NOTES ON ANCHOR AXES FROM BRAZIL

by

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The main purpose of the present paper is to present a description of a number of so-called "anchor axes", "semilunar" or "crescent-shaped" axes of stone found in collections of museums and private persons in the State of São Paulo, Brasil.¹

Anchor axes are characterized by a relatively narrow "stem" or "but", which expands at one end, and at both sides into straight, or more or less downcurving extensions. The expanded part most commonly terminates in a sharp, convex cutting edge, and forms the blade. A number of these axes, as the name indicates, bears a similarity to a ship's anchor. The most complete study of anchor axes was made by Rydén (1937). This author, however, also included in the class of anchor axes other forms which show but little similarity to an anchor. Among the latter can be mentioned axes with "rudimentary" anchor shape (Op. cit., figs. 1 q; 10, A, B), axes with a blade similar to an inverted U (Op. cit., fig. 10, C), or axes with a triangular blade (Op. cit., fig. 13, no. 20a). Following Rydén, in this paper there has been provisionally included in the class of anchor axes a number of specimens of various shapes, which only vaguely

1. I wish to thank Prof. Moacyr Coutinho, Faculdade de Geologia, Universidade de São Paulo, who identified the stone material. No attempt was made to establish the presence or absence of any particular kind of rock in the areas where the collected.

The anchor axes examined are preserved in the Museu Paulista (MP), in the Museu de Etnografia (ME), Faculdade de Filosofia, Ciências e Letras, Universidade de São Paulo, and in collections of private persons (PC) in São Paulo State.
suggests an anchor. It will be a matter of future research to determine whether types such as those mentioned should be regarded as "subtypes", or whether they belong to different classes of artifacts.

Anchor axes have been recorded from an extensive area of Brazil. Furthermore, objects of a similar shape in stone or metal are known from Ecuador (Rydén, 76), from Perú (fig. 1, a-c; Beuchat 1912, fig. 235; Kroeber 1937, pl. LXXXVII, no. 4), and have also been encountered, in the West Indies (fig 1, d-g; Fewkes 1922: 148), and in Argentina (fig 1, h; Ambrosetti 1898, fig. 146; Mayntzhusen 1912: 464). Most authorities who have studied the subject connect the anchor-shaped axes and their distribution in Brazil with the Gê speaking tribes. They appear to have functioned as weapons or ceremonial objects. Some have been encountered archaeologically, others were reported in use in postcolumbian times. At present, for example, anchor axes seem to be of some importance in the culture of the Gê speaking Krahó of the State of Goiás.

Métraux (1928: 98) mentioned that axes with a semilunar blade are frequent in the region formerly inhabited by the Tupí-Guarani. He also cited Netto according to whom the chiefs of the Yuruma of the region of the lower Xingu wore these axes at certain ceremonies. Métraux (Op. cit., 23) classified the Yuruna as Tupí. Loukotka (1939: 164) believed they spoke a form of Tupí mixed with Gê, and according to Nimuendajú (H.S.I., 3: 214-215), the Yuruna language together with those of some other groups may "form a special division of impure Tupí languages". Métraux (Op. cit., 98) recounted data recorded by Yves D'Evreux on the manufacture of anchor axes among the Teremembê of Maranhão, a people of unknown linguistic affiliation, who is now extinct. Furthermore, he noted that this type of ax was characteristic of the Gê and a few tribes of dubious affinity, and was at the time of writing, still in use among the modern Gê (Op. cit., 98-99).

In 1937, Rydén published a study on Brazilian anchor axes. He showed their geographical distribution on a map and cited evidence as to their function. This author found that the axes from the northern region of their distribution were characterized by a relatively wide and almost T-shaped butt and by having the blade marked off from a thinned butt by a "ledge" (Op. cit., 80). He also mentioned that axes recovered from the middle Amazon area bear a close resem-
blance to specimens from southern Brazil, in that they do not possess the offset or “ledge” separating the blade from the butt (Op. cit., 71). Rydén concluded that “archaeological finds of anchor axes centre in eastern Brazil”, and that this kind of ax should be regarded as typical of the Gê speaking peoples. Furthermore, this author stated that anchor axes may be employed as an important aid in tracing the spread of the Gê. On the other hand, it also appears that anchor axes were used as objects of trade. Their presence among other tribes or among archaeological remains which were not Gê suggests direct or indirect contacts with Gê peoples, through trade or perhaps war (Op. cit., 78-81).

Since Rydén’s work, additional information on anchor axes from various regions of Brazil has been published, including the States of Goiás (Nimuendaju 1939; Schultz 1950), Bahia (Ott 1944), Minas Gerais (Walter 1958), and São Paulo (Pereira Junior 1957). In his monograph on the Apinaye, a Gê speaking tribe living between the Rivers Araguaya and Tocantins, Nimuendaju (1939:179-180) mentioned that anchor axes according to the mythology of the latter group were derived from the Bat People. The Bat People were legendary human beings with bat wings who in ancient times inhabited the Bat Mountain. They were eventually driven out by the Apinaye, who found a large amount of anchor axes left behind in a cave which the Bat People had inhabited. The Apinaye have two categories of anchor axes, (1) small ceremonial axes, and (2) large axes designed for fighting (Op. cit 126, 128). The same author noted that anchor axes were also popular among the Timbira, a people related to the Apinaye, and that the former connected them in their mythology with the Amazons (Op. cit., 179). Like Rydén, Nimuendaju asserted that the anchor ax is an ancient element of the Gê culture, and that its distribution roughly coincides with that of the Gê (Op. cit., 126). However, this author disagreed with Rydén, who suggested that the anchor axes found along the “lower” Amazon were trade objects. In Nimuendaju’s opinion (Op. cit., 126), the anchor axes developed from the primitive axes of the latter area.

According to information obtained by Schultz (1950) in 1947, the anchor ax is called “Koiere” by the Krahó of northern Goiás, and is in their mythology connected with fighting. At present, the function of this type of ax among the latter group is ceremonial. Legend has it among the Krahó that there was a nation who possessed a Koiere, and
who fought a people called the Krolkamekrá (extinct tribe, formerly neighbours of the Krahó). The latter people did not have the Koieré, but one of them killed the owner of the Koieré with an arrow, and stole the ax. This Krolkamekrá was married, but he abandoned his wife and went to live with another woman. However, he forgot the Koieré. At night it was hanging on the wall in the hut of his previous wife, and it began to talk to her. It asked her to take it outside, which she did. It then started to sing, and taught the woman many songs. A boy heard the singing, and went out to see who it was, and saw that it was the Koieré teaching the woman. The brother of the man who had been killed, and whose Koieré had been stolen found out about this, and sent a messenger to the Krolkamekrá to demand the ax back. He talked to the Indian who had killed the first owner. The latter was only willing to give the ax to whoever could beat him in a race. The latter might then kill him. The messenger went back to the village, where it was decided to start a war against the Krolkamekrá. Many arrows were made, and the people with the ax were caught in an ambush, and many men were killed. The possessor of the stolen ax fled. He was pursued by a boy who was a very good runner, and who caught and killed him. The boy then took the Koieré and gave it to the brother of its original owner (Schultz, 114-119).

Description of Anchor Axes

The terminology adopted in this paper for the purpose of description of the anchor axes is similar to that used by Rydén. The part with a relatively wide, convex edge (crescent — or semilunar — shaped) will be termed the blade. "Crescent-shaped", however, will be used to describe the blade, when its shape is similar to that of the moon in its first or last quarter. The latter is distinct from "semilunar", which in this paper refers to a shape more similar to the moon when only half is illuminated (or semi-circular). The "stem" or shank which projects from the centre of the lower, straight or concave edge of the blade will be referred to as the butt. Measurements were taken for total length of the artifacts, width at the blade, length of the butt, width of the butt, and maximum thickness. Only one of the specimens to be described is hafted. Any existing references to the circumstances under which the anchor axes were acquired or other
pertinent information will be mentioned below. Data as to maximum thickness. Only one of the specimens to be described is hafted. Any existing references to the circumstances locations in São Paulo State as well as from other areas of Brazil. It should be remembered, however, that the locations are usually approximate, and generally indicate a region rather than a definite site.

