

A SEQUENCE OF MONUMENTAL ARCHITECTURE FROM HUAMACHUCO

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Introduction

During four seasons of fieldwork in Huamachuco, I have become intrigued by the possible connections between the monumental architecture in that area and widely scattered examples of Huari and Inca architecture.

My interest in this problem stems from two different sources. First, there is increasing evidence that the Huamachuco architectural tradition has great time depth and largely developed independently of other architectural traditions. By the end of the Early Intermediate Period (Thatcher 1975; Topic and Topic 1983), immense monumental buildings were being constructed in a uniquely local style. Secondly, the increase in opportunities for interaction during the Middle and Late Horizons may be reflected by architecture. We have, in fact, discovered evidence for interaction between the local Huamachuco tradition and Huari and Inca architecture.

One such case, *colcas* or storerooms, has been discussed briefly in a preliminary report (Topic and Topic 1984). In Huamachuco, Huari and some Inca storerooms have raised floors with a ventilated crawlspace below. A similar type of floor construction may occur at Huari sites such as Jargampata (Isbell 1977:76) and Azangaro (Anders, personal communication), but to my knowledge does not occur at Inca sites outside the Huamachuco area. Because of this restricted distribution, and because the Huari storerooms in Huamachuco are earlier than the other examples, we have suggested that this type of floor construction may derive from a local tradition of attic storage.

The other type of building, which we have called the niched hall, is the subject of this paper. We first recognized the niched hall as a distinctive type of building at Viracochapampa. Viracochapampa is the major Huari center in the north highlands and is located just outside modern Huamachuco. Construction of the site probably began early in Middle Horizon 1b (Thatcher 1975; Topic n.d.) but was never finished. Some niched halls at Viracochapampa are almost 50 m. long and up to 19 m. wide (McCown 1945:268-269). After seeing these monumental buildings, I was impressed by the general similarity, in terms of size, multiple niches, and location on plazas, to the Inca *kallanka* type of building (Gasparini and Margolies 1980:196-219). Gasparini and Margolies (1980:199-200) suggest that these buildings may have housed festivals, religious ceremonies, troops, or other large groups of people serving the *mit'a*. In Huamachuco we have found some similar but much smaller (7 x 18 m.) buildings without (preserved) niches associated with Inca storeroom complexes; these buildings may have housed cargo bearers or served as roofed sorting and accounting areas for the materials destined for storage. Although the *kallanka* is widely distributed at Inca sites, its Middle Horizon analogue is surely present at only one Huari site, Viracochapampa, and possibly present at another, Pikillacta in the Cuzco area (McEwan 1984).

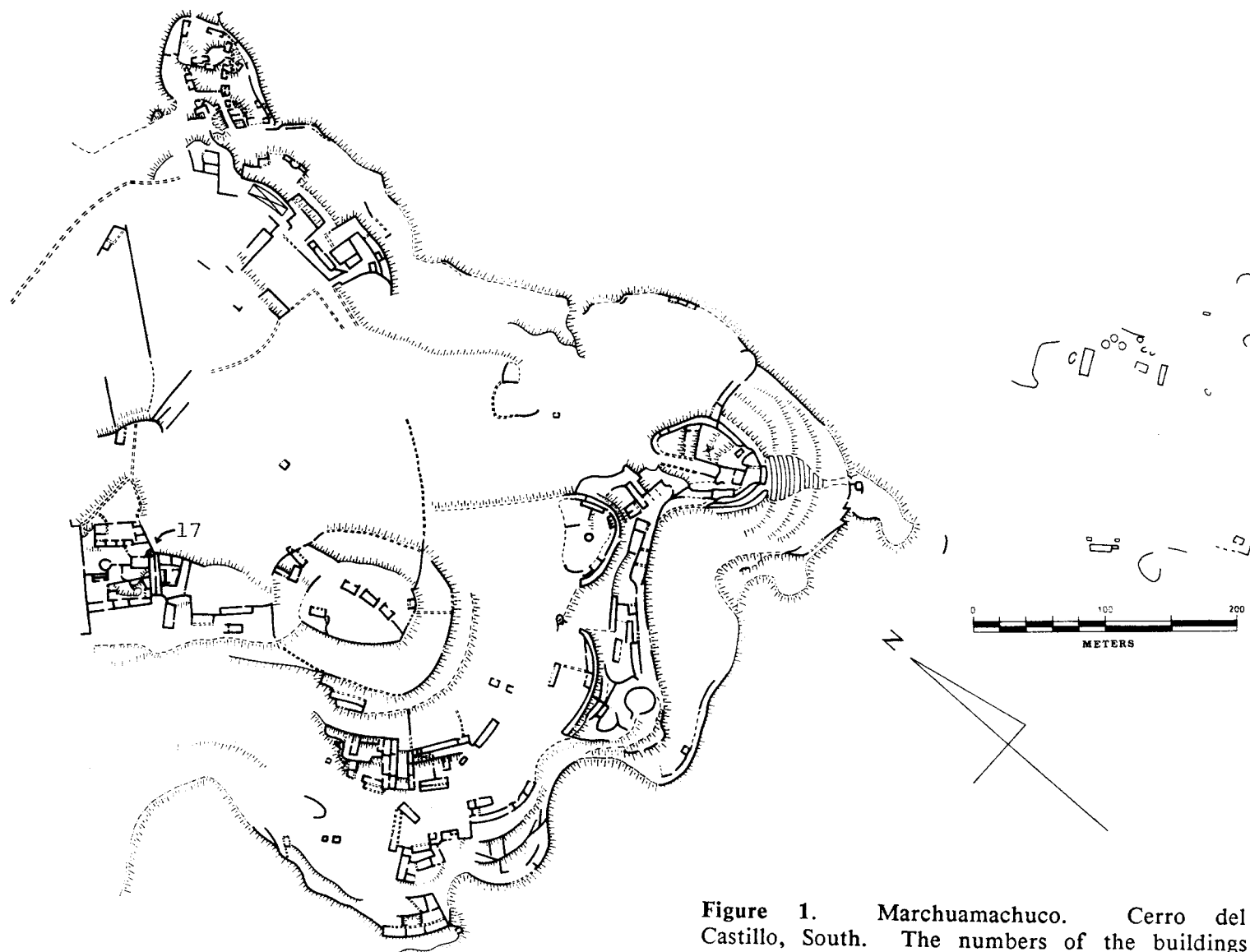


Figure 1. Marchuamachuco. Cerro del Castillo, South. The numbers of the buildings are keyed to Table 1 and the text.

Both storerooms and **kallanka** were intimately related to the ritual and economic functioning of the Inca empire. The fact that similar types of buildings are associated with the Huari presence in Huamachuco suggests that there was a historical continuity between Huari and Inca times in architectural types as well as in some activities housed in the architecture. Moreover, the restricted distribution of Huari niched halls indicates that they were derived from the Huamachuco architectural tradition. My intention here is to explore these possibilities by developing a sequence of architecture at Marcahuamachuco, the largest site in the Huamachuco area.

Marcahuamachuco and the Huamachuco Architectural Tradition

The site of Marcahuamachuco covers the top of a natural plateau (3400 m.a.s.l.) which dominates the entire Huamachuco area. The plateau is approximately 5 km. long and .5 km. wide, and ruins are scattered across the whole area. The most densely occupied area is at the southeast end of the site and is generally called Cerro del Castillo (Figures 1 and 2). To the northwest of Cerro del Castillo is a sparsely occupied area dominated by many round or oval constructions; this area encompasses what McCown (1945) referred to as Cerro de las Monjas and Cerro de los Corrales (Figure 3). At the extreme west end of the site is Cerro Viejo (Figure 4), which has evidence of an early, medium density occupation.

