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Chan Chan: Andean Alternative of the Preindustrial City

Imperial capitals of native states in South America differed from preindustrial cities of the Old World.

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Chan Chan, one of the most extensive pre-Hispanic settlements in South America, differs from the preindustrial cities of European heritage. This large Peruvian site shares its closest resemblances with Inca Cuzco and other metropolitan centers that arose in the central Andes after A.D. 800 (*1*). I cannot say Chan Chan is necessarily typical of other late population centers in the region. Most of these have received relatively little study (*2*), whereas Chan Chan has been the focus of a coordinated archeological project involving Peruvian and foreign scholars. We now know the settlement reflects certain widespread native institutions. Therefore, it may also reflect important aspects of the late Andean urban tradition.

One purpose of studying the ruins is to develop an understanding of the types of activities that went on in the settlement and how these gave Chan Chan distinctive form and organization. To achieve this aim, one has to attempt to construe political structure from archeological remains. I will discuss the administrative structure of Chan Chan after summarizing the relevant ethnohistorical background materials. I will then consider the population distribution and composition of the settlement, and conclude with a discussion of how the settlement grew and what is known of its antecedents.

Chimor

Chan Chan is located at the mouth of the Moche Valley on the north coast of Peru. The Spanish first entered the area in 1532, and their chronicles make little mention of the settlement. This implies the site was no longer an important population center. Several early documents indicate Chan Chan was the capital of Chimor, a conquest state (*3*). At its height, Chimor rule extended 1000 kilometers along the desert coast from southernmost Ecuador to central Peru, near Lima (*4*). This was the largest political body to contest expanding Inca hegemony. In about 1470, Chan Chan and its dominion were subjugated and incorporated by the Inca empire. The Inca were highly impressed by Chimor and adopted certain of its political and civic institutions. One Spanish account states Chimor was ruled by a dynasty of 13 kings. The first ten were independent monarchs, and the last served under Inca jurisdiction. Extrapolations from the king list place the founding of the dynasty in the 13th or 14th centuries (*3*, *4*). However, the excavations that I and my colleagues have participated in show Chan Chan had somewhat earlier beginnings.

Other records indicate the kings of Chimor headed a class of nobles who managed the state (*5*). Myth recounts that the aristocracy descended from two stars while the populace came from a different set of stars (*3*). This separation of creations smacks of a caste-like system, and the social distance between the classes must have been great. The nobility may have considered property ownership their divine right. This is suggested by a remarkable legal preoccupation with stealing (*3*). Punishment of theft was a religious as well as civil matter of grave concern and consequence. There is little historical information on the economic organization of Chimor. Irrigation agriculture was the principal basis of subsistence (*4*, pp. 71–85), and all prehistoric field systems surrounding Chan Chan were state built and run (*6*). There is no evidence of a monetary system, nor of a developed market economy. Economic organization presumably resembled that of the contemporary Inca, and the Chimor state extracted taxes in the form of labor and dominated the production, collection, and redistribution of goods. This not only minimized the scope of private trade and enterprise, but resulted in an economic system very different from that associated with the preindustrial cities of Mesopotamia or Europe.

Chan Chan

We do not know how the residents of Chan Chan conceived of the settlement's boundaries, thus the original size of the site is open to question. There is a central core of buildings out of which monumental architecture radiates over more than 20 km^2. The scattered structures share similar alignments, building materials, and construction techniques, and are interrelated in various ways. All the architecture may be considered aspects of Chan Chan proper, or some structures may be labeled outlying buildings depending

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Fig. 1. Map of central Chan Chan at its height (between about A.D. 1460 and 1500). Buildings are scattered over more than 20 km^2. The nuclear settlement, covering about 6 km^2, is dominated by nine high-walled compounds each of which is named in the figure. Three are located near the sea and the other compounds extend inland in two rows. These structures are flanked by monumental architecture of lesser size. Small residential quarters are crowded into peripheral areas in the south and west. Two principal pyramidal mounds are situated in the north and east near large enclosures with few internal buildings. In the south, looted cemeteries lie between vast artificially sunken gardens.

upon the definition that is imposed. Most of the region over which ruins spread is not heavily built up. Peripheral walls, empty enclosures, isolated mounds and small structures, as well as walled roads give the settlement great architectural sprawl but minimal nucleation.

