AN ARCHAEOLOGICAL SURVEY OF THE LOWER AGUAYTÍA RIVER, EASTERN PERU

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The culture history of the Peruvian montaña is beginning to be fairly well known, primarily through the efforts of Donald W. Lathrap and his students. For the most part, their work has been concentrated upon the Ucayali River and its principal tributary, the Pachitea. This paper contributes information gathered during a two week survey of the Lower Aguaytía River, the second largest tributary of the Ucayali below its formation at the juncture of the Tambo and Urubamba Rivers (fig. 1). The survey was carried out in June of 1964 while the author was a Research Assistant to Donald W. Lathrap on a grant from the National Science Foundation (GS-310).

Although there is little commerce on the Aguaytía today,[1] among all the tributaries of the Ucayali its watershed is second in size only to that of the Pachitea. Because of its size, the volume of water that it carries and, most important, the nature of the terrain through which it flows, the lower Aguaytía must be included among the prime regions of the Amazon Basin for aboriginal occupation. Nevertheless, it is very close to the edge of the river system, and a group moving upstream would soon find that good land was becoming extremely restricted. Still, there is enough flood plain to support large populations with a riverine economy little different from that which was practiced on the Ucayali itself. This fact is of no small importance to peoples who rely upon the availability of good bottom land, well drained uplands and abundant fish resources.

The culture history of the Aguaytía is of particular interest because its headwaters drain the mountains directly to the east of Tingo María on the Huallaga River. From Tingo María it is only about 120 km. upstream to the site of Kotosh in the Huánuco Basin, a site which was of considerable importance throughout Central Andean prehistory. All of these areas seem to have been linked in some fashion prior to the Early Horizon in the Central Andes; and there appear to have been continuing cultural relationships between the Tingo María area and the Central Ucayali.[2]

For the distance surveyed, the Aguaytía is a broad, fast-moving river which meanders through its own alluvium. At the time of the survey, which was in a very dry year, the banks stood high above the river and sandbars stretched into it like peninsulas. The river was so low that it was sometimes necessary to plumb the depth of the water to be certain that our motor-driven dugout canoe could pass. Dense tropical rain forest bordered the river on both sides, but here and there a mestizo house was visible behind a garden patch or a cow pasture. Indians typically lived farther inland, the sites of their houses being marked on the river only by a footpath which led down to the water where their canoes were moored.

The survey was carried only to the first rapids beyond which the canoe could not pass without a portage. Above this point my Shipibo friends did not know of any friendly Indian settlements and expressed a fear of the Cashibo. Without friendly Indians, the probability of our finding sites was considerably reduced since it has been our experience that it is practically impossible to find sites in the tropical forest without the aid of longtime residents. Mestizos are too recent in the area to be much help but the Shipibo are particularly helpful since their language contains a word for "potsherd" and they remember old ones that they have seen.

The most productive method of survey used on this trip consisted of simply asking the local inhabitants if they knew the whereabouts of any ancient pottery. In the course of this questioning we stopped at almost every settlement along the river. The mestizos whom we questioned were little interested, though one woman was very much impressed by the fact that we were making this trip solely for the knowledge that we would gain from it. The Shipibo with whom my companions talked seemed much more interested in the question and often told us about ill defined locations far beyond the range of the present survey. On local questions they were less helpful. At only one village of the many we visited were they able to tell us about any sites with old pottery. These sites were recorded as AGU 1 and AGU 2. In addition to questioning, stretches of high ground along the river were regularly examined, as were sandbars after the Shipibo told us about the sherds on AGU 1. Several ox-bow lakes were also visited, but these proved to be well within the flood plain without near-by uplands.

The materials recovered during the Aguaytía survey appear to be relatively late, probably later than 900 A.D. At the time of the survey we could not account for the universally late date of the material found and so attributed it merely to bad luck. Since that time, Lathrap's study of Ucayali meander patterns[3] has shown that we were exceedingly lucky to find anything at all, since the Aguaytía probably has moved back and forth across its floodplain several times in the last thousand years. If the area surveyed had been occupied at an early date, the meandering path of the river would almost certainly have destroyed all traces of such settlements. Indeed, the four sites that we did find were exposed by the cutting action of the river. All are certainly gone by now. Under these conditions it would seem unlikely to find early archaeological sites on the alluvial plain. Indeed, all early sites found in the Peruvian montaña have either been on the levees or hills at the edge of the modern flood plain or on the upper tributaries where the flood plain is virtually nonexistent. However, at the time of the Aguaytía survey we were not aware of the pattern of early site locations.

Site Descriptions

Archaeological remains were found at four locations on the lower Aguaytía. Of these four, three (AGU 1, AGU 3, AGU 4) were playa sites where the river had redeposited sherds after destroying the

archaeological site from which they came. Since the cultural context has been lost, there is little point in describing the sites beyond noting that AGU 1 was located a short distance downstream from the AGU 2 site and that AGU 3 and 4 were a little upstream from AGU 2 (fig. 1).

The fourth site, AGU 2, had been only partially destroyed by the river. It was located on the high southern bank of the river, about an hour upstream from Barranco, and half an hour downstream from Nueva Requena to which I was told a road was being built. Neither of these settlements is noted on any map that I have seen and the town of Naranjal that I visited was on the Ucayali near the mouth of the Callería River. It may be that the site of Naranjal was moved since the maps were drawn, an event which has many precedents in montaña history. In any case, the location of the AGU 2 and other sites on the map is only approximate.

The level surface of AGU 2 was covered with trees, brush, grass, and some yarina palm. The remains of a Shipibo house, with a bit of the roof still in place, were also present; and an overgrown foot path led back into the forest, ultimately to the Shipibo village on the other side of the bend. Following the path into the forest, it was apparent that the present surface of the site was slightly higher than the ground immediately behind it. Although this feature may have been relevant for the most recent inhabitants of the site, the surface contours were apparently quite different at the time of its prehistoric occupation.

Examination of the river bank revealed that sherds were still in place for some distance along it. Further, it was observed that the in situ sherds near where we had beached our boat were considerably closer to the present surface than those a short distance upriver. In order to test the significance of this observation a series of test pits were spaced along the bank, parallel to the river, for a distance of 90 feet. In addition, Square 5 was placed 28 feet from the bank and Square 2 was placed 55 feet from the bank in order to determine the remaining width of the site (fig. 2). Although no pit was completely sterile, the fact that refuse was relatively sparse in Square 2 suggests that it was very close to the edge of the deposit.

With the exception of Square 3, all excavation units were 5 foot squares. Square 3 was an extension of Square 1, opened to expose a feature which appeared in the southwest quadrant. Three inch vertical controls were maintained in all excavation units.

The feature in Square 1 was encountered at a depth of 18 inches in the southwest quadrant. It was a shallow, basin-shaped pit, 20 inches in diameter and 7.5 inches deep. In it were found 36 undecorated sherds, 3 large vessel fragments and 15 ceramic topia (fire dog) fragments. Modern tribes use topia in sets of three to support pots on the fire.[4] The relative frequency of topia fragments suggests waste from a cooking fire area although no charcoal was found.

The natural stratigraphy of the site is not uniform (fig. 3).

Over a distance of 90 feet along the river bank the soil column changes from being entirely clay in the northernmost pit (Square 1) to sand overlying clay in the next pit (Square 8) to entirely sand in the next two pits (Squares 4 and 7) back to sand overlying clay in the southernmost pit (Square 6). In Square 2, some 45 feet to the east of Square 8, the deposit is entirely clay, whereas in Square 5, some 15 feet to the east of Square 7, sand overlies clay. This variation in the natural stratigraphy at AGU 2 contrasts sharply with single phase occupation sites excavated at Yarinacocha and at Sarayacu where the stratigraphy tends to be consistent over relatively great distances.[5] Hence, the depositional history of AGU 2 must warrant a separate explanation.

If we assume that a line connecting the points of maximum refuse concentration in each square approximates the surface of the site at the time it was occupied, the resulting cross section looks very much like the distinctive ridge and swale pattern of a point bar, a characteristic geomorphological feature of a meandering river. Point bars form on the inside of a meander loop where the current slows down to the point where it can no longer sustain the movement of the pebbles, sand and clay that it carried at greater speeds. Typically the heavier particles would drop out first so we should expect to find a layering of first stones, then sand, then clay. At AGU 2, sand overlies clay in some squares. This anomaly can be accounted for if the stratigraphic situation at the site is the product of an alternating hydraulic regime, i.e., of two high water periods rather than of one. Or, the site might have been on a backwater which was invaded by water of different velocities. Each time, stone, sand and clay would have been deposited in the normal fashion but if the water level of the second period were somewhat higher than in the first, sand might be deposited on top of clay, thus producing the stratigraphy observed at AGU 2. Since the lower Aguaytía flows through alluvial land, a point bar formation is the most likely explanation for the stratigraphic situation at the time of occupation. But we have also to account for the later accumulation of soil over the surface of the site. This is easily done, since later flooding would have tended to level the land surface as the river continued to entrench itself. Such flooding might also account for the scattering of sherds far above the point of maximum concentration in Squares 5, 6, and 7, since the flood waters could have moved them from areas where the original ground surface was somewhat higher as, for example, Square 8.

The distribution of artifacts far below the point of maximum concentration in Squares 4, 7 and 8 must be accounted for in a different fashion. Each of these squares has a sandy soil in which objects would tend to migrate fairly readily if subjected to mechanical mixing. The sheer quantity of refuse indicates that the site was intensively utilized during its occupation, a situation which would tend to encourage the migration of artifacts at the same time that it obliterated soil features.[6]

Elsewhere I have suggested that the most likely interpretation of the natural and cultural stratigraphy of the AGU 2 site is that it

was a sandbar which was briefly occupied during the low water season for the purpose of capturing turtles and digging up their eggs which were deposited as much as a meter below the surface.[7] If we imagine that some eggs were processed before others were dug up, the refuse accumulated during the interim might have been thrown into the open pits which were later filled with back dirt from new excavations. Consequently, we might expect the outlines of these pits to appear in the natural stratigraphy. Prehistoric excavations are normally discernable either because of a change in soil texture or a change in soil color, usually due to an increased organic component. Since the areas in question were composed entirely of alluvial sand with little or no organic content, little soil change could be expected from this source. There remains organic material from human refuse. Since the occupation of the site probably endured no more than a few weeks at most, however, relatively little organic material would have accumulated, and this would have been thoroughly mixed in the course of digging the eggs. Sherds did accumulate, because pottery was intensively utilized.