The constructions at Marcahuamachuco date between about A.D. 400 and A.D. 1000 and illustrate the greatest development of the Huamachuco architectural tradition. Although several different morphological forms (rectangular, curvilinear, and circular) are represented in the ground plans, McCown pointed out that there is an essential similarity in all the monumental constructions which results in a "...building of great narrowness, great height, and very great length" (1945:252). He called this type of building a gallery, noting that "...the lengths are rarely less than six times the width and it is not uncommon for them to be eight, nine, or ten times as long as they are wide" (1945:252). Here he was referring specifically to rectangular galleries, and it is worth noting that some curvilinear galleries have lengths almost 100 times their widths.

It is also worth noting that these descriptions refer to buildings, not necessarily to rooms. A building may be defined as a space enclosed by a single unified façade and roof. Within a building there may be dozens of rooms as well as multiple entrances. In the case of Marcahuamachuco this distinction between buildings and rooms is particularly important, since many buildings are multistoried and may have many small rooms separated by masonry partitions on the ground floor but long, narrow rooms on the second and third stories.

The architectural tradition of long, narrow buildings has great time depth in the Huamachuco area. It began at least as early as the Early Horizon, and sites like Cerro Campana East, Cerro Campana West, and the Cahuadan "forts" are good examples (McCown 1945: Figure 12). All of these sites have buildings of great narrowness and great length, although there is no indication of great height. At these sites, the diversity of rectangular, curvilinear, and circular ground plans is already evident. There is also, however, a certain degree of continuity in these ground plans. Rectangular galleries occur at Cerro Campana East while long rectangular rooms are incorporated into a curvilinear gallery at Cerro Campana West; that curvilinear gallery partially encloses a circular gallery

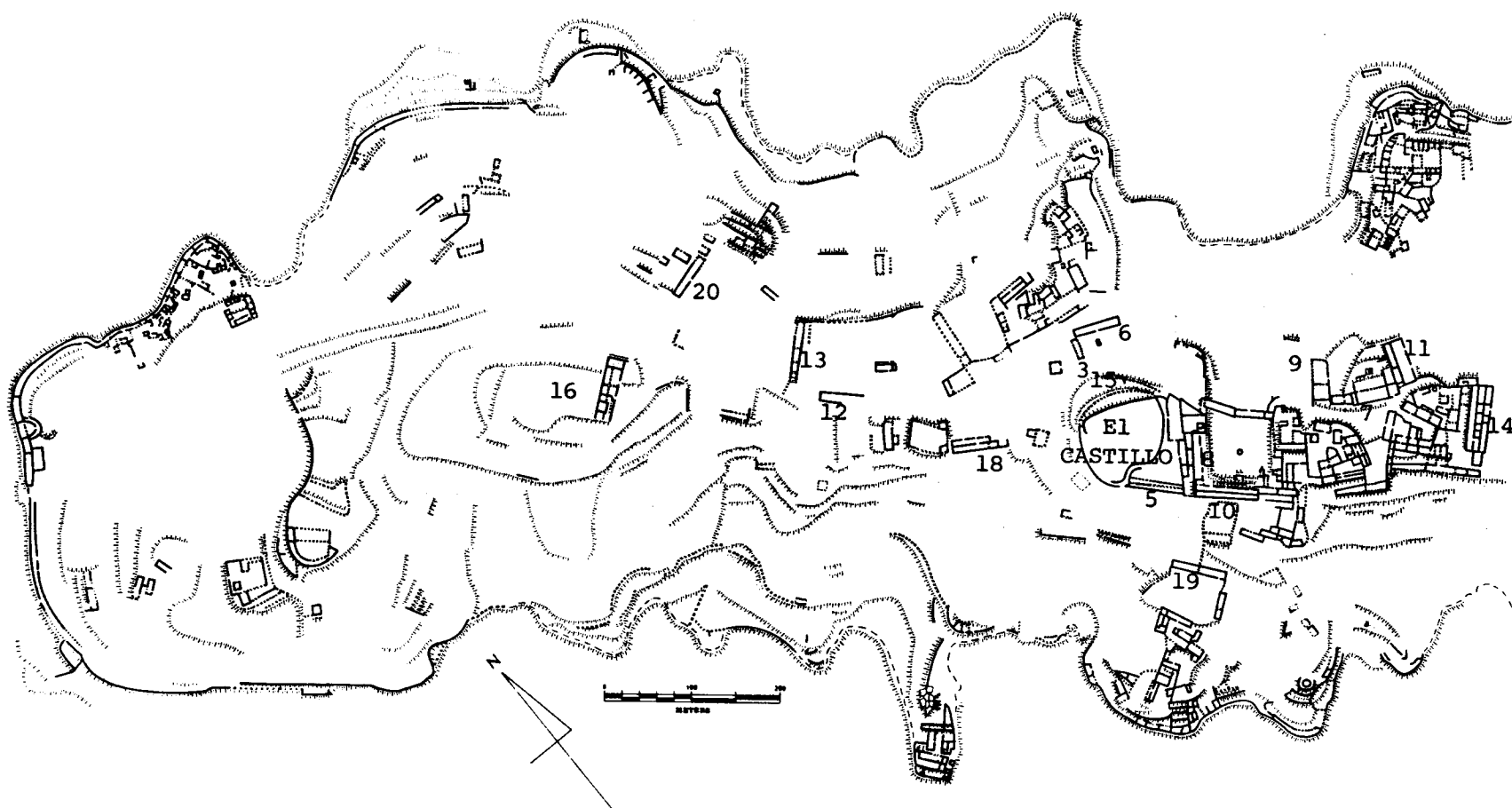


Figure 2. Marcahuamachuco. Cerro del Castillo, Northwest. The numbers of the buildings are keyed to Table 1 and the text. The internal details of the Castillo have been deleted.

and might itself have taken on a more circular form except for topographic constraints. The Cahuadan round "fort" is essentially a circular gallery whose sides have been flattened to the extent that they form four conjoined rectangular galleries surrounding a rectangular patio. This same continuity of ground plans applies to buildings dating to the late Early Intermediate Period and Middle Horizon. The Huamachuco architectural tradition, then, can be defined as a tradition of long, narrow buildings with a variety of ground plans lasting from at least the Early Horizon through the Middle Horizon. In addition, most monumental buildings in the tradition use a characteristic style of masonry which emphasizes numerous chinking stones surrounding larger blocks of stone, and long and short work corners.

The fact that there is such a high degree of synchronic and diachronic continuity in the Huamachuco architectural tradition actually makes it difficult to construct a temporal seriation of the architecture. Obviously, ground plans alone are insufficient, and any seriation must be based on a reconstruction of whole buildings. Moreover, such large buildings encompassing a variety of rooms might very likely be multifunctional; attributes such as room size, numbers of entrances, and, to some extent, ceiling heights, drainage systems, etc. might reflect varying functions of the architecture rather than temporal change. In short, although there is evidence for great time depth in the Huamachuco architectural tradition, it is difficult to identify a discrete functional type of building which is amenable to temporal seriation.