Central Chan Chan is depicted in Fig. 1 as we think the settlement appeared shortly before abandonment. In the north and east, high-walled enclosures lock up vast tracts of empty land with little evidence of former habitation. Built of mud bricks, the walls stood more than 3 meters high and often exceeded 1 km in length. Within the enclosures there are remains of late prehistoric canals and field systems. Field plots are of the same size, contain similar numbers of furrows, and are laid out in a symmetrical fashion. This high order of standardization is characteristic of Chimor state fields (*6*). Unfortunately, we do not know why the state walled off these great tracts of arable land. If they were not zones reserved for urban expansion, then the lands or produce in the different enclosures may have belonged to different state institutions or different segments of the aristocracy.

Within greater Chan Chan there is a nucleus of densely packed ruins covering about 6 km^2. A series of nine very large compounds dominates the region (*7*). Rectangular or rectilinear in plan, each structure is demarcated by massive exterior walls of adobe, some still standing more than 9 m high and extending more than 0.5 km in length. The nine compounds are the most distinctive buildings at Chan Chan, and they stand out from all other classes of architecture.

Six of the compounds are divided into northern, central, and southern sectors by east-west walls. A fourth sector is generally present on the east side, and may be incorporated within the enclosure or annexed to it. Figure 2, a map of the smallest compound, illustrates this floor plan in the Rivero ciudadela. Formally arranged, repetitive types of structures are present in all sectors of the compounds except the southern ones which were not built up. The enclosures were entered through a single narrow passage in the north wall that connected with a large entry court. From here corridors with baffle walls lead to other areas. The passages have a maze-like quality and were designed to impede easy movement. This circuitous access pattern re-

peats itself in the central sectors on a smaller scale (Fig. 2).

Plazas and courts fill much of the compound floor space. Excavation has shown these open areas to have been left clean and in good repair with little sign of wear. In part, this reflects the systematic cleaning and maintenance of the compounds during their occupation. But most courts and plazas are difficult to reach and were not designed for use by large numbers of people.

The majority of roofed floor space in compounds is given to structures we identify as storeroom complexes (*7*). These are rows of contiguous rooms of equal size, each with a single raised entry 1 m or more above the floor level. Different complexes often have different-sized rooms, and the central sector of a compound has more storage facilities than the northern sector. The function of the structures is deduced from the elevated entry, the form of the rooms, and their architectural contexts, all of which are completely incompatible with residential activities. More than 100 rooms have been excavated without artifacts or other goods being encountered. This cannot be ascribed to poor preservation because the Peruvian coast is one of the most arid regions of the world, and recovery of archeological remains is optimal. The lack of material leads me to believe the original contents were goods of sufficient value to be systematically and carefully removed at the time of abandonment. Perhaps different products were stored in different-sized rooms, and facilities in the central sectors served inactive storage while those in the north were for active storage. We cannot, at present, evaluate the soundness of these possibilities. However, it is clear that one major function of the compounds lay with the storage of valued commodities. Presumably, this is a reflection of the state's economic control over the collection and redistribution of goods.

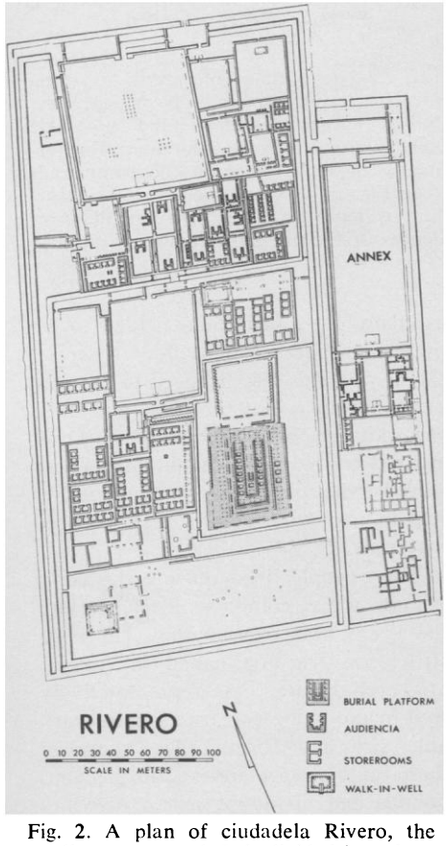

Fig. 2. A plan of ciudadela Rivero, the smallest compound. It is divided into three sectors, and a fourth area is annexed to the east side. The north and central sectors have entry courts connected by circuitous passages to storage complexes of equal-sized rooms, and courts with U-shaped structures. A looted burial platform is situated in the southeast corner of the central sector. The southern sector contains a rectangular walk-in well, but few other features.

