

HUANUCO VIEJO: AN INCA ADMINISTRATIVE CENTER

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ABSTRACT

Survey and excavations carried out at the Inca administrative center of Huánuco Viejo revealed a large city with a ceremonial and palatial section, large residential zones, and huge storage facilities. Well-cut Cuzco style masonry was limited to the ceremonial areas, which included platforms, gateways, a bath and an elaborate apartment, probably intended to house royalty or important officials. The residential districts were Inca derived in architecture and planning, and the pottery was virtually limited to Inca inspired wares, thus demonstrating a lack of influence in either architecture or ceramics of the local peasants who served at the site. The huge storage areas housed mostly local highland produce which was used to sustain the city, *mita* laborers, and transients, and was probably not used for extensive redistribution to the local villages in the surrounding area. The city, then, must be described as an artificial device imposed by the Inca for administrative and political purposes, rather than as a city which arose because of local conditions or needs.

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INTRODUCTION

This discussion of the former Inca administrative center of Huánuco Viejo, now an extensive ruin located in the North Central Highlands of Peru, is based on part of the results of a broader project conceived by John V. Murra (1962a) for a study of provincial Inca life (Fig. 1). Drawing upon the fields of ethnology, botany, ethnohistory, and archaeology, the project was built around a detailed 16th century *visita* to Huánuco (Ortiz de Zúñiga 1920-25, 1955-61, 1967), and had as one of its major objectives the study of provincial villages and the peasant populations under Inca rule (Thompson 1967, 1968a, 1968b, 1968c; Thompson and Murra 1966). The *visita* contained detailed census data and much testimony regarding economic organization, political structure, and religion during the period of Inca domination, and it was felt that archaeological data would substantially augment the information provided in the *visita*.

In addition to the location and study of local peasant communities which fell under Inca rule, it would obviously also be important to know something about the local Imperial Inca administrative center at which the surrounding population served and to which they carried goods and produce, as the *visita* indicates.

Since the work done at Huánuco Viejo was part of a larger project, its character was determined by the part it played in a broader research design rather than by a program of research which was aimed specifically at the city as an entity. This in part accounts for the incomplete nature of our results; certain aspects of the city received far greater attention than others.

Central to the study of the site was the search for evidence of relationships, particularly economic relationships, between the administrative center and its subject villages. These relationships were investigated through the hundreds of storehouses in which goods brought by village residents were stored in Huánuco Viejo and by comparison of the architecture and ceramics of the city's residential zones to those of the villages. Peripheral to this interest in city-village relationships, some general documentation of the local manifestations of Imperial Inca culture was made to provide comparative data and suggest the degree to which Cuzco derived traits became modified in distant provinces of the empire. The general documentation sought to provide basic information about the site's architecture and planning and how this architecture and planning related to activities in the city and to its overall functions. Our conclusions in this regard are both limited and tentative, but they hopefully form the basis from which worthwhile questions can be raised for further work and for comparison with data from other Inca centers as these become available.

The plans for collecting architectural and ceramic data in the city for comparison with village architecture and ceramics were based on the hope that it would give us concrete and roughly quantitative information of the extent to which the people of the local ethnic groups were involved in the city's activities. Since the city was presumably built by *mita* labor service, it was thought that the architecture might reflect the varying local peasant traditions of its builders, giving us an idea of the contributions various groups had made. It was also thought that the domestic pottery used by the builders and subsequent inhabitants of the residences could have been in the local, rather than in the Cuzco Incaic, traditions. This could have provided for the archaeological definition of several ethnic "neighborhoods." Due to the relatively good state of the site's preservation, it seemed likely that such a study could be based almost entirely on surface remains.

In an initial test of the feasibility of these plans, large surface collections were made from the site's various zones, a rapid and superficial, but fairly complete, survey of the architecture was made, and several test pits were placed in various parts of the site to determine if any significant stratigraphy was present. The analysis of that material suggested that most of the significant variation lay in the realm of function; the stratigraphic tests showed only a shallow Inca occupation over sterile earth, and essentially no evidence linking the city with the villages of the surrounding countryside was obtained. While this last conclusion was in itself important to an understanding of the nature of Huánuco Viejo, it indicated that even a very large and systematic sampling of the city's surface architecture and ceramics would not produce data relevant to the original questions. Further work was thus confined to the storage zone and to increasing the above mentioned general documentation, particularly in the ceremonial sections.

The plans for the study of storage had also envisioned the possibility of varying ceramic traditions as indicators of the origins of stored goods, but from the outset they also included a functional study dealing with the kinds and quantities of goods stored. Toward these ends systematic excavations were necessary, as described in a later section.

Huánuco Viejo is one of a number of administrative centers built along the highland Inca highway between Cuzco and Quito. Along the road between the administrative centers are smaller *tampu* or way stations a day's journey apart. Although they vary in detail, the administrative centers have much in common in overall plan. Usually present is a large plaza flanked by buildings, some of which may be quite long. A small platform or *ushnu* is usually in the center of the plaza. Present also are storage facilities, usually on a hillside above the site. Residential zones vary in organization and placement, but it is usually possible to distinguish at least one zone of elite residence. The *tampu* between the administrative centers are in some ways like miniature versions of the larger sites. A plaza flanked by some long buildings, a few warehouses, and housing including an elite section is usually present.

A comparison of the ceramics from several administrative centers and *tampu* indicates that while almost all such pottery is Cuzco Inca inspired, minor variations in shape and paste would

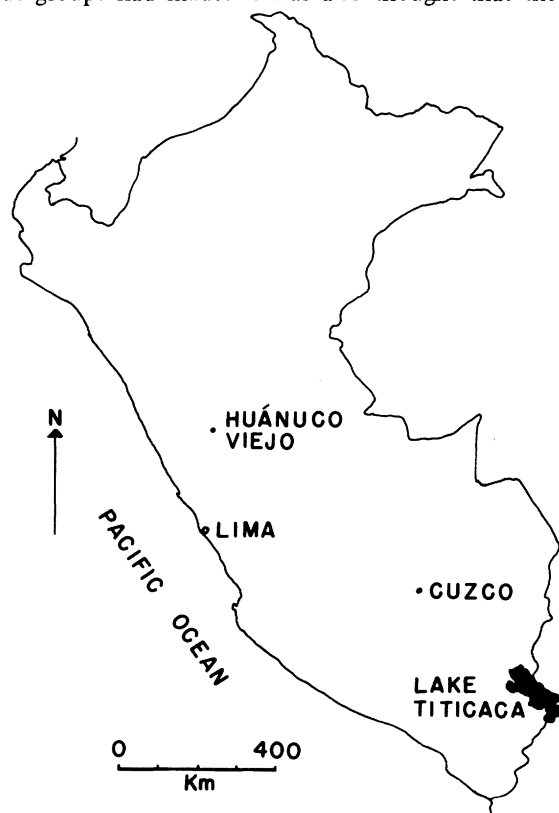


Fig. 1. Outline map of modern Peru. The location of Huánuco Viejo is shown in relation to the ancient Inca capital of Cuzco and the modern capital of Lima.