Ceramic Classification

A little over 2800 sherds were collected during the survey of the lower Aguaytía River. Of these, almost 90% came from the AGU 2 site where they were found *in situ*. This sample is considered adequate for the definition of the Aguaytía Complex. The number of sherds from the other three sites is very much smaller and is not adequate for the definition of a new ceramic complex, even without the further problems raised by the fact that the sherds were found in secondary deposits. Nevertheless, limited comparisons between each of these assemblages and the Aguaytía Complex suggest that at least two ceramic complexes are represented, although the definition of the second complex must await a larger sample with good provenience data.

The AGU 1 assemblage

A total of 219 sherds was collected from the upriver end of the sandbar designated AGU 1 (Table 1). From the position of the sherds and from their rounded edges it is apparent that they had been brought to this location by the river. One or the other surface of these sherds is typically a dull black in color while the other surface ranges from orange to buff and the core is commonly light gray. Since either the exterior or interior surface, but rarely both, may be blackened all over, it seems likely that this coloration may be attributed to secondary conditions such as burning or the action of fungus. Otherwise, the light surfaces and gray core suggest firing in an oxidizing atmosphere which was not sustained long enough to completely oxidize the vessel. All sherds contained sherd temper. The tendency of sherds to break in horizontal planes and the occasional presence of horizontal undulations on the surfaces suggest that pottery was manufactured by the coiling technique. On very thick sherds the coils were as much as 2.5 cm. wide.

In using AGU 1 pottery for comparative purposes, one should keep in mind that there is no assurance that all of these sherds in fact

belong to a single ceramic complex, or even that they were all derived from the same site. Nevertheless, examination of the sherds themselves suggests that only one or two diagnostic sherds are sufficiently distinct so that they do not fit easily into the range of variation suggested by the rest.

Vessel form. Five vessel forms were defined from sherds.

A. Flared bowls (3 examples) have straight walls which appear to descend directly to the base (fig. 4). All rim sherds have direct rims with rounded lips. Mouth diameters range from 22 to 30 cm. (Table 2); and sherd thickness ranges from 7 to 9 mm.

B. Slant sided bowls (15 examples) have upper body walls which appear to be either straight or slightly concave, sloping directly to the base (figs. 5, 6). While the angle of the rim to the horizontal is variable within the class, it is always greater than that of the flared bowls. Thirteen of the rim sherds have direct rims with rounded lips, one sherd has an everted rim with rounded lip, and the last sherd has an expanded lip which was apparently produced by placing a strip of clay perpendicular to the rim around the mouth of the vessel, extending about 5 mm. toward the interior and 2 mm. toward the exterior. This unusual rim form falls outside the general run of rims from AGU 1. It may be idiosyncratic, imported or intrusive. Measurable mouth diameters of this vessel form range between 14 and 32 cm. with the majority clustering between 22 and 32 cm. (Table 2). Vessel wall thickness ranges from 4 to 18 mm. with all but three examples between 6 and 10 mm. The very thin example belongs to the unusual rim form described above, and the very thick example may belong to a vessel type which may have been functionally distinct, although it belongs with the slant sided bowls. Thirteen rims of this form category have a plain surface finish, 1 has a roughened surface, and 1 has incised decoration.

C. Neckless ollas or incurved bowls (2 examples) have slightly convex upper walls (fig. 7), but since there is no indication of a corner point or an inflection point, it is impossible to determine the height of the upper portion of the vessel. Mouth diameters are 26 and 28 cm. (Table 2); wall thicknesses range from 9 to 10 mm.

D. Collared ollas or incurved bowls (2 examples) are identical to Form C except that the rim is slightly upturned and the remaining segment of the upper body wall is straight to slightly concave (fig. 8). Both rim sherds suggest a mouth diameter of 26 cm. (Table 2); thickness ranges from 9 to 10 mm.

E. A necked vessel is indicated by one rim sherd (fig. 9). The neck is 3 cm. high and joins the upper body wall with an abrupt curve. The vessel has a direct rim with a rounded lip. The mouth diameter is 5.5 cm. The vessel wall thickness is 10 mm.

Modifications of the vessel wall. Four sherds indicate some sort of shoulder angle in the vessel wall. From the apparent angle of

these shoulders to a horizontal plane, at least 2 of them (fig. 10) appear to be fragments of ollas or incurved bowls, while a third (fig. 17) may have been part of a slant sided bowl.

Base form. Two base forms can be recognized at the AGU 1 site.

A. A flat base (14 examples) in which the body walls rise directly from the base (figs. 4, 5, 11). Flat base diameters range from 6 to 28 cm. with a clear mode at 12 cm. (Table 2).

B A pedestal base (1 example) in which there is a short almost vertical rise before the lower vessel walls expand from the base (fig. 12). Basal diameter is 12 cm.

Decorative modes. The vast majority of AGU 1 ceramics bear no trace of decoration. The absence of painted decoration may be due to the fact that the sherds had been carried some distance by the river, but the occurrence and classes of plastic decoration must be taken as representative of the assemblage as a whole. The plastic decoration falls into three categories: incision, surface roughening, and notching (Table 1).

A. Shallow incised decoration was found on 4 sherds, in one case combined with notching. From the evidence available, a number of design reconstructions could be made, but 3 of the incised sherds (figs. 13-15) could be incorporated into a band design such as the one shown in figure 16 which is reconstructed from sherds. The designs on the fourth sherd (fig. 17) are not so readily compatible with this design unless there were a marked change in the modular width of the zone between the incised lines. However, these designs could be easily incorporated in the "lattice" design visible on sherds from AGU 2 (fig. 56).

B. Surface roughening takes a number of forms at AGU 1. On 6 sherds corrugations, possibly of the print overlap style described for AGU 2, are faintly visible. However, the traces of corrugation are extremely ill-defined and might have resulted more from careless smoothing of the vessel surface than from any positive intention. Surface roughening was also accomplished by diagonal finger dragging with the fingers close together. On another piece, a flat-ended, flat-sided instrument appears to have been used to impress rows of roughly triangular impressions around the vessel (fig. 18). Finally, a very distinctive form of coil overlapping was used to give an all over roughness to the vessel (fig. 19). On this sherd the bottom of the coils extended a full 6 mm. from the surface of the vessel.

C. Notching at the shoulder angle was combined with incisions on one sherd (fig. 17), but on this sherd two modes of notching were employed in this zone. In the first mode, a diamond shaped piece of clay was removed from the shoulder angle; a little further along the shoulder angle diagonal cuts were substituted for the diamond shaped notches.

Aguaytía Complex

A total of 2487 sherds and ceramic objects were excavated at site AGU 2 (Table 3). The bulk of the sherds range from tan to dull orange in color, with extremes to bright orange and dull black; the latter probably represent fire clouds. The tendency of sherds to break parallel to the rim, shoulder or base suggests that vessels were formed by coiling. Sherd temper was identified in all fragments, but a few also contained a little fine sand, probably native to the clay source. In general, both surfaces of a sherd are quite soft but the core is harder, suggesting that differential weathering may have caused some surface deterioration. All vessels appear to have had a circular horizontal cross section. Sherd thickness, measured 2 cm. below the rim, ranges from 5 to 16 mm., with the mode at 7 mm. A group of olla rims have a thickness from 18 to 26 mm.

Vessel form. Seven vessel shapes and a ceramic griddle (comal) were defined from sherds and large vessel fragments.

A. Flared bowls (74 examples) have upper walls which tend to be straight to slightly convex (figs. 20-22, 46, 47, 49, 62). Most commonly, rim sherds of this form have direct rims with rounded lips, but direct rims with flattened or thickened lips are also found as well as one everted rim with a rounded lip (Table 4). Step shoulders (wall modification C) may have been associated with this vessel form (fig. 26). Mouth diameters of this vessel form range from 14 to 38 cm. with a mode of 26 cm. (Table 5).

B. Vertical sided bowls (41 examples) have vertical to slightly sloping upper walls which are sometimes slightly concave (figs. 23-25, 57). All rims assigned to this category are direct rims with rounded lips (Table 4). Mouth diameters range from 6 to 34 cm. with apparent modes at 15, 20, and 25 cm. (Table 5).

C. Neckless ollas (52 examples) are impossible to distinguish from incurved bowls on the basis of the rim alone (figs. 27-29). In all likelihood, both are present. Mouth diameters of this category range from 12 to 32 cm. in diameter with a modal diameter of 22 cm. (Table 5). Most commonly, upper body walls are convex to straight and even concave varieties are also present. Unfortunately, due to the small size of most of the sherds it is impossible to quantify the relative popularity of these three varieties. Rounded lips are predominant but flattened and thickened lips also occur (Table 5).

D. Thick walled neckless ollas (8 examples) appear to constitute a distinct vessel form (fig. 30) not only because of their greater wall thickness, but also because mouth diameters are typically much greater than those of Vessel Form C, ranging from 28 to more than 50 cm. (Table 5). Direct rims with rounded lips are universal on this vessel form.

E. Collared ollas (8 examples) have upper body walls which tend to be less sharply curved than those of the neckless ollas (figs. 31, 32).

All examples of this vessel form have rounded lips. Mouth diameters range from 12 to 18 cm. (Table 5).

F. Everted rim ollas (8 examples) have lips which bend outward. Usually there is an internal corner point which distinguishes the rim from the body of the vessel (figs. 33, 34, 44, 45). Vessel walls tend to be less sharply curved than those of neckless ollas. Rounded lips are universal. Mouth diameters range from 14 to 28 cm. (Table 5).

G. Jars (2 examples) have flared mouths which rise about 6 cm. above the body of the vessel. Both examples have rounded lips and bear incised decoration (figs. 56, 59). Mouth diameters are 12 and 20 cm. (Table 5).

H. Comals are represented by a single example (fig. 35) with a diameter of 32 cm.

Wall modifications. Three modes of wall modification have been identified for the Aguaytía Complex.

A. Angles (14 examples) with out-turned or vertical upper sections must have belonged to some sort of composite silhouette vessel such as a jar (figs. 36, 50) or double bowl (fig. 37).

B. Angles (26 examples) with insloping upper sections or sharp curves (figs. 38, 51, 53, 54) probably mark the shoulder angles of incurved bowls, ollas or jars.