Most compounds contain small U-shaped structures situated in little courts (*8*). These open-fronted buildings are elevated 10 to 20 centimeters above their courts. The interior walls are generally 2 to 3 m long and have symmetrically arranged niches or troughs, as Fig. 3 illustrates. The buildings are called *audiencias* because they are reminiscent of ceramic depictions of small, elevated, U-shaped structures occupied by one principal personage holding "audience" with individuals positioned in front of the structure. There are at least 178 such buildings in nuclear Chan Chan, and more than 30 have been excavated. Those in the compounds were left clean, and our interpretation of the structures is based upon their form and architectural context.

Audiencias are frequently decorated with adobe friezes, a distinguishing characteristic. The floors beneath most of them have been looted. In two instances we recovered remains of pillaged subfloor graves. These were adolescent females, and we think the burials were dedicatory in nature. Not all *audiencias* contained burials, but the extensive looting pattern suggests they were relatively common, which is another distinguishing feature.

Audiencias generally occur alone, but several may occupy the same court. Sometimes they are accompanied by smaller U-shaped structures of an ancillary nature. When two U-shaped buildings exist in the same court they rarely face one another but are situated at right angles. The size, location, and design of *audiencias* and their associated courts and structures denote a setting for formalized activities centering upon the person occupying the principal structure and involving relatively few other individuals (*7*, *8*). Speaking impressionistically, they have always struck me as something akin to an executive office-cum-salon. We have little knowledge of the specific types of activities *audiencia* courts housed. The structures occur outside the compounds in other contexts at Chan Chan, and at several rural Chimor administrative centers (*9*, *10*). This distribution supports the idea that *audiencias* were used for various types of formal activities.

Within the compounds there are more U-shaped structures in the north than in the central sectors. The average ratio of *audiencias* for the two areas is about 5:1, which implies the northern areas of the enclosures were the most active. Some *audiencia* courts contain rows of storerooms, as Fig. 3 demonstrates. Others are positioned along the access routes to storage facilities. This

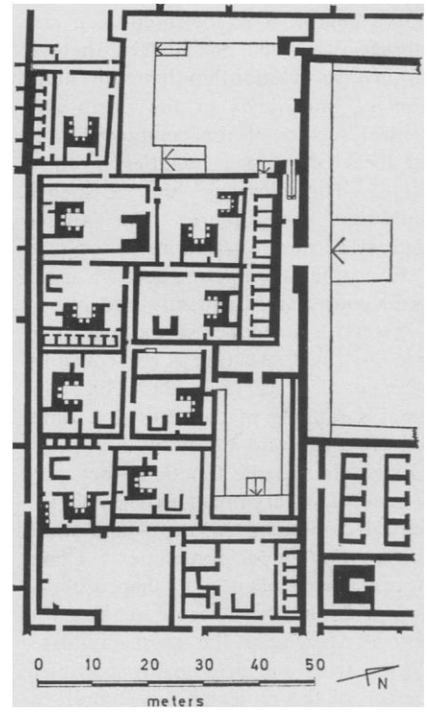

Fig. 3. The layout of U-shaped buildings behind the northern entry court of a compound. Open-fronted structures with six interior niches are called *audiencias*. Access to one U-shaped building is often controlled by another. Some *audiencias* are accompanied by smaller open-fronted buildings or by rows of storerooms.