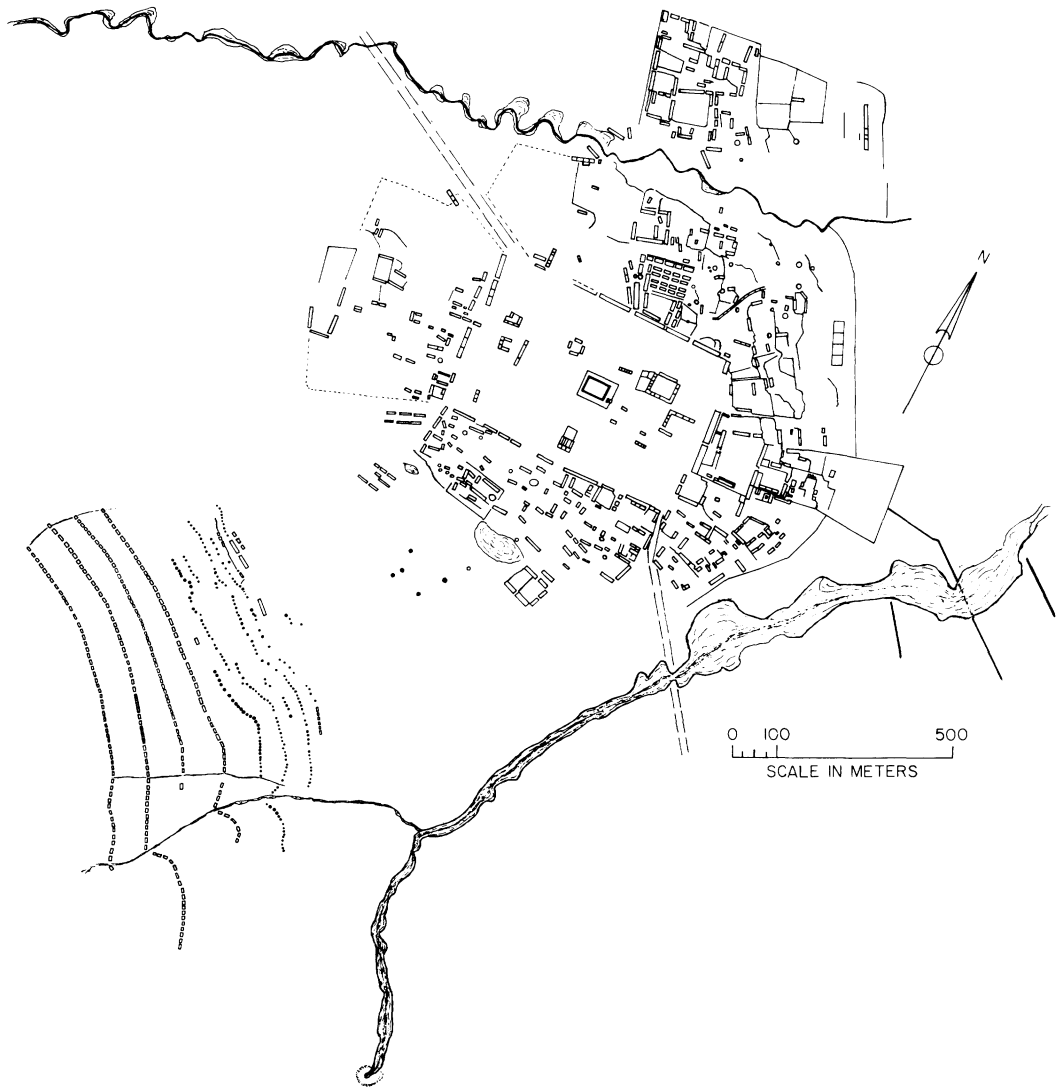


Fig. 2. Plan of Huánuco Viejo. The map is partially based on aerial photographs and is incomplete since many buildings are not shown and the dimensions of many of those that are shown may not be precise. The dotted lines indicate the approximate boundaries of the ruins in sections which are badly destroyed. The dashed lines running from the Central Plaza indicate the position of the Inca Highway. The *qollqa* to the southwest follow the curvature of the hill on which they are built, the highest and most distant row being 192 meters above the Central Plaza.

suggest local manufacture to Inca specifications rather than importation from Cuzco for the majority of the vessels used at the sites. As will be brought out in greater detail below, this situation fits well with what we know of the economic and political organization worked out by the Inca for conquered territories.

Previous research at Huánuco Viejo has been neither very frequent nor very detailed. Since Sobreviela and Sierra's (1786) map of Huánuco Viejo, various travellers have visited and commented briefly on the site, outstanding among whom were Reginald Enock (1905, 1907), who described and illustrated sections of the site, and Antonio Raimondi (Raimondi 1874; Squier 1877), who drew one of the most accurate maps ever published of the ceremonial sections of the site. In more recent years, Huánuco Viejo has been visited by Donald Collier of the Field Museum and by the Japanese expedition of 1958, in the report of which is published a fuller bibliography



Fig. 3. Inca style gate in the eastern section of Huánuco Viejo between the "palace" and the plaza. The eastern sides of the gates are recessed and have figures carved on either side, just below the lintel. Another gateway in the series is visible in the background.

than we are providing here (Ishida and others 1960). Huánuco Viejo also figures in the broader *Historia de Huánuco* published by José Varallanos (1959), but the fullest recent treatment is that of Emilio Harth-Terré (1964), which includes a number of plans and photographs.

Our own work at Huánuco Viejo began in 1964 and continued through 1966. All full time members of the project participated in the work there to some degree, but we were aided periodically by many others, amongst whom we should especially mention Manuel Chávez Ballón, Luis Barreda Murillo, John Cotter, and Peter Jenson. Some preliminary results of the work have appeared in essays by Shea, Murra, and Hadden in *Cuadernos de Investigación* (1966) and in papers by Shea (1968), Morris (1967), and Thompson (1968a, 1968b, 1968c, 1969). In the paragraphs that follow, we plan to describe some of the lesser known details of this huge and fascinating site (Fig. 2), and to discuss some of the conclusions we have reached concerning the ways in which it functioned.

THE CEREMONIAL SECTIONS

Those parts of Huánuco Viejo which make use of the rare, finely cut and fitted, Imperial Inca style masonry, and which appear by the presence of unusual building types to have served special functions, have been designated as ceremonial sections. There are two main areas so classified; the so-called *Casa del Inca*, which occupies a large part of the eastern section of the city, and the main central plaza itself, especially the central platform, called the *Castillo* or *Ushnu*. Other areas within Huánuco Viejo undoubtedly served ceremonial functions, but it is very difficult to identify such zones though some attempts have been made to do so. Harth-Terré (1964), for example, claims to have identified the *aqllawasi* (house of the chosen women) among other things.

The *Casa del Inca* and the central plaza really form one continuous complex, and the breakdown used here is merely for convenience. The *Casa del Inca* is approached from the plaza by passing eastward between the ends of two long buildings, called *kallanka*, that face on the plaza, and then continuing through a series of three sets of gates separated by courtyards. The gates themselves are constructed of high quality Imperial Inca style masonry (Fig. 3), but the adjoining walls are of *pirka* (fieldstone set in mud). Maps of the whole section have been sketched by Raimondi (Squier 1877:216) and Harth-Terré (1964), among others.