I. For one anchor ax there are no data as to provenience:

A (ME). Material aplite.

Description: this ax has been broken and restored. Lower edges of blade are almost straight, and butt has a not very pronounced T-shape. Entire surface except the butt end is ground smooth, and blade is well polished. Blade is thin in relation to the butt, and all edges are sharpened except at the centre of the convex edge, which is relatively blunt. Sides of the butt are nearly parallel, except at the end where it expands. Butt end is rounded. Transverse section of butt is biconvex. Maximum thickness is 3,2 cm., approximately in the centre, from where it is thinned towards the sides and the blade. Total length is 12,6 cm., and width at blade 13,2 cm. Length of but is 8,0 cm., and width 5,3 cm. near the blade, and 8,0 cm. at the butt end. Pecking marks are visible at the lower butt end. No marks which can with certainty be escribed to use.

Comment: T-shaped butts were by Rydén attributed as a characteristic of anchor axes from northern Brazil.

II. The following anchor axes are from the State of São Paulo:

1 (MP). Provenience: Bananal, situated in the extreme northeastern part of the State, close to the border with Rio de Janeiro.

Material: dark greenish-gray garnetiferous quartzite.

Description: crescent-shaped blade, sides of butt nearly parallel. Entire surface is ground, but has a course, sandy feel. The blade is relatively narrow in relation to the butt, and is set off from the butt by a raised edge. Transverse section of the butt is biconvex, the butt end flattened. Thickness of blade at the raised edge is 2,4 cm., from where
it is thinned towards the convex cutting edge; corners of blade are rounded. Below the edge, butt is 2.2 cm. thick. Total length is 11.4 cm., and width at blade 8.0 cm. Length of butt is 4.3 cm., width 5.8 cm., near the blade, and 5.9 cm at the opposite end. No use marks are visible.

Comment: Rydén considered the raised edge or “ledge” characteristic of anchor axes from the northern region of their distribution. This ax was illustrated by von Ihering (1904, pl. XXII, fig. 24), and later reproduced by Rydén (fig. 1, J).

2 (PC). Provenience: Pique te, situated between the Rio Paraíba and the Serra da Mantiqueira in the northeastern part of the State.

Material: fine-grained, dense, gray stone.

Description: semi-lunar blade, butt tapering from the blade end. Surface is well ground except at the flat butt end, and polished to a lustre at the blade. Transverse section of butt is biconvex. Maximum thickness is 2.6 cm. approximately at the centre of the blade, from where it is thinned towards the edges. The convex edge is relatively blunt. Total length is 12.7 cm., and width at blade 10.4 cm. Length of butt is 5.6 cm., width at the junction with the blade 6.5 cm., and 5.6 cm. at the butt end. Pecking marks visible at the butt end. No scars which can with certainty be ascribed to use.

Comment: in our knowledge, this is the only one of the “archaeological” anchor axes described in this paper which was found in association with other artifacts.

The site (S.P.-43-P1) is located about 3 km. southeast of the town of Piquete, in an area situated at the foot of the Serra da Mantiqueira, close to the border with Minas Gerais, and at a relatively short distance from regions where other finds of anchor axes were made. The site occupies a hill and its slopes, about 100 m. from the Rio Piquete. Sherds and objects of worked or unworked stone were abundant on the surface of a recently ploughed field, and a surface collection was made. The cultural deposit was characterized by the presence of artifacts and dark soil different from the orange-yellow coloured, and apparently sterile soil beneath it. The cultural layer was about 20-30 cm. deep, and in the area examined probably too disturbed and shallow for stratigraphic excavation. Most of the area
of the site has been under cultivation for many years, and a number of artifacts has been recovered by local people. Finds, apart from the anchor ax, include pottery in the form of sherds and a single broken but restored vessel, a number of spindle whorls, and fragments of tubular pipes. Stone artifacts were also encountered including a tubular pipe,\(^2\) polished rectanguloid axes, hammerstones, chisels, abraders or grinding stones, and grooved objects which might have been used as abraders or polishers. The following specimens in private collections were examined:

**A. Pottery**

a) a plain jar with walls incurring to a restricted rim. Body wall thickness tapers towards a direct rim with a rounded to flattened lip. Method of manufacture is not evident. Paste may have been untempered, and contains mineral particles (angular grains of quartz and small quantities of mica), which might have occurred naturally in the clay. In cross section vessel walls show a black core with almost paper thin bands along both surfaces fired tan to brown, but also showing lighter colors. Hardness is about 4 on Mohs's scale. External surface varies in colour from dark tan to brown, with black and orange to light yellowish coloured areas. Internal surface is more regularly fired to a medium brown. Soot cakes near rim on the external surface suggest use for culinary purposes. Both surfaces were compacted with a hard instrument, and are very smooth to the touch except on parts of the external surface which are eroded, and at the bottom which was left uneven. Rim diameter is 20,0 cm., maximum diameter 28,5 cm., and height 17,5 cm. Wall thickness ranges between 0,3-0,8 cm. Base is rounded, and the vessel easily tips over. The shape is not typical of vessels of any of the known ceramic cultures of the State.

b) a spindle whorl. Paste is similar to that of the vessel described above, but in spite of its thickness it was regularly oxidized. External surface is medium brown with small blackened areas. Surface was not compacted and has a sandy feel. Maximum diameter in the centre is 6,1 cm. tapering towards the two rounded ends. Height is 5,1 cm. It has a cylindrical perforation, about 0,7 cm. in

\(^2\) It should be noted that it was not possible to have more than a very small quantity of the material of this pipe examined. According to the petrographer, the raw material is probably stone.
diameter, pierced lengthwise approximately through the centre.

Four spindle whorls were collected at the site, all similar in shape and dimensions to the specimen described above.

According to Métraux (H.I.S., 3, 109), the spindle whorl used by the Tupinamba, for instance, was flat, circular and of wood. Very few spindle whorls have been reported archaeologically from São Paulo State. Disk-shaped as well as biconvex pottery whorls have been found in the “Munici­pio” of Franca, within a region from where pottery belonging to the so-called Tupi-Guarani Ceramic Complex are present as well as other types, which may belong to a different tradition (Pereira Junior 1957: 326; figs. 211, 212). An anchor ax was collected in the same region (see below). Recently we collected an almost spherical spindle whorl from Apare­cida do Norte, in the Valley of the Rio Paraiba. It was taken from the surface, in a garden situated not far from the River in the northwestern part of the town, and was found together with plain sherds of unknown cultural affiliation. However, during excavations at the same site, or accidentally, local people have uncovered a number of typical Tupi-Guarani sherds and vessels. As more than one cultural tradition is represented by the thousands of sherds and vessels uncovered by amateurs at Aparecida do Norte and in the vicinities of the town, and as no systematic excavations have ever been undertaken in that area, we have no means of knowing with which particular ceramic tradition this whorl might have been associated. From southern Brazil, objects of pottery which might have been spindle whorls were illustrated by Walter (1958: fig. 41) from Sumidouro in the Lagoa Santa region of Minas Gerais. Furthermore, von Ihering (1904: 522; pl. XX, 16) depicted a biconvex pottery whorl from Rio Grande do Sul.

c) a fragment of a tubular pipe, with the proximal end broken of. Paste is similar to the above, but it was incompletely oxidized, its cross section showing a wide black core with a thin brown band along the surface. Surface calour ranges from medium brown to black. Surface was not compacted, and has a sandy feel. Diameter ranges between 3,5 cm. at the distal end, and 2,4 cm. where it was broken. The perforation is 1,6 cm. wide at the distal end. Near to the point of fracture it abruptly diminishes to 0,6 cm.

Tubular pipes of pottery are not uncommon in Brazil. There is still some doubt as to whether the so-called “elbow”
pipes or angular pipes should be considered precolumbian in
the latter area. Tubular pipes, however, are believed to be
an ancient element. According to Métraux (1928: 116), the
Tupinamba, for example, may have known the tubular pipe,
but this author as well as other authorities have regarded the
latter an element characteristic of non-Tupi-Guarani groups.
Tubular as well as angular pipes have been found, for
example, at Aparecida do Norte, but we do not know whether
they were associated with other pottery.