Niched Halls

Niched halls were first recognized at Viracochapampa where they do appear to be a discrete type of building. By analogy to the Inca *kallanka*, this type of building might in some ways be viewed as multifunctional, yet these functions are clearly subsumed under the general category of a large roofed space which housed "public" activities conducted under the auspices of the "state". There are also a number of buildings at Marcahuamachuco which can be tentatively designated niched halls because of the many attributes shared with this class of structure at Viracochapampa.

A general comparison of the salient attributes of the buildings at Marcahuamachuco and Viracochapampa is useful at this point.

1. Large roofed area. At Viracochapampa (Figure 5) the niched halls are as large as 19 x 46 m. and 18 x 48 m., but more commonly they are on the order of 13 x 30 meters. At Marcahuamachuco the largest examples are about 10 x 60 m., but they are often smaller. Significant here are not the actual measurements, which should be considered approximate, but rather the great width of the buildings; most galleries at these sites have widths of about 2.5 to 3 meters. The greater width of the niched halls undoubtedly resulted in difficulty in roofing the building, and implies that an exceptional amount of planning and effort went into their construction and maintenance. This effort was aimed at providing an exceptionally large roofed space without any apparent internal partitions. As a caution, I should note that there is little direct evidence that these structures were roofed, and that this is an assumption based largely on the elaborate internal features.

Table 1. Seriation of niched halls.

Stage	Building Number	Isolated	Short	Plaza grouping	Single doorway	Niches on 2 walls	Niches on 1 wall	Multiple doorways	Stone lintels	Interior raised	L/W (rounded)	Medium	Tomb associated	Front annex	Set on terrace	Mortared lintel	Pole lintels	Grooves	Two stories	Septal wall	Stepped niches	Long	Comments
Early	1	x	x		?	?		x	?		4				?	?							roof drains
	2	x	x		?	?	?	?	?		4				?	?							
	3	x	1		?	?	?	?	?		4	x			?	?							
Transitional	4	x	x		x	x			x	x?	5												
	5		1?		x?			x	x	x	6	x	?	x?									thin decorative corbels
	6		2		?	?	?	x	?	x?	7	x			?	?				x			Gallery D (3)
	7		1		x		x				4	x	x		x	x	x						AD 640±85 (1)
	8		1		x		x				4	x	?		x	x	x						AD 780±65 (2)
Classic	9		2		?	?	?	?	?	?	5	x	x		?	?	?	?	x	x			
	10		2			x	x	x	?		7	?		x	?			x	x	x	x	x	AD 670±65 (2)
	11		3	?		x	?		?	?	6	x	x				x?	x	x	?	?	x	AD 495±155 (2), AD 875±60(1)
	12		1		?	x	x	x	?	?	?	?	?		?	x				x	?		Gallery B (3)
	13		2		?	?	?	x	?	?	?	?	?		x	?	?	x		x	?		
	14		?			x	x				6		x				x	x	x	x	x	x	Gall A(3), AD 725±60(1)
	15		?	3		?	?	?	?	?	?	?	x	?	?	?	?	x	x	?	?		
Late	16	?			?	?	?	?	?		6		x?	x?	?	?	?	?	3	x	?	x	Gallery G (3)
	17	?	x		none		?				2		x?					x	x				
	18	?			none		?				6		x					x		?	x		Gallery F (3)
	19		?		none		x				10		?					x?		x			Gallery E (3)
	20	?			none		?				?	x	x?					x		?			

- Notes: (1) date is on wood from a lintel
 (2) date is on wood incorporated into the wall hearting
 (3) McCown's designation of the building

2. Ceiling height. At both sites normal ceiling height in galleries is about 2.5 to 3 meters. At Viracochapampa the niched halls generally appear to have had ceiling heights in excess of 6 meters. Due to greater destruction at Marcahuamachuco it is not as easy to generalize, but several examples had ceiling heights in excess of 4 meters. The niched halls at both sites are characterized not only by large roofed area, but also by large volumes.

3. Numerous, regularly arranged niches. Niched halls at Viracochapampa particularly deserve the name. All four interior walls are literally covered with a multitude of large and small niches arranged in regular patterns (Figure 5). At Marcahuamachuco niches rarely occur except in the niched halls, where they are not as numerous as at Viracochapampa. Some Marcahuamachuco examples have niches on the interior of both long walls, some only on the rear wall, and some possible "niched halls" lack niches entirely.

4. Plan. Although all niched halls are rectangular, there are some differences in plan. At Viracochapampa the niched halls always have rounded interior corners, but these never occur at Marcahuamachuco. While I cannot be entirely certain, at Viracochapampa there seems to be only one entrance to the niched halls, while at Marcahuamachuco there may be one, two, three, or four "main" entrances located in the front wall.

5. Wall tombs. In a handful of niched halls there is some evidence for wall tombs. The term wall tomb or wall grave seems to have originated with Uhle, who excavated a number of burials which had been placed in the walls at Marcahuamachuco. However, the type of building that these burials were found in was not specified by Uhle. We found a few human bones in looters' holes in the corners of two buildings at Viracochapampa. McCown (1945:237, Figure 9) mentions wall tombs in connection with one niched hall at Marcahuamachuco (Figure 6b), and in a testpit in Gallery G (Figure 2: Building 16) we found a large number of human bones tumbling out of a collapsed wall. The only other occurrence is a surface find in Gallery B (Figure 2: Building 11), but in this case the association of human bones with the building is very tenuous. We have found no evidence, however, that the niches themselves were used for burials (cf. McCown 1945:237). Thus, while there is some reason to believe that wall tombs are associated with niched halls, further work is needed to confirm this association.

In summary, the niched hall at both sites is best defined as a rectangular building encompassing a large roofed volume and exhibiting a regular pattern of niches on one or more interior walls.

A Sequence of Niched Halls

There are a number of reasons to attempt to construct a sequence of niched halls at Marcahuamachuco now even though the present data is based only on surface survey of structures which vary greatly in their state of preservation. First, there is some *a priori* reason to believe that construction of these buildings took place over a considerable length of time. One possible niched hall at Marcahuamachuco has distinctive roof drains (Figure 4: Building 1; Figure 6a). These drains are a rare attribute in preserved architecture and appear, generally, to be early. Radiocarbon dates from a curvilinear gallery with roof drains on Cerro Viejo indicate an EIP date (A.D. 405±60 and A.D.



Figure 3. Marcahuamachuco. Cerro de las Monjas and Cerro de los Corrales. The numbered building is the only niched hall in this area.

405±95) (Topic and Topic 1983). Similarly, roof drains occur in an EIP context at the site of Cerro Sazón in the building illustrated by McCown (1945: Figure 4) where we obtained a date of A.D. 420±110 (Topic and Topic 1983) and in two other buildings. Another niched hall (Figure 2: Building 5) has thin decorative corbels high on the exterior of two walls. Again, this is a rare attribute which, as far as I know, only also occurs on the exterior of one section of what McCown (1945: Figure 6 between point D and the spring) called the double defensive wall. Dates from this immediate area place the construction and primary occupation in the late EIP (Topic and Topic 1983: A.D. 430±60; A.D. 495±65; A.D. 505±60). Dates on construction materials from niched halls themselves fall, for the most part, in the Middle Horizon (Table 1). The radiocarbon evidence alone suggests a time span of 300 to 500 years, depending on how it is interpreted.