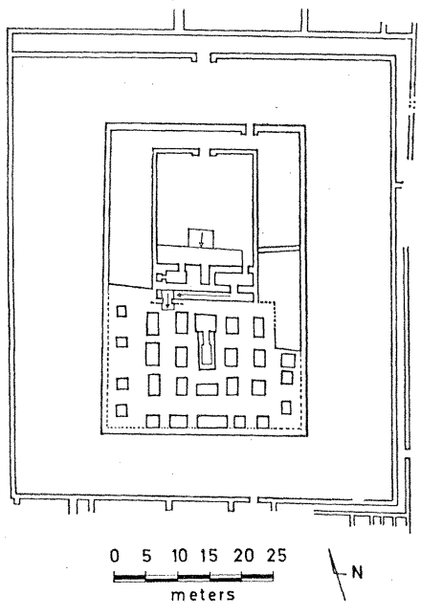

Fig. 4. A drawing of Huaca Avispas, one of the smaller burial platforms, shows the enclosing court and ramp system at the north end of the mound. Opening to the summit are internal cells containing remains of looted grave goods and female interments. Centrally located, the large T-shaped chamber is believed to have contained the body of a Chimor monarch.

denotes a close relation with the state's control over the circulation and storage of valued goods. Yet, there is an inverse relationship between numbers of *audiencias* in the north and central sectors of the compounds and numbers of storage facilities in these areas. This implies the U-shaped buildings were more than simple clerical accounting stations.

In northern compound sections *audiencia* courts are frequently laid out in a hierarchical manner so that access to one U-shaped structure is controlled by other *audiencias* (Fig. 3). This connotes a ranking of the structures, and, by inference, ranking of the occupying individuals and the functions they performed. This argument extends to the central compound sectors where there are few *audiencias*, sometimes but one. Access is controlled by U-shaped buildings in the northern sector, making the central *audiencias* the most inviolate. These structures presumably occupied the top of the projected hierarchy.

The largest structure associated with each of the nine compounds is a rectangular platform enclosed in a high-walled court (*7, 11*). These are situated in the central or rear sectors, except for two that are annexed to the outside of their enclosures. All the platforms have been heavily looted, and extraction of their contents kept commercial mining companies occupied into the 19th century (*12*). One of the smallest and best-preserved platforms is illustrated in Fig. 4. The summit is reached by a complex ramp system in the north. From here openings lead down to rectangular cells incorporated within the platform. These are regularly positioned around an oversized T-shaped chamber. This central chamber witnessed particularly heavy looting, and in some platforms it is completely destroyed. We tested each of the looted cells and found quantities of artifacts. These included: ceramic vessels, abundant textiles, metal objects, items of wood, worked shell, and stone objects. Remains of 91 female skeletons were recovered. There was no osteological evidence of individuals over 31 years of age, and 67 percent were in the 17- to 24-year age range (*11*). We consider these to be sacrificial burials and believe the central T-shaped chamber once contained the principal corpse to which all others were attendant (*11*). Likewise, the numerous artifacts are seen as funerary accompaniments placed in the platform at the time the principal burial and sacrifices were sealed in the cells.

Burial structures of such opulence are associated only with the nine compounds and have not been identified elsewhere at Chan Chan or within the boundaries of Chimor. We conclude that each platform was a royal tomb containing within its central chamber one of the kings of Chimor. The association of these structures with the compounds indicates the enclosures were the administrative quarters of the heads of state. As we interpret the situation, each monarch constructed a compound to be his seat of government during life and his mausoleum after death (*13*). The pattern was repeated nine times, which is a close but imperfect fit with the number of Chimor monarchs mentioned in the Colonial king list.

The Populace

The size and social composition of Chan Chan's resident population are difficult to determine. One has to estimate how all types of floor space were employed, who used them, and when. These variables are not well established because of the great sprawl of the ruins, their architectural diversity, and long periods of use. Early population

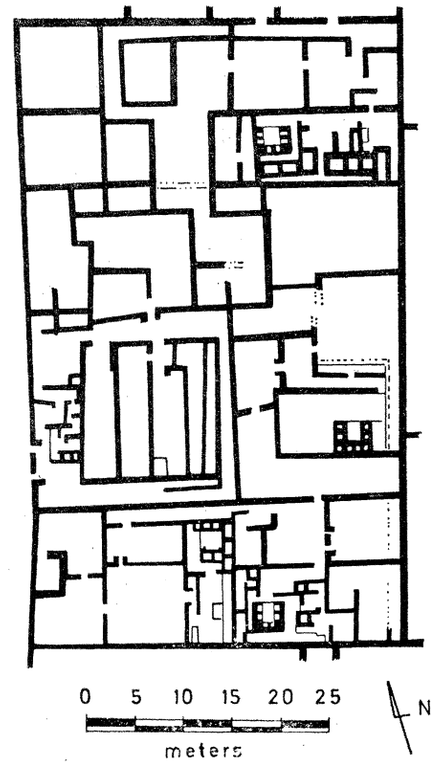

Fig. 5. The outlines of a unit of intermediate architecture with U-shaped structures, storage facilities, and a single kitchen situated in the southeast. The formality of layout seen in the compounds (see Fig. 2) is diminished, but the structure is more spacious than are the residences of Chan Chan's common citizenry.