The *kallanka*, which form the eastern side of the plaza, are large buildings which contain no cut and fitted stones but are built of high quality *pirka* masonry. The northern and larger of the two *kallanka* measures over 11 by 71 meters and has 9 doorways opening westward onto the plaza, 10 windows on the east side, a pair of windows high up in the gable on the north end wall, and a doorway in addition to a pair of similar windows in the south end wall. Excavations revealed that there were probably at least 7 necessary central posts helping to support the roof. The presence of horse and cow teeth confirms the later use, quoted below, of the building as a corral after it had burned. The scarcity of sherds in the excavations suggests that pottery was not important in the original functioning of the structure. The *kallanka* to the south is slightly smaller and has 5 windows and 4 doors, rather than 9 doors, facing the plaza. The function of these structures remains uncertain, although they are a common type of building in Inca sites, turning up in small *tampu* such as Tunsucancha (Morris 1966) as well as in other large sites. They could have served as barracks, as counting houses, or any one of a number of other purposes. They are almost certainly the buildings to which Vásquez de Espinoza (1942:486) was referring when he wrote in 1616:

...all around were many outbuildings, beginning with two galpones or halls, each large enough to contain a racecourse, and with many doors; this must have been where the Indian chiefs and lords were lodged, when visiting the kings; at present they are used for stabling cattle. Between these two large halls one enters a square plaza, fenced in; opposite these two gates there were and still are two other gates, well built of hewn stone, with the insignia of the kings, and a slab on top over 3 varas long and well carved, serving as an arch for the gates; these gates stood opposite each other and 10 feet apart. Farther on is another enclosed plaza, very well laid out, with two other gates, one in front of the other; then another plaza like the preceding, with two other gates beyond, of the same hewn stone. From outside, all the gates could be seen, and many apartments and private rooms, all in hewn stone, and some baths; doubtless this was where the king lived; and there were other large buildings, with a wall encircling all the settlement.

The hewn stone gates referred to by Vásquez de Espinoza are, of course, the ones of Imperial Inca masonry; the "insignia" are the crudely carved figures, perhaps pumas, adorning either side of the tops of some of the gates (Fig. 3).

The inner section of the *Casa del Inca* (Figs. 4 and 5) is made up of some 15 structures of various types and functions. The masonry ranges from the well-dressed Imperial Inca style to crude *pirka*. Today, as one passes eastward through the last of the gates, one immediately sees the fine masonry of the two best-preserved houses (Fig. 5). A closer examination reveals that this pair of houses forms the eastern end of a group of six structures which surround a central courtyard. The four others, however, are badly fallen and only foundations and bits of low wall remain; indeed, the exact positions of doorways and corners are not always completely certain. All the structures open onto the central courtyard, however. A ditch may once have crossed the courtyard, but if so it was probably covered.

The two easternmost structures of Imperial Inca style masonry have typical trapezoidal niches in those walls that remain high enough to preserve these features (Fig. 5). The buildings are also divided lengthwise by a central wall. Since the ground slopes down toward the east at this point, these central dividing walls also served a retaining function, and the rooms to the west had higher floor levels than those to the east. Whether communication between these rooms was possible is uncertain, given the buildings' state of preservation. These two buildings also form a single structural unit in the sense that their facing end walls form a passageway with a good trapezoidal gateway at the eastern end. This passage links the courtyard just described to another open space to the east, an area to be discussed shortly.

To the south of this main house group is a second group of three houses opening onto a common courtyard, the fourth side of which is formed by a freestanding wall. These houses are of *pirka* masonry (Fig. 4).

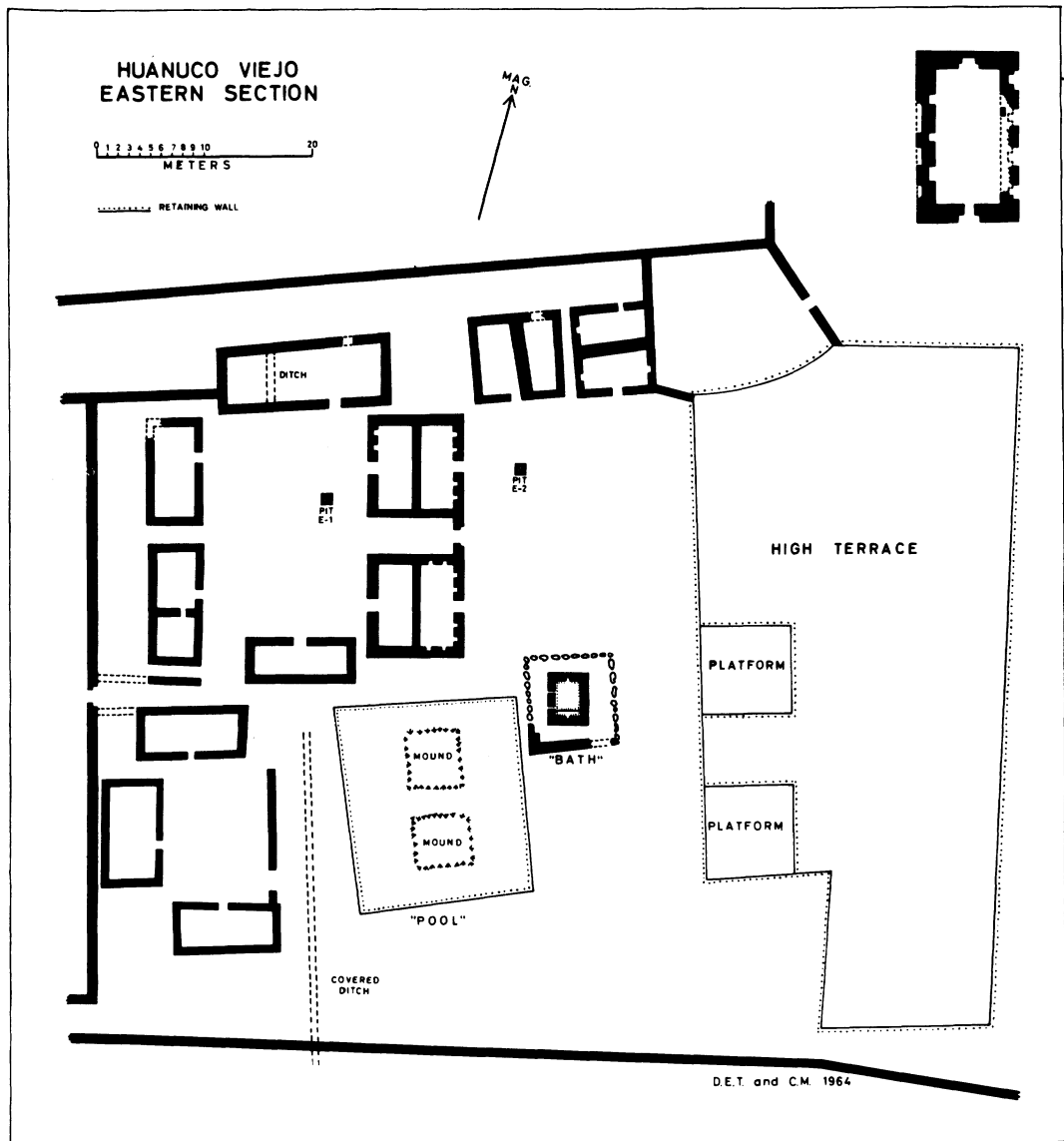


Fig. 4. Map of the "palace" area of the *Casa del Inca*. A large trapezoidally shaped walled enclosure lies to the right (east) beyond the high terrace. To the left (west) gateways (Fig. 3) lead between enclosures to the main central plaza.