C. Angles (1 example) with an outsloping upper section (fig. 55) probably belong to a flared bowl.

D. Step shoulders (3 examples) are characterized by an abrupt change in the plane of the exterior vessel wall in which the diameter of the wall below the step is slightly greater than that which is above it (figs. 26, 39). It has been suggested that this form may be no more than overlapping coils. Although this explanation is certainly possible, the presence of this form in the Cumancaya Complex at Yarinacocha indicates that it had appeared by the early 9th century A.D. on the central Ucayali.[8] It is a common feature of Shipibo-Conibo pottery.[9] Hence, it is entirely possible that it could also have been present in the Aguaytía Complex.

Base form. It is extremely difficult to make a consistent classification of base forms in the Aguaytía Complex. Ultimately, three forms were identified.

A. A flat base which leads directly into the body wall (figs. 40, 41) is the most common form (31 examples) though there is considerable variation in the angle between the vessel wall and the base. Base diameters of this form range from 10 to 26 cm. (Table 5).

B. A pedestal base with a vertical rise of about 1 cm. (fig. 42)

is represented by 9 examples. Base diameters range from 10 to 18 cm. (Table 5).

C. An annular base was formed by adding a ring of clay to the bottom of a flat base (fig. 43). The single example of this base form has a diameter of 8 cm.

Decorative techniques. Decorated sherds are relatively scarce at AGU 2. Less than 4% of all sherds bear any sort of plastic decoration; and just over 1% give any indication of having been painted (Table 3). Painted sherds may, however, have been much more common at the time the site was occupied since even on sherds identifiable as having been painted, no more than a few specks of paint are present. Apparently, the rest of the paint was removed either by the environment or by washing after excavation. In all likelihood, the paint from many other sherds was entirely removed.

A. Corrugation. 17 rim sherds and 30 body sherds bear corrugated decoration. Since no bases and only one shoulder angle bear evidence of this class of decoration we may presume that corrugation was confined to the upper portions of the vessel. However, of this total, only 27 bear corrugation marks that are sufficiently distinct to determine which corrugated mode was employed:

1. Print overlap corrugated decoration, with individual finger prints in a row and file pattern (figs. 44-47), was the most common mode (22 examples)

2. Offset print corrugated decoration (fig. 48) differs from the print overlap mode in that the vertical edges of individual fingerprints are not parallel to those above and below, but rather are parallel to the center of the inferior and superior coils which, in turn, are parallel to each other. This mode is represented by a single sherd.

3. Unobliterated coil corrugated decoration (4 examples) may have been achieved by the simple expedient of not smoothing or scraping the exterior surface of the vessel in the finishing process (fig. 49). Apparently, this decorative mode was employed only near the rim of the vessel since no body sherds bearing this mode of decoration have been identified. This restriction may have functional significance in that unjoined coils on the exterior surface may have significantly weakened the structure of the vessel.

B. Incision. A total of 35 sherds bear incised decoration. Within this number 4 modes of application can be identified, no 2 of which are ever combined on the same sherd.

1. The fine line incised mode (14 examples) was executed with a sharply pointed tool drawn lightly across the surface of the unfired vessel. Lines vary from less than 1 mm. to approximately 2 mm. in width.

2. Deep line incised decoration (7 examples) appears to have been made with a tool similar to that employed for fine line incised, but drawn with a much firmer stroke since the incised lines penetrate to a depth of approximately 2 mm.

3. For wide line incised decoration (14 examples) a tool with a rounded working edge some 8 to 10 mm. wide was employed, achieving a depth of 1 to 2 mm.

4. Nail incised decoration (2 examples) was achieved by impressing the fingernail into the soft clay of the vessel surface before firing.

5. Diamond shaped notches were used to embellish the shoulder angles of two sherds (figs. 50, 51).

C. Painting. At the AGU 2 site only 29 sherds bear any evidence of painted decoration. These include 25 sherds which were apparently red slipped, 2 black slipped, 1 white slipped, and 1 sherd with traces of maroon on red decoration. The frequency of red slipped decoration is similar to that occurring at the sites of the Pacacocha Tradition at Yarinacocha.[10] However, at those sites, fragments of red ochre were quite common in the excavations whereas at AGU 2 only a single piece was found. Assuming that red ochre was used for pigment in both areas, as seems likely, this discrepancy fits the hypothesis that the sites at Yarinacocha were year round habitation sites whereas AGU 2 was a specialized turtle harvesting camp.

Rectilinear designs. All the rectilinear designs which have been identified appear to be band designs on the upper portion of the vessel. The top edge of the band most commonly is the rim of the vessel, but occasionally is a line drawn parallel to the rim. The bottom edge of the band is not usually marked, but in one instance the band is terminated by a horizontal incised line.

A. The most common mode of rectilinear band design employed by Aguaytía potters is composed of vertical zig-zags around the vessel (figs. 52-55). On the single rim sherd on which this design has been identified there is an incised line parallel to the rim that marks the upper edge of the band. On another sherd this design seems to be terminated by an incised line. A body sherd with shoulder angle indicates that this design motif was sometimes carried below the point of maximum diameter with an angle of the design being placed at the shoulder (fig. 53). Usually this motif was executed with wide line incisions, but it also was drawn with the deep line technique and, on one example, with the fine line technique (Table 6).

B. Another rectilinear motif is an open lattice work design in which large diamond-shaped spaces were left between the pieces of the lattice. Usually, these diamonds were not filled (fig. 56) but on occasion a rectilinear scroll was placed within the open area (fig. 57). The lattice work was drawn with single, double or triple lines, drawn separately, rather than with a multi-pointed tool;

on a single vessel both double and triple line modes might be employed (fig. 56). All 7 examples of the lattice motif were found between a depth of 12 and 21 inches in Square 4. The lattice design was drawn only with the fine line incised mode (Table 6).

C. The third mode of rectilinear band design is somewhat different from the previous two in that the design appears to be set off in diagonal panels from which truncated "V" designs are extended either up or down (fig. 58). Only 2 examples of this design were found. One was drawn with the fine line technique, the other with the wide line technique (Table 6).

D. The final form of rectilinear band design may be termed a rectilinear undulating design (fig. 59). It was positively identified on only one sherd though another sherd on which there is only a single horizontal line may also belong to this design category (Table 6).

Curvilinear designs. Since the sample of curvilinear designs (figs. 60-62) from the AGU 2 site is so small it is impossible to say very much about the design motifs. Nevertheless, it should be noted that the AGU 2 curvilinear designs could be compatible with the curvilinear design motif reconstructed from sherds at AGU 1 (fig. 16).

Other ceramic objects. As indicated in Table 3, a number of other ceramic objects were recovered from excavations at site AGU 2. These include 7 amorphous lumps of clay or sand which are common in central Ucayali sites of all periods.[11] In fact, the number of such lumps at AGU 2 is unusually small and may have something to do with the supposed function of the site.

A. Topia (fire dogs). Fully oxidized chunks of tempered pottery are abundant at AGU 2. Apparently, they come from solid hyperboloid objects with diameters of 8 to 12 cm. at both extremes (fig. 63). They are identified as topia which were used in sets of three to support a cooking pot over the fire.

B. Spindle whorls. Solid clay spindle whorls were also utilized by the former inhabitants of AGU 2. The 2 examples have somewhat different shapes (figs. 64, 65).

The AGU 3 assemblage

Only 22 sherds were collected from the sandbar designated AGU 3. These include 16 plain body sherds, 2 plain rim sherds, 2 plain and 1 incised body angle sherds, and 1 plain base. All sherds had sherd temper and light black surfaces and cores.

Vessel form. The small sample of sherds suggests that three vessel forms were present.

A. Both rims (fig. 66) are from flared bowls,

apparently with very large diameters. There is a marked difference in the thickness of the two rims, suggesting that the vessels from which they came might have had different sizes and functions.

B. The sherds indicating shoulder angles (fig. 67) suggest a vessel with almost vertical upper walls which then angle in to meet the base, similar to Vessel Form B of the Aguaytía Complex.

C. The incised sherd (fig. 68) suggests a necked vessel.

Decoration. The incised decoration on the necked vessel sherd suggests a decorative zone below the neck of a jar (fig. 68). The upper part of the zone was set off by a horizontal line below which a series of diagonal incisions was made. The incisions on the left of the sherd slant from lower left to upper right whereas those on the right of the sherd slant from lower right to upper left, leaving an inverted "V" between the two zones.

The AGU 4 assemblage

A total of 110 sherds was collected from the playa site designated AGU 4 (Table 7). Like sherds from other playa sites, these were frequently blackened on one surface while the other was dark orange color obtained through firing in an oxidizing atmosphere though only one sherd was completely oxidized. Sherd temper was universal. The undulating surfaces and the tendency for parallel fracture suggest that they were manufactured by coiling.

Vessel form. All of the rims from AGU 4 appear to belong to open bowls. There is considerable variation in the angle of the rim to horizontal, ranging from approximately 50° to 90° with most falling at about 70°. Five rims appear to be slightly out-turned with rounded lips (figs. 70, 75, 76, 80); one is out-turned with an exteriorly thickened lip (fig. 81); and one is out-turned with an interiorly thinned lip (fig. 77). The other two are direct rims with rounded lips (figs. 69, 74). Mouth diameters range from 18 to 42 cm. (Table 8). The absence of shoulder angles from this site suggests that the walls of the vessels sloped directly to the base.

Base forms. Base forms from AGU 4 include flat bases (fig. 71), pedestal bases (fig. 72) and an annular base similar to that found in the Aguaytía Complex. The contours of this annular base are somewhat asymmetrical (fig. 65). Base diameters range from 10 to 18 cm. (Table 8).

Decorative technique. The frequency of decorated sherds at AGU 4 is far higher than at any of the sites previously described. The difference is so substantial that it seems likely to reflect a real difference between the ceramic industries rather than a deficiency of the sample, even though the sample from this site is quite small.

A. Incised. Incised decoration is found on 11 sherds

(figs. 74-80). Although the width of the incisions varies from 0.5 to 3 mm. there does not seem to be any clustering of line widths to suggest that a narrow line mode should be distinguished from a broad line mode. Rather, stylistic tenets appear to have allowed considerable latitude in the size and form of stylus employed.

B. Gouged. In gouged decoration a broad stylus was used to remove vertical pieces of clay about 1 cm. long. Apparently, such gouges were taken out of each structural coil to achieve a roughened surface that resembles corrugated decoration in its general appearance (figs. 81, 82).

