POLSKA AKADEMIA NAUK — ODDZIAŁ W KRAKOWIE
PRACE KOMISJI ARCHEOLOGICZNEJ
Nr 16

POLISH CONTRIBUTIONS IN NEW WORLD ARCHAEOLOGY

Edited by
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WROCŁAW • WARSZAWA • KRAKÓW • GDAŃSK
ZAKŁAD NARODOWY IMIENIA OSSOLIŃSKICH
WYDAWNICTWO POLSKIEJ AKADEMII NAUK
1977

Redaktor Wydawnictwa Krzysztof Plater

Printed in Poland

Zakład Narodowy im. Ossolińskich — Wydawnictwo, Wrocław. Oddział w Krakowie 1977. Nakład 620 egz. Objętość ark. wyd. 8,00; ark. druk. 7,00; ark. form. A1 9,31. Papier druk. sat. kl. III, 80 g, 70×100. Oddano do składania 1 III 1977. Podpisano do druku w listopadzie 1977. Druk ukończono w listopadzie 1977. Zam. 317/77 Cena zł 36,—
Drukarnia Uniwersytetu Jagiellońskiego, Kraków ul. Czapskich 4

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FROM THE EDITOR

During the course of the past few years, the Archaeological Section of the Cracow Branch of the Polish Academy of Sciences has been conducting a programme of research into "Problems of the Archaeology of the New World". This project has produced a number of studies devoted to Central America and the Peruvian Andes. At the same time, the first excavations by Polish specialists in the Caribbean and the Peruvian Andes were undertaken. Moreover, Polish scholarship has made a significant contribution to the palaeo-anthropology of America, as well as to the interpretation of some important cultural phenomena in Central America.

The present volume contains only a selection of our findings, but it is hoped that this will initiate a whole series of original studies by Polish scholars into the prehistory and archaeology of the New World. Now that the Archaeological Section of the Cracow Branch of the Academy is sponsoring the first Polish archeological and ethnographical expedition to the Peruvian Andes, the prospect of acquiring new original source material is more encouraging than ever.

Unfortunately, the contents of this volume do not include the interesting article by A. Żaki, read at one of the meetings of the Archaeological Section, concerning the pre-Columbian settlement of Cerro Alto et Toro in the Upper Moche basin (Peru). This account, which deals with the discovery of the so-called "heads of Ayangay", arrived too late to go to print, due to a postal delay.

3. Undefinied volcanic rocks 1.4%
4. Other (probably metamorphic) 7.1% Total 28.2%

The tables above show that local rocks, readily available in the immediate vicinity of the site, predominate (almost 3/4 of the total).

THE SIGNIFICANCE OF OUR SITES IN RELATION TO THE EARLY PRECERAMIC CULTURES OF THE PERUVIAN ANDES

The preceramic sites so far investigated in this region of the Peruvian Andes fall into two types:

1. Temporary cave camps used repeatedly by small groups of hunters during summer expeditions. These include the Lauricocha site, which lies approx. 55 km to the north of Pucayacu, and the slightly nearer site (about 45 km) of Ranracancha [31], where settlements corresponding to the middle development phase of the Lauricocha sequence are represented.

2. Open, predominantly terraced sites of the "base camp" or rather "workshop" type, where quartzitic sandstones were prepared. The site at Ambo (sometimes known as Perjaypata), situated approx. 80 km to the NE of Pucayacu, and the more remote site of Quishqui Puncu (about 200 km to the NW) both belong to this category [32]. Both are places whose chronology corresponds to the middle phase of the Lauricocha sequence (i.e. phase II, dated at 6000 to 3500 B. C.), and thus also to the period suggested by us for the sites of Limpio and Pucayacu. On the site at Quishqui Puncu as many as 94 thousand flint implements were discovered, including only 381 leaf points.

Seen against such a background, the sites which interest us may be defined as the first open hunters' camps, typologically similar to cave sites. The presence of such camps on the terrace of the Lauricocha river has already been noted by C. Cardich; he attributed them, however, to phase III (dated at 3500-1500 B. C.).

It should be emphasized that both our sites are the highest so far found in the Andes, exceeding the level of the Lauricocha cave by approx. 120 m. Other sites are considerably lower (e.g. Quishqui Puncu is 3040 m above sea level).

A further aspects of the sites' position is also worth noting. Namely, they lie on the western side of the main ridge of the Andes, whereas all the other preceramic sites quoted above are situated on the opposite, eastern side of the Cordillera.

The discovery of the flint implements in the region of the Cordillera Huayhuash thus points to the necessity of further investigations, which will undoubtedly allow us to fill the gap still existing in our knowledge of preceramic settlement (particularly in the early stages) between the main ridge of the Andes and the coast.

[31] A. Cardich, *Ranracancha: un sitio prehistórico en el departamento de Pasco, Perú*, "Acta Prehistórica", vol. 2, 1959.

[32] T. F. Lynch, *Quishqui Puncu—a preceramic site in Highland Peru*. "Science", vol. 158, 1967, p. 780.

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Kraków 1977

ANDRZEJ KRZANOWSKI

YURACCAMA. THE SETTLEMENT COMPLEX IN THE ALTO CHICAMA REGION (NORTHERN PERU)

The Alto Chicama region is located in the basin of the Upper Chicama River which has various local names such as Río Grande, Coina, Perejil above the place where it is joined by Río Chuquillanqui. Recently however, this section is referred to as Río Alto Chicama and it is this name that is introduced on the maps published by Instituto Geográfico-Militar in Lima [1].

In the present paper the Alto Chicama region will not signify the whole basin of the river but only the area covered by the archaeological investigations which were carried out in the uppermost part of the basin between the springs and the estuaries of Qda Huacamochal and Qda Cuyuchugo [2] (fig. 1).

The Alto Chicama basin is located in the uppermost part of the northern Peru's Andes at the Atlantic-Pacific watershed. This mountainous area shows considerable morphological variation. It's data range from 1800 m a. s. l. (Qda Cuyuchugo estuary) up to 4284 m a. s. l. (C° Callacuyán). As a result of the intense erosive activity of the Alto Chicama River a steep and deep V-shape valley was formed. The elevation variations between the valley bottom and the peaks amount even to 1000 m. The narrow valley bottom does not exceed 50 m in width and at some gorges it is only few meters wide. Numerous tributaries are well developed with valleys similar to the main one but with more vertical walled gorges.

Evident relationship between morphology and geological structure can be observed. The layers of hard quartzitic sandstones of several hundred meters thickness occur alternately with the complexes of soft clayey sandstones. Sporadic rocks of volcanic origin (andesite intrusions, tuffs etc.) can also be found. Ridge lines reflecting geological structure form a visible ridge--and-valley grid. Almost all the ridges in the Alto Chicama region are composed of quartzitic sandstones because of their highest weathering resistance. Depressions in this area originate from denudation processes and they were formed within rocks of low resistance.

Generally, two morpho-climatic zones can be distinguished here with the assumed separating boundary at about 3600 m a. s. l. The lower zone

[1] For instance, sheets Cajabamba and Otuzco of the physical map, scale 1:100 000.

[2] In the southern part the investigations covered also small areas belonging to the Moche, Santa or Crisnejas basins close that of the Alto Chicama basin.

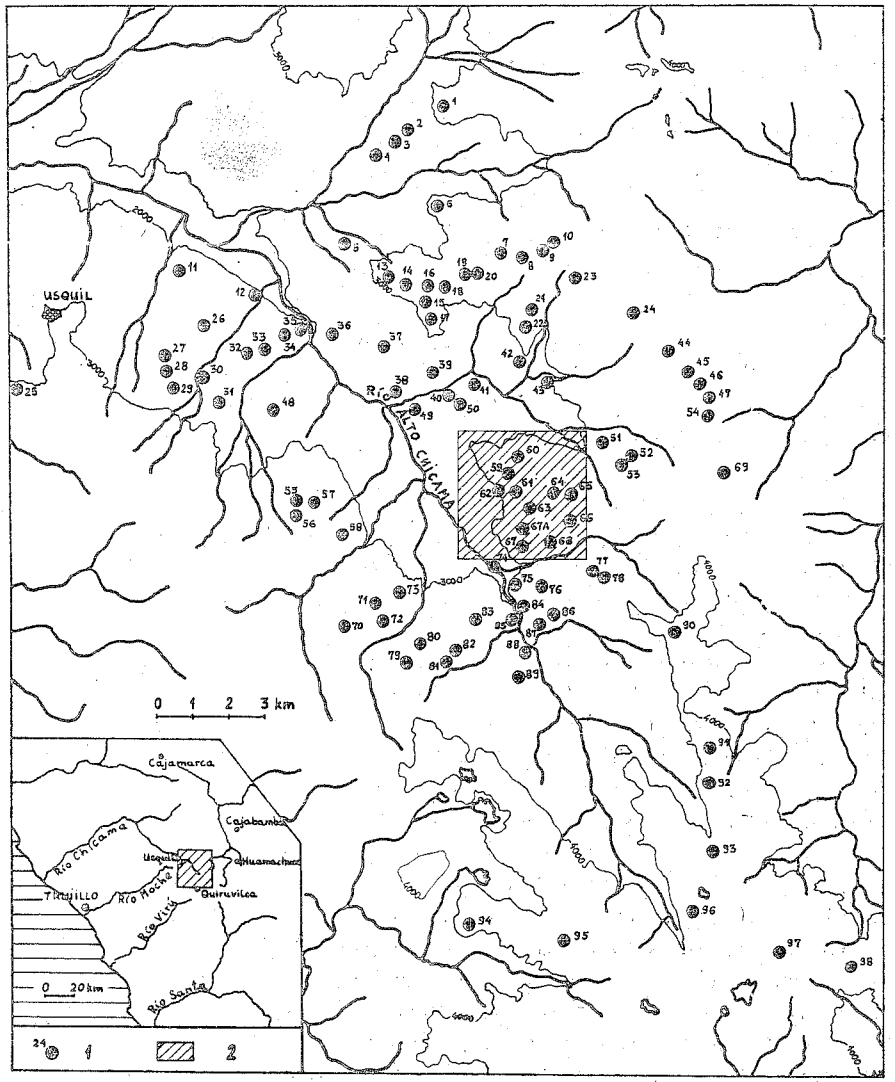

Fig. 1. The archaeological map of the Alto Chicama region
1—archaeological site, *2*—a part of the area mapped in more details

is characterized by milder climate. Mean yearly temperature ranges 11-16°C [3] but there is a considerable difference between day and night. Rains fall all the year round, however, from October to March they are regular and most abundant. The flora consists mainly of tufty grass, small perennial plants and shrubs. Trees are represented by single low quinual and quishar as well

[3] Maximum temperature between 22 and 29°C and minimum between 7 and −4°C.

as eucalyptus groves [4]. The upper zone (over 3600 m a. s. l.) is characterized by lower yearly mean temperature which ranges from 7 to 10°C [5]. Trees are not present here but only grass, cushion plants and shrubs are found. Similarily to the lower zone rainfalls vary here depending on a season and snow or hail are also frequent.

