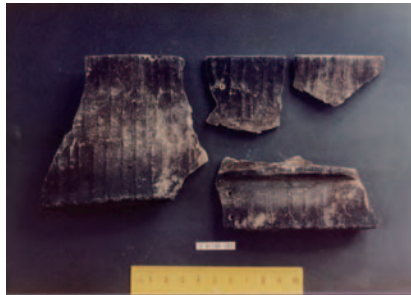


Stone mills inside room of House 3

Figure 22 Finds from the 1989/90 season, A'Ali



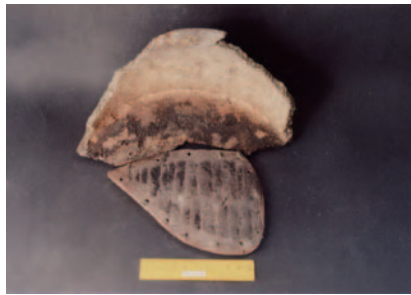
Stone cooking pot



Stone cooking pots



Stone cooking pots



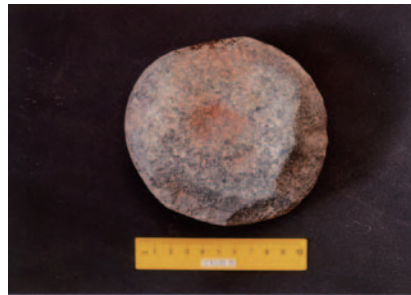
Stone cooking pot



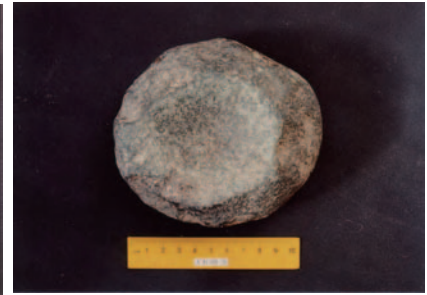
Stone vessels



Stone tools



Stone tool



Stone tool



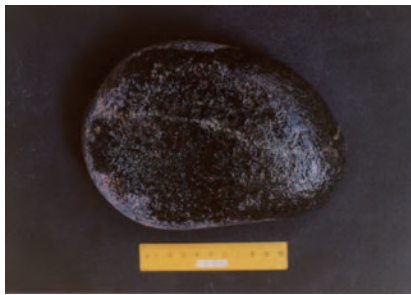
Stone tool



Stone



Stone tool



Stone tool



Stone tool

Figure 23 Finds from the 1989/90 season, A'Ali