B. Objects of Stone.

d) a tubular objects, presumably a pipe, of medium gray,
fine-grained stone (?) (containing changed feldspar). It is
conical in shape. Length is 11.5 cm., and diameter
ranges from 5.1 cm. at the distal end to 2.5 cm. at
the proximal end. A lengthwise perforation ranges between
0.9 - 1.6 cm. in diameter. Entire surface is ground very
smooth.

Tubular pipes of stone are apparently more rare than
those of pottery. A tubular stone pipe was, for instance,
reported from the “Jazida de Torres” in the State of Rio
Grande do Sul (Serrano 1937: 18).

e) two rectanguloid axes were examined. The larger
specimens is of coarse-grained green-white mottled stone,
the smaller of fine-grained, grayish-green mottled stone.
Entire surfaces are well smoothed and polished, except
at the butt ends. Cutting edges are slightly convex
and sharp. Length is 15.0 cm. and 13.5 cm. respectively,
width at blade 5.4 cm. and 3.6 cm. Maximum thickness is
3.7 cm. and 3.6 cm. respectively. Transverse sections are
ellipsoid. Blade of the larger ax shows use marks.

The above mentioned axes are identical in shape and
method of manufacture to specimens collected, for example,
at Aparecida do Norte. Fully polished axes have been found
in many other regions in the State where Tupi-Guarani type
pottery was also encountered. It is believed that such axes
may have been manufactured by the latter people, and
perhaps also by other groups. The lithic artifacts made by
the Tupi-Guarani within São Paulo State are at present
poorly known.

f) roughly rectanguloid slabs of quartzite, usually with
flattened sides and parallel U-shaped grooves worn by abrasion
on one or both surfaces. The largest specimen measured
28.0 cm. in length, 26.0 cm. in width, and 5.0 cm. in thickness. Six parallel grooves run lengthwise across one flat surface, and five along the opposite surface. The grooves were until 1.0 cm. deep, and 0.7-1.5 cm. wide at the surface.

Similar objects were described from the "Jazida de Torres" in Rio Grande do Sul (Serrano 1937: 16; pl. XIV).

**Surface Collection:**

The surface material collected at Piquete included 343 plain sherds and 58 objects of stone.

**A. Pottery.** There are no restorable vessels. Although there are occasional variation, the sherds are sufficiently homogenous in details of paste, texture, colour and surface treatment to be tentatively classified as a single ware. Some base sherds show manufacture by the coiling method. Coiling is also evidenced by a few sherds showing concave and convex edges produced at breakage along coil lines, as well as by unerased coil lines on a number of wall fragments. Paste is similar to that described for the vessel above, but mineral particles are generally more abundant and larger in the thicker sherds. The majority of sherds were incompletely oxidized, and cross sections may show black to light gray cores, bordered by paper-thin or wider bands of dark tan, brown, orange, reddish, pinkish or light buff. In some sherds the entire cross section is light grayish to black, and five sherds were regularly oxidized to an orange-red colour. Surface colour is very irregular, and on individual sherds ranges from black, dark gray and tan to brown, and reddish to bright orange or pinkish to buff. Fireclouding is frequent. Treatment of surfaces were generally similar to that described for the whole vessel, but many sherds are badly weathered and surface treatment indeterminate. Walls were usually smoothed well enough to obliterate evidence of method of manufacture, and many sherds show one or both surfaces compacted by a hard instrument. Quality of smoothing varies, however. Pits and fine crackle-lines are often visible; some surfaces were probably only scraped. Interior and exterior surfaces of base sherds are often uneven, and show protruding mineral particles. Little regarding vessel shape can be deduced from the sherds, since most of the fragments are small. It is often not possible to determine the orientation of rim sherds with any degree of certainty. Some rim sherds show no evidence of curvature. A number of rims are characterized by a thickening in relations to the
walls of the body. Two sherds may be from necked vessels. Lips are rounded, tapered or bevelled. There is a considerable variation in thickness of sherds. Rims, just below the lip range in thickness from 0,5-2,0 cm. Body sherds often show a curvature, and vary between 0,5-1,5 cm. in thickness, basal portions between 0,7-2,3 cm. A number of sherds shows incrustations of soot on one or both surfaces.

B. Objects of Stone (stone material has not been identified).

a) Axes (5 specimens). Shaped from naturally rounded stone, so a minimum of pecking and grinding was necessary. Surfaces are convex with ellipsoid transverse sections. One specimen had sides considerably thinned, resulting in a biconvex transverse section. Surfaces show pecking and smoothing, but some high points of the stone of one specimen were left. Butts are rounded or flat. Blade end is wider than the butt. Blades are heavily damaged from cutting. One fragment shows battering of the sides. Length of the single intact specimen is 13,2 cm. Width ranges between 6,3-8,3 cm., maximum thickness between 2,3-3,5 cm.

b) Chisels (2 specimens). Relatively small, smoothed tools, probably used as chisels or gouges. One had a sharp cutting edge, blunted by use and broken at one corner. The opposite end is flattened. Transverse section is plano-convex. It is 9,2 cm. long, maximum width is 3,2 cm., thickness 1,8 cm. The second specimen was made from a natural pebble, ground sharp at one end. The opposite extremity shows marks from battering. Transverse section is ellipsoid. It measures 10,0 cm. in length, 3,5 cm. in width, and 1,7 cm. in maximum thickness.

c) Pestles (6 specimens). Fragments of roughly cylindrical stones, with one end smoothed from use. Two were shaped by percussion at one side, the remainder appear to be natural stone. Three show abrasion on the sides, suggesting that they have been used for various purposes.

d) Hammerstones (10 specimens). Pebbles and cobbles, roughly oval, rectanguloid or circular in outline showing marks on one or more edges or on the sides from heavy battering. A single specimen is trianguloid in outline and has a rectanguloid transverse section. Both faces show flattened and smoothed areas. One end is battered by use. They range in length between 9,5-15,2 cm., in maximum width between 4,2-13,2 cm. The circular specimen measures 7,2 cm.
in diameter. Thickness is between 2.4-4.5. Two specimens show lengthwise, parallel striations on two surfaces, suggesting they were used as abraders.

e) **Used Pebbles** (8 specimens). Small natural pebbles, oval in outline, with rounded or somewhat flattened surfaces. In several cases the ends of the long axis show light battering, perhaps caused by use as hammerstones or pecking stones. Some have one or both faces or sides worn smooth and somewhat polished. They range in length between 6.1-8.2 cm., in width between 2.2-4.5 cm., and in thickness between 1.2-2.4 cm.

f) **Grooved Abrader or Polishing Stone** (1 specimen). Similar to those described above. It has 3 straight, parallel grooves running lengthwise across the flat surface. The opposite surface is rounded. Grooves are V-shaped, about 0.5 cm. deep, and 1.5 cm. wide at the surface. The object is 9.7 cm. long, 5.7 cm. wide, and 5.6 cm. thick.

g) **Abraders or Grinding Stones** (6 specimens). These objects consist of roughly ovaloid or rectanguloid stones, worn smooth on one or two surfaces, and sometimes along the edges. The range in size from 15.3 by 7.9 by 2.5 cm. to 8.0 by 4.6 by 1.0 cm.

h) **Rubbing Stones** (8 specimens). Relatively small objects of quartz or other rock show one or more faces polished from use. They are generally roughly rectanguloid or trapezoidal in outline, but may also show other shapes. They range in size from 3.5 by 2.3 by 2.4 cm. to 3.9 by 2.8 by 2.1 cm.

i) **Natural Stones** (10 specimens). Natural stones of various shapes and sizes show no evidence of use or manufacture.

j) **Flakes** (2 specimens). Both are of quartz and show minute flaking along one edge, indicating that they have been used as cutting tools. Both retain part of the natural unmodified surface of the rock.

As mentioned, the pattern of stone artifacts used by the prehistoric or historic indigenous peoples in São Paulo State is still poorly known. Whether, for example, the polished axes and the tubular pipe found at the site might be part of the same culture complex as that of the stone tools described above is entirely a matter of conjecture.