To the east of this small group is a covered ditch which enters the complex from the south. To the east and below the ditch lies a large walled sunken area which was probably a pool fed by the ditch. Within the pool are two squarish mounds, rather like small artificial islands.

Below the pool is a sunken bath of good Imperial Inca style masonry. The bath contains a pair of trapezoidal niches and, on the western side, a pair of channels cut into the stone provided ducts for the water. A wall, now badly fallen, once surrounded the bath. To the north of the bath is an open space—a kind of courtyard—bounded on the south by the bath, on the west by the lower western rooms of the pair of well-built houses, on the north by two squarish buildings, and on the east by the retaining wall of a large terrace. The two structures to the north have interior dividing walls, but they are difficult to discuss without excavation for it is likely that they have been modified in historic times, probably to serve as animal pens.



Fig. 5. Overall view eastward toward the two main buildings of superior Inca masonry in the *Casa del Inca*. Note foundations of other buildings in the group in the foreground and to the right. A passageway leads through a fallen gate between the buildings to a lower court and the high terrace, a small section of which is visible in the background.

The large terrace to the east of the whole complex appears to be a flat-topped structure with two slightly higher platforms on top. The ground slopes here and, as a result, the eastern retaining wall is much higher than the western one. Today the terrace is referred to as the *kusipata*, but relationships to the *kusipata* in Cuzco are uncertain. To the east the terrace overlooks a very large, trapezoidally-shaped, walled enclosure, within which there is a large depression, perhaps once another pool or a sunken garden.

Just to the north of the high terrace and within the great walled enclosure lies an interesting structure which may possibly have served as a temple. The building is rectangular and is constructed of high quality Imperial Inca style masonry. Unlike most ordinary houses, it appears to have been entered from one end, the south, rather than from the side. At the north end, opposite the door, there appears to have been a large recessed niche. Four recessed niches also adorn the exterior of the east wall. Three plain niches occur on the interior of the west wall and could have occurred on the interior of the east wall as well. Reconstruction of the exact ground plan was made difficult partly because of destruction, but partly also, we feel, because the building was never completed before Huánuco Viejo was abandoned (Murra and Hadden 1966:137).

The most likely interpretation of this section of the site is that it served as a royal apartment and/or a ceremonial zone. No contradiction need be involved in a dual function, of course, for the Inca himself was a descendant of the sun and was divine. Whether the houses of superior masonry served as dwellings for the elite or as a temple or as both simultaneously thus remains uncertain, though the authors favor the royal apartment idea, with the other nearby domestic-type structures of inferior masonry housing servants. In this connection, it is interesting that all the pottery

excavated from pits in the *Casa del Inca* area was utilitarian, again suggesting a domiciliary function, but such evidence should be used with great care since the whole *Casa del Inca* area has been heavily pothunted.

The main central plaza at Huánuco Viejo, as was observed earlier in this discussion, is connected with the *Casa del Inca* by a series of gateways. The fact that the carved stone animals or insignia on the sides of the gateway's lintels (Fig. 3) are found only on the side facing the *Casa del Inca* suggests that the passage or view toward the plaza was more highly regarded or more important than the reverse.

The plaza and some of the buildings within it have been discussed in some detail by Shea (1966, 1968). The plaza is huge, measuring about 350 by 550 meters, and in its center lies the *Ushnu*, a solid platform of good Imperial Inca style masonry. The *Ushnu*, which measures about 32 by 48 meters at the base and about 3.5 meters high, appears to be set upon two low terraces, the outer, lower one, about 12 meters wide and the inner, upper one, about 1.5 meters wide. Two small buildings on the east side of the lower terrace may have functioned in connection with ceremonies performed on the *Ushnu* itself (Shea 1968:19-21).



Fig. 6. Gateway on the top of the *Ushnu* in the main plaza. Note the cornice to the left and the pair of animals on top of the wall, perhaps similar in intent to those on the gateways in the eastern section (Fig. 3). The *qollqa* hill is visible in the background to the left.

The top of the *Ushnu* (Fig. 6) is reached by a staircase on the south side, now in ruins but estimated by Shea (1968:17) to have had 32 steps. The top itself is enclosed by a bifacial wall well over a meter thick and 1.5 meters high. A small exterior horizontal projection on the top of the wall produces a cornice around the top of the *Ushnu*. Two gates, each just under 3 meters wide, give access to the top of the structure from the staircase. The gates are flanked by small, poorly executed pieces of stone sculpture, probably representing pairs of pumas back to back (Fig. 6). A

similar piece of low relief sculpture depicted in situ in the side of the *Ushnu* by Enock (1905:159) had since fallen but was replaced again in 1966. The wall around the top of the *Ushnu* also contained 10 niches, 6 of which are still clearly visible. These niches had no tops and could possibly have served as seats.

The *Ushnu* is not unique to Huánuco Viejo, for very similar structures have been found at a number of other Inca sites. Apparently important leaders used it for public events of a political, administrative, or ceremonial nature. The large amount of pottery found in clearing the area around the *Ushnu* will not be considered here because of the high probability that it was brought to this location by the Spaniards rather than deposited there by the Inca in the course of some pre-Columbian activity.

In addition to the *Ushnu*, there are a number of multiple room structures in the plaza. Their seemingly irregular arrangement and the fact that they seem to our eyes to clutter the otherwise open plaza have led several people to attribute them to the brief Spanish occupation of the site from 1539-42, rather than to the Inca. So far, however, there is no archaeological evidence for assigning these structures to the Spanish tenants, and it would seem presumptuous to assume that our views on the utilization of open spaces were necessarily shared by the Inca.

THE RESIDENTIAL DISTRICTS

The north and south *barrios* or quarters of Huánuco Viejo seem to have functioned largely as residential districts. Some sections are very formally arranged, for example the so-called *cuartel* in the northern *barrio*, which seems to resemble an army barracks to the European eye. Found in both sections are the typical Inca rectangular houses with trapezoidally-shaped niches in the interior walls (Fig. 7). All such houses are built of *pirka* masonry, usually bifacial walls with rubble and mud fill (Fig. 8). Niches and doors vary somewhat in size and shape, as do the houses themselves (Fig. 9).

The houses are usually found arranged around a central courtyard (Fig. 9). In some instances the pattern is quite regular; in others, quite haphazard. In either case, however, these buildings and their arrangement are Inca inspired; there is no resemblance to the domestic architecture of any of the local ethnic groups surveyed. Local Chupachu architecture, for example, consists of square rooms of slab masonry with rounded interior corners and steeply gabled roofs; Yacha architecture, of irregular multi-roomed structures with flat stone roofs, also of slab; and Wamali architecture, of large circular houses and tall towers (Thompson 1967, 1968a, 1968b, 1968c). Thus, although local people presumably provided the labor for construction, they worked under Inca supervision.