The second reason to attempt a sequence now is specifically to order the Middle Horizon niched halls more precisely in time. These are the only niched halls at Marcahuamachuco which incorporate wood as an architectural element. While the radiocarbon dates on this wood cluster in the Middle Horizon, the dates on their own make little sense in developmental terms. Moreover, in the one case where we have two dates from the same building, there is a great discrepancy between the dates. Even when that one case is ignored, the dates on architectural wood from four other buildings with distinct attributes overlap at the level of confidence of one standard deviation. The assumption is that an architectural seriation, anchored at the early end of the sequence by a series of dates on buildings with roof drains and crosstied in the middle of the sequence to a brief (Topic n.d.) episode of construction at Viracochapampa, will be able to chronologically order the niched halls at Marcahuamachuco more precisely than the available radiocarbon dates.

The other reasons for attempting a sequence now revolve around the importance of the buildings. They were obviously of intrinsic importance to the inhabitants of the site, and the radiocarbon evidence suggests that they are also of historic importance to Huari and Inca architecture. Because of their importance we are planning future excavations in these buildings and it is useful to have a working hypothesis about their development.

Attributes

The 21 attributes chosen for study (Table 1) are those which seem to have some chronological significance and can be seen on the surface in more than one example.

Two attributes, isolated and plaza grouping, refer to the context of the building, whether it occurs as one of several niched halls grouped around a plaza, or whether it is isolated from other niched halls. There is some indication that the niched halls on a plaza were not all constructed at the same time and therefore the first niched hall built on any plaza can be considered an isolated building.

Three attributes--short, medium, and long--refer to the approximate length of the building. Short buildings are 12 to 30 m. long, and long buildings have lengths in excess of 50 meters. Exterior dimensions are used here. Some

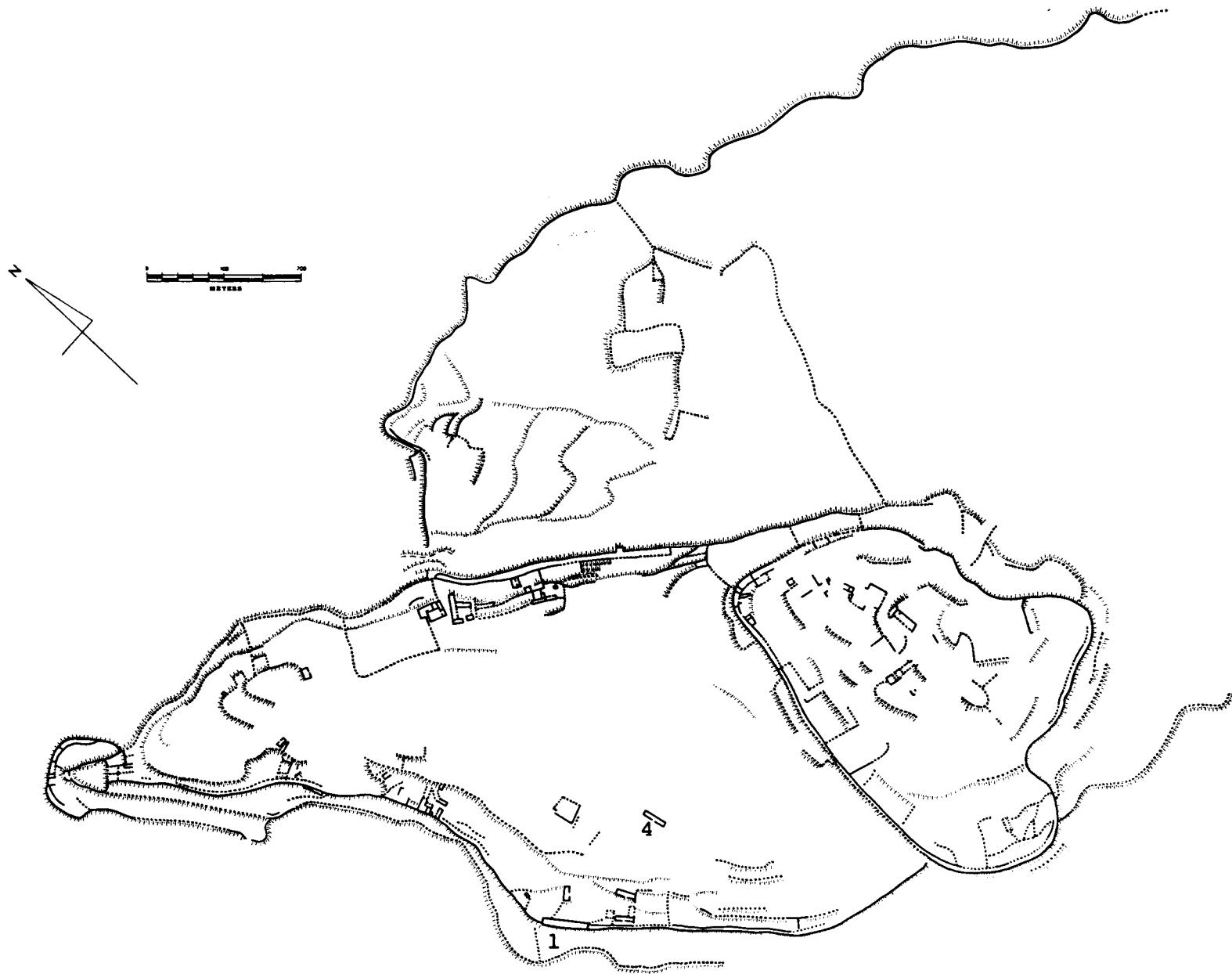


Figure 4. Marcahuamachuco. Cerro Viejo.
The numbers of the buildings are keyed to
Table 1 and the text.

buildings have been measured, others only paced, and some measurements were taken off of either McCown's maps or our preliminary base maps.

Another attribute is the length to width ratio. Some buildings are multi-storied, with the "hall" itself on the second story and an extra single-story annex on the front of the building (cf. Figure 6c). In these cases, the length to width ratio is based on the exterior dimensions of the "hall" itself, and not the whole building. The ratio is rounded to the nearest integer. Widths of different buildings were determined in the same ways as the length.

The number of doorways refers only to entrances into the hall. It appears that halls can have from one to four entrances, and these are invariably in one long wall of the building. The wall which has the entrance(s) is considered the front wall and, where the building is located on a plaza, faces the plaza. Because of the difficulty of determining the absolute number of doorways in many examples, only two attributes are included on the table--single doorway and multiple doorways. The absolute number of doors may be useful, after excavation, to refine the sequence.

The spacing and size of niches, which are quite variable, may also be useful to refine the sequence at a later date. Here only five attributes relating to the niches are included. Two attributes describe niche position; niches on one wall are invariably on the back wall, while niches on two walls are always on the front and back walls. Three attributes refer to the method of constructing the lintel of the niches. The lintels are sometimes poles or stone slabs which span the width of the niche, and in some cases smaller stones which do not span the entire width of the niche and are held in place only by mud mortar.

Some halls were elevated above the surrounding ground level. One method of doing this is to raise the interior level of the building by filling in. Another method is to set the entire building on a terrace which is larger than the building itself. A third method is to construct the hall itself on the second or, in the case of Gallery G, the third story of the building. These methods are sometimes used in combinations. Moreover, in the case of multistoried buildings, a one (or two) story septal wall often runs under the longitudinal axis of the hall floor to provide extra support. Multistoried buildings may also have a single story annex on the front (Figure 6c).