C. Finger grooved. On the single finger grooved sherd from AGU 4 the fingers appear to have been drawn diagonally across the surface of the soft clay with enough pressure to effect an all over surface roughening.

Rectilinear designs. Rectilinear designs emphasize diagonal lines in various combinations which include 3 examples of simple diagonal hatching (fig. 74), an example of all over crosshatching (fig. 78), and an example of diagonal hatching to a perpendicular line (fig. 77). A zig-zag design is also found on 2 sherds (fig. 75). One sherd bears a single straight incised line; another bears a horizontal line above which are a series of short vertical lines (fig. 80); and another some sort of "V" design (fig. 76).

Curvilinear designs. A lenticular design was formed by two sets of three parallel lines (fig. 79).

Stone Tool Classification

All of the stone artifacts recovered during the Aguaytía survey came from excavations at AGU 2. The raw material was probably obtained from alluvial deposits such as the one found at the rapids about a day's journey upstream from AGU 2. This deposit is still of sufficient interest to the Shipibo that I had been told of this source before leaving Yarinacocha. When we visited these rapids, each of the Shipibo who accompanied me collected a few stones to take back to Yarinacocha. Interestingly, the stones which they selected were not the sort appropriate for sharpening a machete but much smaller stones similar to those described below as grinding stones.

Flakes or chips

Twelve chert flakes or chips, some with cortex still in place, were found. None of these was retouched nor do they show any signs of having been utilized as tools in their present form, although they might have been accidentally knocked off a hammerstone.

Grinding stones

Four small grinding stones, made from tabular cobbles, were also found. The raw material is a fine-grained rock, apparently of sedimentary origin with the working surfaces parallel to the natural geologic strata. Three of the 4 grinding stones had working surfaces on both faces. Five of the working surfaces were oval to circular in form while the other 2 were linear in form. The sizes of these surfaces are:

1. 43 x 39 mm.; 36 x 8 mm.
2. 48 x 25 mm.; 33 x 25 mm.
3. 42 x 26 mm.; 25 x 15 mm.
4. 21 x 6 mm.; unworked.

The oval grinding surfaces appear to have been formed by a rotary motion whereas the linear surfaces were produced by a back and forth motion. These stones may have been used to sharpen arrows or to finish other objects of hard wood. A similar stone was used by one of the Shipibo to sharpen his pocket knife.

Hammerstones

The 4 hammerstones were made from waterworn chert nodules. The working surfaces were blunted to remove the sharp edges but were otherwise unworked. They vary in size and weight from that which would have been appropriate to pound a stake to that which might have been used to tap a peg in rather fine work.

Comparisons and Conclusions

Since the number of artifacts from three of the Aguaytía sites is so small, the validity of comparison among them is somewhat problematical. Nevertheless, there are several lines of evidence that suggest that AGU 1 and 2 belong to closely related culture complexes while AGU 4 is either more distantly related or belongs to a different complex.

The vessel and rim forms which characterize AGU 1 and 2 are very similar in spite of the fact that everted rim ollas and jars are not found at AGU 1, since neither form was very common at AGU 2. It should also be noted that the flared bowls of AGU 1 seem to be rather shallower than those of AGU 2.

Incised decoration was present at all four sites but was much more common at AGU 4 (10%) than at AGU 1 (1.8%) or AGU 2 (1.5%). Further, while the multi-line lattice motif and perhaps the triangle semicircle motif seem to have been shared by AGU 1 and 2, neither of these motifs appears at AGU 4.

Likewise, corrugated decoration is found at both AGU 1 and 2, whereas the surface roughening at AGU 4 was achieved either by finger

dragging, which was a supplementary technique at the other two sites, or by gouging, which is unique to AGU 4.

In sum, the assemblages from AGU 1 and 2 are rather similar in terms of shared vessel forms, decorative techniques and design motifs. On the other hand, the difference in apparent frequency of shared design motifs and the absence of certain vessel forms at one site or the other suggests certain cultural differences between them. Since the sites are only a few kilometers apart, space is not likely to be the relevant variable. More likely, the site occupations were separated by a sufficient length of time to allow these changes in the ceramic industry to take place. If vessel form change on the Aguaytía followed the same sequence as the Pacacocha Tradition at Yarinacocha,[12] where everted rim ollas followed upturned rim ollas in time, the AGU 1 site was probably a little earlier than AGU 2.

Since there is no direct evidence, such as radiocarbon determinations or intrusive materials, by which the Aguaytía Complex can be dated, we must rely on the less satisfactory method of cross-dating ceramic attributes. As pointed out above, the Aguaytía Complex shares a certain number of features with the Pacacocha Tradition at Yarinacocha. Bowls of a similar shape are found in both the Nueva Esperanza Complex, which has a radiocarbon date of 770 ± 105 A.D. (N-312) and with the Cumancaya Complex which is radiocarbon dated to 810 ± 80 A.D. (Y-1545) on the Rio Tamaya.[13] Likewise, collared ollas are characteristic of the Nueva Esperanza Complex, but everted rim ollas are characteristic of Cumancaya. Further, step shoulders, annular bases and incised decoration are also characteristic of the Cumancaya Complex. Therefore, we may conclude that the Aguaytía Complex dates to somewhere in the early ninth century A.D.

NOTES

[1]Faura Gaig, 1964, p. 316.

[2]Izumi and Sono, 1963, p. 121. Kotosh Rim Incised is defined as a ceramic type because of resemblance to incised rims from Yarinacocha. Lathrap and Roys, 1963, p. 35-37. The authors point out the similarities of Cave of the Owls Fine Ware to Early and Late Tutishcainyo, the two earliest components of the Yarinacocha sequence, and to the earliest components of the ceramic sequence at Kotosh.

[3]Lathrap, 1968.

[4]Tessmann, 1930, Kartogram 11.

[5]Myers, ms., and fieldnotes.

[6]I am indebted to Michael C. Roberts of the Department of Geography, Indiana University, for his incisive comments on my discussion of the geomorphology of the AGU 2 site. Of course, I must take full responsibility for any shortcomings of the statement.

[7]Myers, 1972.

[8]Myers, ms., p. 94.

[9]Vossen, 1969, Band 2, Fig. 12b, 15b, 17, 19, 23b, 36b, 48b, 62c.

[10]Myers, ms., pp. 62 and 96.

[11]Myers, ms.; Lathrap, ms.

[12]Myers, ms.

[13]Lathrap, 1971, p. 78.

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TABLE 1

Primary Classification of Sherds Recovered from AGU 1

Sherd Category	Decorative Mode				
	Plain	Incised	Notched and Incised	Roughened	Total
Rims	21	1	-	1	23
Shoulders	3	-	1	-	4
Bases	15	-	-	-	15
Body	167	2	-	8	177
Total					219

TABLE 2

Mouth and Base Diameters from AGU 1

	Diameter in Centimeters															
Vessel Form	6	8	10	12	14	16	18	20	22	24	26	28	30	32	Other	Total
Flared bowls									1		1		1			3
Slant sided bowls					1	1			1	1	1	1	2	1	6	15
Neckless ollas											1	1				2
Collared ollas											2					2
Necked vessel	1															1
Total																23
Base Form																
Flat	1	1	2	6		2			1			1				14
Pedestal				1												1
Total																15

TABLE 3

Primary Classification of Sherds Recovered from AGU 2

	Decorative Modes				
Sherd Category	Plain	Incised	Corrugated	Painted	Total
Rims	175	10	17	-	194
Shoulders	33	5	1	-	39
Bases	42	-	-	-	42
Body	2059	20	30	29	2138
Total					2413

Other Ceramic Objects		
Spindle whorls		2
Topia fragments		58
Fine clay lumps		5
Sandy clay lumps		2
Partial vessels		7
	Total	74

TABLE 4

Associations of Vessel Forms with Rim Forms, Lip Forms and Decorative Modes at AGU 2

Vessel Form	Rim and Lip Form: Direct Rounded	Direct Flattened	Direct Thickened	Upturned Rounded	Everted Rounded	Total
Flared bowls						
Plain	66	2	2	-	-	70
Corrugated	2	-	-	-	1	3
Nail incised	1	-	-	-	-	1
Total						74
Vertical sided bowls						
Plain	30	-	-	-	-	30
Corrugated	4	-	-	-	-	4
Incised	7	-	-	-	-	7
Total						41
Neckless ollas						
Plain	50	1	1	-	-	52

Thick neckless ollas						
Plain	8	-	-	-	-	8
Collared ollas						
Plain	-	-	-	7	-	7
Corrugated	-	-	-	1	-	1
Total						8
Everted rim ollas						
Plain	-	-	-	-	6	6
Corrugated	-	-	-	-	1	1
Incised	-	-	-	-	1	1
Total						8
Jars						
Incised	2	-	-	-	-	2
Comal						
Plain	1	-	-	-	-	1
Total						264

TABLE 5

Mouth and Base Diameters from AGU 2

Vessel Form	Diameter in Centimeters																								Other	Total
	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	50+		
Bowls																										
Flared					7	4	5	5	6	7	9	3	1	2	1		1								23	74
Vertical sided	1	2	1	1	4	4	2	4	1	4	5	2		1	1										8	41
Ollas																										
Neckless				1	2	4	6	7	9	6	2			3											12	52
Thick neckless												2					1	1	1			1		1	1	8
Collared				2	1		2																		3	8
Everted rim					1	2	1	2		1		1														8
Jar				1				1																		2
Comal														1												1
Total																										194
Base Form																										
Flat			5	1	4	2	1	1	2	1	1														13	31
Pedestal			1	1	2	1	2																		2	9
Annular		1																								1
Total																										41

TABLE 6

Association of Design Motifs with Modes of Incision at AGU 2

	Design Motifs					
Incised Mode	Zig-zag	Lattice	Truncated "V"	Undulating	Curvilinear	Total
Fine Line	1	7	1	2	3	14
Deep Line	7	-	-	-	-	7
Wide Line	13	-	1	-	-	14

TABLE 7

Primary Classification of Sherds Recovered from AGU 4

	Decorative Modes			
	Plain	Roughened	Incised	Total
Body	87	2	6	95
Rim	3	1	5	9
Shoulders	-	-	-	0
Bases	6	-	-	6
Total				110

TABLE 8

Mouth and Base Diameters from AGU 4

	Diameter in Centimeters																		
Rim Form	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	Other	Total
Open bowl					2			1	1	1					2		1	1	9
Base Form																			
Flat, curving			1	2															3
Pedestal					1														1
Annular	1																		1
Total																			5

KEY TO ILLUSTRATIONS

Plate X

Fig. 4. Reconstructed flared bowl with flat base, mouth diameter 22 cm., AGU 1.
Fig. 5. Reconstructed slant sided bowl with flat base, mouth diameter 24 cm., AGU 1.
Fig. 6. Slant sided bowl rims, AGU 1.
Fig. 7. Rim profiles of neckless ollas or incurved bowls, AGU 1.
Fig. 8. Collared olla (diameter 26 cm.) and rim, AGU 1.