Morphology of the two zones differs considerably. The lower zone is varied and characterized by precipitous deep valleys and quebradas as well as narrow ridges and steep peaks. The landscape of the upper zone resembles puna with low elevation variations, shallow valleys and ovalshaped mountain edges. Lakes are numerous, though not deep they occupy big areas.

The present settlements are concentrated mainly in the lower zone whereas the area over 3600 m a. s. l. is practically uninhabited. Even a rough study of the archaeological map indicates a similar differentiation in the past. However on the basis of the few relatively large sites which I found in the upper zone (e.g. AC-92 or AC-98) it can be said that the difference was not that big.

Although no investigations have been performed here the Alto Chicama region is very interesting from the archaeological point of view.

During my several months' stay here in 1973 I had an opportunity to familiarize myself with the region and to carry out archaeological research covering the area of about 250 km². As a result, 99 archaeological sites were discovered and registered and their location mapped (fig. 1). I also made detailed plans of a few sites and surface ceramics collections were gathered from most of them [6]. Among the investigated sites we can distinguish mostly settlements, seldom corral concentrations or agriculture terraces and very rarely cementeries and road sections. The settlements almost always located in the uppermost parts of the terrain are particularly worth mentioning. Those are usually places of difficult access such as rocky crests or steep peaks.

The subject of the paper is a big Yuraccama settlement complex located in the center of the investigated area. It consists of 11 archaeological sites (fig. 2). They can be treated as one settlement complex since they are situated close to one another and constitute an isolated dense group. Moreover, as it will be shown below, they are functionally related and form a complex space arrangement.

Taking into consideration the number of sites as well as the area, the Yuraccama complex is regarded as one of the biggest in the Alto Chicama region. It is situated on the Yuraccama ridge which is morphologically well distinguished here (fig. 3). It runs NW—SE, parallelly to the Alto Chicama River which flows about 2 km SW. The ridge line is quite straight, descending gradually toward NW. The width of the ridge itself, limited from both sides

[4] The eucalyptuses were brought after the conquest.

[5] Maximum temperature amounts to 20°C and minimum even to −16°C.

[6] The collected pottery has been deposited in the stores of the Seminario Arqueológico del Instituto Riva-Aguero in Lima.

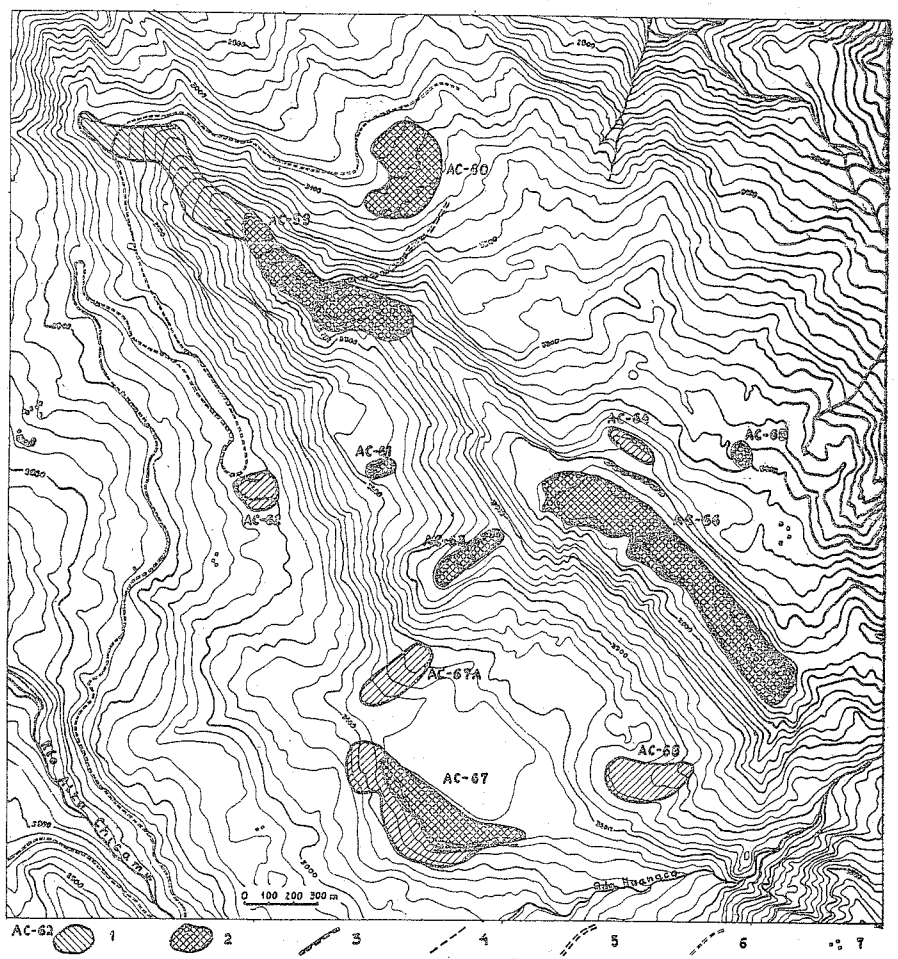

Fig. 2. The archaeological map of the Yuraccama complex

1—site area (terraces, corrals), *2*—area of the site with dense arrangement of houses, *3*-defense wall, *4*—canal, *5*—prehispanic road, *6*—present field road, *7*—present houses and shelters

by precipices, usually ranges from 30 to 60 m and only in the central part it reaches 150 m. Two peaks can be distinguished here: C° Mal Paso (3609 m a. s. l.), a small hillock in the SE part of ridge and C° Yuraccama (3350 m a. s. l.) [7], much lower but quite visible on the opposite side. The whole ridge is rocky and built of hard quartzitic sandstones. Layer stretch is almost the same as the ridge course whereas the dip (about 50°) corresponds

[7] The names were taken from the physical map, scale 1:100 000 (sheet Cajabamba), published by Instituto Geográfico-Militar in Lima (1970). The local people call these peaks C° Alto la Chira and C° de la Cruz. The latter is also called C° Yuraccama and refers to the whole ridge.

Fig. 3. A view of the Yuraccama ridge from north-east side

by A. Krzanowski

to the southwest slope repose. That is why in most places the slope is formed by smooth and rapidly descending sandstone slabs which make the ridge unaccessible from Alto Chicama valley. The opposite side is milder although steep walls are formed in places by sandstone exposures intersecting the slope. Huge piles of blocks falling from the top can be found here.

LOCATION AND DESCRIPTION OF SITES

As it has been mentioned the Yuraccama settlement complex is composed of 11 sites numbered from AC-59 to AC-68 [8] (map, fig. 2). They are situated not only on the ridge itself but also on its slopes. These are ruins of two big and three smaller settlements as well as of terraces and corrals.

All the walls are of stone, constructed in a pirca way as it is called in Peru. This consists in using rough stones of various size stuck in clay mass. The stones are arranged in layers and gaps between bigger rocks are filled with pebbles[9].

[8] The symbols were introduced by the author for the area covered by the investigations (AC stands for Alto Chicama).

[9] This type of wall construction, though very common in the Andes, has not been so far analyzed in details. But it seems that few types of walls connected with individual regions or periods can be distinguished.

Site AC-59 (C° Yuraccama)

It is a big settlement occupying the north-west end of the Yuraccama ridge, about 1.6 km long. The ridge is narrow here limited from both sides by precipices and thus the site is only 100-200 m wide. It covers the area of about 2.29 ha and due to its stretching out the maximum elevation variation within the site amounts to 350 m (from 3050 to 3400 m a. s. l.). Dense structure is typical only for the uppermost part of the site, i.e., C° Yuraccama

Fig. 4. A view of C° Yuraccama (site AC-59) from the south

by A. Krzanowski

(fig. 4) and the adjacent ridge section. The inhabitants utilized the whole ground suitable for building. The buildings reach the very edge of the steep slopes and in dangerous places retaining walls were constructed to prevent landslides. This area of about 1.15 ha is occupied by 300-400 buildings. Single buildings are sporadic. On the whole they have one wall common and therefore they form long rows or small, irregular groups (3-4 houses).

All the buildings have one room only and their shape is rectangular or square with the area of some 20 m². There is a narrow (0.6 m) door framed with vertically placed big stones. Larger stones were also used for corners. In the inner walls of few houses there are shallow niches (0.4 × 0.4 m) as well as rows of stone tenons which probably supported ceilings. The preserved walls are usually 1-1.5 m high but in some parts of the site only foundations can be seen.

Most buildings are standing on terraces which make the slope milder and protect from landsliding. Terrace walls rarely exceed 1.5 m. Buildings are often constructed at the edge of terraces in such a way that the walls were joined with the terrace wall. In such cases the total hight of the wall amounts to 3 m. Actually no fortifications were found, however, the numerous terraces especially those with houses could constitute a defence system similar to the existing one at the site AC-63. Poorly preserved ruins and their extension make difficult stating of the presence of such a system unless a detailed plan of the whole site is worked out.

It is in this site that the only gate (fig. 5) completely preserved can be found, situated at the edge of ruins on the northern slope of C° Yuraccama. The gate is only 1 m wide and 1.2-1.5 m high built in a thick (0.8 m) and solid wall running perpendicularly down the slope from the terrace. The

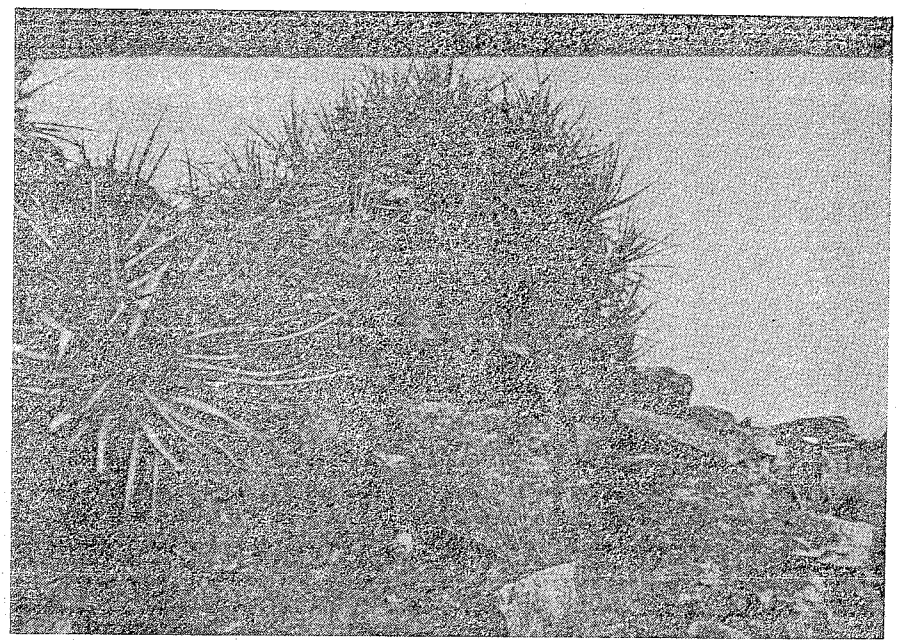

Fig. 5. Gate in the site AC-59

by A. Krzanowski

entrance does not lead to the settlement but along the terrace wall limiting the densely arranged buildings. The purpose of the gate is questionable due to the small size and its peripheric location.

