

Architecture in the Andes: Domestic Architecture

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The domestic built environment, encompassing domestic houses and other open spaces including patios and plazas, has been of interest to Andean archaeologists for over 100 years. For nearly as long, though, the archaeology of the everyday domestic realm and its architecture has taken a backseat to the study of temples and tombs. That said, since the 1970s, some have shifted focus to the archaeology of everyday life, which in most cases takes place in and around the quotidian built environment, which is often demarcated and internally differentiated by the structure of domestic architecture. Domestic architecture in the Andes and elsewhere can often be broken down between common and elite, and these will be discussed separately here. I wish to present the range of domestic architectural patterns in the Andes chronologically and regionally, with primary focus given to the patterns on the Pacific coast and the central Andean highlands. I then discuss the theoretical arguments that have focused on domestic architecture.

Some of the earliest discussions of households and domestic architecture come from the north and central coasts (Donnan, 1964; Willey, 1953). In the past 30 years, though, an increased interest in the archaeology of the everyday has led some in the Andes to focus on the analysis on the household with studies of household- and community-level architectural patterns (Moore, 2012; Nash, 2009).

Early domestic architecture in the Andes was in general quite ephemeral and difficult to see or recover in the archaeological record. Over the past 4,000 years, though, a wide range of variability in domestic architectural patterns and styles has developed in the Andes on both the coast and in the highlands.

Coastal Patterns

On the coast of Peru, perhaps the most ubiquitous and long-lasting domestic architectural tradition involves the construction of *quincha* (wattle and daub) walled structures. This form of construction is economical and common in many regions of the world; walls are built from branches or reeds woven through thin vertical branches or sticks, which are inserted into linear rows in the ground. Structure corners are often formed with larger diameter vertical posts. In many cases, but not all, clay or mud is then applied to these walls, creating a relatively durable wall. Quincha has been used for several thousand years for the construction of commoner domestic houses on the coast and is still used today. Slightly more complex adaptations will have one or more foundation courses of cobbles or adobe bricks with perishable walls rising from this base.

Some of the earliest evidence for domestic architecture on the coast comes from the Chilca valley. At the preceramic site of Chilca, Donnan (1964) has described a series of conically shaped, semisubterranean domestic pithouse structures with circular or semicircular plans and largely perishable walls, some of which had fallen in and been covered with sand, creating uncommonly well-preserved early domestic contexts. Walls were constructed here of bound cane and wood and occasionally braced with whalebone. At the site of Paloma, also in the Chilca, Quilter (1989)

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excavated a series of similar dwellings located near to the economically valuable lomas ecological zone.

In many of the western valleys, domestic architecture was placed on terraces, and we have good examples from the Nasca region for domestic constructions with stone and cobble foundations. In their studies of domestic and community organization, Conlee (2000), Van Gijseghem and Vaughn (2008), and Vaughn (2005, 2009) have documented semicircular to semirectangular structures which were organized into groups or households of multiple structures connected by bounding walls and often surrounding a central open space or patio. This general pattern was probably very common in coastal valleys in the north and south from early in time through to Spanish contact.

Middle-class domestic architecture within the Moche polity (or polities) (AD 100–700) has been investigated at a number of sites on the north coast, primarily at large Moche political centers. At sites like the Pyramids at Moche in the Moche valley and Pampa Grande in the Lambayeque valley, middle-class Moche constructed and lived in complex urban zones of adobe domestic architectural spaces interspersed with more public, open plazas and connected by networks of streets and alleyways (Van Gijseghem, 2001). Roofed rooms and open patios were delineated by adobe walls that were often plastered. Domestic styles also included the placement of low benches along some interior walls, some becoming the locations for domestic burials at various points in a structure's life span. Corridors and ramps connected domestic spaces, rooms, and patios. At the large Moche center of Galindo in the Moche valley, Bawden (1982) has intensively studied patterns of commoner and middle-class domestic architecture elucidating fine differences in patterns, construction styles, and materials in analyses of social and community organization and class formation.