In two plaza groups, the Gallery B and Gallery D groups, there seem to be small above-ground masonry tombs in the plaza (McCown 1945:233-234, 239). There is a construction in the Great Plaza which McCown (1945:238) originally thought might be a similar tomb, but his excavations did not confirm that suspicion. Other possible tomb structures may occur near Buildings 5, 12, and 13.

"Grooves" can occur on either the interior or exterior faces of the walls, and at varying heights above the ground. They run horizontally along the wall face, are usually about 5 cm. wide and 5 cm. deep, and up to 4 m. long. They appear to be places where the small chinking stones between large blocks have been removed. Confirmed grooves have been found in only four buildings, and in three of these buildings we have also found wooden poles in the wall hearting as a binder. A possible explanation for the grooves then is that with age and the weight of the wall, the poles were flattened and this wall settling forced out some chinking stones on the wall face.

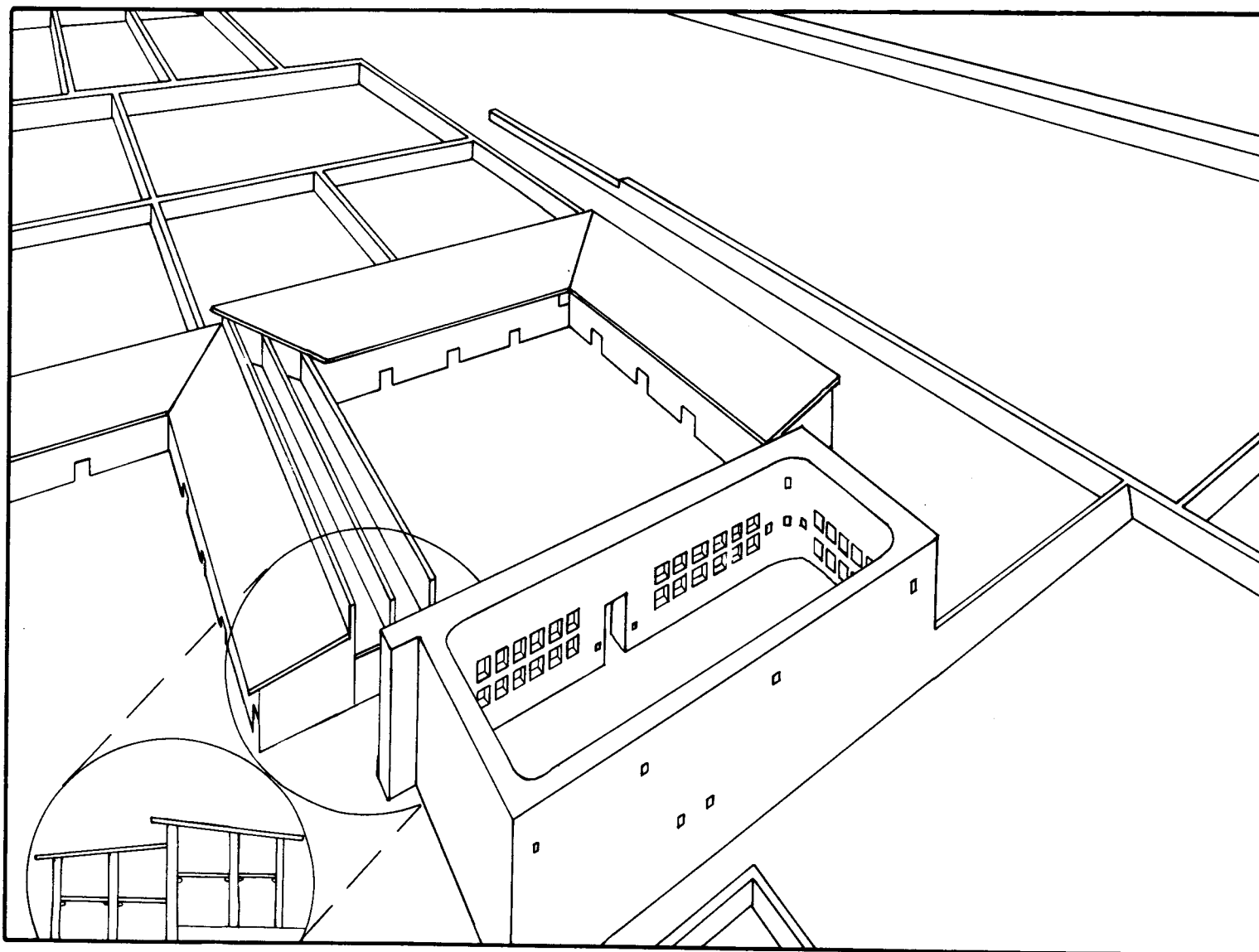


Figure 5. Viracochapampa. Reconstruction of a niched hall and gallery patio group.

The final attribute is presence/absence of a special kind of ornamental niche found on the exterior face of the front walls of some structures. I call this a stepped niche (Figure 6c) and the orientation of the diagonal "stepped" side of the niche is always to the centerline of the front wall.

The Sample

For this study I have selected 20 niched halls from Marcahuamachuco. These have been selected either because they are relatively well preserved or because they possess one or more attributes which allow them to be placed in relative temporal position in the seriation. These 20 examples are undoubtedly not the complete inventory of niched halls at the site. Conversely, until further excavations are conducted it is not possible to affirm that each of these is in fact a niched hall in any functional sense. The 20 examples can be roughly classified into an Early group, a Transitional group, a Classic group, and a Late group.

The Early group is represented by three poorly preserved examples. Example 1 (Figures 4 and 6a) is the most interesting. Its exterior measurements are about 8 x 26 m. and the ceiling height is in excess of 1.8 meters. The interior is now filled with rock rubble, so that the presence of niches cannot be confirmed. The roof was supported by corbels located on the interior face of both long walls, and was almost flat. The roof was surrounded by a parapet wall at least a meter in height, and was drained by means of slits about 3 m. apart, constructed in the front wall. Wall fall patterns suggest three symmetrically arranged doorways. The other two examples (Figures 2 and 3) in the group are about 7 x 30 m. and destroyed to the foundations.

There are six examples in the Transitional group. Building 4 (Figure 4) measures about 5 x 27 m. and the interior may be raised by the addition of almost 1 m. of fill. Walls are preserved to about 3 m. in height. Niches (45 cm. tall, 35 cm. wide, and 3 m. apart) are located on both the front and back walls.

Building 5 (Figure 2; cf. McCown 1945: 236-237 and Figure 9) is very complicated and the temporal relationship to the Castillo is not clear. The foundation of Building 5 abuts the Castillo, while the upper part of the wall is abutted by the Castillo. Either two different phases of construction are represented or there is substantial contemporaneity. The walls of Building 5 stand almost 9 m. tall in places, but at least 3 m. of deposit has accumulated within the building. The upper parts of the walls are poorly preserved but there are both niches and windows in preserved sections of the back wall and at least one niche in the front wall. There is a room appended on to the front of the hall, but unlike the Classic examples, both the hall and the annex are at the same level here. There is a possible tomb structure in front of the building at a lower elevation. A nearby building may also be a niched hall, hence the attribute "plaza grouping" is tentatively included. Building 5 measures about 8 x 48 meters.