The central part of the ruins is intersected by a relatively well-preserved road the traces of which can be clearly seen on 1 km distance (fig. 2). It passes from the site AC-60 up the slope reaching the ridge slightly below C° Yuraccama. Farther, its traces can still be seen on the other slope where it probably

led to sites AC-61 and AC-63. Depending on morphology the width of the road varies from 1 to 2 m. It is partly paved, many places are reinforced with low walls and steps are found at steepnesses.

The lower part of the site consists of numerous irregularly situated terraces and retaining walls. The few buildings in the area prove that it used to be intensively cultivated. The only burial in the whole complex was found here. Unfortunately it had been plundered and the only remains were a few bones and sherds of simple coarse pottery. The body was placed in a small cave which later got walled up.

Site AC-60

This concentration of buildings and terraces is located below the Yuraccama ridge (3070-3130 m a. s. l.) where the slope is quite mild. In this site of about 0.8 ha there are 50-60 houses. The buildings are scattered and usually stand separately. Occasional huge rocks in situ were utilized as individual

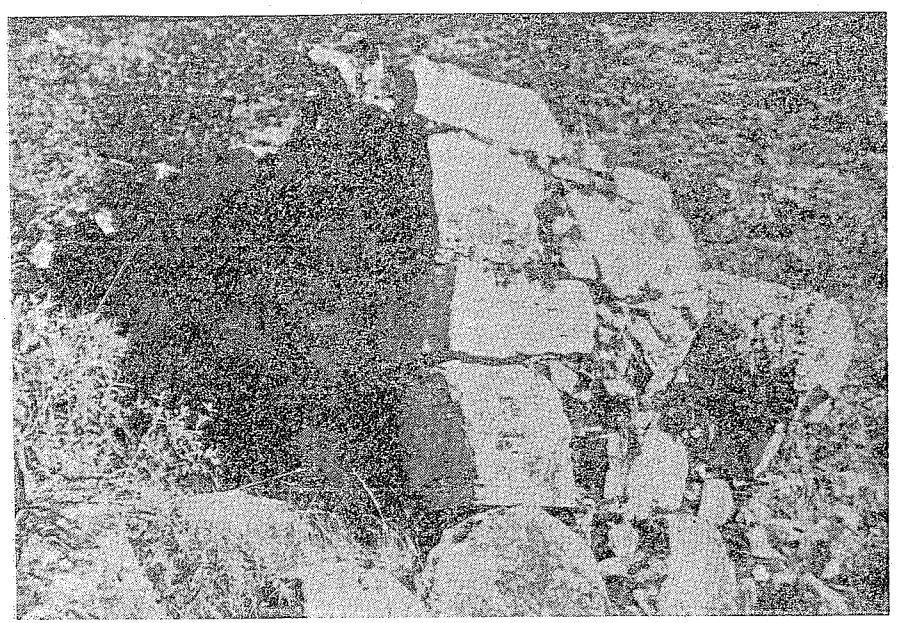

Fig. 6. The site AC-60. Ruins of a house

by A. Krzanowski

walls of houses. The buildings are almost of the same size as those of the site AC-59 described earlier. They differ in wall construction only which consists in using large sandstone blocks (fig. 6). They are of cuboid shape (1 m long) that must have probably been slightly worked but the use of such big blocks in the Alto Chicama region is very rare.

Site AC-61

The site is situated on the small hill (about 3250 m a. s. l.) at the edge of the platform adjacent to south-west slope of the Yuraccama ridge. It is composed of a group of buildings erected on low terraces. The ruins are poorly preserved and covered with shrubs which make penetration difficult. The area is about 0.11 ha with no more than 15 houses.

Site AC-62

It is composed of a few low terraces surrounding the small promontory (about 3000 m a. s. l.) located at the foot of the Yuraccama ridge. Also there were probably several buildings here but they can not be identified because of poorly preserved remains of walls.

Site AC-63 (C° El Redondo)

Situated on a steep promontory running perpendicularly to the Yuraccama ridge somewhere at the middle of the slope elevation. This rounded promontory is called C° El Redondo by the local people. With its precipitous rocky slopes it is practically unaccessible except from north-west side. The site is of a defensive type. It covers the uppermost part of the promontory (from 3340 to 3390 m a. s. l.) with the area of about 0.23 ha (fig. 7) and is the best reconnoitred site within the Yuraccama complex. A detailed sketch was elaborated including all the architectural elements visible on the surface (fig. 10) [10].

The ruins are quite well preserved and the walls measure up to 3 m high. All of them are of pirca type (fig. 8) carefully constructed (even face, sharp corners etc.). There is a clear cut-division into two parts of the site. In the upper one buildings are denser situated as compared to the lower one. The houses have only one rectangular or square room the area of which usually ranges from 9 to 17 m² (maximum 28 m²) and provided with one narrow door 50-60 cm wide. There were no other holes except the entrance. Inside 40 by 40 cm rectangular niches can often be found and there may be as many as four in one house. The numerous remnants of ceilings indicate buildings of more than one floor (fig. 9). In many houses one can find rows of stone tenons which used to support a ceiling probably made of undurable materials (wood or reed). The houses were probably gable-roofed but no gable-wall exists to prove it, which is quite curious since the walls are relatively well

[10] The plan was worked out by means of measurements with the use of tape and geological compass with an inclinometer. It should be treated as an exact sketch only, for some differences may arise here in angles and distances resulting from exactitude of the accepted surveying method.

preserved. Most of the houses have more or less walls of the same height (1.5-2 m) and it looks as if they have always been so. Probably the upper parts were made of clay as it is the case in the whole sierra at present and at the Inca times. The existence of earth domes on several walls seems to support the above assumption. The domes might have been formed as a result

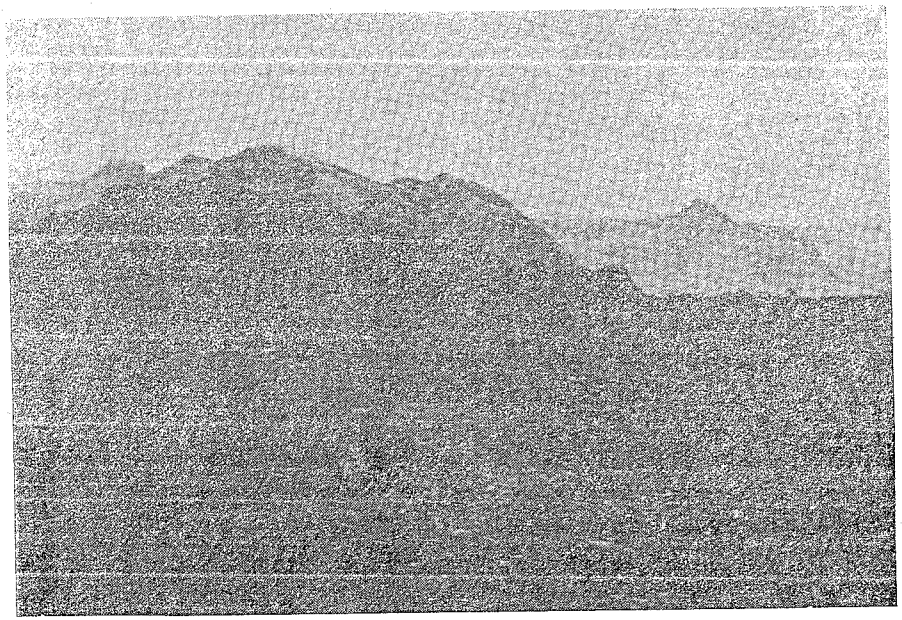

Fig. 7. General view of the site AC-63

by A. Krzanowski

of washing of the clay superstructure. The houses are usually connected into rows the longest of which consists of nine buildings. In such as arrangement they have the back long wall common with doors situated usually on the same side.

The upper part of the site is built on a few high terraces (fig. 7) and the houses connected with terrace walls form a closed arrangement. At the edges of the site the terrace walls (3 m high) are joined with the back walls of the houses built on them. The doors of the houses overlook series of small squares and passages being axes of this part of the site. There are only two narrow entrances situated in the opposite sides. Special walls were added to the complex of terraces and houses in easy accessible places. In result a defensive type of settlement was developed and the place was unaccessible when the two entraces got closed. Three groups (sections) of buildings can be distinguished in this defense part of the site denoted as A, B and C (fig. 19). The sections are separated from one another and the uppermost one (section A) consists of no more than five houses with only one entrance leading to it (fig. 20).

Fig. 8. Site AC-63. A corner of the wall around section A

by A. Krzanowski

It was built on the terrace sorrounding the top part of C° El Redondo. In places where no walls join the terrace an extra part is added to it and thus its total height amounts to 2.5 m. The only stairway leading to this section was also walled. In the uppermost part of the section there is a big flattened rock and the place can be reached by passages in two low walls. Taking into consideration the morphology of the site it is quite unlikely that the rock got here accidentally, for instance in result of falling of the Yuraccama ridge. Intentional placing of the rock in this privileged spot could indicate its special meaning (religious?).

The section B has a form of an irregular rectangle and is composed of 14-18 houses. In its north-east end there is a walled passage constituting sort of a narrow corridor. The passage to section C is rather curved and runs

the terrace along the wall of section A and ends with the narrow stairway. ere are 9 houses in section C.

Beyond this evidently defensive part of the site a fourth section (D) is ıated with different arrangement of buildings. This is the biggest section it consists of fifty houses which is more than in the other three sections ;ether. Although the houses form rows here this is not a defensive arrange- ːnt and they are built irregularly. One of them, composed of about 13 houses,

Fig. 9. The site AC-63. Interior of the house with a row of stone tenons
by A. Krzanowski

of a horse-shoe shape closed with a low wall. It is particularly interesting nce it is the only group of buildings in this section which could easily be ljusted into a defensive type (fig. 10). But the lack of fortifications in this ːction may result from its locality on the even and slightly sloped area.