The only possible exception to the remarks made above comes from a number of circular structures found near the periphery of the site. Some of these appear to have served as houses, and circular houses, as previously noted, are known among some of the local groups in the area. Since these are few in number and tend to be on the outskirts of the site, we interpret them at the moment as being peripheral to the main plan of the site, perhaps inhabited by squatters or the like. In some cases they may even be postconquest in date.

The ceramics collected from the surface and excavated from pits in the residential zones were Inca inspired. Indeed, of the tens of thousands of sherds found at Huánuco Viejo, fewer than 5 sherds could be attributed to local peasant traditions. This is not to say that the pottery was made at Huánuco Viejo or that it was brought from Cuzco. Quite to the contrary, all evidence, documentary as well as archaeological, indicates that local potters in the villages made vessels to rather precise Inca specifications for tribute purposes, and this pottery is what makes up the bulk of the collections from Imperial Inca sites in this area (Fig. 10). Thus, although many of the inhabitants of Huánuco Viejo might be villagers serving their labor service, they lived in Inca inspired houses and used Inca style pottery in their kitchens.

THE STORAGE AREA

The Spanish chroniclers have noted the presence of massive storage facilities at provincial centers like Huánuco Viejo. The city of Vilcas Waman, which probably was not greatly different from Huánuco Viejo in its nature and functions, is said to have had over 700 storehouses (Cieza de

León 1959:127). The storage zone at Huánuco Viejo overlooks the site from a hill to the south (Fig. 6), and contains 497 storehouses and a series of 30 non-storage buildings apparently connected with storage processing and administration.

A thorough study was made of the surface architecture in the zone; all structures were measured and a typology was developed. Two of the storehouses, selected on the basis of

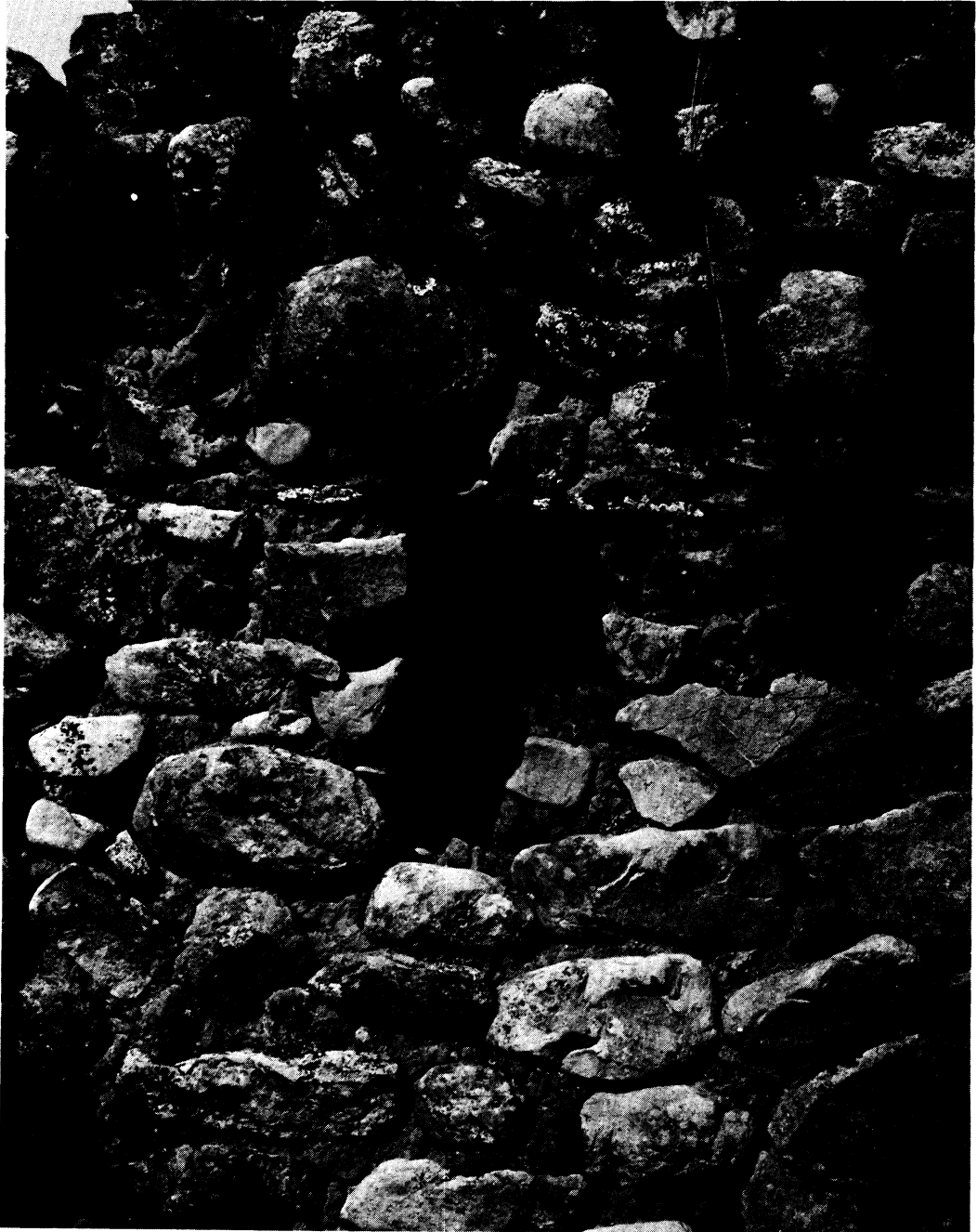


Fig. 7. *Pirka* masonry house wall in the northern quarter of Huánuco Viejo. Note crude trapezoidal niche, an Inca inspired feature.

preservation, were first excavated to give preliminary indications of problems likely to be encountered, techniques required, and the kinds of data which could be obtained. A random sample of 50 storehouses was then selected for excavation. This sample was eventually expanded to 94, but only the original 50 were randomly selected, the remainder being chosen in terms of providing some specific information rather than enlarging a general sample representative of the



Fig. 8. Cross section of a house wall in the northern quarter of the city. Wall is of *pirka* masonry, bifacial with a rubble fill.