Building 6 (Figure 2) is also referred to as Gallery D. It measures about 7 x 50 m. and is poorly preserved. The interior may be raised, or the slightly higher elevation there now may be due to wall fall. There are possibly four

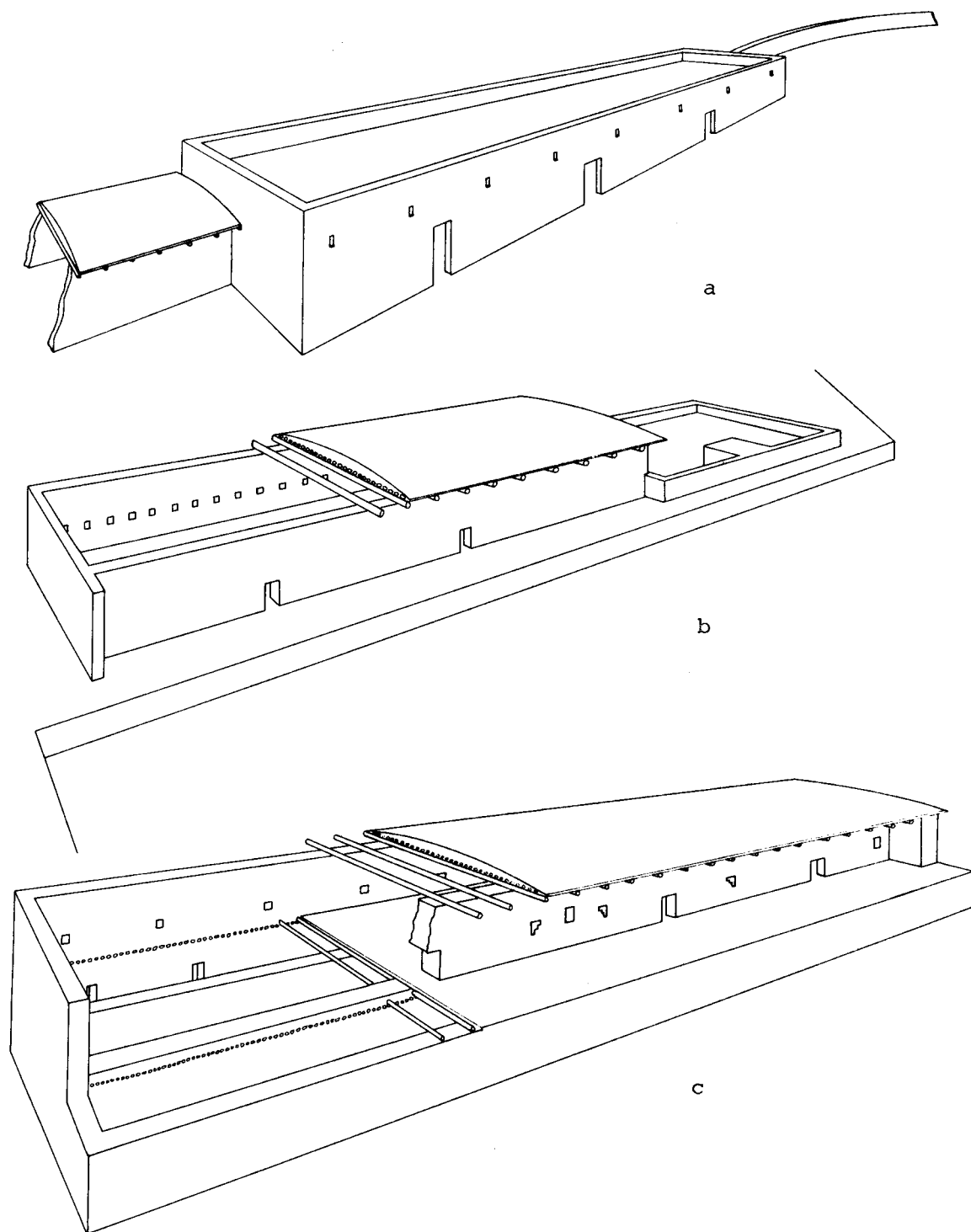


Figure 6. Reconstruction of three niched halls at Marcahuamachuco.

doorways in the front wall. Due to poor preservation, the presence of niches could not be confirmed.

Building 7 (Figure 2) is about 12 x 42 m. and set on a terrace. The back wall is fairly well preserved, with a good set of niches (85 cm. tall, 65 cm. wide, and 1.5 m. apart). The front wall is less well preserved, but there are probably two doorways, one possible niche on the interior face, and one niche on the exterior face. Most niches have mortared lintels, but two have pole lintels. The ceiling height was in excess of 4.5 meters.

Building 8 (Figure 2 and Figure 6b) measures 10 x 38 m. and fronts onto the Great Plaza. It is set on a terrace, has a ceiling height of about 6 m., and grooves are present. The niches in the back wall (55 cm. tall, 80 cm. wide, and 2.25 m. apart) all had mortared lintels. The front wall is less well preserved, but at least one niche was found on the interior face and there were probably two or more doorways.

Building 9 (Figure 2) is the last structure in the Transitional group and the first multistoried building. The building runs up and down a slope, and the upslope part of the building has been filled in. Only the downslope part has two stories, the first having a ceiling height of about 1.7 m. and the second a height in excess of 3 meters. The surface of the fill in the upper part of the building is at the same level as the floor of the second story. The second story is so poorly preserved that no observations about niches and doorways can be made. The building measures about 8 x 45 meters.

The Classic group is represented by seven examples, most of which can be characterized as long, two story buildings with a single story septal wall and stepped niches on the exterior face of the front wall. Building 10 (Figure 2) is located on the Great Plaza and measures about 8 x 55 meters. Niches (about 70 x 70 cm., 2 to 3 m. apart) were found only on the back wall. There is a single story annex in front of the hall, and this appears to have been filled in. There is also some evidence from the exterior of the back of the building that it was set on a terrace. The ceiling height of the hall was in excess of 6 meters.

Building 11 (Figure 2) is also referred to as Gallery B. It measures about 9 x 50 m., with ceiling heights of about 3 m. on the first floor and more than 5 m. on the second. It is poorly preserved, which accounts for many of the question marks on Table 1, but I cannot see the septal wall noted by McCown (1945: Figure 8 and 233). Also, as in Building 9, the upslope part of Gallery B is not two storied, but rather filled in to the height of the second floor. Only part of one niche is presently preserved, and lintel type is not known; pole lintels occur in the first story doorways. McCown (1945:233) felt that the front annex was a later addition. I noted that corbels (to support the roof of the front annex) were incorporated into the exterior face of the front wall of the hall, and believe that this indicates that an annex was part of the original plan. In short, the placement of Gallery B in the sequence is tentative.

Also tentative is the placement of Buildings 12 and 13. They are placed in the Classic group essentially because of the presence of stepped niches, but are poorly preserved. They are either of medium or long length, and fairly narrow (about 7 m.). Building 12 has niches on the back wall (47 x 47 cm., 3 m. apart) and at least one stepped niche and one rectangular niche on the exterior face of the front wall. The interior niches have stone lintels while the exterior

rectangular niche has a mortared lintel. There were probably two doorways in the front wall. Building 13, like Building 9, is partly two story and partly filled in to the height of the second story. Ceiling height on the first floor was about 2 meters, while the second floor had a height of at least 3.5 meters. There is, however, no septal wall. There is a definite terrace, almost like a front annex, on the front of the hall, and this is as much as 2 m. high. There were probably two doorways, and two stepped niches on the front wall.