On the C° El Redondo slope, beneath the settlement ruins numerous ːrrace walls can be found out of which only the nearest few were mapped. . thick wall (about 1.4 m) running down the slope is worth mentioning. ı its lower part there is an elaborate gate whereas along the section of the pper part a low retaining wall is running which walls a paved narrow passage. he wall being actually situated beyond the settlement looks unfinished and is very similar to the defensive wall of the site AC-63 which is not finished ther. Thick walls are also present at the north-east edge of the site enclosing

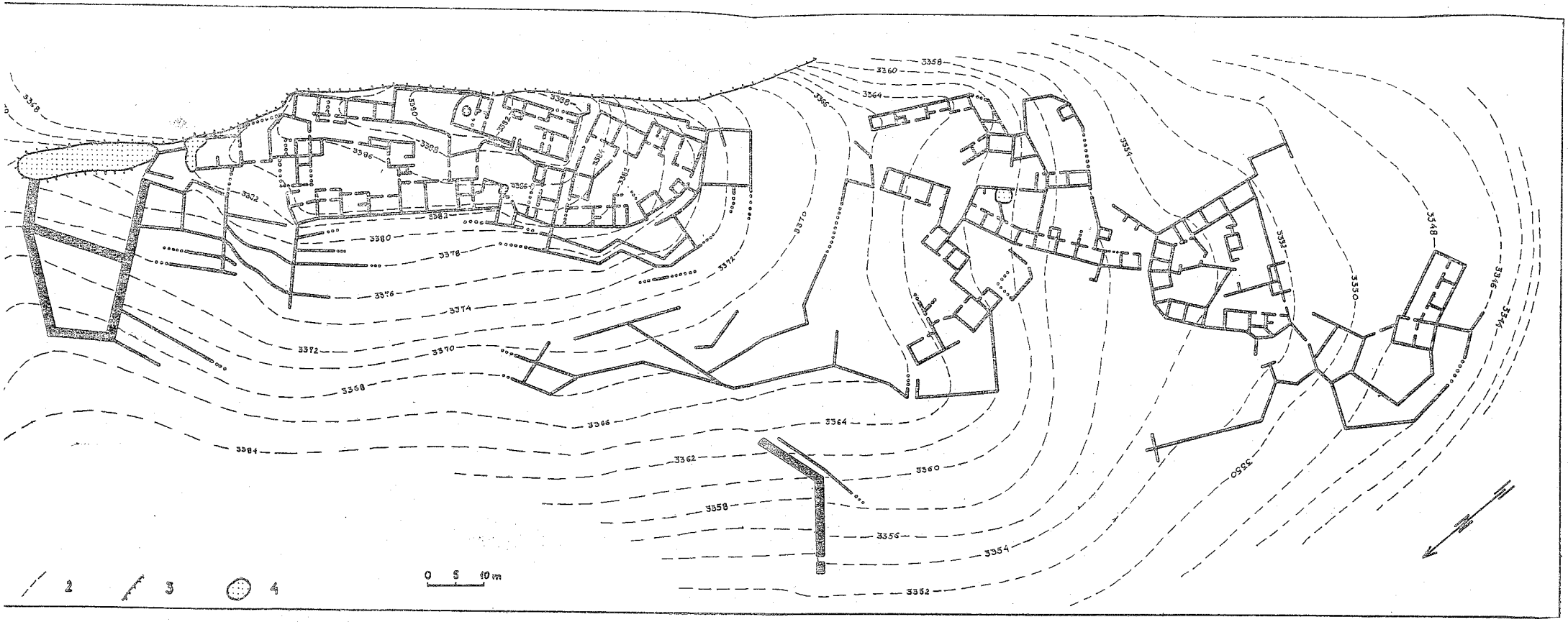

Fig. 10. Plan of the site AC-63

1—walls, *2*—approximate course of contour lines, m. a. s. l., *3*—precipice, *4*—rocks

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two large and sloping squares. One of the two entrances of the defensive part of the site leads to the upper square while the lower one is completely closed.

Site AC-64

Situated beneath C° Mal Paso on a small promontory (about 3480 m a. s. l.) sorrounded with a terrace. There are a few retaining walls here as well as remains of two rectangular and badly preserved buildings.

Site AC-65

Located on the north-east slope of C° Mal Paso it occupies an uneven area with huge rocks. There are numerous retaining walls here and several ruined houses.

Site AC-66 (C° Mal Paso)

Occupies 1.3 km long section of the Yuraccama ridge together with C° Mal Paso top (3609 m a. s. l.). It is a large and defensive settlement covering the area of 2.16 ha with about 600 houses in it. The dense building arrangement resembles that of other sites described earlier. Rows of houses (over a dozen) can also be found here as well as other elements of defensive nature. Similarly to AC-63 the rows of houses connected with terrace walls form several closed sections. The south-east edge of the site together with the section embracing the C° Mal Paso top show regularity and careful construction of walls.

Apart from the defensive arrangement of buildings the site has also special defensive walls (fig. 2) which is exceptional in the whole Yuraccama complex. One of them is about 150 m long and intersects the ridge in such a way that two thirds of the side get isolated automatically (fig. 11). This is actually a high terrace with a wall added at the top and its best preserved parts are up to 3 m high. Its course is irregularly winding. A few single houses were joined to the inner side of the wall which itself is not connected at all with the main settlement. The houses built on the other side of the wall are not so densely located and most of them form 3- or 4-unit groups and rows are rare here. It is an open section with no defensive arrangement. Most probably another defense wall built slightly beneath the ridge (on the north-east slope) was supposed to protect this part of the section. Similarly to the one described earlier it constitutes a retaining wall in the lower part of the terrace. The terrace itself is very narrow (about 1.5 m) and ended on the other side with a low retaining wall supporting the steep slope. The space between the defensive wall and the retaining wall (terrace) is even and paved with slabs in places. In this way the comfortable passage was constructed along the wall permitting the movement of those fighting inside. The wall is 2.5-3 m high and

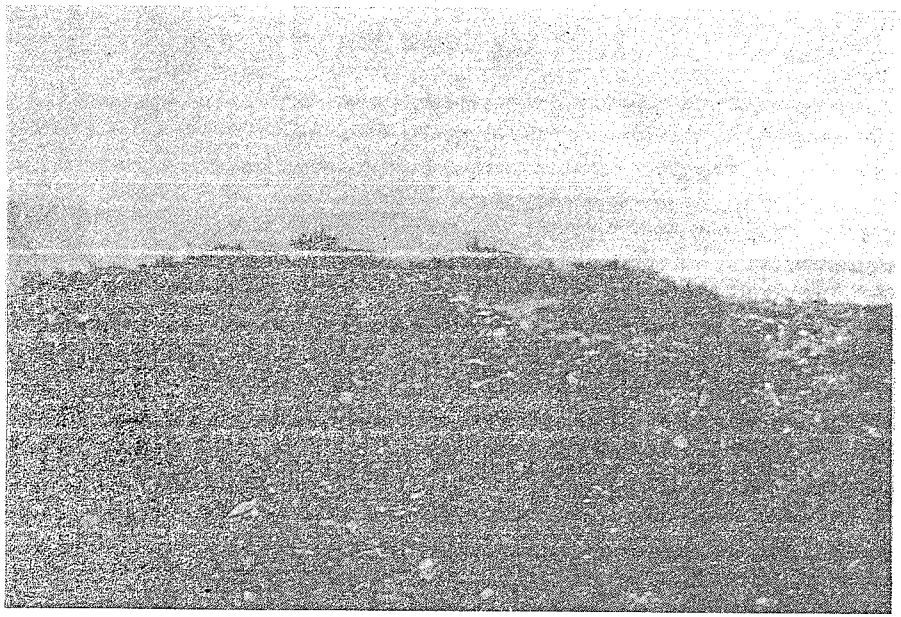

Fig. 11. The site AC-66. A defense wall intersecting the ridge
by A. Krzanowski

about 250 m long. This part is well preserved and not much ruined. No traces of its continuity exist. However the terrain on both ends of the wall is quite accessible which permits infiltration into the settlement.

Site AC-67 (C° Peña de Plata)

The ruins are situated on the high bank of Qda. Huanaco in the place called Peña de Plata (3170 m a. s. l.). From the valley side the slope is precipitous and rocky whereas from the other it passes smoothly into a flat basin reaching as far as the foot of the Yuraccama ridge. The basin called Pampa Chiquita is periodically filled with water. The site is rather densely built. As it is the case with the other sites there are rows of houses here but with no more than 3 to 4 buildings. No defense elements are stated here and from Pampa Chiquita the settlement is accessible in each place. There are about 200 houses here occupying the area of about 0.79 ha. Numerous terraces and retaining walls can be seen at the foot of the abyss beneath the ruins and on the slopes of C° Peña de Plata. In the northern part there is a group of corrals (fig. 12). Many passages and stairways were carefully done between the terraces and corrals. Along the southern edge of the site, slightly beneath the houses there is a long canal which used to carry water from Qda. Huanaco (fig. 2).

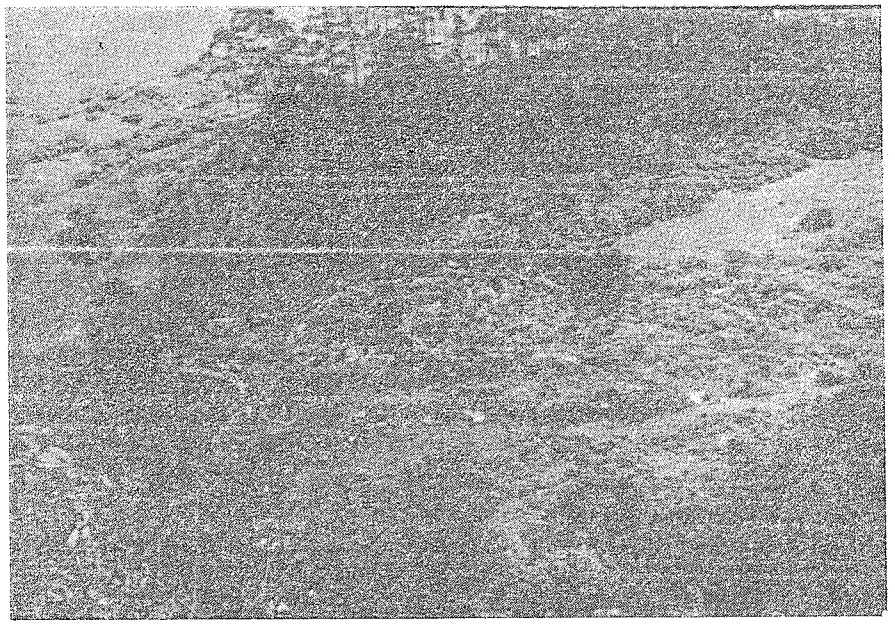

Fig. 12. The site AC-69. A general view of some terraces and corrals
by A. Krzanowski

Site AC-67A

The site is situated on a mild slope at the foot of C° El Redondo and composed of heavily ruined corrals constructed close to one another.

Site AC-68

Located at the foot of the Yuraccama ridge on the mild slope with huge rocks (about 3300 m a. s. l.). It consists of irregularly arranged corrals which are usually oval or polygonal in shape with average area of 100 m². The walls are low (up 1.2 m), carelessly constructed (uneven faces, little amount of clay mortar). They resemble the present stone walls but the latter are built with no mortar. Corrals are joined one to another and form a cell-like pattern. The big stone bloks which are lying here were utilized as elements of wall construction and "key points".