A number of additional finds of pottery and stone objects have been reported from the vicinities of Piquete, but we did not have occasion to see them.
The cultural affiliations and the chronological position of the material described above is enigmatic. It should perhaps not be identified with any of the pottery bearing cultures known to date archaeologically from São Paulo State. The latter comprise the Tupi-Guarani, who manufactured ceramics characterized by certain vessel shapes and techniques of decoration. Although the latter groups also made plain vessels, their pottery is mainly known through the decorated types emphasizing polychrome painting in red and black (brown) on white-slipped surfaces, corrugation, nail-impression and perhaps more rarely “brushing” and incision. Such pottery is abundant in the Paraíba Valley, for example. We have already referred to its presence in Aparecida do Norte. Plain pottery found at various locations in the latter town include shapes similar to those characteristic of the Tupi-Guarani decorated wares as well as different forms. A surface collection recently made in the latter town by the writer of this paper included a number of plain sherds identical in shape and technique of manufacture to the specimens illustrated from Piquete. Another pottery tradition also found in the same area and elsewhere is characterized by incised and punctate techniques of decoration, appliqué fillets, and fillet handles. The chronological position of the latter is unknown. A third tradition encountered in the interior and more southern parts of the State is that known in historical times to belong to the Kaingang. The latter are believed by some authorities to be relatively recent arrivals in São Paulo, and others have suggested that they may be descendants of the rather puzzling Guiana (Baldus 1954: 313-314).

Ethnohistorical information shows that the region in question at the time of European contact was inhabited by the Tupi, and perhaps the Guianá, and the Puri. The latter people was culturally and linguistically related to the Coroado with whom they hand formed a single tribe (H.S.I., 1, 523). Knivet referred to the presence of Puri in the area in the 16th century (1878: 225-228). Also, according to Varnhagen (1936: 27), there were Purí in 1645 near Taubaté in the Paraíba Valley. Hundreds of Purí were reduced to slavery in the 18th century (H.S.I., 1, 523). Some in the region of Pirangá and Santa Rita at the present border between the States of Minas Gerais and São Paulo were placed under the protection of the Portuguese near Rio Pardo. (Op. cit., 523-524). In 1800, the “aldeia” of São João de Queluz, situated at the northeastern limits of São Paulo State was founded with Purí from
the left bank of the Rio Paraiba (Oliveira 1867: 212). Information on the Puri is scant. They are reported to have been nomadic people, living in the forests, nonagricultural, and occasionally looting the fields of the sedentary peoples of the region. They cooked in earth ovens or boiled in containers of bamboo. They used bow and arrow, stone axes, and also made pottery. They buried their dead in a sitting position (H.S.I., 1, 526, 528; pl. 108). According to information published by Eschwege (1818: 113), the Puri made pottery in the form of the Sapucaya fruit. As soon as they got iron, they threw their stone axes away, and also preferred pottery obtained from the neo-Brazilians to their own (Op. cit., 113). From Eschwege's work we learn that the Coroado had cooking vessels of different sizes, the larger ones being used for the preparation of a drink made from ground corn. The latter was ground in a cylindrical wooden mortar, identical in shape to one illustrated by Manizer (H.S.I., 1, fig. 58 d) in his work on the Kaingang in São Paulo. The vessels of the Coroado had pointed bottoms, and stood in the hut with the lower part dug about one foot into the earth (Eschwege, 135). The largest vessel described measured five “palms” in height and four “palms” in diameter (Op. cit., 135). A conical vessel with a short neck was illustrated (Op. cit., pl. 2, o). Both types are similar in shape to vessels made by the Kaingang of São Paulo (H.S.I., 1, fig. 58, e, f), and to vessels believed to be relatively recent, encountered in the State of Rio de Janeiro in an area purported to have been formerly inhabited by Puri-Coroado speaking groups and perhaps the Guaitacá (Ferreira Dias Junior 1964: figs. p. 7). Spix and Martius (figs. between pp. 192-193, 224-225) presented illustrations of large cone-shaped vessels set in the earth, one of which was supported by stones. Apart from serving for the preparation of the above mentioned drinks, these large jars were also used as funerary urns by the Coroado (Op. cit., 253). The Coroado smoked tobacco in pipes made of wood, “taquara”, or clay (Eschwege, 136). The Puri-Coroado and Kaingang linguistic families have both by various authorities been classified as belonging to the Gê family (Ramos 1943: 143-144) or as showing “intrusion” of Gê (Loukotka 1939: 1950, 1952).

No decorated pottery was found or has been reported from the site at Piquete. Consequently, the people inhabiting it were perhaps not Tupi-Guarani. The single vessel recovered is not similar in shape to those known to be characteristic of the pottery of the latter groups in São Paulo.
State. Above, it was pointed out that due to our very incom­plete knowledge of the archaeology of São Paulo State it is extremely difficult to make inferences as to “phases” or “complexes” to which the other artifacts encountered might be attributed. The evidence does not justify a firm conclusion, but it might be tentatively suggested that the site was at one time occupied by the Puri, perhaps in relatively recent times. Manufacture of anchor axes or their presence have, however, not been recorded among peoples of the Puri-Coroado linguistic family, but anchor axes were found at other locations not greatly removed from Piquete, as well as much further to the south. They might have been required by trade or other means, perhaps from Gê speaking groups to the north. However, until more data are available, it seems best to avoid further speculation.

A considerable amount of research and systematic excavation are needed in the São Paulo area in order to get a clear picture of the indigenous cultures and their sequence.

3 (MP). Provenience: São Bento do Sapucai, situated to the northwest of Piquete, on the border with the State of Minas Gerais.

Material: dark gray-black mottled quartz-diorite.

Description: crescent-shaped blade with expanding butt. Surfaces are well ground and polished to a lustre on the blade and the sides of the butt. The convex blade edge is sharpened, lower edges rounded. Surfaces of butt are flattened, sides are thinned, and butt end flat. Transverse section is elliptical. Maximum thickness is 2,5 cm., at the centre of the butt, at butt end thickness is 1,6 cm. Total length is 16,2 cm., width at the blade 21,0 cm. Length of butt is 9,5 cm. and it expands in width from 6,0 cm. to 7,5 cm. at the butt end. The blade has been broken at both points, perhaps accidentally. No use marks visible.

Comment: this ax was published by von Ihering (1904, pl. XXII, fig. 22), and later referred to by Ryden (1937: 57).

4 (MP). Provenience: Bragança, situated to the southwest of São Bento do Sapucai, not far from the border with Minas Gerais (pl. I).

Material: diabase.

Description: crescent-shaped blade and T-shaped butt. Surface is well ground and polished. Fine striations from the
smoothing process are visible. All edges are thinned. Butt end is flat. Transverse section of butt is biconvex. Maximum thickness is 2,7 cm., at butt end thickness is 1,3 cm. Total length is 13,5 cm., width at blade was about 18,5 cm. Length of butt is 8,6 cm., width 5,7 cm. near the blade, and 9,8 cm. at the opposite end. One point of the blade has been broken, and minute flakes struck off the convex edge.

5 (MP). Provenience: Mogi das Cruzes, situated on the River Tietê, to the southeast of the State capital (pl. II).

Material: diabase.

Description: nearly semilunar blade with butt tapered towards a flattened end. The surface was ground smooth and polished except at the lower end of the butt where pecking marks are visible. The convex edge of the blade is sharp, the lower edges thick and flattened. Sides of butt are rounded. Transverse section of butt is elliptical. Maximum thickness is 3,1 cm., approximately at the centre of the blade from where the ax is thinned towards both ends. Total length is 17,2 cm., width at the blade 17,0 cm. Length of butt is 8,6 cm., width at the junction with blade 7,3 cm., and 5,5 cm. at the opposite end. Both points of blade have been broken, but no marks can with certainty be ascribed to use.

6 (MP). Provenience: São Sebastião, located on the coast to the southeast of the State capital.

Material: diabase.

Description: fragment of crescent-shaped blade, broken approximately in the centre. Surface is polished. Maximum thickness is 2,4 cm., in the centre from where the blade was thinned to form sharp edges. Width of blade might have been about 13,3 cm., length about 5,3 cm. Minute flakes were struck off close to the blade point.