Building 14 (Figures 2 and 6c) is better known as Gallery A. It measures about 10 x 60 m., with a first floor height of over 3 m. and a second floor height of more than 4 meters. The niches are about 75 cm. on a side and spaced 5 m. apart. Figure 6c provides information about the distribution of other attributes.

Building 15 is largely destroyed; it was probably about 6 m. wide. Building 16 (Gallery G) was obviously at one time a very impressive structure, but it was filled in and reoccupied later. The reoccupation obscures many features, and probably contributed to the destruction of the upper portion of the walls. McCown excavated two pits in the Gallery and we placed a small probe in the extreme NE corner. The probe revealed that, at least at this end, the gallery was three stories tall. The first story was 2.8 m. tall, while the second was 2 m. tall; the height of the hall on the third story is unknown. The first and second stories were subdivided into a series of cells by masonry walls. Human bones found in this probe seemed to be falling out of the front wall at the height of the second story. A number of doorways are known to exist, but in most cases it is difficult to determine whether they give access to the first, second, or third story. There are some corbels suggesting an annex on the exterior of the front wall but the ground level in front of the gallery would also be consistent with a terrace. Few details are known about the destroyed third story hall, or about the general context in which the gallery was situated.

The Late group consists of four examples, and all appear to lack niches. Building 17 (Figure 1) is about 10 x 22 meters. The only certain doorway is on the side facing Gallery A. The building has a septal wall, but curiously corbels are found only on the front wall, not both front and back walls. There is a possible front annex. It is not clear whether this building was part of a plaza grouping.

Building 18 (Gallery F) measures about 8 x 50 meters. It is two stories tall, but lacks a septal wall. The first story is about 3 m. tall, while the second is more than 2 meters. There is a front annex, but it is clearly a very late addition. The front wall is very destroyed, which might imply the presence of multiple doorways.

Building 19 (Gallery E) was probably part of a plaza grouping of niched halls. It measures about 5 x 50 meters. Again, it is two stories tall but there is no septal wall and no corbels on the back wall. The first story is about 2 m. high, while the second story hall would have been more than 4.5 m. high. Wall fall suggests that there were four doorways into this hall on the second story. There is no front annex, but a series of small "windows" perforate the front wall just above corbel height, and these might have allowed beams to pass right through the wall. These beams could serve to support the floor of the hall as well as the floor of a porch or balcony on the front of the building.

Building 20 is about 6 m. wide, and the length is unknown. Again, it is a two story building, without a septal wall but with corbels on both the front and back walls. There is also a row of corbels on the exterior of the front wall, suggesting an annex or porch. The second story is not well preserved, so that lack of niches and the number of doors cannot be confirmed.

Development of Themes

While poor preservation and the real possibility that not all variation is chronological dictate that the placement of any individual building within the seriation be considered with some skepticism, there are a number of themes which unfold through the sequence and provide some security in the placement of clusters of attributes.

The length of the buildings generally increases through time until the Late group, when there is no consistent trend. When the length to width ratio is also considered, the trend in the Transitional phase is particularly interesting. All buildings are broader than normal rectangular, curvilinear, or circular galleries, indicating that even in the Early group special efforts were made to secure long roof beams, a distinguishing characteristic of this class of building. The early examples of the Transitional group become proportionately narrow, but this narrowness is due not to a reduction in width, but rather to a large increase in the length of the buildings. The late examples in the Transitional group become broad, similar in proportion to the Early group, but without any reduction in length. Indeed, some of these examples are among the widest roofed spaces known to have been constructed in Huamachuco. The Classic group is still, on the whole, characterized by great width, but they are also proportionately narrower as the length increases. The Late group tends toward absolute decrease in width, and perhaps signals a decline in the ability to secure long, heavy roofing beams.

A similar trend is seen in the theme of elevation. Examples in the Early group are not elevated. Those in the Transitional group are first filled in and then set on terraces and finally gradually become multistoried. Most examples in the Classic group are clearly multistoried with a septal wall to support the wide floor of the hall and a front annex. The whole appears to be a large hall set on a hollow terrace. Undoubtedly, the ground floors of these structures housed activities intimately related to the functioning of the halls; either the activities housed on the ground floor had been spatially separate before, had been housed in the hall itself, or were newly evolved. The Late group was probably multistoried, and may have attempted to maintain some sort of front annex or porch; as a group, however, they display strange and not very suitable methods of supporting the floor of the hall itself.

The earliest examples of niched halls at Marcahuamachuco suggest that the form evolved out of the curvilinear perimeter gallery. Briefly, during the late Early group and early Transitional group, these buildings were truly isolated and separated from other building complexes. Many examples of the Transitional group and most examples of the Classic group were located around a plaza, associated with a tomb and other niched halls. Most of these buildings are also clustered around the Castillo. Although all the Late examples are still located on Cerro del Castillo, they occupy peripheral locations *vis-a-vis* the Castillo

itself, lack tomb associations, and have not yet clearly been shown to be associated with other niched halls.

Finally, I have already commented that niches are not common features in the Huamachuco architectural tradition, and they are of limited help in ordering the sequence of niched halls at Marcahuamachuco. I cannot yet confirm the presence of niches in the Early group. The Transitional group may be characterized by niches on two walls. The Classic group may be characterized by niches on only the back wall. The Late group seems to lack niches altogether. There are only six cases where we have good information on the sizes and spacing of the niches. The first case, Building 4, has small niches which are widely spaced. Building 7 has both larger niches and closer spacing. Buildings 8 and 10 still have the larger niches, but the spacing increases. Buildings 12 and 13 have large spaces between the niches and Building 12 has rather small niches. Niche lintels develop from single stone slabs, to several stones mortared in place, and finally to poles.

Overall, the development of themes helps to tie together the different groups, define clusters of attributes of probable chronological significance, and suggest an overall developmental process. In terms of process, it can be suggested that niched halls developed out of curvilinear perimeter galleries to become a recognizably separate building type. This development was associated with the concept of elevation. The classic forms were of extreme importance and more truly multifunctional, while the late forms reflect a general decline.

Comparison to Other Sites

Comparisons can be made in some detail to similar buildings at Viracochapampa and Cerro Sazón, while comparisons to other Huari sites and to Inca kallankas are best kept at a very general level.

The salient characteristics of niched halls at Viracochapampa are exceptional width, fanatic emphasis on niches, and construction in the Huari, not the Huamachuco masonry style. One notable attribute of the Huari masonry style is the use of mortared lintels. Most niched halls at Viracochapampa occur in patio groupings, and are associated not with other niched halls but with galleries which are probably most equivalent to the curvilinear form. Niched halls also occur, however, on either side of the Great Plaza and in isolated courts. This combination of attributes and contexts fits best with the late Transitional niched halls such as Buildings 7 and 8 at Marcahuamachuco, when mortared lintels were in vogue, niches are emphasized more than usual, the length/width ratio is similar to the niched halls at Viracochapampa, and the context in which niched halls are found is changing. Another attribute which begins to appear at Marcahuamachuco at this time and then continues through the Classic Group is grooves, and by extension, the incorporation of organic material in the wall as a binder. This attribute does not appear to occur at Viracochapampa, but it does occur at the Huari site of Pikillacta in the Cuzco area (McEwan 1984:148-149) as well as at Huari itself (Lumbreras 1974:162). As far as is now known, Huari ceramic influence in the Huamachuco area is limited to Middle Horizon 1b and it is most likely that Viracochapampa also dates to that period (Thatcher 1975; Topic and Topic 1984; Topic n.d.). An approximate date of A.D. 650-700 for MH 1b is consistent with the dates of Buildings 7 and 8 when standard deviations are taken into consideration.