POTTERY

Totally 707 pottery sherds were collected from the sites of the Yuraccama complex. Due to the thicket and grass, gathering of archaeological remains was difficult and from some sites no sherds were taken at all. Most

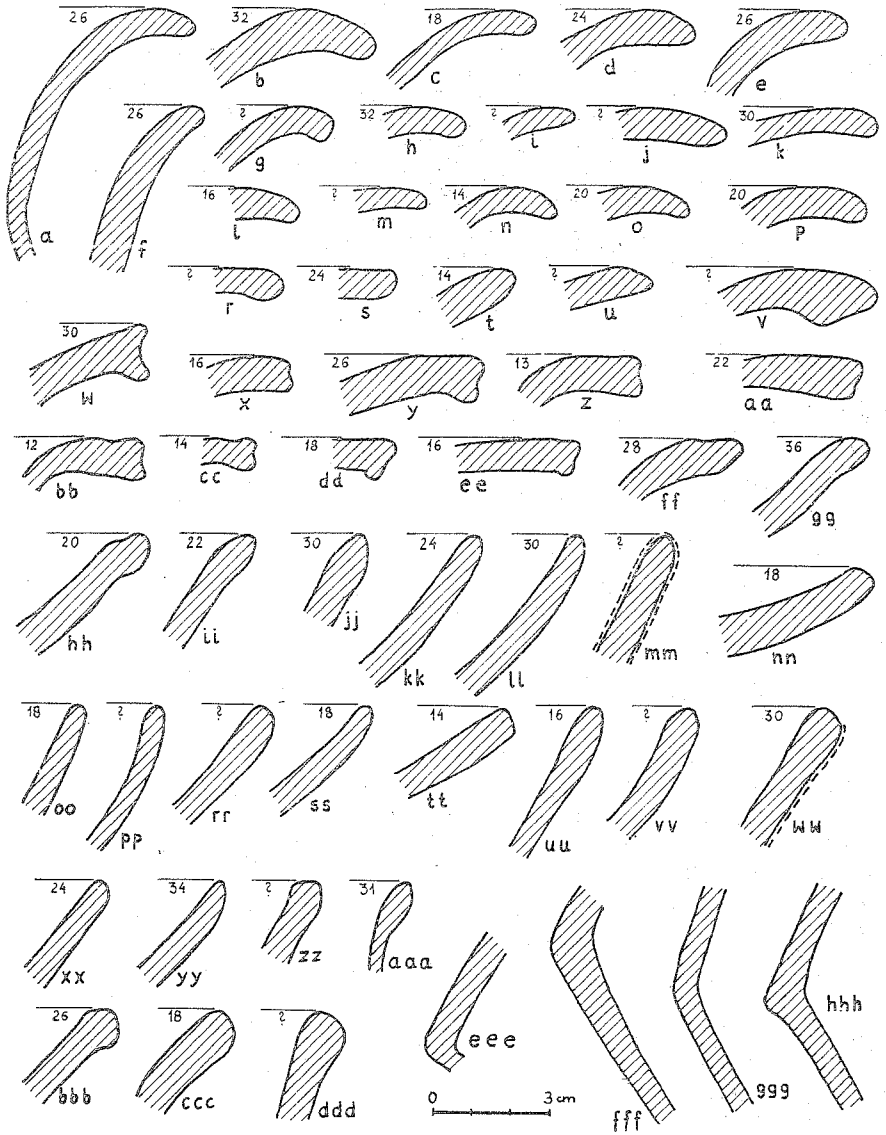

Fig. 13. Pottery from the site AC-59. Interrupted line shows the red-painted parts here and of other figures

probably, however, there is no pottery or only small quantity of it in the latter sites because of their character (corrals, terraces, small groups of buildings). The pottery was collected from six sites (AC-59, AC-60, AC-62, AC-63, AC-66 and AC-67) but more than 90% was found in three big settlements (AC-59, AC-63 and AC-66) which provided the most interesting specimens.

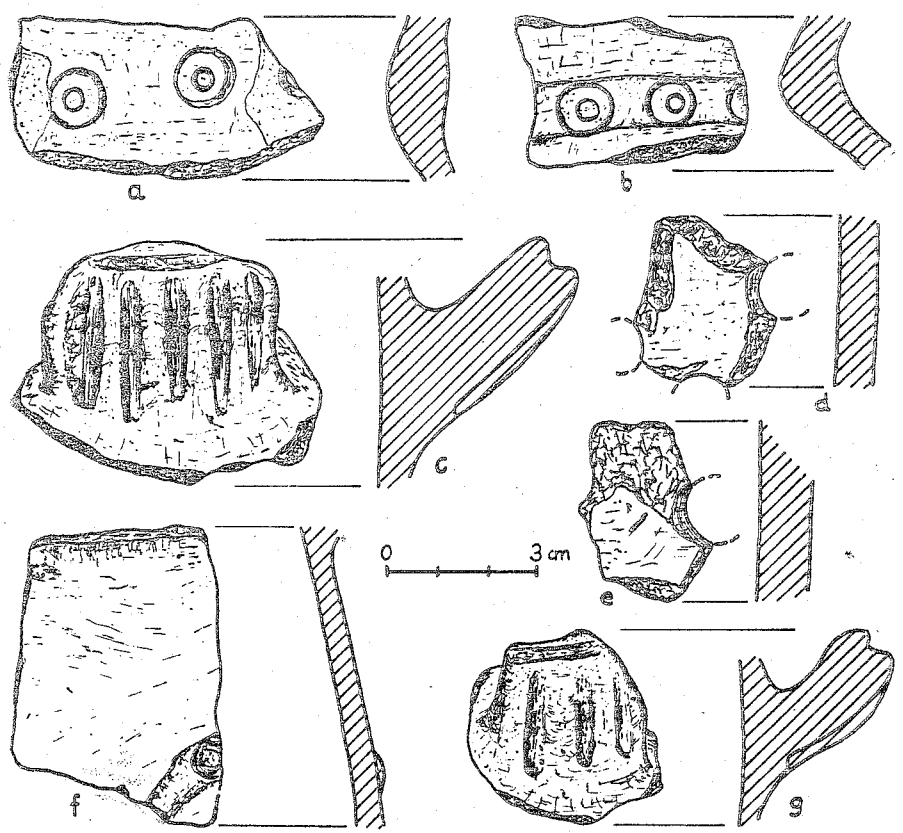

Fig. 14. Pottery from the site AC-59

As far as poterry paste is concerned the ceramics is of one type with two exceptions described hereinafter. The ceramics is mostly brick-red or brown and rarely orange or grey. It was fired unequally and therefore the colour is not uniform with many irregular grey-black spots. Sherd cross sections are similar in colour though they get darker in the center. Many pot fragments are light on the surface but have grey-black cores. Pottery is usually coarse and the grains measure mostly 0.5-1 mm and sometimes even up to 2 mm. The clay was tempered by adding 30-40% of crushed shale or volcanic rock. The outer surface of pots was polished with a hard tool which left parallel lines 1-2 mm wide.

As a result of morphological analysis of rim fragments three main types were distinguished and consequently named A, B and C. Type A is most frequent and occurs in four sites (AC-59, AC-63, AC-66, AC-67). It is flare rimmed with considerably turned out lip which is not shaped but mildly

rounded (fig. 13 a-u; 15 j-l; 16 i-m; 17 g-w). Orifice diameter varies from 10 to 36 cm but mainly from 18 to 26 cm. The average wall thickness ranges between 6 and 8 mm and exceptionally it may reach 16 mm. Rim fragments of type A were not painted or decorated in any other way. On the basis of

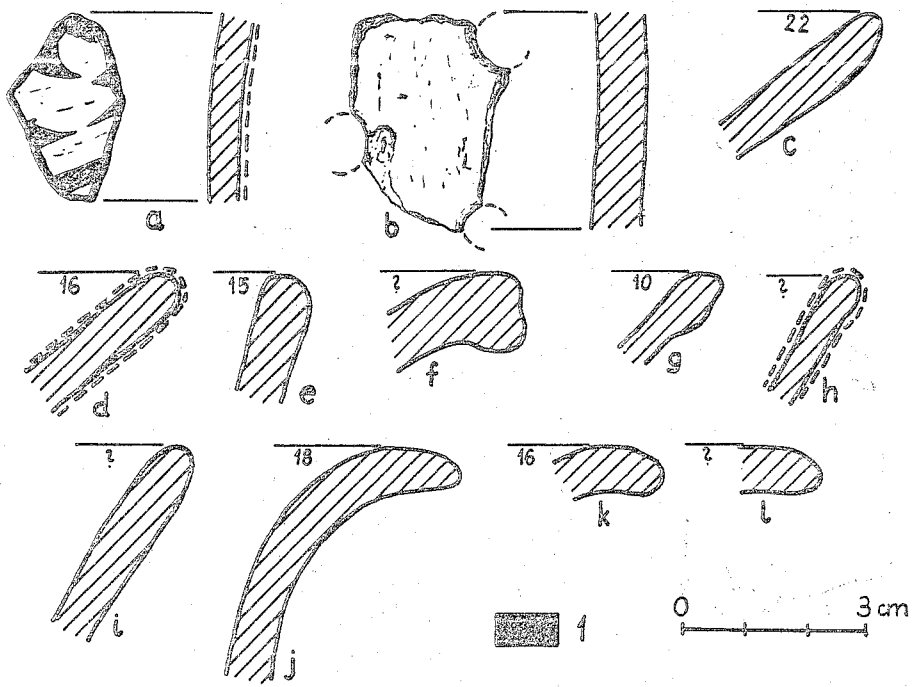

Fig. 15. Pottery from sites AC-60 (*a-f*), AC-62 (*g, h*) and AC-67 (*i-l*)
1—black-painted parts

the few bigger specimens it can be assumed that these fragments come from jars with short necks mildly passing into bodies. The second type (B) existing only in three sites (AC-59, AC-60, AC-66) has a lot in common with the first type and probably it is connected with the same kind of pots. A cut lip with a groove is characteristic of it (fig. 13 v-ee, 15 f, 17 x-z, cc, dd). The groove may be slightly marked or so deep that it almost causes splitting of the lip (fig. 13 w). Orifice diameter ranges from 12 to 30 cm but it seldom exceeds 18 cm. The walls are usually 7-8 mm thick. Type C is represented by simple flare rim fragments of bowls (such as fig. 13 ii-ddd, 16 d-h). Their lips are mildly rounded and not shaped. Sporadically they are slightly thickenned. Bowl's diameters show high variations and they range from 10 to 40 cm. Also the wall thickness is varied (4-10 mm). Some fragments of this