estimates for Chan Chan tended to be quite high because most floor space in the compounds was believed to be residential. This is not the case, and only the southern, open sectors of the compounds housed many inhabitants. These were service personnel or retainers living in structures built of perishable materials (*7, 14*).

Most people lived outside the compounds in less grandiose quarters. Here there are two overlapping classes of structures. The first, called "intermediate architecture," is represented by well-made adobe constructions of variable size and form (*15*). Many of these buildings are annexed to the compounds and no doubt served activities related to royal governance. Other structures are independent enclosures containing *audiencias*, storerooms, and open courts. A small unit of intermediate architecture is depicted in Fig. 5. This contained a single kitchen, and most floor space was open and unroofed. There is little evidence suggesting a high population density and we believe these enclosures housed the aristocracy of the Chimor state (*15*).

Small, irregular, agglutinated rooms (SIAR) comprise the class of architecture where most of the settlement's population lived and worked (*16*). The principal concentrations of SIAR lie to the south and west in locations marginal to the compounds and intermediate architecture. Variable in layout, these crowded structures were built of cane with cobble or adobe base walls. Figure 6 illustrates a common form of enclosure in which smaller rooms were roofed, while larger areas remained open. Internal features include a hearth, grinding stones for food preparation, and storage facilities in the form of small bins, subfloor pits, and large vessels. Presumably the structure housed a single family. Some SIAR enclosures contain little or no evidence of domestic activity, but do produce artifacts associated with craft production, such as metalworking. We think these areas served as small workshops.

Excavations in the SIAR have produced a few farming implements and most of the inhabitants were not directly engaged in cultivation; only a minor amount of fishing gear points to marine exploitation. Colonial sources say the Inca removed Chan Chan's metalsmiths to Cuzco (*3*), and we have found numerous metalworking implements in the SIAR as well as some structures that can be identified as workshops. Weaving implements and well-made fabrics are present. Some textiles are of superior technical and artistic quality to those found in certain royal burial platforms. The SIAR have also produced evidence of lapidary work and woodworking. Although the manufacturing of goods was a widespread and common activity, there are no indications of mass production. Materials from the SIAR are more suggestive of a system akin to cottage industries than of centralized production (*16*). Comparable craft production is not found at the rural Chimor settlements we have studied (*9*), and this distinguishes the SIAR inhabitants from the population at large. However, there are no grounds for believing these people were members of the nobility.

We cannot prove who was to receive the fancy textiles, metal objects, and other products of the SIAR residents. I think it most likely they were produced for the ruling aristocracy, represented the type of goods kept in the storeroom complexes of the compounds and elite architecture, and formed important commodities in the state redistributive economy.

Composition

The major classes of structures at Chan Chan overlap, but general comparisons of the surface areas covered by some categories are instructive. When the settlement was at its height the areas occupied by certain classes included about 0.5 km^2 for walk-in wells, sunken gardens, and cemeteries combined; about 32,000 m^2 for truncated pyramids; more than 7 km^2 for vacant enclosures in the north and east; about 1.3 km^2 for the nine compounds; about 2.5 km^2 for the intermediate architecture; and about 1 km^2 for the SIAR. As yet we can not translate these figures into a well-calculated population estimate. It is evident that Chan Chan had a relatively small population. The compounds held few people for the amount of land they occupied. In fact, at the close of the occupation only one royal enclosure was an active administrative center; the rest were mausoleums. The intermediate architecture is a congeries of heterogeneous structures for which population is difficult to calculate, but a low density per unit area is apparent. Only the SIAR evince a high density, but these structures cover a relatively small total area. There may be less than 20,000 individual rooms within this area. Residential units presumably serving a single family were composed of multiple rooms; however, not all rooms or units were residential in nature. Therefore, it is unlikely the SIAR inhabitants were more numerous than the rooms. It may be that at its height Chan Chan housed less than 25,000 to 30,000 residents.