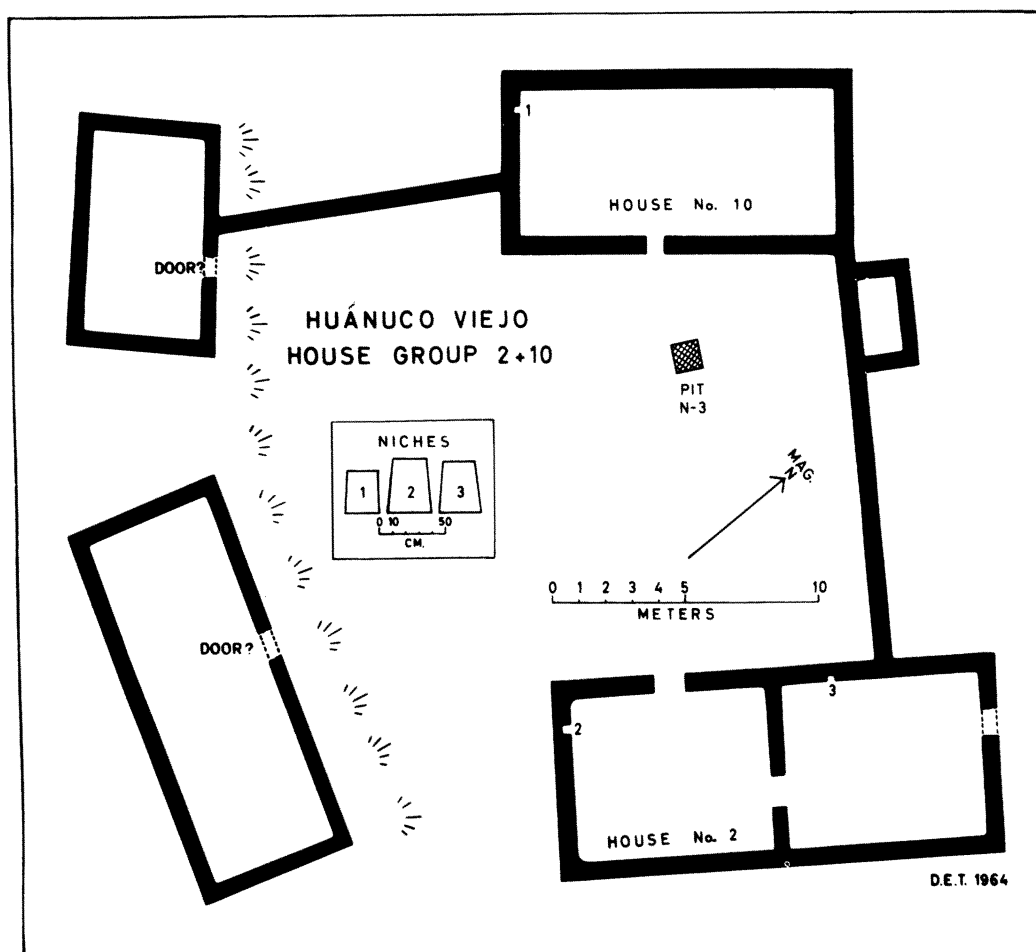


Fig. 9. Plan of a house group in the northern quarter of Huánuco Viejo. The houses are all rectangular, though of different proportions. Niches also vary in their proportions.

zone as a whole. In particular, an attempt was made to determine if boundaries between different building types represented a difference in contents; therefore, as many storehouses as possible at these boundaries were excavated. Also most of the excavations beyond the original sample were in structures of architectural types which frequently yielded pottery, rather than in those where pottery was established to be absent early in the excavation. While this resulted in more botanical data from some types than others, it substantially increased the quantity of storage pottery recovered. Twenty of the 30 non-storage buildings were excavated in whole or in part. While eight of these were initially selected randomly, the larger number were selected on the basis of specific questions and field considerations.

Excavation first involved removing parts of the *pirka* walls which had fallen into the structures; this level was sterile in almost all cases. Below the wall debris, a culture bearing matrix of 8 to 20 cm. extended down to the floor. This matrix was excavated in 10-cm. levels where it was sufficiently thick. When charred, plant remains were well preserved and easily recovered, and the quantities recovered were increased by flotation of the matrix in which they occurred. Matrix samples of five liters were taken from the last 10 cm. above the floor of each storehouse excavated. The flotation of portions of several of these proved unproductive except in samples from storehouses where carbonized material had been noted in the field.

A study of functional variability within the storage zone was based on both the architectural data and the material recovered in excavation. The aim was to isolate functionally specific areas

and to associate these with the storage of certain commodities and with differences in the uses for which the goods were intended.

The data were collected in connection with a broader study of Inca storage (Morris 1967) and specifically to test alternative hypotheses regarding the function of storage at Huánuco Viejo, and in major Inca provincial centers in general. One of these hypotheses derives from the work of Polanyi (1957), and more directly from the ethnohistorical work of John V. Murra on the Inca economy (Murra 1956, 1962b). It suggests that the expansion of a redistributive economy leads to a large and complex system of storage, and in terms of it one of the most important functions of Huánuco Viejo would have been that of a redistributive center supplying the provincial villages of the area it administered with the products of other regions. In a physical sense the storage zone would have been the equivalent of a large market place, which the city almost certainly lacked.



Fig. 10. Vessel excavated from a *qollqa* at Huánuco Viejo. The shape and some of the details are clearly inspired by the Inca aryballoid form, but this piece is clearly a provincial copy of Cuzco made pieces, for the body is too globular, the conical bottom too shallow, and the neck ill proportioned.

characteristics, and the rectangular *qollqa* were constructed in both single room and multiple room varieties (Fig. 11). The non-storage area adjoining the storehouses included three relatively large *kallanka*, a group of "houses," and a number of small buildings of types not identified in other parts of the site.

The storehouses, or *qollqa*, are constructed in a series of 11 rows, some of which are quite irregular due to the contour of the hill. All of the storage buildings were made of *pirka* masonry, essentially identical to that employed in the site's domestic architecture. Storehouses are easily distinguished from other structures by their small windows (or doors) with thresholds well above the surface of the ground. There are two main types of storehouses, rectangular and circular. But these may be further subdivided on the basis of floor

The 497 storehouses provided a total of 12,680 square meters of floor space and a maximum volume capacity of over 37,900 cubic meters. The drawing of fine distinctions and accurate boundaries between functionally specific groups of storehouses was difficult because of the rarity of preserved botanical specimens and the effects on artifact distribution of the looting and disorganization following the Spanish Conquest. But on the basis of the patterning of the various types of storage architecture and ceramics we were able to tentatively isolate several groups and, in cases where botanical materials were preserved, to determine what goods had been stored in them. The groups of structures included: 1) a small zone of storehouses which may have held the stores, of the Sun, the state religion; 2) minor groups or single storehouses apparently devoted to special shrines or ceremonial activities; 3) an ill-defined section of buildings which may have held a wide variety of goods in temporary storage for more immediate uses; and 4), by far the largest group, which was committed to the long-term storage of various food stuffs and other goods in technologically specialized facilities. Differences in the storage methods for various products appear in all of these divisions or groups. The best documented of these differences is indicated by the associations of root crops and maize. Root crops were placed between layers of straw, bound into bales with rope, and placed in rectangular structures. Maize was usually stored shelled, in large jars placed in circular storehouses with stone floors.

It is estimated that between 50 and 80% of the total space was given to the storage of highland root crops (potatoes, sweet potatoes, oka, and mashwa have been identified) and between 5 and 7% was probably devoted to maize. The products stored in the remainder of the facility cannot be suggested except for an isolated occurrence of what may have been charcoal. The small zone which perhaps stored the goods of the Sun constituted a storage area of 270 square meters with a volume of about 825 cubic meters. This, obviously, is only a fraction of what appears to have been allotted for state or secular use. The smaller zone, however, closely mirrored the larger one in its internal architectural differentiation, in the proportions of space it provided in the different building types, and in the patterns of association between architecture and ceramics.