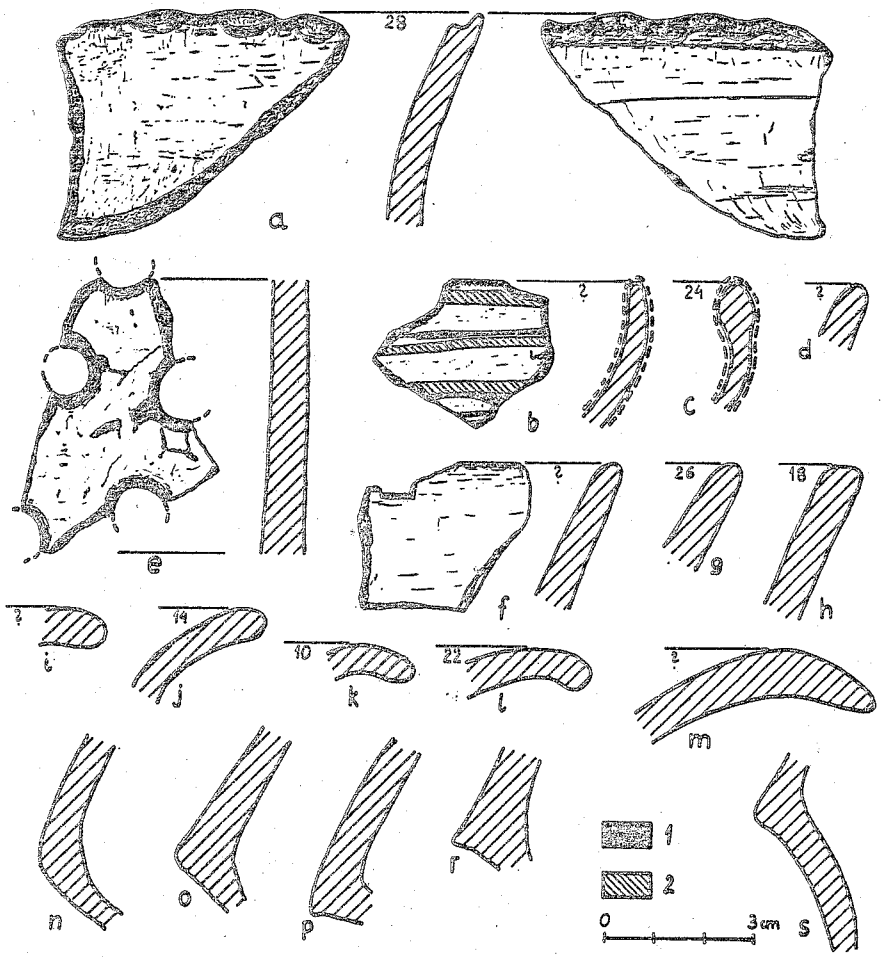

Fig. 16. Pottery from the site AC-63
1—black-painted parts, *2*—white-painted parts

type (15%) are painted red on both sides. Out of rim sherds the fragments of neckless pots collected from site AC-66 (fig. 17 a-b) are worth mentioning. One of them is decorated with a row of dots pressed in fresh clay to the depth 1-2 mm.

Apart from the rim fragments numerous sherds of the curve between neck and body were also found. In most cases the curve was visibly shaped though rounded. Some specimens indicate the technique of shaping of this very part. The neck was glued to the ready body and the outer joining line was often reinforced additionally with a clay strip (for instance fig. 16 n-s, 17 kk-nn). Not a single handle was found in the sites. Most probably the pots used by ancient Alto Chicama people were handleless and small appendices

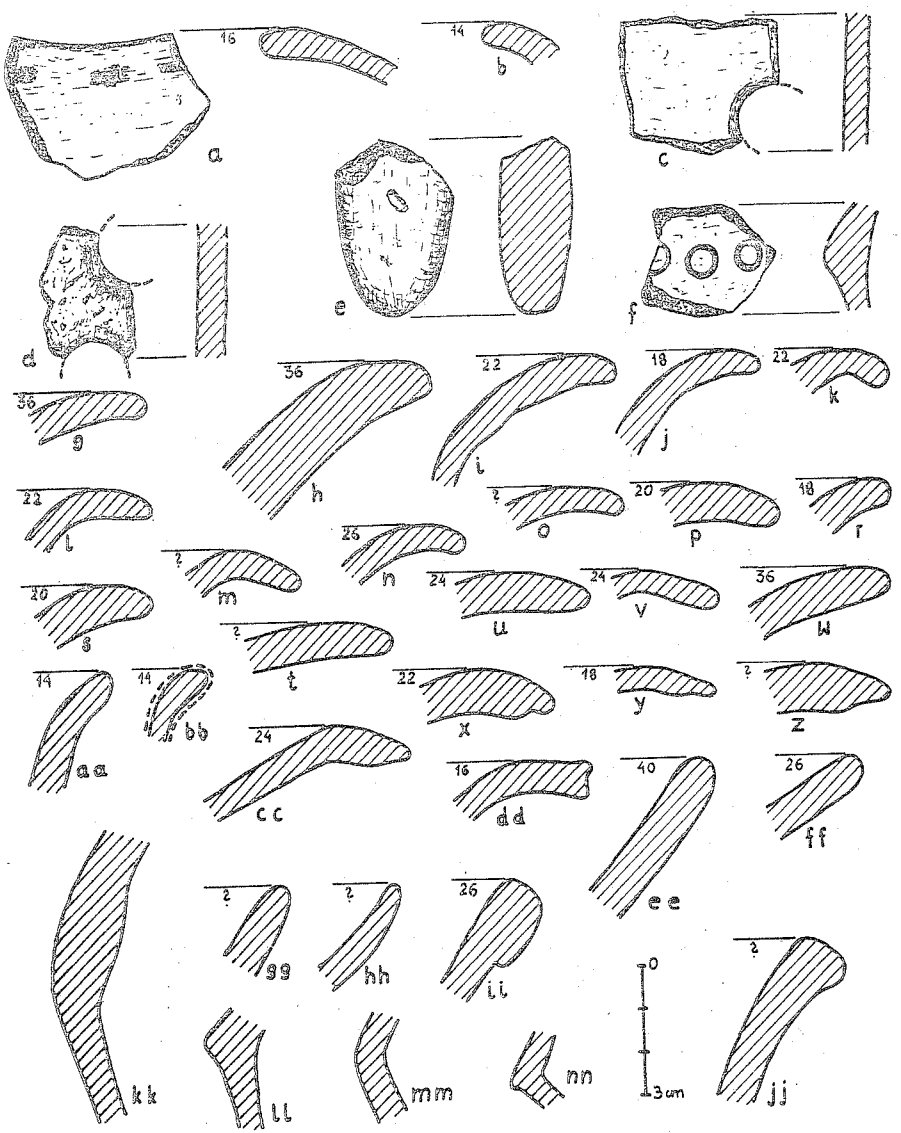

Fig. 17. Pottery from the site AC-66

were used instead. Two such specimens were found in the site AC-59 (fig. 14 c, g). They are of different size but both have concave ending and several wide and deep incisions on the outer surface. In four sites fragments of interesting ceramic colanders were found with big and round apertures (fig. 14 d-e, 15 b, 16 e, 17 c-d).

Out of decorated pottery there are several fragments found at sites AC-59 and AC-66 which represent the Huamachuco Impressed style. These are

three curve sherds decorated with a row of pressed circles and a body sherd with circles pressed on the glued strip (fig. 14 a-b, f; 17 f). The circles were carelessly pressed with a stamp and they are of different depth (0.5-2 mm). It is the only type of decoration present on several fragments; the other kinds are represented only by single specimens.

A sherd with a rim modeled in a peculiar way (fig. 16 a) was found in the site AC-63. It is step-like cut and its outer part of lip is about 5 mm higher. The elongated rim part was completely bent inside at intervals of about 1.5 cm. In consequence sinuous line was formed decorating almost the whole width of the rim. The diameter equals 28 cm and it was probably a kind of jar with simple and slightly flared collar. Among the whole pottery collection from the Yuraccama complex there are only two sherds decorated with painting. Besides, their pottery mass is slightly different being composed of fine grains which seldom exceed 0.5 mm. The clay was probably slightly tempered with broken stone (10-15%). One fragment from the site AC-63 is a rim of a bowl of more than 10 cm in diameter (fig. 16 b). Its walls are thin (4 mm) and arch-like with a rounded lip. On both surfaces it is thinly red slipped with several white and black horizontal bands painted carelessly on the outer surface. The other fragment found in the site AC-60 is very interesting because of a negative painting decoration (fig. 15 a). The identification of the drawing which looks like a combination of bands and circles, is impossible due to a small size of the specimen. The drawing was painted with some sort of resin on the surface coated with red paint. The parts not decorated were painted black and thus a red negative drawing was obtained after removing of the resin.

SUMMARY

Summing up the description of the sites and archaeological remains they have provided we should first consider the conclusions which can be reached in respect of chronology. It is worth pointing out that the found pottery fragments do not determine the exact age of the sites which form the Yuraccama complex. Because the samples were taken from the surface and their number is limitted it is difficult to say whether they are fully representative of the archaeological material present in a given site. Unfortunately, no fragments were found related to any of well known and chronologically properly determined types of the Peruvian pottery.

Taking into consideration its pottery paste the ceramics constitutes quite a homogenous collection and it was most probably made of the local materials. However, there are two painted fragments here with different pottery paste which could have been imported.

Huamachuco Impressed is a common type of the Alto Chicama region and it is represented by a few fragments in the Yuraccama complex. This

is a newly named type in the Peruvian archaeology and its usage needs some justification. For the first time such ceramics was found in 1900 at Marca Huamachuco by M. Uhle [11] during his excavations. But it was published not earlier than in 1945 by T. McCown [12]. Till that time its presence was not stated except Marca Huamachuco itself and a few neighbouring sites. McCown placed this type of ceramics in "modeled or incised" group. But the group as such is quite varied and includes practically all the not painted but somehow modeled pots [13]. Although the pottery of the Alto Chicama region which is decorated with pressing constitutes only a part of this group it has some evident features that help distinguish it easily. This ceramics is often the only decorated type in the sites of Alto Chicama and Upper Moche basins [14]. In view of the above it is necessary to introduce this newly named type. The name Huamachuco Impressed has been used for despite the widespread occurrence the complete pots of that type have only been found in Marca Huamachuco and it is here that its chronological position has been determined. Only one kind of pots belongs to the Huamachuco Impressed type. These are jars of various size with ovoidal or biconic body (fig. 18). These are characterized by short necks with arch curved edges often turned out. The curve between the neck and the body is mildly rounded and sometimes weakly marked. The rows of circles pressed in fresh clay are the only ornamentation placed on the body or along the curve. Sometimes the circles were not pressed directly on a wall of the pot but on a clay strip glued earlier.

Only small fragments of pots decorated this way were found in the Yuraccama complex but there is no doubt about their identity with those of Marca Huamachuco. Also the numerous type A rims of Alto Chicama can be associated with the Huamachuco Impressed type. Curiously enough, they occur in a constant relation in the Yuraccama complex (50% rim fragments of a given site). Several non-decorated curve sherds prove that some of the jars lacked decoration. Supporting this opinion is the presence of non-decorated pots with typical Huamachuco Impressed [15] shapes in Marca Huamachuco. As decorated and non-decorated pots identically shaped are co-occuring not only in Marca Huamachuco but in the whole Alto Chicama region the stating of the type A rim can most probably be a proof of presence of the Huamachuco Impressed ceramics in a given site. In view of the above we can say that the Huamachuco Impressed ceramics is present in the Yuraccama complex as well as in sites AC-63 and AC-67.

[11] The Marca Huamachuco ruins are located about 25 km north-east of the Yuraccama complex and they are the only site so closely situated and excavated so far.