Given the great size of the settlement and, more particularly, the tremendous amount of large-scale construction and architecture the relatively small popu-

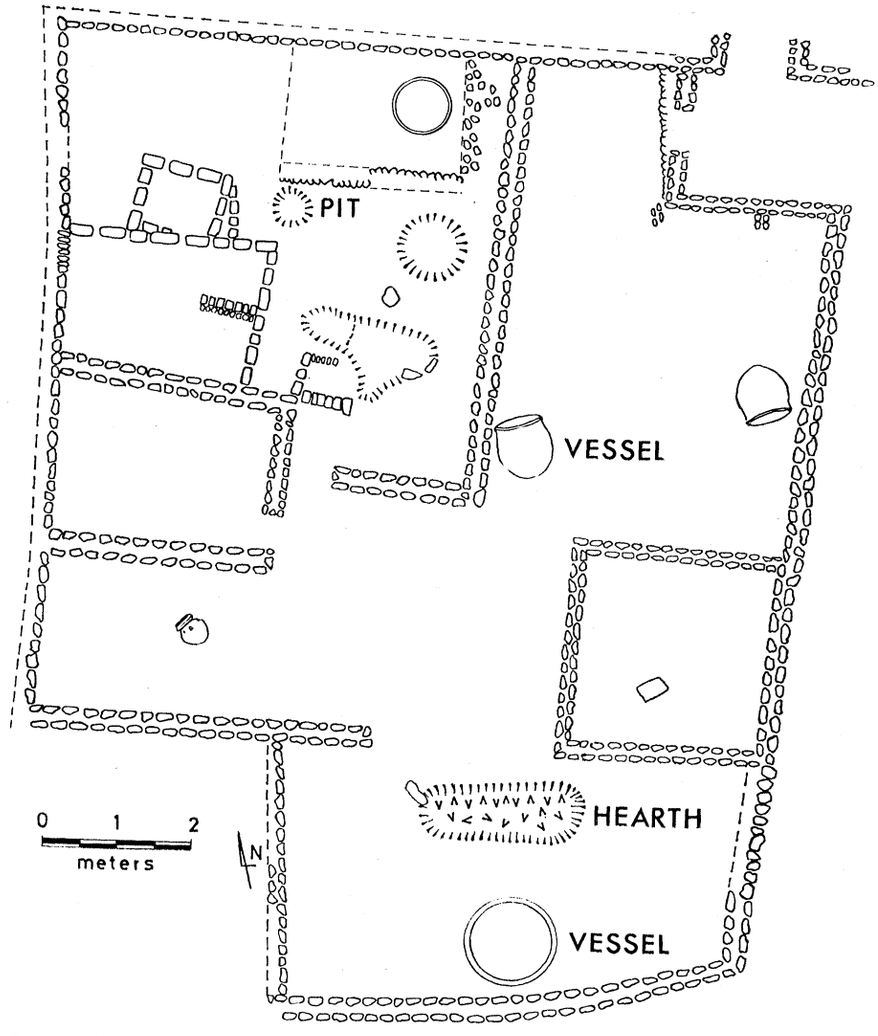

Fig. 6. The quarters of a proletariat family. Built of cane and mud walls with rock or adobe footings, the smaller rooms were roofed while others remained open. There is a single hearth and grinding stones for food preparation. Large pots, brick bins, and subfloor pits were used for storage. Packed together in peripheral areas, similar small quarters housed the majority of Chan Chan's resident population.