Comment: this is the only anchor ax purported to come from the coast. The area in question was inhabited by Tupi-speaking peoples in early Colonial times, but some chroniclers have also referred to the presence of the Guaianá in the same region (H.S.I., 1, 445).

7 (MP). Provenience: Jacareí, in the Paraíba Valley. Reported to have been found “at a depth of 5,0 m. during the construction of a well” at a place called Colônia Fredno, situated five “leagues” from Jacareí.

Material: amphibolite.
Description: lower edges of blade nearly straight, butt expanding. Entire surface polished, except butt end, where pecking marks are visible. All edges of blade were sharpened, and sides of butt thinned. Butt end is rounded. Transverse section of butt is biconvex. Maximum thickness is 2,3 cm. Total length is 13,3 cm., width at blade 12,3 cm. Butt is 9,0 cm. long, and width ranges between 4,6 cm. and 5,2 cm. Flakes were struck off at butt end, and convex edge blunted from use.

8 (PC). Provenience: Represa of Jurumirim, Pirajú, situated on the Rio Paranaapanema, close to the border with Paraná State.

Material: medium brown, fine-grained stone with black flecks.

Description: crescent-shaped blade with expanding butt. A shallow groove may be seen on both sides at the corners where blade and butt meet. Entire surface is polished. Edges of blade are sharpened. Transverse section of the butt is biconvex, butt end is rounded. Maximum thickness is 1,9 cm., at approximately the centre of the butt. Total length is 10,0 cm., width at the blade is 10,4 cm. Butt length is 6,1 cm., and width ranges from 3,2 cm. near the blade to 5,1 cm. at the opposite end. One point of the blade and one corner or the butt end have been broken.

Comment: Rydén reported anchor axes from the State of Paraná as well as from further south in Santa Catarina and Rio Grande do Sul. Tupi-Guarani type pottery have been found in the region of Pirajú. Ethnohistorical sources indicate that the latter area may have been inhabited by ancient Guarani, and in more recent times by recent Guarani and Kaingang (Nimuendajú 1954: 17; H.S.I., 1, Map 7, pp. 69-72).

9 (PC). Municipality of Pirassununga, about 9,0 km. upriver from Cachoeira de Emas — an area watered by the Rio Mogi Guassú and its affluents.

Material: black, fine-grained stone with white flecks.

Description: relatively narrow blade with rounded corners, and expanding butt. The surface was polished. The convex edge of the blade is sharp, the lower edges rounded.

3. This and the following ax were only superficially examined.
Dimensions (approximate): total length 12.1 cm., width at blade 6.2 cm. Thickness is unknown. The edge of one of the sides of the blade has been broken.

Comment: it is not known whether this type of ax should be considered early or late in the development of anchor axes, but it bears some similarity to a specimen which Rydén (1937: 67; fig. 5, d) described as “degenerate”, or, for example, to an ax from the State of Goiás described in this paper. Various reports on the pottery and lithic artifacts of the region of Pirassununga have been published by Pereira de Godoi (1946 a, 1946 b, 1952 a, 1952 b). The pottery described by the latter author mainly belongs to types of the so-called Tupí-Guaraní Ceramic Complex. However, a number of sherds (Pereira de Godoi 1946 a: fig. IV) are different from those known to be characteristic of the Tupí-Guaraní, but similar to pottery found, for instance, near Aparecida do Norte and at other sites in the State. It may be to this kind of pottery to which some authors are referring when proposing the existence of a “punctate and incised tradition”, possibly pre-Tupí-Guaraní, in the State of São Paulo (Altenfelder and Meggers 1963: 126; Evans 1964: 445). However, apart from showing certain similarities to pottery from the Paraná drainage and regions further to the south, and to pottery known from the Chaco and British Guiana, “punctate and incised pottery” from São Paulo also resembles “caboclo” ceramics from the same State. Hurt and Blasi (1960:36-38; fig. 16) illustrated similar specimens characterized by punctations, incision and appliqué fillets, which was found in the upper layers of a sambaqui in the State of Paraná. The latter authors suggested that such pottery might represent “caboclo” manufactures. As no systematic investigations of pottery bearing cultures in São Paulo State have been undertaken, it would be precipitate to justify a firm conclusion as to the chronological position of a “punctate and incised tradition” within the latter area.

Lithic implements reported from the Pirassununga region include conical pestles, a “nut-cracker”, scrapers, polished axes of various shapes, and a variety of projectile points. It is not known, however, whether the latter artifacts might have been associated with pottery.


Material: white-gray mottled stone.
Description: crescent-shaped blade, expanding butt. Entire surface was polished. Thickness in unknown, but the blade is sharpened and the edges thinned. Cross section of the butt is biconvex. Dimensions (approximate): total length 8.9 cm., width at the blade 9.4 cm. Length of butt is 5.0 cm., and maximum width 4.5 cm. Small chips were struck off the convex edge of the blade.

11 (PC). Provenience: Batatais, situated in the northern part of the State, between the Rio Pardo and the Sapucai, close to the border with the State of Minas Gerais.

Material: rock containing quartz, biotite and white feldspar.

Description: crescent-shaped blade with expanding butt. A shallow groove was made at the two corners where blade and butt meet. Entire surface was polished, except at the butt end which shows pecking marks. The blade is thinned with sharpened edges. Butt end is rounded. Transverse section of butt is ellipsoid. Total length is 13.6 cm., width at blade 13.2 cm. Butt is 7.4 cm. long, and width ranges between 4.6 cm. and 5.6 cm. One blade point has been broken, and the convex edge shows minute chipped areas.

Comment: ethnohistorical information suggests that the Southern Cayapó, a Gê-speaking tribe might formerly have expanded into this region (H.S.I., 1, Map. 7, p. 519).


Material: mottled black-white stone.

Description: crescent-shaped blade with expanding butt. Entire surface was polished. Butt end is flattened. Length is 10.2 cm., width of blade 12.9 cm., and thickness 2.0 cm.

Comment: this ax was illustrated by Pereira Junior (1957: 328; fig. 147). The latter author also described and depicted a number of other stone artifacts, pottery of Tupí-Guaraní types, as well as a number of sherds and vessels, which may belong to a different complex (Op. cit.).

There exists a reference to an anchor ax of unknown shape, purported to have been collected in the vicinity of the town of Cunha, situated in northeastern São Paulo, and not far from localities where other specimens were found (Baldus 4. This ax was only superficially examined.)
In the same region was collected a stone mortar, which Baldus (Op. cit., 31) believed belonged to Serrano’s "lithic culture of southern Brazil".5

III. The following axes are from the State of Minas Gerais:

Material: fine-grained, dense black stone.
Description: relatively squat, assymmetric blade, sides of butt parallel, and butt end rounded. Convex blade edge is sharp, lower edges thinned, and furnished with a relatively deep and wide groove on both sides. Entire surface was polished, except at the butt end, which shows pecking marks. Fine striations from the smoothing process are visible. Butt end is rounded. Transverse section of butt is biconvex. Maximum thickness is 2,4 cm. Total length is 11,0 cm., width at the blade 8,6 cm. Butt is 5,9 cm. long, and 4,2 cm. wide. One point of the blade has been chipped.

14 (ME). Provenience: southern part of the State.
Material: quartz.
Description: small ax with crescent-shaped blade and expanding butt. Entire surface is polished. All edges of blade were sharpened, and shallow V-shaped grooves made in the corners on each side between butt and blade. Butt end is rounded. Transverse section of butt is biconvex. Maximum thickness is 1,9 cm., approximately at the centre of the butt. Total length is 7,9 cm., width at blade 7,8 cm. Length of butt is 4,1 cm., width ranges between 2,9 cm. and 3,7 cm. Use is indicated by minute chipping of the convex blade edge. Butt end was battered.

15 (ME). Provenience: Cambuí, in the southern part of the State.
Material: diabase.
Description: crescent-shaped blade with expanding butt. Entire surface is polished. The convex edge is sharpened, and lower edges of blade and sides thinned. Butt end is flat.