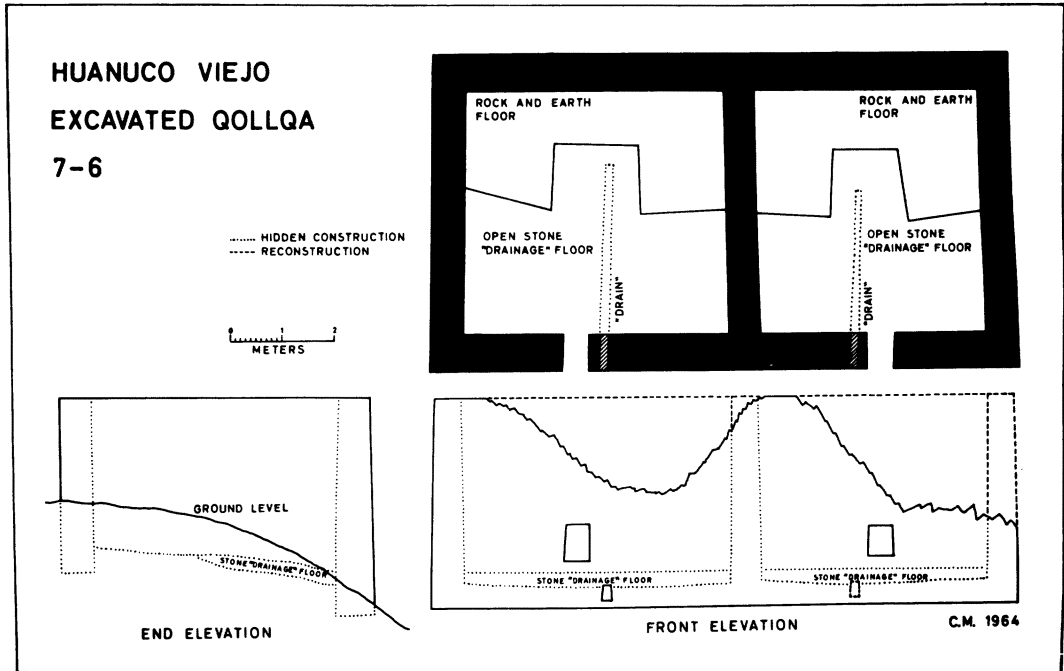


Fig. 11. Plan and elevations of a rectangular double *qollqa*. Note drain and small door or window on the downhill side. Some rectangular *qollqas* housed local highland root crops. The jagged lines indicate the height to which the walls were preserved at the time the measurements were made.

The non-storage structures contiguous with the storehouses were almost certainly related to storage administration, but the interpretation of their specific functions is difficult. On the basis of the architectural forms and the ceramics associated with them we can suggest that the group included small sentry posts, large buildings housing checking and processing operations, a large building where the specialized storage pottery was kept, and residences of storage administrators.

The heavy emphasis on highland root crops seems to indicate that storage at Huánuco Viejo mainly involved the products of the surrounding region. Had it been primarily related to redistributive activities we would have expected evidence of a greater abundance of non-local products. And specifically we would have expected more space to have been devoted to maize, which was both more storeable and more highly prized in the Andean scale of values (Murra 1960:398). Furthermore, we would expect a center of redistributive storage to have a relatively rapid turnover of goods. The evidence at Huánuco Viejo, on the other hand, suggests a major concern with fairly long term storage. Only a small zone at the edge of the storage area near the city proper showed suggestions of a rapid turnover of goods. This zone contained both rectangular and circular storehouses, and yielded botanical evidence of both maize and root crops. The best evidence that these structures may have witnessed a more frequent change of their contents than the remainder of the storehouses was the presence of noticeably eroded sherds from a much

greater number of jars than would have been in use at a single time. This zone accounted for only about 15% of the total storage space.

A further test of the contribution of Huánuco Viejo to the local village economies, based on the presence in the villages of the Cuzco style pottery associated with Huánuco Viejo, failed to produce positive results. Significant quantities of that type of ceramics were found only in the village which was the seat of the most important local leader of the period. While it could not be expected that movements of some kinds of goods would be reflected in distributions of ceramics, it would seem that a quantitatively important dependence on state storage by the villages would be evidenced either in the archaeological materials or in the relatively detailed Ortiz *visita*.

These findings suggest that an explanation of the massive storage facilities at Huánuco Viejo lies primarily in something other than the stocking of large quantities of goods for redistribution to the villages. And of the alternative explanations, the most plausible seems to be that the bulk of the storage was used in support of the city itself. This is in harmony with our general interpretation of a rather marginal center almost totally dependent on outside sources of both provisions and population. It is probable that Cieza's (1959:109) figure of over 30,000 people who "served" Huánuco Viejo does not refer to the city's population at any given time. But the extent of the site suggests that as many as four to six thousand could have been in service there at the same time, and temporary stationing of troops might occasionally have brought the figure even higher.

Air photographs suggest there may have been a small area of fields adjacent to the city on its north and west sides. It is difficult to locate these on the ground, and we are uncertain of their nature or their date. But the area they cover is only about one-fourth the size of the area covered by architectural ruins, and it does not seem likely that this zone of possible fields was a major force in the sustenance of the center. There is, though, sufficient positive evidence in the *visita* of Iñigo Ortiz (1967) to document the major source of food on which Huánuco Viejo lived. The detailed village surveys list repeatedly the carrying of goods, predominantly comestibles, to the city. Supplies such as these were produced for the state as an aspect of the *mita* labor tax (Rowe 1946:265-268; Murra 1958).

We can assume that the influx of supplies was uneven. Normal seasonal variations were at times further complicated by famine or by breakdown in the socio-political mechanisms that assured delivery. The demand for goods also undoubtedly fluctuated. While some of the city's activities were performed on a year-round basis, others like military operations varied, resulting in alterations in both personnel and material needs. Large scale storage seems an obvious solution to these disjunctions between supply and demand. It was probably essential for maintaining a rather marginal city like Huánuco Viejo under conditions where both the technology of transportation and the organization of the economy were still primitive. This does not mean that storage was not involved in redistribution, but that, quantitatively, storage at Huánuco Viejo was concerned with products from its own hinterland, for its own consumption. Unfortunately we recovered no traces of cloth and other luxury goods known to have been of special redistributive importance (Murra 1962b). It is impossible to say whether post-conquest looting, poor preservation and our smaller than desirable sample prevented identification of these goods, or whether a highly centralized circuit of redistribution concentrated their storage in Cuzco. We feel relatively certain, however, that if they were kept in the main storage complex at Huánuco Viejo, their quantities were small in comparison with the foodstuffs.

SUMMARY AND CONCLUSIONS

It is clear from what has been said above that many of the specific functions of Huánuco Viejo and the details of life there remain hypotheses to be tested by further work. But our work has contributed to an emerging picture of some of the major activities carried out at the site, and of the center's role in the Inca scheme of provincial governance. We would like to stress two primary conclusions. First, Huánuco Viejo was a center created by the Inca rulers to serve a whole series of functions vital to the expansion and perpetuation of the state. Second, unlike some of the coastal cities occupied in Inca times (Menzel 1959; Thompson 1969:73) it was a highly artificial city, both in terms of the semi-transient population which largely inhabited it and its relationship with the supporting hinterlands.