[12] T. McCown, *Preincaic Huamachuco. Survey and excavations in the region of Huamachuco and Cajabamba*, "University of California. Publications in American Archaeology and Ethnology", Berkely and Los Angeles 1945, vol. 39, No 4.

[13] McCown, *op. cit.*, p. 337.

[14] In the site C° Caupar for instance, investigated by the author in 1973.

[15] McCown, *op. cit.*, fig. 14 c, f; 15 j, m.

This type of ceramics was found by McCown in the latest settlement layer and classified as so called Late Huamachuco phase [16]. According to the present systematics this phase should correspond to the Late Intermediate and Late Periods. Although these periods embrace a long time interval (11th-16th cent. A. D.) the most precise age determination of the Huamachuco Impressed ceramics does not seem possible at the moment. Its association with the Late Periods is still supported by the occurrence of the imported coastal Chimu ceramics [17] in Marca Huamachuco and Alto Chicama. In turn some pottery resembling the Huamachuco Impressed ceramics

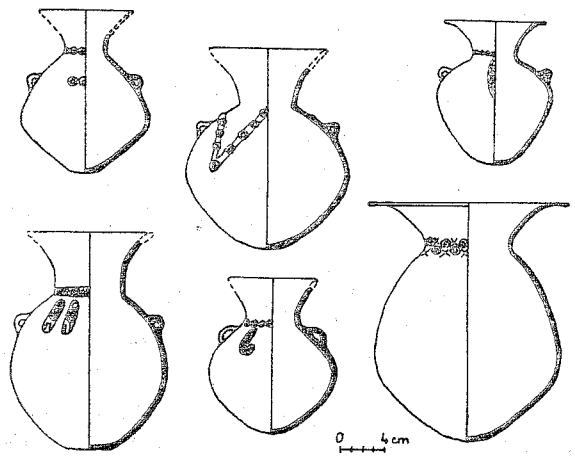

Fig. 18. Pottery of Huamachuco Impressed type from the Marca Huamachuco site (according to McCown)

was found at the coast in the Viru Valley. It was described by Ford as Estero Plain Group and classified as La Plata Phase corresponding to the Late Intermediate Period [18].

The ceramic colander fragments found in the Yuraccama complex are very rare in the Peruvian archaeology. The only analogy can be found in Marca Huamachuco [19] and in the Chupachu settlements (Huánuco region) of the Late Periods [20] which means that their territorial and chronological range was rather small. According to McCown they appeared only in the Late Huamachuco Phase [21]. Therefore determining the age of the Yuraccama

[16] McCown, *op. cit.*, p. 337-338.

[17] McCown, *op. cit.*, p. 338.

[18] J. A. Ford, *Cultural Dating of Prehistoric Sites in Virú Valley, Peru*, "Anthropological Papers", vol. 43, Pt. 1, American Museum of Natural History, New York 1949.

[19] McCown, *op. cit.*, fig. 16 a-b.

[20] D. Thompson, Investigaciones arqueológicas en las aldeas Chupachu de Ichu y Auquimarca, (in) Iñigo Ortiz de Zúñiga, Visita de la provincia de León de Huánuco en 1562, Huánuco, 1972, p. 360.

[21] McCown, *op. cit.*, p. 340.

complex it can be said that the sites containing Huamachuco Impressed pottery and ceramic colanders (AC-59, AC-60, AC-63, AC-66) were occupied in the Late Periods.

As it has been mentioned the other kinds of decoration in the Yuraccama complex are represented only by single specimens, which however can provide some complementary data to the sites chronology. Of special interest here is a fragment with a press modeled rim found in the site AC-63 (fig. 16 a) as well as two fragments of neckless pot (from AC-66) the one of which was press modeled (fig. 17 a-b). This kind of ornamentation was stated by McCown in the Campana East site near Huamachuco [22]. The pottery from this place is also decorated with zig-zag clay strip glued at the rim. Rim profiles are interesting as type A is absent and neckless pots predominate here [23]. Generally the material from Campana East is considerably different from that of Marca Huamachuco. McCown is of the opinion that the pottery from Campana East represents the oldest settlement phase which he named Middle Huamachuco I and dated as the beginning of Middle Horizon (7th-8th cent. A. D.?). Unfortunately it was not possible to determine the position of the phase during excavations either in Campana East or any other site [24]. However, in the light of the recent archaeological investigations the age he suggested proves erroneous. The pottery of Campana East type was found by Thompson in numerous sites in the Uchucmarca region [25]. He is of the opinion that these sites belong to Late Intermediate Period and Late Horizon and even Early Colonial Period. The ceramics from Campana East and Uchucmarca region is closely related with the pottery of so called Kuelape culture (from the Chachapoyas region) belonging to more or less the same period [26]. G. Savoy has also published ceramics found near Chachapoyas with glued zig-zag strip and decorated exactly as the specimen from AC-63 [27], but unfortunately he gives no details on it. Thus the age of the Yuraccama complex (period 11th-16th cent. A. D.) was confirmed again. Since in the Alto Chicama region there are sites represented only by the Campana East pottery (for example AC-52, AC-92, AC-97) it is quite probable that two groups of different culture coexisted here.

Coming back to the finding of the negative painted fragment in the site AC-60, similar specimens (perhaps with the same drawing) were collected by McCown in Marca Huamachuco. They occur here sporadically in the older settlement layer together with the material of the Cajamarca III style [28]

[22] McCown, *op. cit.*, pl. 23 o-w.

[23] McCown, *op. cit.*, fig. 21.

[24] McCown, *op. cit.*, p. 340.

[25] D. E. Thompson, *Archaeological Investigations in the Eastern Andes of Northern Peru.* "Atti del XL Congresso Internazionale degli Americanisti", vol. I, Roma—Genova 1972, p. 363-369.

[26] H. et P. Reichlen, *Recherches archéologiques dans les Andes du Haut Utcubamba*, "Journal de la Société des Américanistes", N. S., vol. XXXIX, 1950, p. 219-246.

[27] G. Savoy, *Antisuyo. The Search for the Lost Cities of the Amazon*, New York 1970, pl. 42.

[28] McCown, *op. cit.*, p. 287.

which is typical of the Middle Horizon (7th-11th cent. A. D.). Thus it is probable that the site AC-60 was the earliest occupied site in the Yuraccama complex and it should be dated from the Middle Horizon. Also the case for it is a complete lack of type A rims which are so common elsewhere as well as visible difference of nature of buildings, wall structure and morphological location. The ceramic material provides an evidence for a simultaneous occupation of all the sites of the Yuraccama complex (except maybe AC-60) by people of the same tradition.

In respect of architecture many common features can be noted not only about single buildings but also about the arrangement of the whole settlement. In all sites stone walls are of the same pirca type with probable clay superstructure. Also such architectural elements as corners, doors, niches, etc. do not differ much. The houses are of rectangular or square shape and have one room with a small door. Ceiling remains and shallow niches were found in some of them. The area of buildings varies from 6 to 30 m² and it looks as if some of them were stores or so. A row of 5-10 buildings is a typical component of the settlement arrangement in the Yuraccama complex. The back walls of the houses usually form a straight line although sometimes it is irregular but all the doors are always on the same side. Detailed analysis shows that almost each settlement is a combination of such rows completed with walls, passages or single buildings. It is for the first time that these rows which are so typical of the Yuraccama complex and of the whole Alto Chicama region have been taken into consideration. They seem to constitute an initial stage of planned arrangement proving the existence of some common pattern. The settlement structure composed of rows resembles generally the late celular settlements of the Central Andes [29].

Division into sections is one more element indicating the higher level of the internal structure of the settlement. These sections isolated by terrace walls and blank back walls of rows of houses had only few narrow doors. The site AC-63 with its four sections (fig. 10) is an example of such a division. Three sections are joined together but each forms an independent and isolated unit of buildings. This arrangement can be seen clearly on the scheme (fig. 19). The sections A, B and C are most probably consecutive stages of the settlement enlargement. All of them as a whole as well as each individual one are of defensive nature. A possible reconstruction of the smallest section A presented on the fig. 20 evidently shows its hermetic character and separation from the settlement as such. It is usually the case that when a part of the settlement is of a defense type then "an open section" is situated beyond the fortification line and it is exactly so in the Yuraccama complex, sites AC-63 (section D) and AC-66.

[29] A typical celular unit is composed of several rounded houses usually connected together directly or by means of wall. The doors mostly lead to a small square. The celular structures were identified for the first time by D. Lavallée (*Estructura y organización del habitat en los Andes Centrales durante el periodo intermedio tardío*, "Revista del Museo Nacional", vol. XXXIX, 1973).

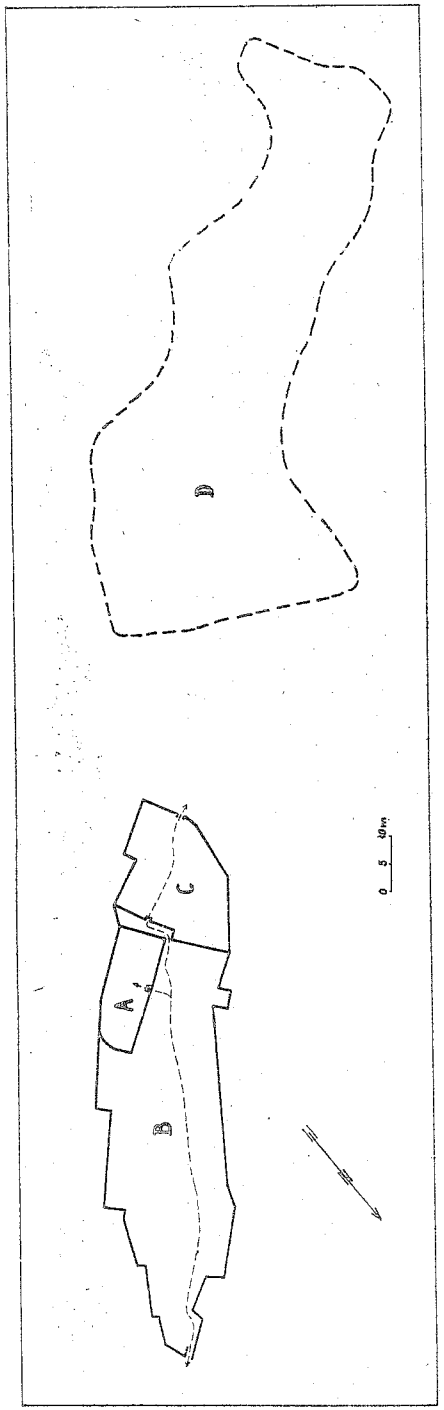

Fig. 19. Scheme of section arrangement in the site AC-63

The settlement is always intersected with a communication route being its axis. As it is seen on the scheme of the site AC-63 (fig. 19) where a course of such a route was marked the sections though connected together have routes of individual axis. This proves that individual sections were erected at different stages of the enlargement. The route is hardly ever ramified. Its most characteristic parts are running between two parallel rows of houses facing one another. Such an arrangement of two rows of houses with a communication route between them seems to serve a pattern for the arrangement of more or less all of the sites. Its presence in a pure form can be found in the site AC-66, Yuraccamá complex and also in many other sites in the Alto Chicama region (such as AC-77 or AC-83).