Plate XI

Fig. 9. Jar fragment, mouth diameter 5 cm., AGU 1.
Fig. 10. Shoulder angles, probably from ollas or incurved bowls, AGU 1.
Fig. 11. Flat base fragments, AGU 1.
Fig. 12. Pedestal base fragment, AGU 1.
Figs. 13-14. Sherds with incised decoration, AGU 1.
Fig. 15. Slant sided bowl rim with incised decoration, AGU 1.
Fig. 16. Incised design, reconstructed from sherds in figures 13-15.
Fig. 17. Shoulder fragment of slant sided bowl with incised and notched decoration, AGU 1.
Fig. 18. Sherd with surface roughened with triangular impressions, AGU 1.
Fig. 19. Cross section of sherd with overlapped coil decoration, AGU 1.

Plate XII

Fig. 20. Flared bowl, diameter 22 cm., AGU 2.
Fig. 21. Flared bowl, diameter 16 cm., AGU 2.
Fig. 22. Flared bowl rims, AGU 2.
Fig. 23. Vertical sided bowl, diameter 20 cm., AGU 2.
Fig. 24. Vertical sided bowl, diameter 8 cm., AGU 2.
Fig. 25. Vertical sided bowl rims, AGU 2.

Plate XIII

Fig. 26. Reconstructed flared bowl with step shoulder, mouth diameter 26 cm., AGU 2.
Fig. 27. Incurved bowl, diameter 18 cm., AGU 2.
Fig. 28. Incurved bowl, diameter 18 cm., AGU 2.
Fig. 29. Neckless olla rims, AGU 2.
Fig. 30. Rims of thick walled neckless ollas, AGU 2.
Fig. 31. Collared olla fragment, diameter 14 cm., AGU 2.
Fig. 32. Collared olla rims, AGU 2.

Plate XIV

Fig. 33. Everted rim olla, diameter 12 cm., AGU 2.

Fig. 34. Everted rim olla rims, AGU 2.
Fig. 35. Comal rim, AGU 2.
Fig. 36. Possible neck fragments, AGU 2.
Fig. 37. Possible double bowl fragments, AGU 2.
Fig. 38. Shoulder fragments, AGU 2.
Fig. 39. Step shoulder fragments, AGU 2.
Figs. 40-41. Flat base fragments, AGU 2.
Fig. 42. Pedestal base fragments, AGU 2.
Fig. 43. Annular base fragment, AGU 2.
Figs. 44-45. Everted rim olla fragments with print overlap corrugated decoration, AGU 2.
Figs. 46-47. Flared bowl rims with print overlap corrugated decoration, AGU 2.
Fig. 48. Body sherd with offset print corrugated decoration, AGU 2.

Plate XV

Fig. 49. Flared bowl rim with unobliterated coil decoration, AGU 2.
Fig. 50. Jar neck fragment with notched decoration at shoulder angle, AGU 2.
Fig. 51. Notched shoulder angle, AGU 2.
Fig. 52. Vertical sided bowl with vertical zig-zag incised decoration, AGU 2.
Fig. 53. Shoulder fragment with vertical zig-zag decoration, AGU 2.
Fig. 54. Wide line incised decoration, possibly in vertical zig-zag motif, AGU 2.
Fig. 55. Shoulder fragment with vertical zig-zag decoration, AGU 2.
Fig. 56. Jar neck with lattice incised decoration, diameter 20 cm., AGU 2.
Fig. 57. Vertical sided bowl with lattice incised decoration, diameter 16 cm., AGU 2.
Fig. 58. Vertical sided bowl with truncated "V" incised decoration, diameter 16 cm., AGU 2.
Fig. 59. Jar neck with rectilinear undulating decoration, diameter 12 cm., AGU 2.
Figs. 60-61. Body sherds with curvilinear incised decoration, AGU 2.
Fig. 62. Bowl sherd with curvilinear incised decoration, AGU 2.
Fig. 63. Topia fragment, AGU 2.
Figs. 64-65. Spindle whorls, AGU 2.

Plate XVI

Fig. 66. Flared bowl rims, AGU 3.
Fig. 67. Cross section of shoulder angle, AGU 3.
Fig. 68. Neck fragment with incised decoration, AGU 3.
Fig. 69. Open bowl rim, direct with rounded lip, AGU 4.
Fig. 70. Open bowl rims, out-turned with rounded lip, AGU 4.
Fig. 71. Flat base fragments, AGU 4.
Fig. 72. Pedestal base fragment, AGU 4.
Fig. 73. Asymmetrical annular base, diameter 8 cm., AGU 4.
Fig. 74. Open bowl rim with diagonal hatched decoration, AGU 4.
Fig. 75. Open bowl with out-turned rounded lip and zig-zag incised

decoration, AGU 4.

Fig. 76. Open bowl rim with out-turned rounded lip and "V" design incised decoration, AGU 4.

Fig. 77. Open bowl rim with out-turned thinned lip and incised decoration, AGU 4.

Fig. 78. Sherd with incised cross-hatch decoration, AGU 4.

Fig. 79. Sherd with lenticular incised design, AGU 4.

Fig. 80. Open bowl with out-turned rounded lip and incised decoration, AGU 4.

Fig. 81. Open bowl with out-turned exteriorly thickened lip and gouged decoration, AGU 4.

Fig. 82. Sherd with gouged decoration, AGU 4.

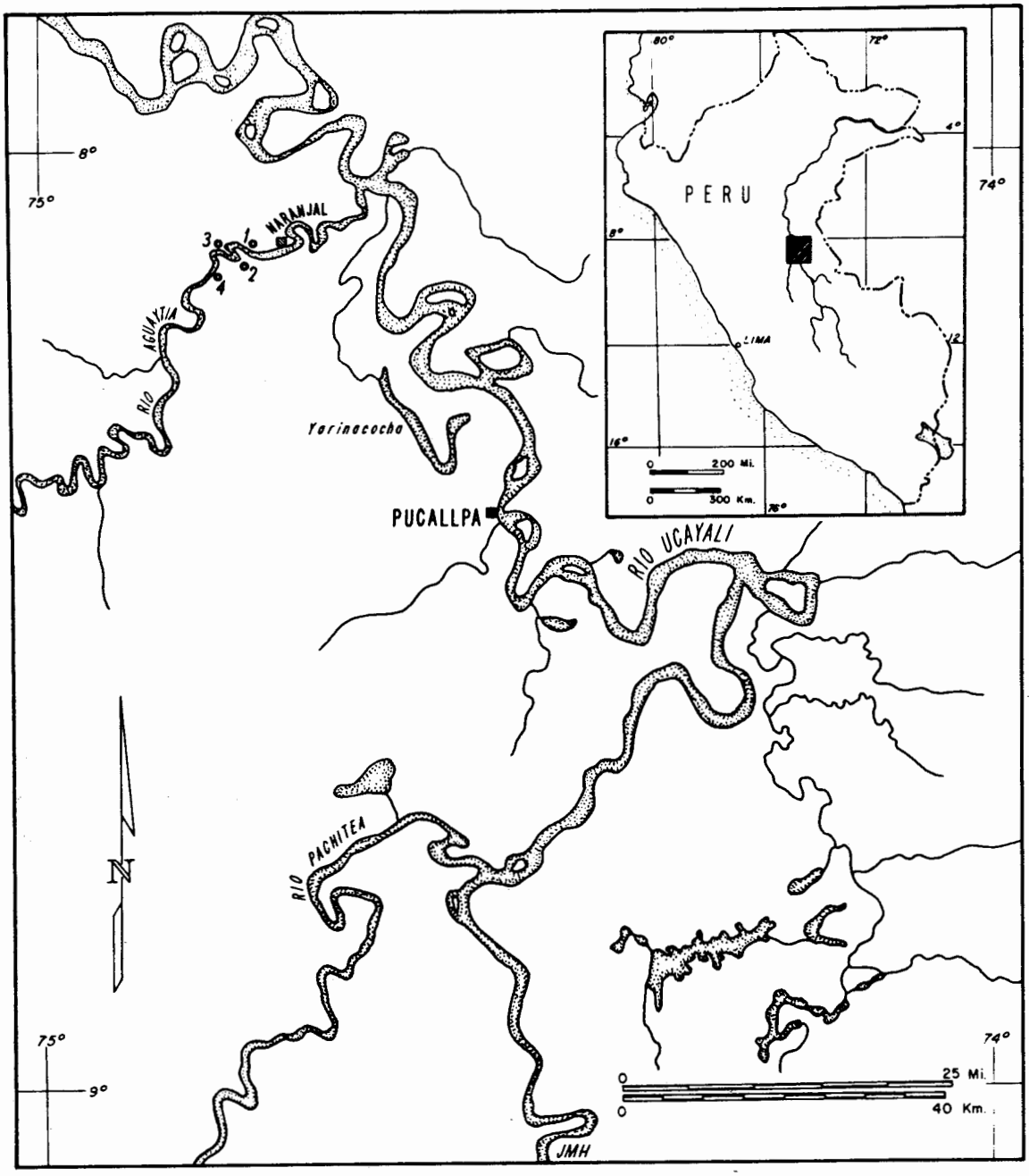
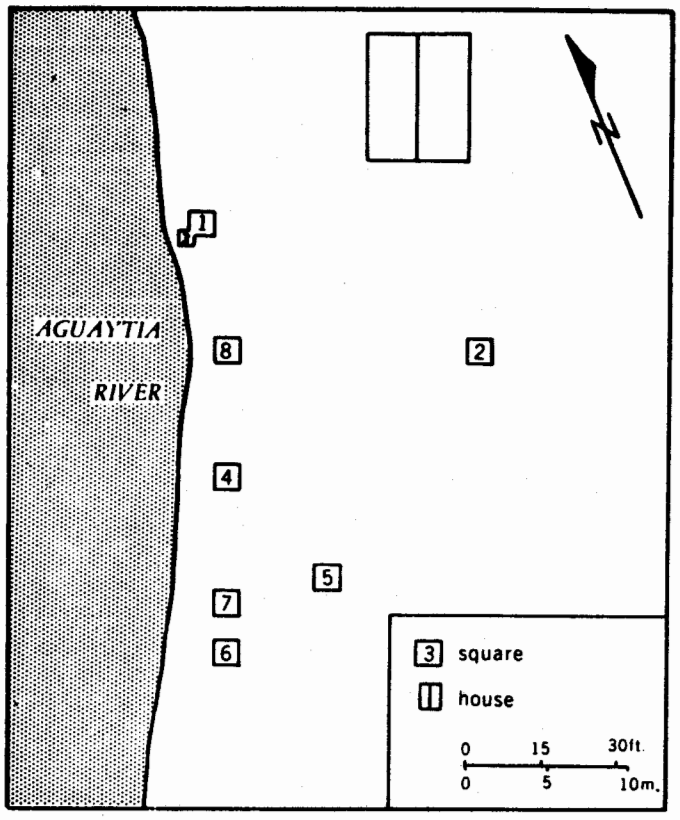


Plate VIII. Fig. 1, location of survey area. Figure 1 is based on a map from the Aeronautical Chart and Information Center, ONC N-25, 1st edition, 1965.