We don't know very much yet about the internal features of possible niched halls at Pikillacta. It is clear, however, that possible niched halls occur in only two contexts there (McEwan 1984: map 4). In one context they occur on either one side or both sides of a large plaza (his Type E Structure). In the other context they are associated with galleries which are not niched halls (Type B Structures).

Cerro Sazón is a site with architecture in the local Huamachuco tradition located very near to Viracochapampa. Dated buildings indicate that the site was founded in the late EIP and was occupied at least through MH Ib (Topic n.d.). I suspect that the site was originally a roadside installation serving the same transportation route as Viracochapampa, and that during the construction of Viracochapampa it served as the main staging area. After construction of Viracochapampa was stopped, leaving the site abandoned and only partially finished, Cerro Sazón resumed, at least for a while, its earlier function as a roadside installation. At present I can only identify two possible niched halls at the site. Neither of these has been excavated, both are located on the side of the site which overlooks Viracochapampa, and McCown (1945: Plate 14c) has published a clear photograph of one. Each opens onto a plaza or patio, but the type of associated buildings, or even whether there were associated buildings, is not clear. These buildings are clearly multistoried and the niched hall probably occurs on the second story. The front walls are badly ruined, suggesting that they had multiple doorways. Only two niches are surely present, on the back wall of one structure, and these niches are relatively small (55 cm. high and 37 cm. wide), widely spaced (about 3 m.), and have stone slab lintels. No grooves were observed, but the building may have a front annex. Notable is the emphatic emphasis given to the chinking stones, which are often flakes of grey limestone. Also notable is the fact that there is a third story above the hall. The presence of this third story above the hall is unique to Cerro Sazón and may relate to the function of the buildings there; it is possible that it served as storage space. These buildings cannot be fitted securely into the seriation of niched halls at Marcahuamachuco. My feeling, based largely on the fact that these are multistoried structures with possible front annexes, is that they may fit best at the very end of the Transitional group or the very beginning of the Classic group. This would place these buildings immediately after the Viracochapampa examples. An alternative placement would be at the end of the Classic group.

Comparisons with Inca architecture are, of necessity, on a different level. The Inca **kallanka** is typically on the main plaza of the site. This, of course, parallels the location of a few niched halls at both Marcahuamachuco and Viracochapampa. Inca **kallankas**, however, are not known to occur in the other contexts typical of either Marcahuamachuco or Viracochapampa. They have more emphasis on niches than most niched halls at Marcahuamachuco, but also less emphasis on niches than is present at Viracochapampa. They also emphasize multiple entrances as much as they emphasize niches. This emphasis is more similar to galleries which are not niched halls at Viracochapampa (Figure 5). In general, in fact, the **kallanka** seem to combine attributes which are typically separate in the Huamachuco area: the long, unified façade and multiple entrances of the gallery, and the width and niches characteristic of the niched halls.

Conclusions

The seriation of niched halls at Marcahuamachuco indicates that this type of building was constructed from approximately A.D. 400 to at least A.D. 800 and probably longer. It may originally have derived from special rooms within curvilinear galleries. It was a common form and occurred within a variety of contexts.

During the construction of Viracochapampa, Huari adopted the niched hall, along with other gallery types. At Viracochapampa, the niched halls were again a common form occurring in a variety of contexts. Although other gallery forms were spread more widely within the Huari sphere of influence, the niched hall is known to occur only at Pikillacta. There the number of contexts in which the halls are found is reduced to two.

If the Inca **kallanka** is derived from the niched halls at Marcahuamachuco, the line of derivation is probably through Pikillacta (McEwan 1984:222-225). The contexts in which the **kallanka** occurs is probably most equivalent to Structure 25-2E at Pikillacta; Inca **kallanka**, however, are much longer and have many more entrances, suggesting that they combined attributes from the niched halls and galleries that they saw in the ruins of Pikillacta.

Earlier I used the **kallanka** as an analogy with reference to the kinds of activities which might have taken place in niched halls. I would not want to place too much stress on that analogy; there was a long time between early niched halls at Marcahuamachuco and Inca buildings, and one perceives a distinct change in the context of the buildings. All are public buildings, but those at Marcahuamachuco probably served more specific publics--smaller groups of people--than the Inca buildings. The Inca buildings, located only on large plazas, have a more institutional character than many of the buildings at Marcahuamachuco, which, located on smaller plazas and often associated with tombs, seem more familial. Viracochapampa, since it represents a brief time period, provides a glimpse of how niched halls might have functioned during the middle of the Marcahuamachuco sequence. There niched halls are ubiquitous; they are associated at times with small patio groupings and probably served specific groups of people, while at other times they occur on the Great Plaza and probably served a more general public.

We can see cross-fertilization between the Huari and Huamachuco architecture in terms of specific attributes such as mortared lintels and incorporation of organic binders in walls. I suspect that this cross-fertilization was more profound and affected the character of niched halls. Early niched halls probably were more familial, while the later, more elaborate niched halls like Galleries A and G might be viewed as more institutional. Still, within the Huamachuco tradition niched halls never became as institutionalized as Huari or Inca buildings.

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References

- Gasparini, Graziano and Luise Margolies
 1980. *Inca Architecture*. Bloomington, IN: Indiana University Press.
- Isbell, William H.
 1977. The Rural Foundation for Urbanism. *Illinois Studies in Anthropology* 10. University of Illinois Press, Urbana.
- Lumbreras, Luis G
 1974. *The Peoples and Cultures of Ancient Peru*. Translated by Betty J. Meggers. Washington, D.C.: The Smithsonian Institution Press.
- McCown, Theodore H.
 1945. Pre-Incaic Huamachuco: Survey and Excavations in the Region of Huamachuco and Cajabamba. *University of California Publications in American Archaeology and Ethnology* 39:223-399. Berkeley.
- McEwan, Gordon
 1984. The Middle Horizon in the Valley of Cuzco, Peru: The Impact of the Wari Occupation of Pikillacta in the Lucre Basin. Unpublished Ph.D. Dissertation, Department of Anthropology, University of Texas, Austin.
- Thatcher, John P.
 1975. Early Intermediate Period and Middle Horizon IB Ceramic Assemblages of Huamachuco, North Highlands, Peru. *Nawpa Pacha* 10-12:109-127. Berkeley.
- Topic, John R.
 n.d. Huari and Huamachuco. Paper prepared for the Huari Round Table, Dumbarton Oaks, May 16-19, 1985. Washington.
- Topic, John R. and Theresa Lange Topic
 1983. Huamachuco Archaeological Project: Preliminary Report on the Second Field Season, June-August 1983. Ms. on file, Department of Anthropology, Trent University, Peterborough.
- Topic, Theresa Lange and John R. Topic
 1984. Huamachuco Archaeological Project: Preliminary Report on the Third Field Season, June-August 1983. *Trent University Occasional Papers in Anthropology* 1. Peterborough.