5. It should be mentioned that Uhle (1887: 20) reported a find of an anchor-shaped ax of copper in the State of São Paulo. It was collected by a farmer on "Primeira ilha," a small island in the Rio Ribeira de Iguape, situated about 12 German miles from the river mouth. Uhle (Op. cit., 21) believed the ax to be of Peruvian origin.
Transverse section is biconvex. Maximum width is 2,3 cm. Total length is 11,6 cm., width at the blade is 11,8 cm. Length of butt is 6,8 cm., and butt expands in width from 4,5 cm. to 6,2 cm. Pecking marks are visible on one surface. Minute chips were struck off the cutting edge, but are probably recent.

16 (ME). Provenience: right margin of Rio das Velhas, near bridge on the road which leads from the town of Sacramento to Araxá, in the southern part of the State.

Material: hornblende-schist.

Description: crescent-shaped blade, expanding butt. Entire surface polished, with fine striations visible. Blade is thinned, and all edges of blade and butt sharpened, except at the butt end which is flat. Transverse section is biconvex. Maximum thickness is 2,8 cm., at approximately the centre of the butt. Total length is 11,9 cm., width at blade 13,0 cm. Length of butt is 7,5 cm., and width expands from 5,0 cm. to 5,8 cm. Both points of the blade have been broken off, and the convex edge is chipped and blunted, presumably from use. One side of the butt end was broken recently.

17 (ME). Provenience: Sabará, situated east of Belo Horizonte.

Material: basic rock (diabase?).

Description: crescent-shaped blade, expanding butt. Entire surface polished. Grooves at corners where blade and butt meet. Blade slightly assymmetric. All edges of blade sharpened. Edges of butt thinned, butt end flattened. Transverse section of butt biconvex. Maximum thickness is 2,5 cm. Total length is 10,9 cm., width at blade 10,2 cm. Length of butt is 6,0 cm., width between 3,7 cm. and 5,8 cm. Use is evidenced by a blunted, chipped cutting edge.

Two anchor-shaped axes from the State of Minas Gerais have been illustrated by Walter (1958: fig. 15 d, e). Both were found in the region of Pedro Leopoldo, situated northwest of Sabará. One ax is of basalt. It has one point broken, and shows “abrasion scars caused by hammer blows” on the upper body surface (Op. cit., 160). The second ax is of polished stone and has a crescent-shaped blade and an expanding butt.
IV. The following anchor axes are from the State of Mato Grosso:

18 (MP; Pl. III). Provenience: purported to have been collected in Kayabi territory, on the upper Xingú River.

   Material: gneiss.

   Description: crescent-shaped blade, butt tapering from the blade end. The blade is set off from the butt by a raised edge. Entire surface is polished, except at the flat butt end, which shows pecking marks. Blade is thinned and sharpened towards the convex edge. Lowes edges are shaped to form a slightly protruding ridge. Butt is thinned towards the sides, transverse section is biconvex. Thickness of blade at the raised edge is 2,1 cm. Butt is 1,6 cm. thick near the blade, and 1,3 cm. at the opposite end. Total length is 13,1 cm., width at the blade 14,0 cm. Length of butt is 5,5 cm., width tapers from 7,7 cm. to 6,0 cm. One point has been broken, and minute flakes struck from the surface of the opposite point.

   Comment: this ax is of Rydén’s “northern type”, characterized by a “ledge” separating the blade from the butt.

   The Kayabi speak Tupí (impure?) (H.S.I., 3, pp. 307-308; Malcher 1964: 100). At present, there is a group of Kayabi living on the River Manitsauá, an affluent on the left margin of the Xingú River (Malcher, 100).

   The Kayabi are reported to have held a monopoly on stone axes (H.S.I., 3, p. 309), but no reference to the use of anchor axes among them exist.

19 (MP). Provenience: Kayabi territory, upper Xingú (as above).

   Material: diorite.

   Description: crescent-shaped blade with expanding butt with a rounded end. Entire surface polished. Blade has a sharp convex edge, and rounded to sharpened lower edges. Shallow grooves were made at the corners where blade and butt meet. Sides of butt are rounded, transverse section is ellipsoid. Maximum thickness is 1,5 cm., approximately at the centre of the butt. Total length is 9,4 cm., width at the blade 8,0 cm. Butt is 6,0 cm. long, and 3,0 cm. to 4,0 cm. wide. One point of the blade has been broken, and there are minute chipped areas along the convex edge.
V. The following axes are from the State of Goiás:

Material: amphibolite.
Description: relatively narrow blade with rounded corners, which merge into a butt which expands at the opposite extreme. Surfaces well polished except at the butt, which shows pecking marks. Maximum thickness of 3.4 cm. is at the rounded butt end from where the specimen is thinned towards the sharp, convex blade edge. Sides of butt and butt end are rounded. Transverse section is ellipsoidal. Total length is 13.5 cm., width at blade 11.8 cm. Maximum width of butt is 7.0 cm. Minute chipped areas on the blade edge suggest use. One corner of butt end has been broken off.

Comment: a number of anchor axes from Goiás State were published by Rydén. As mentioned, however, this specimen is very similar in shape to ax no. 9 from the State of São Paulo.

Material: basic rock (diabase?).
Description: crescent-shaped blade with nearly T-shaped butt. Surfaces are polished, except at one side of butt end, which shows pecking marks. Shallow V-shaped grooves were placed at the corners where butt and blade meet. Fine striations from the smoothing process are visible on the surface. The blade is very sharp, lower edges rounded. Sides of butt are rounded, butt end thinned and rounded. Surfaces of butt are flattened, transverse section nearly tubular. Maximum thickness is 2.2 cm. Total length is 14.0 cm., width at blade 16.2 cm. Butt is 9.0 cm. long, and expands in width from 5.3 cm. to 9.2 cm. Small chips were struck off the convex blade edge and the corners of the butt end.

Material: granite.
Description: hafted anchor ax. Blade is crescent-shaped and separated from the butt by a raised edge. Visible surfaces are polished. The convex edge of the blade is sharp, lower edges thick and flattened. Surfaces of butt are
flattened, sides rounded, and transverse section nearly tubular. Maximum thickness at the blade is 2.3 cm. Below the raised edge, thickness of butt is about 2.0 cm. Total length of the ax (including the haft) is 18.2 cm., width at blade 18.4 cm. Butt is 8.6 cm. wide at the blade end. Small chips have been struck off the convex blade edge and at one point. Surfaces shows pecking marks.

About 2.0 cm. below the lower edges of the blade, the butt is wound around with cotton string coated with a waxy substance. Attached to the base of the butt is a “rudimentary” wooden handle, also wrapped around with cotton string. The haft is circular in cross section with a diameter of 2.4 cm. at one end, and about 1.4 cm. at the opposite extremity. One extremity of the haft is flattened, the opposite end has been thinned at the lower end, so that one gets the impression that it turns slightly backwards. One end has been wrapped with strips of wax-coated bamboo, showing a geometric design in contrasting light and dark elements. Two cotton bands, each 1.5 cm. wide were sewn together and attached to the extremities of the haft by means of string, and serve a carrying strap. The loose ends of the band form a short and a long fringe which hang down from the haft.

Comment: According to information received from Schultz (1965), the function of the anchor ax among present-day Krahó Indians is ceremonial. There is probably still one or more persons among the latter people who know how to manufacture the axes (Personal Information, Krahó Indian, 1965; Schultz, 1965). According to the former informant from Pedra Branca, an ax is carried by the “cantador” at dancing performances. The Krahó recently acquired cattle, and the Indians themselves chose the anchor ax as a mark of property of the cattle (Personal Information, Wilma Chiara, 1965).

The anchor ax described above is very similar to specimens illustrated by Rydén (Op. cit., fig. 6, B-E). Provenience of the latter is indicated as “unknown”, the Gaveôes, Rio Tocantins, and the middle reaches of Rio Tocantins (Maranhão) respectively (Op. cit., 68-70). Rydén (Op. cit., 54-55) observed that there seems to be a correlation between the use of a “rudimentary” haft and the ax becoming purely ceremonial in character. According to Rydén, the anchor ax was originally a weapon. “Magical notions” became
associated with it, and gradually “its function changed into that ... of a ceremonial weapon” (Op. cit., 54-55).


Material: white argillite.