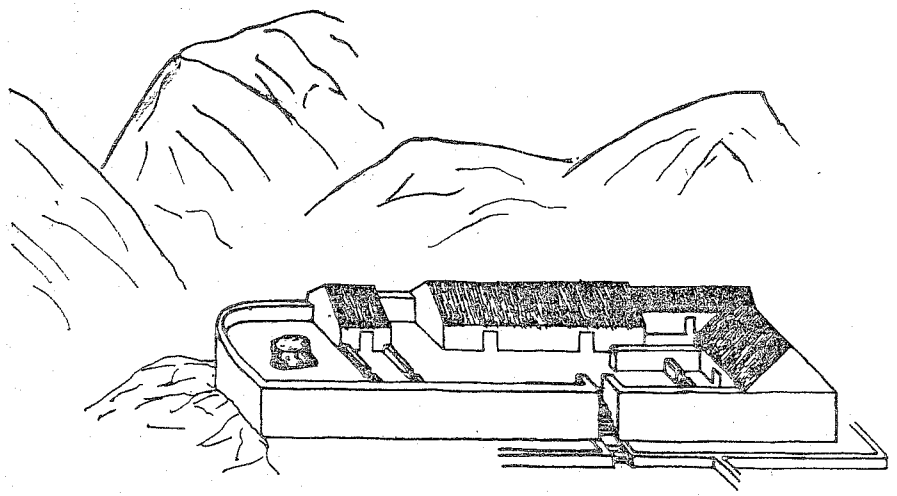

Fig. 20. Probable reconstruction of section A in the site AC-63

It seems that the above elements of the arrangement serve a general purpose of forming a defense system. In the Yuraccama complex the sites AC-63, AC-66 and may be also AC-59 are such a type. This kind of arrangement was exceptionaly complement with specially added fortifications such as the long walls in the site AC-66 (fig. 11). The defensive walls in the sites of the Yuraccama complex and some other sites in the Alto Chicama region are only partialy built. Both the course and location of the parts built shows that they were supposed to embrace a far bigger area than that occupied by the dense arrangement of buildings. The planned range of fortifications indicates that they were to protect also the neighbouring area prepared probably for a future enlargement of the settlement. We can expect that the necessity of construction of the walls was justified by the enemy's threat against which the traditional defense system was insufficient. But why then was the wall constructing stopped? At the time when the Yuraccama complex was occupied the Incas were the only enemies. Probably the fear against

the advancing troops forced the Yuraccama people to start the construction of widely developed fortifications. However the Incas conquered these areas very quickly [30], probably already at the initial stage of fortificating. During the Inca occupation the fortifications could certainly not be finnished because of their overwhelming military supremacy and strict administration control [31].

The morphological location of the Yuraccama complex and also of the most Alto Chicama sites is quite characteristic. A clear differentiation can be seen here depending on the nature of an individual site. The settlements are usually situated in the highest places of a given area such as tops of mountains and ridges. A part of settlements situated in this way is of a defense type but these are not numerous. Large non-defensive settlements were also built on tops of hills but not so high and of easy access (for example AC-67) [32].

The settlements of the Yuraccama complex are situated close to one another (maximum 800 m) forming a unit quite distant from other sites in the Alto Chicama region (fig. 1). The communication between given sites is quite covenient but not widely spread due to the morphology. In fact there is a convenient route between the two largest sites AC-66 and AC-59 but only the latter has a road running to AC-63 and probably still further to AC-67.

The numerous agriculture terraces indicate that the Yuraccama people were mostly preoccupied with farming. Most often they are in a direct neighbourhood of an individual settlement (for example AC-69 or AC-67) but many of them can also be found on the slope. Apart from reducing the slope inclination and preventing landslides the terrace walls made cultivation possible also at large steepness. Terraces were constructed in places where even 2-3 m^2 of arable land could be obtained. Extent areas suitable for farming without terraces can be found at the foot of the ridge. But the presence of numerous terraces on the slopes means that cultivation of fields located in convenient areas was not sufficient for all the people of the Yuraccama complex.

Apart from farming husbandry of llamas was developed. Corrals were built far from settlements, usually in isolated groups at the foot of the ridge. As it can be seen from their location mainly the inhabitants of the site AC-67 were occupied with husbandry in the Yuraccama complex. All the corrals are centered round this settlement and some of them are joined to it which is exceptional.

[30] Conquered in sixties of XV A. D. by Topa Yupanqui under the rules of Pachacuti.

[31] The Yuraccama complex found itself in guaranga Lampa, which was the capital one of the Huamachuco province and embraced Marca Huamachuco-Otuzco-Usquil areas (W. Espinoza, *La incorporación del curacazgo de Huamachuco al Imperio de los Incas*, "Actas y Trabajos del II Congreso Nacional de Historia del Perú", vol. I, Lima 1962, p. 117-119).

[32] In the Yuraccama complex the site AC-60 is an exception which as it has been mentioned is most probably older than the other sites.

There is no cementery, an essential settlement component, in the Yuraccama complex. The only burial from the site AC-59 may suggest that the dead were buried within the settlement. But it is quite probable that the cementery existed on the north-east slope of the Yuraccama ridge where graves might be placed under many rocks lying there. Checking of this assumption will require carrying out of punctual digging. Such cementeries were discovered among others in sites AC-57 and AC-83 and they seem typical for the Alto Chicama region.

The reasons for the location of the settlements should be discussed in more details since they are connected with mountain ridges and not, which is usually the case, with river valleys. Taking into consideration good and bad points of such a location of settlements it can be said that apart from defense reasons another important factor was not to occupy arable areas. Among disadvantages lack of water should be mentioned as well as construction difficulties. As it has been said only some settlements situated in the highest places were of a defense character. But the natural defense advantages were depreciated by the lack of water. And so in the site AC-67 only, Yuraccama complex, the traces of a water supplying canal can be found but as for the other sites no canals or reservoirs exist there. Moreover the site AC-66 for instance, biggest and most defensive is due to its morphology deprived of even theoretical possibility of water supplying be means of a canal. Since there are no reservoirs here it is interesting how the inhabitants of the settlement solved the problem of water supply. The nearest stream is the Huanaco but it is flowing about 400 m away and 300 m below the settlement. Carrying of water in pots must have been very troublesome and time-consuming. It is obvious that in this situation no longer defense of the settlement was possible.

A question arises why settlements were built in the highest places where water supplying and construction possibilities were so limited. True as it is, defense was an important factor but it could not have been a decisive one for the choice of locality. And now the other advantage of the location should be considered, namely saving of arable land. While analysing the terraces it was stressed that the Yuraccama people cultivated the highest slopes utilizing each acre of land. It seems that a considerable overpopulation of this settlement microregion could have been the reason. Assuming that each house in the Yuraccama complex was occupied by a family of 5 persons, so the number of inhabitants should amount to about 6000. It seems, however, that the above number is exaggerated and that a family could occupy more houses and finally not all of them had to be simultaneously dwelled [33]. Taking the above into consideration we can accept an assumption that one family occupied three houses, thus the number of Yuraccama inhabitants would

[33] In the celular settlements one family always occupied a few houses. This fact helped Lavallée (*op. cit.*) to correct the number of inhabitants in the late settlements of the Central Andes.

total 2000 which is quite a lot for the ancient Peruvian Andes. Considering the distance between the other settlements and the Yuraccama complex, the inhabitants of the latter could directly cultivate the area of about 15 km² limited by Qda Huanaco, Qda Chacomas and Alto Chicama River (fig. 1). Therefore the desity of population in the Yuraccama microregion amounted to about 130 inhabitants per 1 km², which is four times more than it is now [34]. In that situation arable land must have been considered precious and no wonder the people did their best to save it in all possible ways. And it seems to be a most important factor determining the space structure of the settlement in the Alto Chicama region. This assumption is once more supported by the fact that neither after the Inca conquest nor later after the arrival of the Spaniards did the settlement structure change at all although a defense factor was only of minimum importance [35]. The role of tradition which could have added to the duration of this settlement pattern should not be ignored here but undoubtedly the most significant reason was the economic necessity of the intensive exploitation of the nearest area. In the Alto Chicama region exploitation process consisted in the creation of space complexes such as the Yuraccama complex which could help utilize a given zone in the best possible way.

[34] Higher intesity of precolumbian settlement as compared with the present one was pointed out by several explorers, among others Thompson (*op. cit.*, p. 368) investigating the Uchucmarca region. Present data were taken from *Almanaque del Perú*, Lima 1973, p. 191.

[35] The settlement structure changed drastically in the seventies of XVI A. D. as a result of compulsory rehousing according to Francisco de Toledo's reducción policy.

POLISH CONTRIBUTIONS IN NEW WORLD ARCHAEOLOGY
Kraków 1977

JANUSZ K. KOZŁOWSKI

CHIPPED FLINT INDUSTRIES OF NEO-INDIAN CULTURES IN THE GREATER ANTILLES

INTRODUCTION

The purpose of this study is to discuss the problem of the chipped stone industries, which accompany the various ceramic cultures of the Greater Antilles. This theme has not yet been dealt with in full by the relevant literature; in fact, the information given so far has done little more than confirm the existence of stone flakes, occurring alongside ceramics of Neo-Indian cultures on the territory of Hispaniola and Cuba. In his classic study of the culture of the Taino peoples, S. Loven (1935) pointed out for the first time, that whereas in the Lesser Antilles ceramics connected with the Arawaks are found without any concomitant chipped stone implements, the latter appear fairly frequently in Hispaniola and Cuba.

Until recently it was thought that the oldest ceramics occurred in Puerto Rico, in approx. 200 A. D., as a result of the expansion of Saladero culture from the South American continent. Subsequently, circa 700 A. D., a second wave of Neo-Indian cultures spread, constituting the beginnings in Hispaniola and Cuba of various local groups attributed to so-called Ostiones culture (or to the ostionoid series). Later still local meillacoid groups developed on this basis (8th-9th century A. D.). Finally these were influenced by new elements from the continent, spreading throughout the Caribbean and attributed to so-called Boca Chica culture (or to the chicoid series). Such an interpretation of the course of events, based mainly on studies of ceramics, is suggested by American scholars, particularly by the author of the most extensive works on the subject—I. Rouse (1948, 1964).

The latest investigations conducted in Cuba and Hispaniola confirm the possibility of an earlier introduction of ceramics, which did not necessarily arise from the expansion of Saladero culture. The findings of M. Veloz Maggiolo (cf. Veloz Maggiolo, Ortega, Plinio Pina 1974) in El Caimito in the Dominican Republic, and the discovery by R. Dacal Moure of sites such as Aguas Verdes—Canimar in Cuba, all indicate that the first ceramics, which appeared in the Greater Antilles as early as the 1st century A. D., do not have direct links with Saladero culture. Perhaps, then, they were the result of a separate wave of influence, originating from the continent and