lation may seem surprising. Yet, this distinguishing characteristic of Chan Chan reflects the fact that the people who resided in the settlement were not the people who built the capital of Chimor. In other words, the resident population did not constitute the constructional labor pool. The compounds and other state building projects were executed by distinct work parties drawn from different communities outside the capital, and mobilized by means of a labor tax system (*17*). Supporting evidence comes from construction techniques and architectural details. Large structures are subdivided into multiple, small segments of similar size. At Chan Chan individual construction segments are generally demarcated by two vertical poles, one at the beginning and one at the end of the section (*7*). Adobes in one segment will differ in terms of soil composition and size from those in adjacent sections. The order and pattern in which bricks were laid up also changes from one segment to another. This pattern of variation indicates different segments were constructed by different work parties. There are three reasons for believing different work parties were drawn from different outside communities. First, Spanish accounts from the Moche Valley record the use of a labor tax based on work parties supplied by different indigenous communities at the beginning of the Colonial period (*18*). Second, the construction carried out at Chan Chan during the period of Inca control when a *mita* labor system was in effect is segmented and does not differ from earlier construction. This continuity presumably reflects a continuity in labor organization. And, third, at earlier sites there are bricks with makers' marks. The marks are segment specific, and sometimes specific to particular soil types, indicating production by different groups in different areas (*17*).

If Chan Chan had not been built by outside nonresident labor the settlement would have assumed a very different form. The urban proletariat could not have remained small, nor composed of a very high proportion of skilled artisans and craftsmen. A significant influx of unskilled construction workers would have diminished the sharp contrast between the SIAR residents and the common populace of Chimor, and the capital would have been both more crowded and congested.

Settlement Growth

It is instructive to look at the manner by which Chan Chan grew. Various lines of evidence indicate the settlement began in the south near the sea and then expanded inland. The compounds were built sequentially, and the order in which they were constructed may be estimated by examination of their architectural details. The *audiencias* and royal burial platforms evince separate but comparable chronological sequences (*8, 11, 13*). Called Chayhuac, the earliest compound is a large rectangular enclosure situated in the southeast corner of nuclear Chan Chan. It contains a burial platform, a small set of storage facilities, and a small, elevated architectural complex in the north. *Audiencias* have not been found and a majority of the floor space is open and not built up. The seven following compounds are, with one exception (Uhle), of the tripartite variety shown in Fig. 2. All seven contain storage facilities, *audiencias*, and other structures identified with Chimor governance and bureaucracy. These compounds first expanded to the north and then to the west, delimiting the south end of the site. After this, compounds were built inland in two roughly parallel rows (Fig. 1). Squier, the ninth and final enclosure, was constructed in the north between the two rows formed by its predecessors. In this case the compound wall was not completed to its full height. There are very few storage facilities, one *audiencia*, and only a small burial platform annexed to the west side of the enclosure. Presumably this relatively impoverished compound was constructed after the establishment of Inca rule (*11*).

From this ordering of the enclosures it is possible to argue that the compounds reflect the rise and fall of the Chimor bureaucratic state. The earliest enclosure correlates, in theory, with the time the Moche Valley was being politically consolidated under Chan Chan's jurisdiction, and the royal dynasty was just beginning. The following compounds with *audiencias* and extensive storage complexes correspond to the expansion of the state and the development of a centralized administration. Tschudi and Rivero are late compounds constructed and used just before the Inca conquest. This was when the empire was at its height, and these are the most formally organized enclosures. The final compound was built when Chan Chan was no longer independent and the resources of its former dominion had passed to Inca control.

One of the earlier compounds, Uhle, produced building materials radiocarbon dated at A.D. 1220 ± 150 (laboratory number GX-3253). We have no date for Chayhuac, the first royal enclosure. However, it was built atop habitation refuse mixed with fill from sunken gardens, thus the area was settled prior to the early dynastic construction. Once established, the pattern of compound building dominated the configuration assumed by nuclear Chan Chan. The aristocracy undoubtedly held fixed ideas about the kinds of activities that were to go on in certain types of structures, but the architecture reflects little concern with standardization of measurements or angles. Much of the monumental construction was laid out along an axis of roughly N 12°E and this imparted a degree of overall organization to the settlement as it expanded. However, the only suggestion of site planning is the growth of compounds in two parallel columns moving inland from the sea.

The SIAR, judging from their distribution, grew at a slower rate than the monumental architecture, and expanded into peripheral areas not held by the aristocracy. Proletariat structures were laid out in an irregular haphazard manner, and each family or social group apparently constructed its own quarters according to need. The SIAR lack orderly roads and access systems, and there is little to suggest that the state was concerned with implementing urban planning in working-class areas, or incorporating them within the greater structure of the settlement. The towering walls of the compounds and elite architecture were designed for privacy, not defense. I imagine that Chimor principles of class segregation were sufficiently strict to mitigate against the development of a physically integrated civic body. The small size of the proletariat populace and its marginal position most likely reflects the conscious attempt to keep Chan Chan a governmental and residential center of the aristocracy. Other than wells, most civic facilities were not intended to serve the needs of the common citizenry. Rather, this citizenry was at Chan Chan to serve the personal, civic, and state needs of the aristocracy.