Description: crescent-shaped blade, slightly expanding butt. The blade is set off from the butt by a raised edge. Base of butt is flat, sides are rounded, and transverse section ellipsoid. The convex edge of the blade is sharpened, the lower edges flat. Both surfaces of the blade are painted in yellowish-green (plant juice), and four painted lines, one on each side and one in the centre of both surfaces, run lengthwise along the butt. Width of the painted lines are 0,6 - 0,8 cm. Furthermore, both surfaces of the blade are decorated with fine, shalow incision, similar on both faces, and made after painting. Total length is 12,7 cm., width at blade 8,2 cm. Length of butt is 8,4 cm., width at the base 4,3 cm. Maximum thickness, just above the raised edge is 2,3 cm., below the edge about 0,2 cm. less.

Comment: two anchor axes which seem to have an incised design on the blade were collected by Kissenberth from the Kayapó on the Pao d’Arco River (Ryden, Op. cit., 59, fig. 2, C, D). According to Schultz (Personnal Information, 1965), the ax described in this section was cut out in the soft material with a metal knife blade. The Krahó Indians use kaolin for medicinal purposes, and the anchor-shaped object was apparently intended to serve the same function (idem).

VI. The following anchor ax is from the State of Piauí:


Material: dioritic gneiss.

Description: blade is crescent-shaped, sides of butt concave, base of butt convex and flattened. Blade is set off from the butt by a raised edge. Convex edge of blade is sharp, lower edges thick and form a slightly protruding edge. Sides of butt and base are thinned. Transverse section of butt is biconvex. Maximum thickness, at the blade, is 2,3 cm. The butt, just below the edge is 2,0 cm. thick. Total length is 12,8 cm., width at the blade was about 15,0 cm. The butt measures 7,4 cm. in length from the raised edge
to the end, and is 8.8 cm. wide at the lower edge. One point was broken off. Breakage at the blade edge and at one corner of the butt end is recent.

Comment: an ax of a similar shape from the same State was published by Rydén (1937: 55, fig. 13, no. 2).

VII. The following anchor axes are from the State of Amazonas:


Material: fine-grained, grayish stone.

Description: narrow rounded blade, which merges into an expanding butt. The blade was polished, the butt ground. Blade is sharp and sides of butt thinned. Butt end is flattened, transverse section is biconvex. Maximum thickness is 3.0 cm. Total length is 12.9 cm., width at blade 11.0 cm. Butt end is 7.8 cm. wide. Blade was chipped and blunted by use.

Comment: Rydén published a specimen from the “Maué” district, which shows little similarity to the ax described above (Op. cit., 76; fig. 10, C). However, an ax published by Barbosa Rodrigues (1879, pl. V, no. 24) from the margin of the Parú River is identical in shape to ax no. 25, but the former was not included in the class of anchor axes by Rydén. On the other hand, the latter author classified three different specimens, which also bear a great resemblance in outline to the latter, in the group of anchor axes. Provenience of the latter is “unknown”, Minas Gerais, and Óbidos district (Pará State) respectively (Rydén, 58, 59, fig. 1, q, m; 75, 76, fig. 10, A). The number of known specimens similar to the above is not sufficient, however, to justify a firm conclusion as to whether such axes should be regarded be regarded as anchor axes, axes of “incipient” anchor-shape, or as a different class of artifacts.


Material: rhyolite or “seam of aplite”.

Description: small ax with nearly trapezoidal blade, and a slightly tapering, notched butt. Entire surface, was polished. Butt end is straight and flattened. The specimen is thinned towards a sharp blade with thick, flattened lower
edges. Sides of butt are flattened, transverse section is
rectanguloid. Two lateral notches, U-shaped, and about
0,3 - 0,4 cm. wide and 0,1 - 1,2 cm. deep were made 1,1 cm.
from the butt end. They appear to have been produced by
cord sawing. Pecking marks visible on the surface. Maximum
thickness is 2,0 cm. Total length is 6,5 cm., width at blade
7,5 cm. Length of butt is 3,3 cm., width ranges from 2,2 cm.
to 3,2 cm. Small chips have been struck of the edge of the
blade.

Comment: Notched anchor axes are apparently rare.
Rydén published two specimens only: (1) triangular blade,
narrow butt, lateral notches placed at the junction of blade
and butt. It was found at Sant'Anna on the Rio Uatumá
(Amazonas) (Rydén, 76; fig. 13, no 20a; Barbosa Rodrigues,
pl. 3, no. 12); (2) crescent-shaped blade, narrow, tapered
butt with lateral notches placed relatively low down (Rydén,
76; fig. 13, no. 19). This ax is from Rio Machado, a tributary
to the Rio Madeira (Rondônia), (Op. cit., 76). According to
Rydén it differs from axes found in eastern Brazil as well as
on the middle Amazon by the way the notches are placed on
the butt. Rydén also stated that its nearest counterpart
"consists of an archaeological find from Chordeleg in
Ecuador" (Op. cit. 76). As the place where the former ax
was found is rather far away from the remainder, this author
thought it might have arrived "by the agency of trade" (Op.
cit., 76). With regard to the way the notches are placed on
the ax from Rio Machado, however, it closely corresponds to
that of the specimen from the region of the "middle" Amazon
River described in this section.

27 (MP; Pl. IV). Provenience: from the vicinities of
Lake Arari, near the town of Itaquatiara, located on the
northern bank of the Amazon River, west of Manaus.

Material: (basaltic?) porphyry.

Description: triangular blade with rounded corners, short
tapering butt with a notch on each side placed close to the
junction with the blade. Surface is very smooth, and polished
to a lustre. The notches are unpolished, U-shaped, about 0,5
cm. wide, and 0,2 - 0,5 cm. deep. Fine striations suggest they
were made by cord sawing. All edges of blade are thinned,
and the curved edge well sharpened. Sides of butt are flattened,
butt end straight and flat, transverse section trapezoidal.
Maximum thickness is 1,2 cm. Total length is 9,0 cm., and
width at blade 11,0 cm. Butt measures 1,5 cm. from the
lower edge to the notch, and is 2.3 cm. wide and 0.6 cm. thick at the straight end. Chipped areas along the blade edge may have been caused by use.

Comment: The occurrence of notched anchor axes have been referred to above. Axes with triangular blades are apparently also rare. Two specimens were published by Rydén: (1) very similar to the one described in this section, with two lateral notches. It comes from Sant'Anna on the Rio Uatumá (Op. cit., 76, fig. 13, no. 20a); (2) the triangular blade appears to be set off from the butt by a raised edge. Sides of butt are concave, butt end convex. It has no notches. Provenience is given as “northern Brazil” (Op. cit., 58, fig. 1, L; Netto 1885: pl. VI, no. 25).

Rydén did not refer to anchor axes found in the State of Bahia. A number of specimens were reported by Ott (1944: 8, 9) from the region of the São Francisco Valley. They all apparently belong to the type, possessing a raised edge separating the blade from the butt, and which Rydén regarded as characteristic of anchor axes from the north. Two axes were illustrated by Ott (Op. cit., figs. 5 and 6), and their provenience indicated as Chiqui-Chiqui and Remanso respectively. The ax from the latter location has a T-shaped butt.

The method of production of the anchor axes described above, may be tentatively summarized as follows: (1) careful selection of raw material, (2) rough shaping by striking off flakes from the chosen block or nodule — this is indicated by the complexity of shape, (3) pecking — as evidenced by the scars on surfaces of some of the artifacts, and (4) grinding and usually polishing. The method of manufacture as well as the complexity of shape suggest that technical skills were highly developed, and that stylistic standards were fairly rigid. It might be postulated that certain “atypical” or “rudimentary” specimens represent shapes which are either “early” or “degenerate”, or were possibly attempts to copy the appearance of axes used by other groups of peoples. “Use marks” noted on a number of axes seem to indicate that they have been employed as tools or weapons. Naturally, some of these scars might also have occurred by some mishap, and a few appeared to be quite recent.

As mentioned, on present evidence and lacking stratigraphical data, it is difficult to suggest any chronological sequence of types. No such classification or development is
immediately apparent. However, the anchor axes do appear
to fall into four main categories when classified on typology
alone. These are as follows:

I. blade: roughly semi-lunar or crescentic in shape; butt:
   (a) sides parallel, gradually expanding or converging from
   the blade end, or (b) broad, T-shaped, or (c) notched (only
two side-notched specimens known), (Rydén, fig. 13, no. 19).