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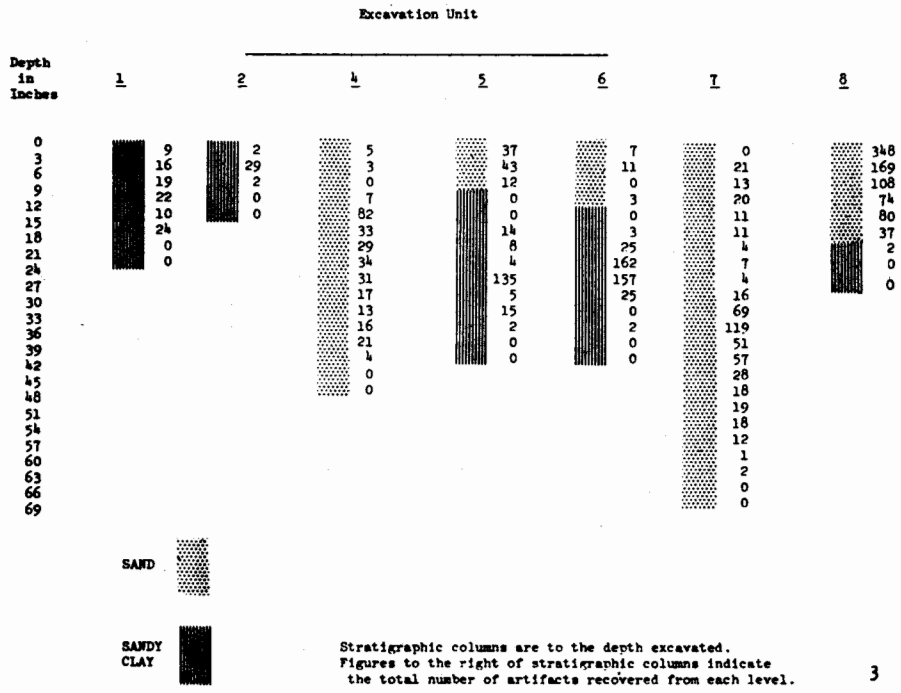

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Plate IX. Fig. 2, location of test pits at site AGU 2. Fig. 3, natural stratigraphy and artifact counts from site AGU 2.

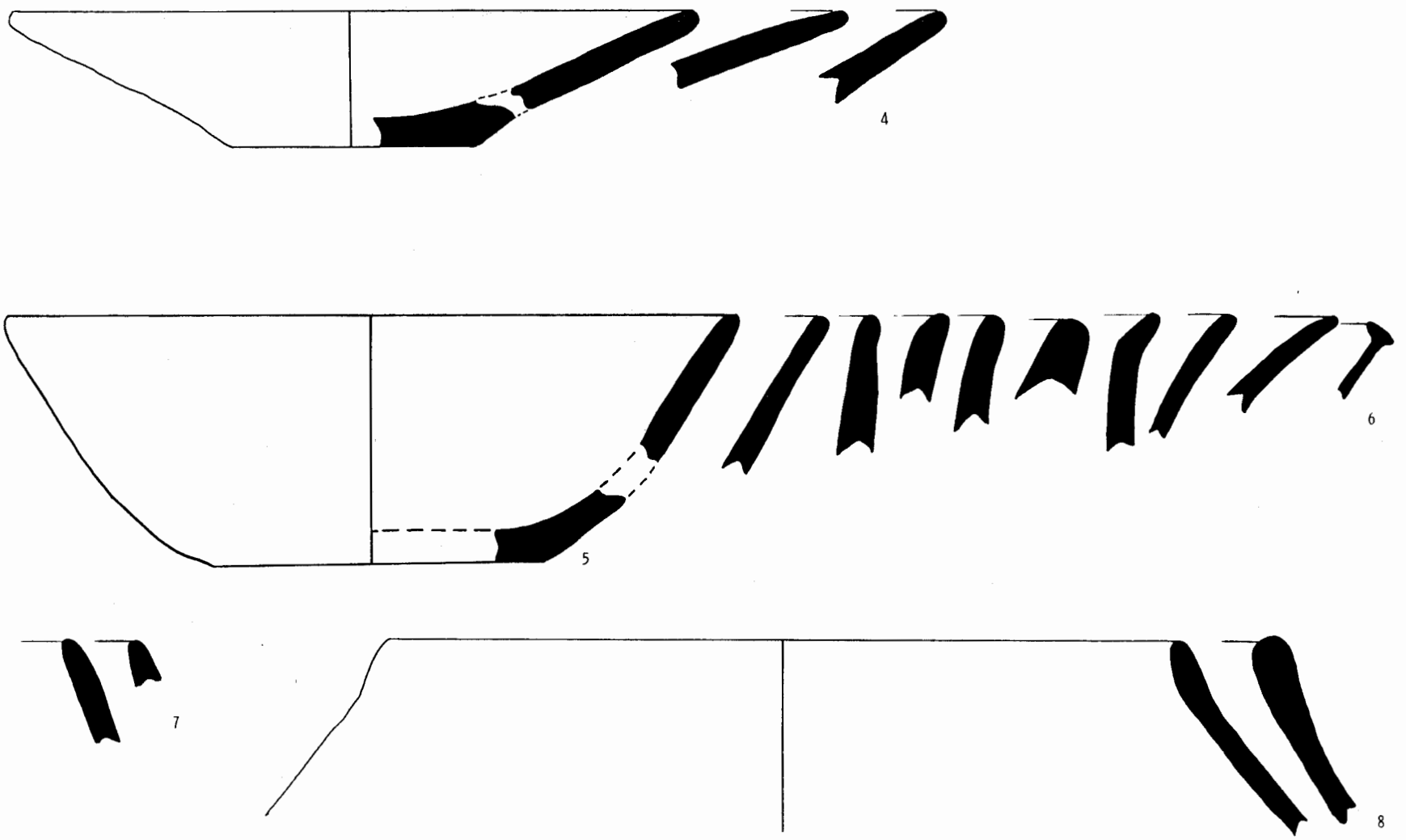

Plate X. AGU 1. See Key to Illustrations.

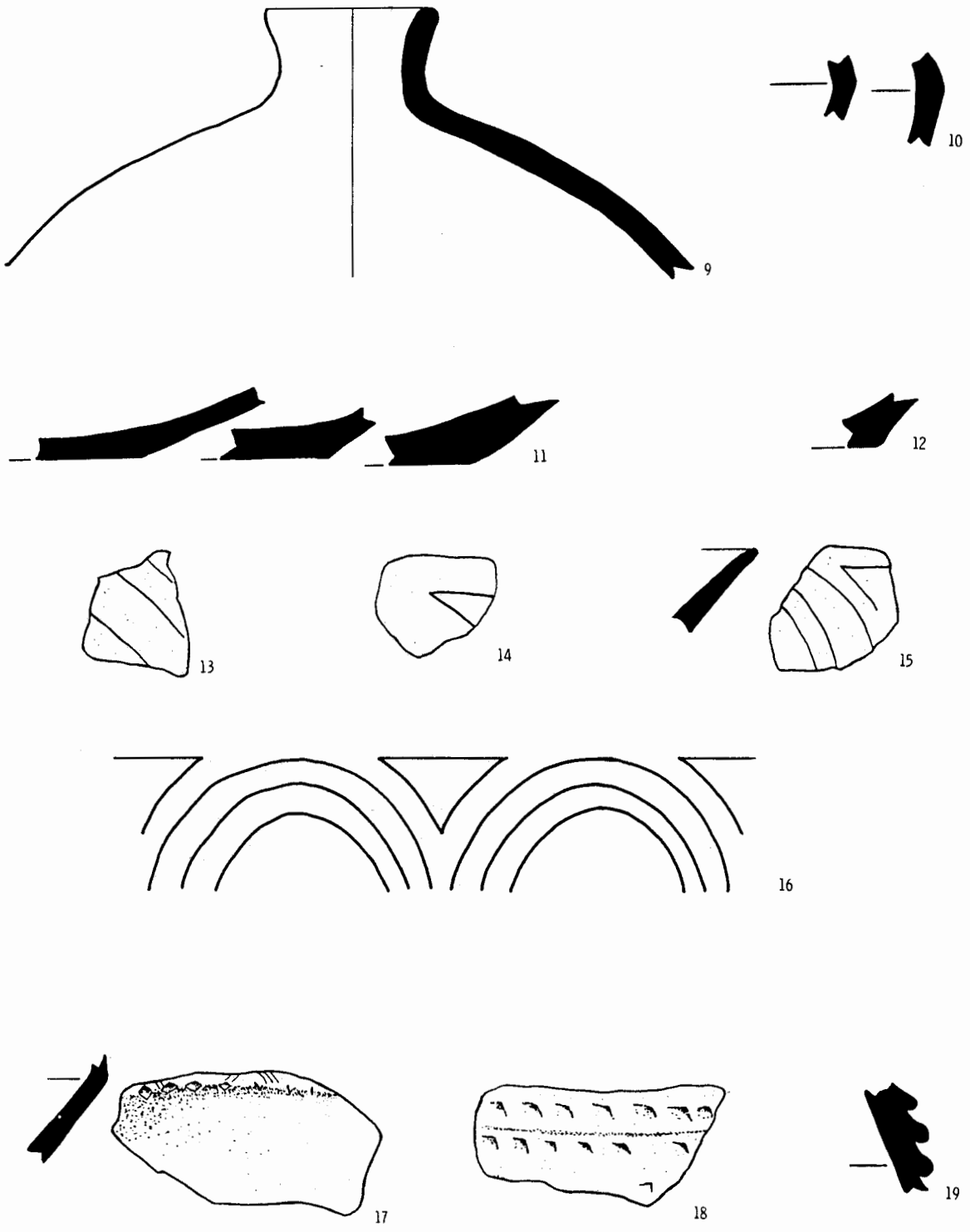

Plate XI. AGU 1. Fig. 16 is reconstructed from the designs on the sherds in figs. 13-15. See Key to Illustrations.