Antecedents

Living in large settlements was a long tradition among the people living in the Moche Valley, and after about 500 B.C. there was always one settlement of very great size in the area. We have relatively little evidence of simultaneous, overlapping occupations at the major population centers. This suggests the lower valley and its inhabitants were capable of supporting only one principal settlement at a time.

Most types of structural features found at Chan Chan can be traced back to local antecedents, and the settlement is largely an outgrowth of developments that took place within the Moche Valley (*19*). This is evident at the large site of Galindo which was abandoned shortly before the founding of Chan Chan (*20*). The ruins spread over a 5-km^2 area, and the Galindo population may have been only slightly smaller than that of the Chimor capital. The settlement lacks the great sprawl of formal architecture characteristic of Chan Chan. I imagine this is because the Chimor capital drew upon resources from the entire north coast whereas Galindo's support base was more circumscribed and probably limited to the Moche Valley.

The monumental architecture at Galindo is segmented, and this implies the basic principles of labor organization were similar to those employed in building Chan Chan. The largest individual structure is a high-walled rectangular enclosure with a lateral extension or annex [see figure IX-11 in (*4*)]. There is a narrow entry system in the northeast end of the compound which connects with a large internal court once decorated with murals. From here a circuitous route leads to a heavily looted platform situated in the rear of the enclosure which is walled off from the forward sector. We recovered remains of several skeletons from the platform, but we could not tell if there once had been a central chamber or subsidiary cells. Except for the looted platform, circuitous access system, and open courts, there are few other structural features.

In terms of layout and general organization the Galindo enclosure is similar to the earliest of the Chan Chan compounds and may be seen as the architectural antecedent of the Chimor palaces. We cannot say for certain that the Galindo enclosure was associated with the types of kingship and despotic rule found at Chan Chan. However, in architecture the evolution of form follows the evolution of function, and Galindo most likely housed the basic political institutions out of which Chan Chan and Chimor grew.

Summary and Conclusion

I have discussed Chan Chan in terms of its political and economic characteristics because state organization had a pervasive impact on the growth and structure of the settlement. In this sense the capital of Chimor resembles Cuzco the Inca capital (*1*). Both metropolitan centers served as seats of Andean empires governed by noble classes headed by members of royal dynasties. Each state relied on a system of labor taxation and controlled the production, collection, and redistribution of goods. These political and economic institutions gave the sites distinctive but parallel forms. First, the settlements were large, containing a great deal of monumental architecture, but size and construction do not reflect substantial populations because building was done by nonresident work forces. Second, the urban proletariat were relatively few in numbers and composed of retainers or service personnel at Cuzco, as well as craftsmen and artisans at Chan Chan. Third, civic facilities were intended to serve the aristocracy and the state, not the common citizenry because these were governmental, not folk or popular, centers. And, fourth, palaces tied up a great amount of urban space because each monarch built his own seat of government during life and this became a monument to his name after death.

In conclusion, I cannot say Chan Chan and Cuzco are necessarily typical of other prehistoric population centers in the region because these centers are little studied. I can, however, say Chan Chan was distinct from the preindustrial cities of Europe and Mesopotamia, but this is not surprising because the capital of Chimor was the product of distinctly Andean cultural institutions.

References and Notes

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18. P. Ganster, in preparation.
19. Our findings do not support the contention that Chan Chan, or other urban centers on the north coast, became settlements around A.D. 700 as a result of a military invasion issuing out of the sites of Tiahuanaco or Huari in the south central Andes, R. P. Schaedel implies [*Am. Antiq.* **31**, 338 (1966); and in *Civilizations of Ancient America*, S. Tax, Ed. (Univ. of Chicago Press, Chicago, 1951), chap. 1, p. 232]. See also Rowe (*2*).
20. Galindo is under study by G. Bawden of Harvard University.

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