II. blade: as in Category I, but separated from the butt
    by a raised edge on both surfaces; butt: as in (a) or (b); no
    notched specimens are known (Pl. III).

III. blade: distinguished from the above by its trian-
gular shape; only three specimens are known, one of which
may have a raised edge separating the blade from the butt;
butt: (a) sides perhaps as above, (1 specimen), or (b) side-or
    corner-notched (2 specimens), (Pl. IV; Rydén, fig. 13,
    no. 20a).

IV. a group loosely defined as characterized by a rela-
tively narrow blade ("incipient" or "rudimentary" anchor
shape). Axes falling into this category were illustrated by
Rydén (Op. cit., figs. 1, Q, Y; 10, A).

The above classification of anchor axes is tentative. The
number of specimens, specially in Categories III and IV, is
not sufficient to warrant a firm conclusion. Thus, it may
be that axes with notched butts should be regarded as forming
a separate category or type. Furthermore, we have left as
"unclassified" some "atypical" forms such as a specimen
published by Rydén (Op. cit., fig. 10, C) from the middle
Amazon region, characterized by a relatively large blade
shaped as an inverted U and a short narrow butt. The latter,
Rydén (Op. cit., 76) found very similar to an ax already referred
to from the same region, but characterized by a triangular
cit., 59-60; fig. 2, A-D) also illustrated a number of "models
of anchor axes" collected by Kissenberth from the Kayapó
(Gé-speaking) Indians on the Pao d'Arco River. They are
characterized by large blades (roughly rectanguloid or
crescent-shaped) and narrow butts, and two are apparently
embellished by incision on the blade. The latter feature
was found on a single specimen described in this paper, and
which was, as far as we know, destined for medicinal purposes.

On the evidence available, the anchor axes included in
the respective categories are distributed as follows:
Category I. — Have been encountered from the extreme south of Brazil to the region of the Amazon River. The most western limits seem to be in the area of the Kayabí in the south, and the Rio Negro in the north. In the eastern zone of their distribution, they appear to be rare north of the State of Minas Gerais. It is not apparent that T-shaped butts occur more frequently in the north than in the south. In the eastern zone they were found from the State of Rio Grande do Sul to Minas Gerais in the north. A single notched specimen was collected at the Rio Machado in the northwest.

Category II. — More common in the north east, in the territories included in the State of Bahia, Piauí, Ceará, Maranhão, northern Goiás, and eastern Pará. A single specimen was purported to come from Kayabí territory on the upper Xingu. Has not been reported from Minas Gerais, but a single specimen was found in the south, in São Paulo State. It is possible that some of the hafted axes illustrated by Rydén may have T-shaped butts. Known samples come from the Tocantins Valley (Rydén, figs. 1, N; 13, no. 8), and from the State of Bahia.

Category III. — Have been reported only from “northern Brazil” and the middle Amazon region. Specimens from the latter region are notched.

Category IV. — Show a scattered distribution from São Paulo in the south to the Amazon area in the north.

As mentioned, notched axes should possibly be included in a separate category, and may be provisionally regarded as a feature characteristic of anchor axes in the northwestern zone of their distribution. Although anchor axes distinguished by an “offset marking off the edge from the butt portion” were found as far south as São Paulo, they appear to be more characteristic of the northeastern zone. The latter feature was by Rydén (Op. cit., 80) regarded as typical of axes from the north. However, it has not been reported from the Amazon region. The latter author also considered the “broader, or almost T-shaped” butt to be “in the main characteristic northern feature” (Op. cit., 80). It is, however, apparently rare in the Amazon area, but was found in the eastern zone from the extreme south to the north. The possible significance of the distribution of anchor axes with expanded (T-shaped) or notched butts may have to be studied with relation to that of axes of different shapes,
but characterized by one or the other of the latter features, and which also seem to have an extensive distribution in Brazil.

It is difficult to be precise in the interpretation of the significance of the variety of so-called anchor axes. As mentioned, it could be suggested that the different types represent "phases" in the development of these artifacts, that they are the products of different cultures, or simply local variation within a single culture complex (see f. ex. Rydén, fig. 5, A-G). Our present knowledge being elementary, it would be difficult to justify a claim that distinct types only occur within certain areas, which can be delimited geographically or culturally.

A number of anchor axes have been recovered archaeologically, but no means have been found of dating them. They have generally not been associated with other artifacts known as to cultural relationships. Rydén (Op. cit., 72) mentioned that Nimuendajú found a fragment of an anchor ax at the site of Castanhal, situated on the right bank of the Paraná do Ramos, a southern tributary of the Amazon Rives. The latter fragment was associated with two notched axes of different shapes, as well as with fragments of pottery decorated in the so-called "Paurá" and "Konduri" styles (Ryden, 73, fig. 9). The latter pottery may in some way be related to that best known from the culture complex called the Santarem style, believed to be protohistoric. We have above referred to the find of an achor ax in the State of São Paulo, which was apparently associated with pottery and other artifacts, the cultural relationship or chronological position of which are enigmatic.

As far as the earliest known hafted anchor axes are concerned, the blades appear to be largely similar to those described in Categories I and II in this paper (see Rydén, figs. 3, A-D, F; 11, 12). This also seems to be the case of the majority of specimens pertaining to the 19th century (Ryden, figs. 4, A-D; 6, A-H), or those which Nimuendaju collected from the Apinayé in the present century (Ryden, fig. 5, A-G). Rydén (Op. cit., 67; fig. 5, D), however, suggested that one of the latter specimens showing a narrow and squat blade may be "degenerated". This author also pointed out that it is difficult to judge the antiquity of anchor axes, as Kissenberth as mentioned that the Mękúbengokrá-
Kayapó “stored up their anchor axes buried in the ground” (Op. cit., 67), and presumably rehafted them several times.

The widespread distribution of anchor-shaped artifacts throughout Brazil and neighbouring territories might be explained as a result of convergent development, contact (direct or indirect), or influence from a common source. Although, at present no continuous distribution has been demonstrated, it is interesting to note that anchor-shaped axes have been found in Argentina, in Peru and Ecuador as well as in the Antilles, and the possibility that cultural contact may explain the similarity of this element in the latter regions and Brazil deserves consideration.

In ethnographical times, anchor axes were mainly found in use among groups belonging to the Gê linguistic family, and as stated above Rydén regarded the anchor ax as an element typical of the culture of the Gê-speaking peoples and “a means of establishing the spread of the Gês tribes” (Op. cit., 80). Nimuendajú claimed that the anchor ax is an ancient element of the latter culture. However, although it is quite feasible that anchor axes may have a considerable time depth in the culture of the Gê tribes, their antiquity remains to be proved. Nimuendajú, contrary to Rydén, also thought that anchor axes of the Amazon region had developed from the primitive axes of the area. However, one is brought to the conclusion that defense of the hypotheses of either Rydén or Nimuendajú would be difficult without further extensive research. Perhaps it seems more likely, that once introduced (or invented?) somewhere in Brazil, anchor axes spread into other parts of this area. It is still a matter of conjecture whether the Gê-speaking tribes were in fact the sole manufacturers of anchor axes, and whether the distribution of these objects in Brazil should be regarded as evidence of Gê migrations or Gê contacts (trade, war) in this extensive territory. It is also a matter for future investigators to decide whether the apparent absence of anchor axes in northwestern Brazil is culturally significant, or whether it is only apparently so, due to our lack of knowledge of the archaeology of the latter region.

What conclusions have we arrived at as a result of our discussion of anchor axes? The answer is, that we realize that we are dealing with a very difficult problem about which it would be precipitate in the present state of knowledge to speak authoritatively. As indicated by the title, this paper
ir not intended to be exhaustive and conclusive in its treatment of the subjects it discusses. A point which should be made, however, is that in spite of Rydén's excellent study, a variety of problems pertaining to the origin, development and distribution of anchor axes in Brazil still confront us. Maybe this paper will serve to turn the attention of archaeologists and ethnologists towards any evidence, hidden in museums or still to be gained in the field, which can throw light on these questions.
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