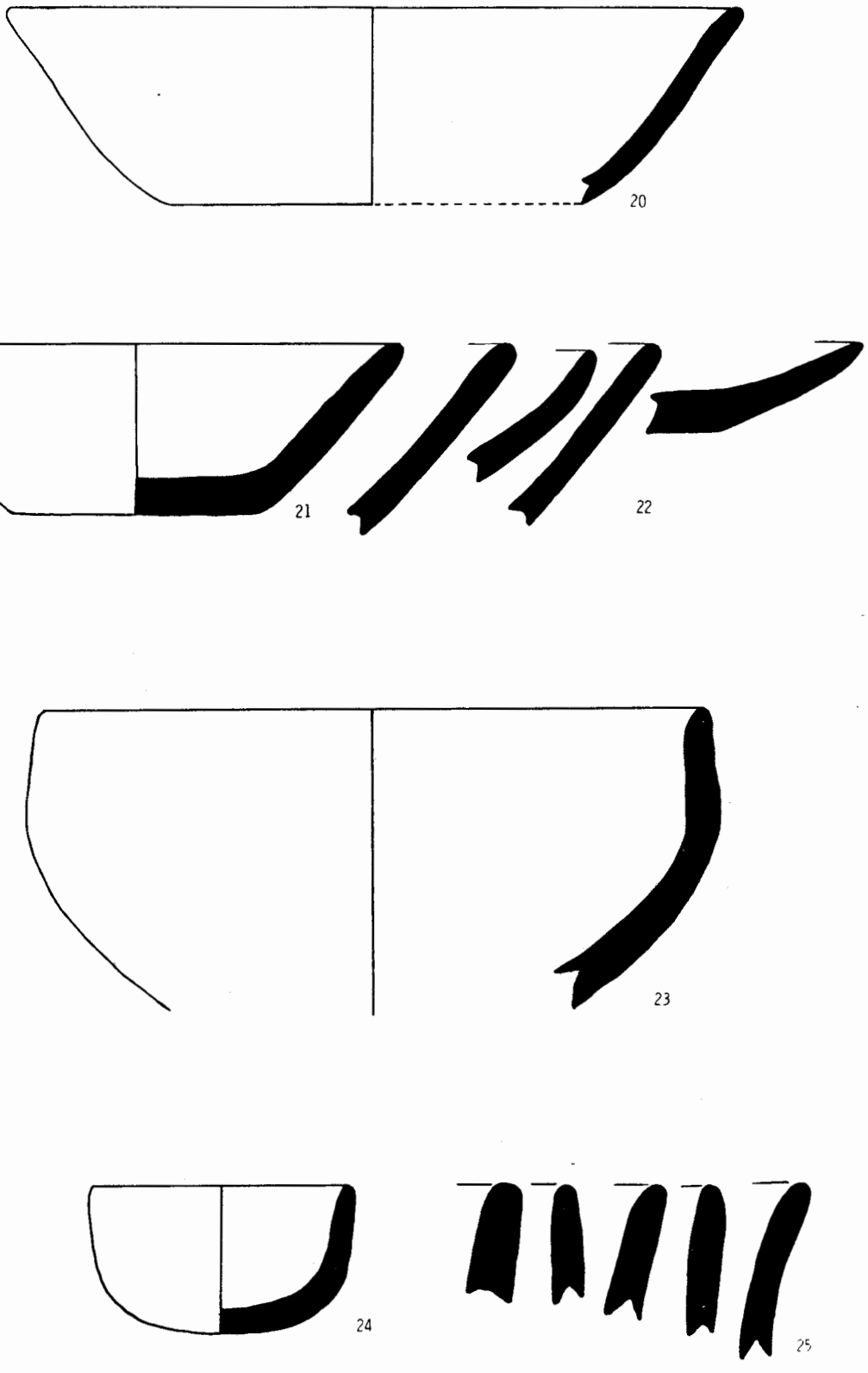

Plate XII. AGU 2. See Key to Illustrations.

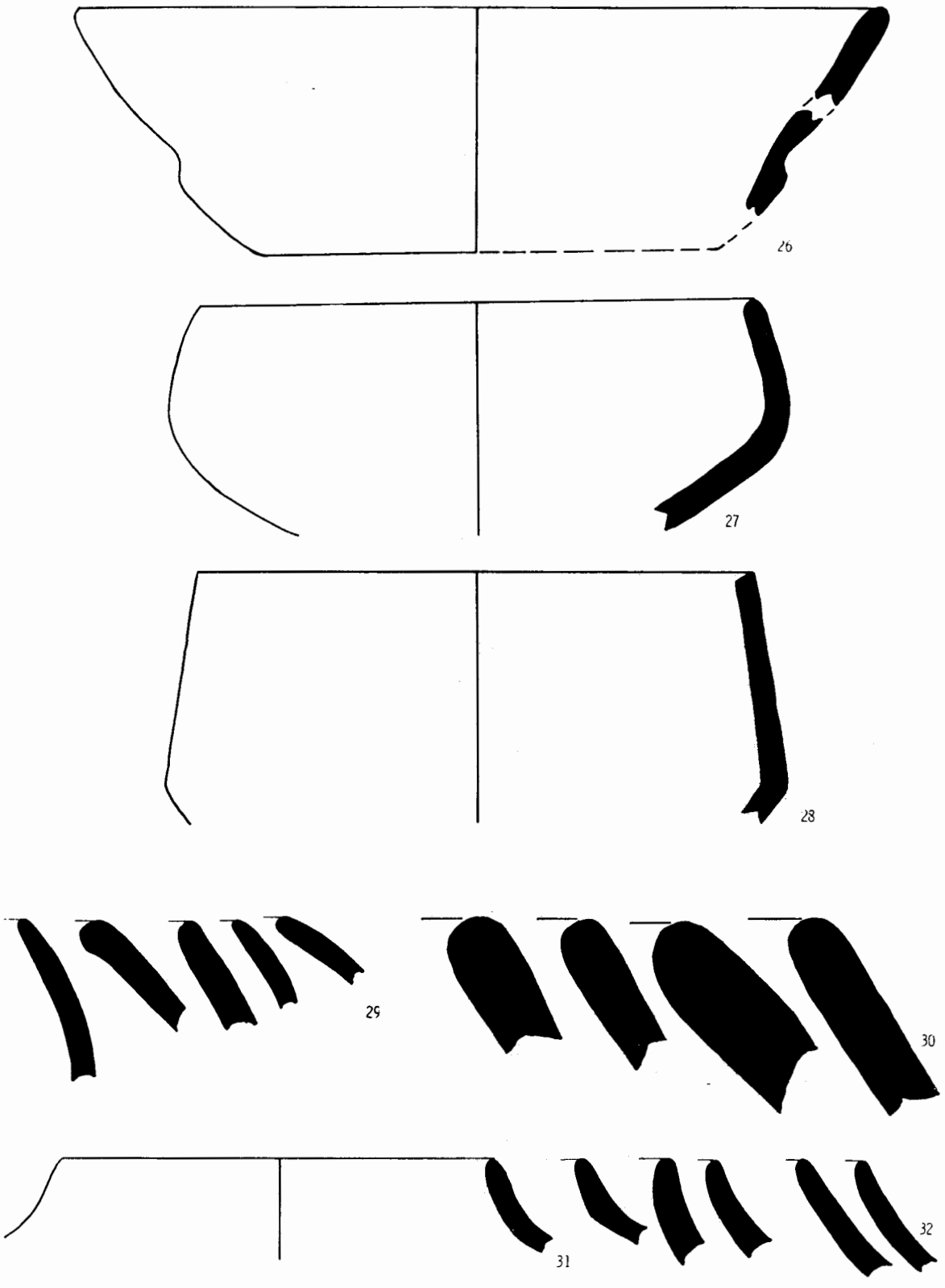

Plate XIII. AGU 2. See Key to Illustrations.