Ceramics furnish the most striking archaeological evidence that Huánuco Viejo was a state creation, rigidly distinct from the villages of the ethnic groups which peopled the surrounding region. The pottery of Huánuco Viejo consists of local imitations of the ceramics of Cuzco. And in the almost 100,000 sherds examined from all sections of the site less than five were of types identified with the local traditions. Furthermore, the Cuzco style pottery of Huánuco Viejo was rarely found in the villages, as was mentioned above, although there were occasional incorporations of some of its features in local wares. This distribution suggests something approaching a "state pottery," produced by or for the state and used in official functions to the exclusion of wares indigenous to the region. The nearly exclusive occurrence of this "Inca" pottery at Huánuco Viejo seems to indicate a predominant concern with state activities and the lack of any substantial "casual" flow of people back and forth between the city and the surrounding region. Architecture also emphasizes the vivid demarcation between the city and the villages. The architecture of Huánuco Viejo is basically an imitation of that of Cuzco; with the possible exception of circular houses, local house forms and masonry techniques are almost entirely absent. Even the choice of a site for the city ran counter to local tradition. Our survey showed that the high, grassy, relatively flat *pampa* on which Huánuco Viejo and other Inca centers in the area were located, was a type of locality foreign to the settlement patterns of the inhabitants of the region at the time the Inca arrived.

These rather firm archaeological indications that Huánuco Viejo was primarily an artificial center serving the state is further bolstered by the fact of its rapid depopulation after the upper levels of Inca organization were destroyed by the Spanish. After a short and abortive attempt to establish a Spanish settlement at the city, it was abandoned by Spanish and Andeans alike. The Spanish founded the modern city of Huánuco in the Huallaga Valley, and what remained of the original inhabitants presumably returned to their villages (Cieza 1959:108-9; Varallanos 1959:125-42).

From the activities we believe to have been carried out in the site's major zones, we can suggest some of the services it provided for the Inca. The eastern section with its monumental architecture and its great variety of building types and spatial arrangements, was a zone devoted largely to administrative and ceremonial activities and to elite residence. Further archaeological work is necessary before specific activities can be related to particular structures and compounds, but comparisons of the architecture with descriptions of Cuzco and other Inca cities give at least an impression of what the area's prime activities were. Its heart is formed by the complex of buildings and open plazas linked by large gateways, called the *Casa del Inca* by Harth-Terré (1964) and described above. With its focal point in the *kancha* enclosed buildings we have mapped, this large architectural unit seems to have incorporated royal lodgings into the setting for a much broader framework of activities, many of them of a ceremonial nature. The gateways provide an additional link between this entire *Casa del Inca* section and the Central Plaza with its *Ushnu*. Together these furnished both buildings and open spaces in many different sizes. While we will probably never be able to determine the exact uses served by such elaborate planning, the architectural comparisons with Cuzco are sufficient to suggest that many of the features of the capital had been replicated in Huánuco Viejo. This in part served the function of creating appropriate surroundings for travelers and residents, many of whom had come from Cuzco. But beyond that it must have been a showcase of Inca splendor for the benefit and edification of the peoples indigenous to the region.

The central ceremonial complex, the *Casa del Inca*, occupies less than half of the total area of Huánuco Viejo's eastern section. The remainder of the section is devoted to buildings in a variety of sizes, grouped around plazas which are small in comparison to those in the *Casa del Inca*. There is little comparative data to aid in interpreting these building groups, and in the absence of extensive work, conclusions about them are hazardous. Harth-Terré (1964:11-12) feels on the basis of his study of the architecture that the area just south of the *Casa del Inca* constituted a large *aqllawasi*, dwelling place of the *aqllakuna* the women selected for service to the Inca and the temples. We can probably assume that Huánuco Viejo had an *aqllawasi*, but the identification of it on the present evidence is difficult. Some of the eastern section gives the impression of being composed of house groups similar to, but significantly larger than, those in the main domestic

zones of the city. It seems likely that much of the administrative personnel resided in this part of the city contiguous to its main ceremonial and administrative complex.

The major domestic areas to the north, south, and west of the Central Plaza were not explored sufficiently to allow us to uncover very much of the variation within and between them. There is throughout the pervasive absence of indications of the varying ethnic identities of the inhabitants. Even the crudest houses tested by excavation contained only the local Cuzco style pottery found throughout the city. Even if members of the various ethnic groups serving the city resided in segregated zones, those zones can probably never be defined archaeologically.

The most obvious distinction in domestic architecture is between the house groups in walled compounds in the major zones surrounding the plaza and the small circular structures clinging to the edges of the ruin not unlike the unplanned squatter settlements of some modern cities. Whether these differences denote distinctions in status, in the composition of the domestic unit, or in the kind of relationship the residents had with the state, can only be determined through additional work. It is tempting to see the crude circular buildings as the houses of people who were not fully incorporated into the planned regime of the city—people whose presence was not required by the *mita*, somehow taking personal advantage of the city's presence. This, however, is not indicated by the exclusively Inca style domestic pottery found in the three of these houses which were excavated.

The zone north of the plaza differs from those to the south and west in that it was not so predominated by domestic house compounds. For example there are 43 structures, larger than the typical "house," arranged along narrow streets near the Central Plaza. Harth-Terré's (1964:13) interpretation of these as barracks seems a reasonable one, and we might postulate that those structures, as well as some of the *kallanka* surrounding the Central Plaza, provided housing for the army or other persons whose residence was temporary and did not involve family units.

We did not make an accurate house count in the domestic zones, but there were at least 500 domestic structures. When these are combined with the numerous larger buildings perhaps used for transient residence and the small circular houses at the periphery of the site, the city could easily have housed more than 5,000 persons. The point which should be emphasized however, is that since most of the inhabitants were only part time residents serving their *mita*, the population probably fluctuated somewhat in relation to the agricultural cycle and other features of the state's organization and activities. The nature and extent of these fluctuations, as well as more reliable population figures, must await further research.

The artificial character of the center which we have emphasized created special problems of economic support for this relatively large population. From our understanding of the working of the Inca economy, there is little doubt that the state shouldered most of the responsibility for the sustenance of those laboring for it (Murra 1958:32). If our conclusion that Huánuco Viejo was largely inhabited by people engaged in one form or another of state service is correct, then the state was obliged to provide for them with the products of its fields. The city was thus sustained through the overall system of reciprocity between state and village, mediated through an elaborate storage system.

Since there is no evidence in either documents or the archaeological data to suggest that there was an important marketplace at Huánuco Viejo, the zone where storage was located must have been the focal point of the city's economic activity. The rather thorough investigation of that zone combined with data from the villages has not given us as full and reliable an understanding as we would like of the importance of Huánuco Viejo as a center for regional and inter-regional redistributive exchange. However, the positive evidence for such an economic role is meager, and it does not seem that we should list this as one of the city's major functions at this time.

The image of an artificial, essentially imposed, population center supported through a system of exchange based on reciprocity and redistribution contrasts markedly with some of our notions of "urban" and "city." Huánuco Viejo did not arise because of an important concentration of natural resources or because of a propitious position as a center of inter-regional exchange. It appears rather to have been a link in an elaborate network of communication, transportation, and administration which was established to bind together the state's authority structure centered in

Cuzco and the numerous ethnic groups it sought to control in the provinces. It supported military and political objectives and helped channel goods and services to the state. In fulfilling these functions, Huánuco Viejo, and the many other provincial administrative centers, were vital to the expansion and maintenance of the most extensive political unit of the pre-Columbian Americas.

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