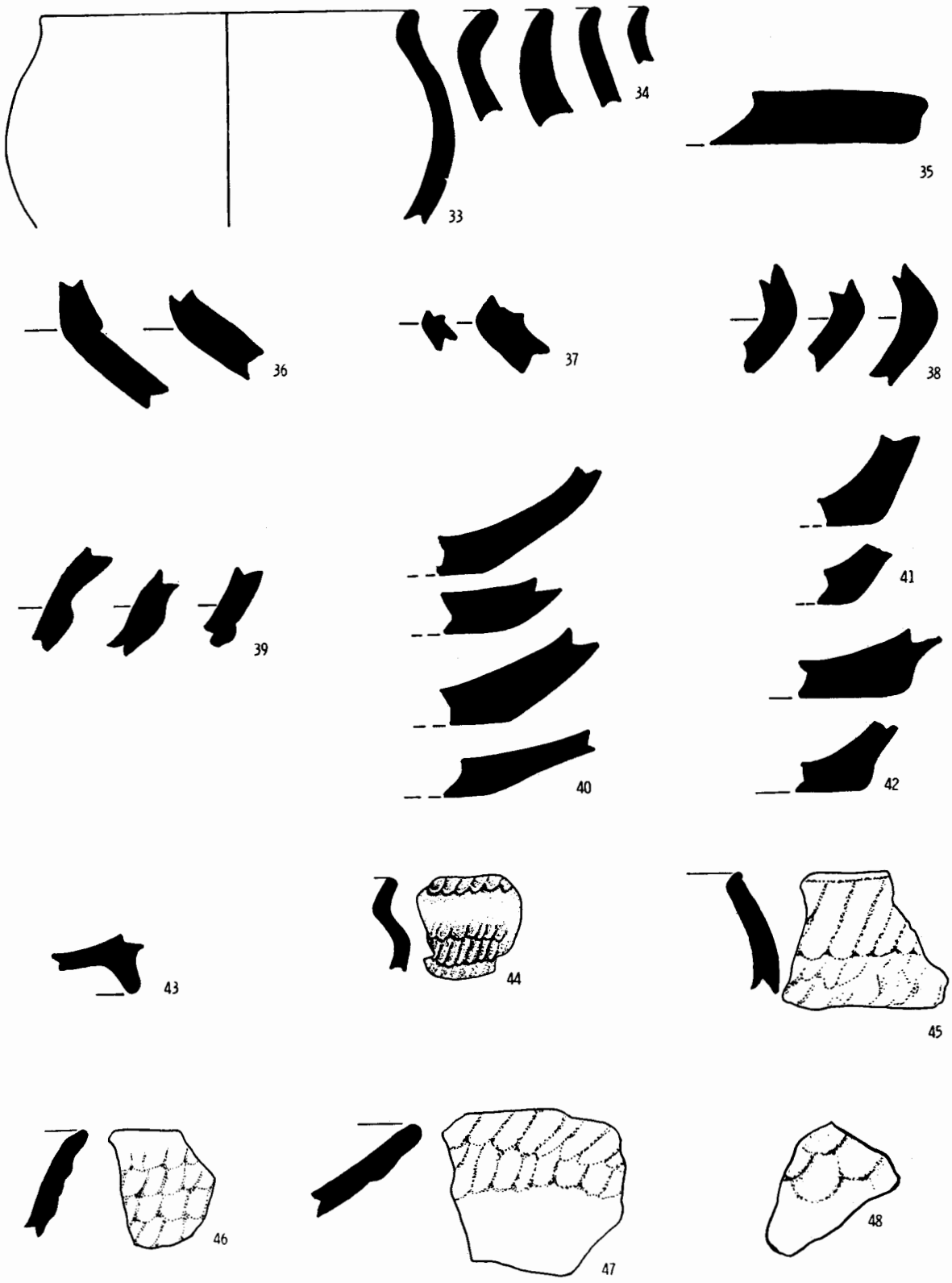

Plate XIV. AGU 2. See Key to Illustrations.

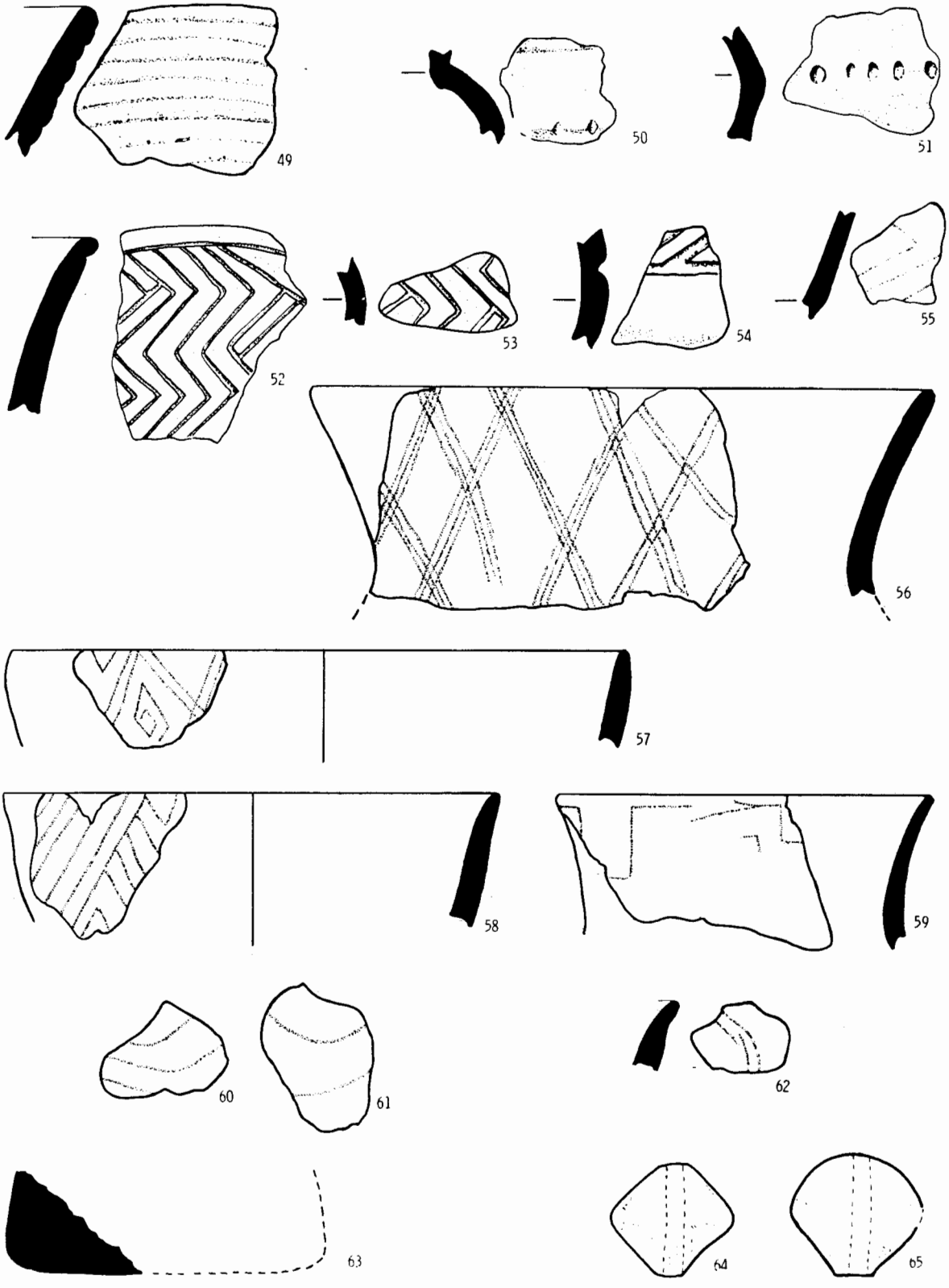

Plate XV. AGU 2. See Key to Illustrations.

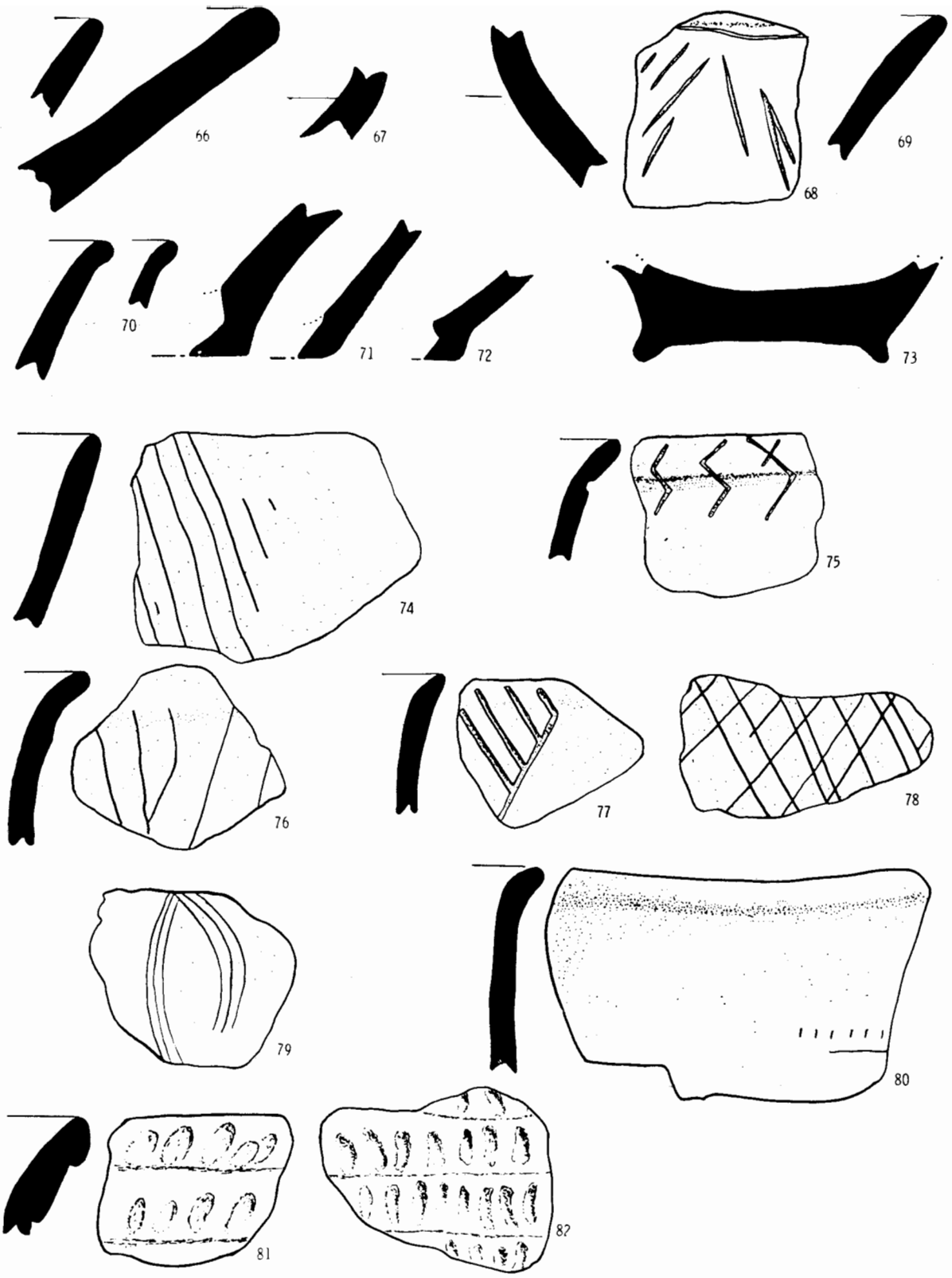

Plate XVI. Figs. 66-68 from AGU 3; figs. 69-82 from AGU 4. See Key to Illustrations.