On the coast, the ubiquitous and relatively simple structures of the common people can be contrasted with the massive and elaborate domestic architectural patterns of elite and ruling classes. During the Late Intermediate Period (AD 1000–1476), the Chimú Empire developed and expanded over much of the north and central coasts of modern-day Peru. It was centered at the capital of Chan Chan in the Moche valley, an urban center built up around a series of ten huge royal *ciudadelas* (Moore, 2005; Pillsbury & Leonard, 2004). These acted as the domestic palaces, administrative centers, and burial places of the Chimú ruling class. Elite domestic architecture here was characterized by the creation of monumental spaces, including large open reception plazas, repeated administrative features called *audiencias* possibly associated with state storage facilities, elaborate niched halls, domestic spaces, and large royal mortuary platform mounds (Fig. 1). Interior movement of people was carefully controlled and monitored through the use of narrow doorways, long narrow corridors, and other architectural features meant to control access. Importantly, all of these features were carefully separated from the outside, everyday world of the masses by battered compound walls which measured nine meters in height (Moore, 1996, 2005; Moseley & Mackey, 1974). The extreme class-based social separation present in Chimú society was thus materialized and made permanent through its physical representation in the built environment of royal domestic architecture.

In the Rimac and Lurin valleys of Peru's central coast during the Late Intermediate Period (AD 1000–1476), the political environment was one of a series of interrelated and possibly confederated complex chiefdoms called the Ychma society. The characteristic architectural feature of the Ychma is the "pyramid with ramp," often considered to have functioned as elite domestic residences (Eeckhout, 1999–2000). These were characterized by large rectangular adobe platform mounds fronted by open plazas or patios and reached by long prominently located ramps. Domestic rooms, cooking areas, and storage spaces were present on the leveled summits of each of these platforms, and each of these complexes was separated from exterior spaces by a defining wall. The private living spaces of the elite were situated on high while semipublic gatherings may have taken



Fig. 1 Zone of U-shaped audiencia rooms within a Chimú Ciudadela at the site of Chan Chan. This is from the Tschudi Complex (Photo by the author)

place within the plazas below. While at some Ychma sites only a single ramped pyramid residence was present, many existed at the oracle site of Pachacamac, forming an elite domestic zone. In both the Ychma and the Chimú cases, though perhaps the Chimú case is the more extreme, a major function of the elite domestic built environment was to physically separate ruling elites from common people, materializing existing social differences.

Highland Patterns

Although the earliest domestic spaces in the Andean highlands were probably the interiors of caves with space divided into functional zones and features such as hearths and storage pits, later open air settlements of the archaic period saw the construction of domestic houses which were often, but not always, round to semicircular in plan and were set on the surface or semisubterranean in profile. These were created from a perishable superstructure, occasionally with a partial stone foundation. These kinds of relatively ephemeral domestic structures have been seen at sites like Asana (Aldenderfer, 1998) and Jiskairumoko (Craig, 2005; Craig, Aldenderfer, Baker, & Rigsby, 2010) in the south central Peruvian Andes. At Asana, domestic architecture shifted through time from small (~2.5 m diameter) round houses bounded archaeologically by post-molds to slightly larger, semicircular structures also brush covered. Still later, Archaic domestic structures here were oval to rectangular and were probably also walled and roofed with perishable materials (Aldenderfer, 1993b).

Archaeologists have traditionally recognized a generalized dichotomy in the shape of domestic structures in the Andean highlands as opposed to those along the coast, with highland houses generally being round in shape and those on the coast often being rectangular in plan. Although this is generally the case in many regions, there are notable exceptions. Good examples of highland round domestic structures come from the work of DeMarrais (2001) and the broader archaeological project (D'Altroy & Hastorf, 2001) that traced the later prehistory of the upper Mantaro valley through community and household levels of analysis. Domestic architecture here was characterized



Fig. 2 Densely spaced round domestic structures of the Chachapoyas

by circular structures and associated outdoor patios and activity areas, forming patio groups. These complexes ranged from simple, with one or two circular structures, to more complex integrating multiple circular buildings and smaller possible storage structures forming patio groups and possibly representing immediate family units. Large communities were made up of many of these patio groups integrated by a network of corridors. Bermann (1994) described similar spatially distinct circular domestic houses for villages at the southern end of Lake Titicaca in the south central highlands and documented changes to domestic and political economy at the household and community levels. Domestic architecture in the Chachapoyas region of the northeastern slope of the Andes is characterized by large circular stone structures often densely packed into hilltop or ridgeline communities (Fig. 2). Although some of these may have functioned as communal spaces, most were domestic, containing benches, hearths, storage features, and typically domestic suites of artifact classes (Guengerich, 2014).

Immediately west of Chachapoyas, the Cajamarca region of the north central Andes sees another pattern. Here, circular structures are rare to absent and domestic architecture is characterized by the construction of often-agglutinated rectangular stone rooms. Domestic complexes are often located on narrow domestic terraces, with roofed rooms closely associated with open patios and plazas and terraces connected by stone stairways (Julien, 1988). These patterns have been described at sites like Tantarica (Watanabe, 2002) and Yanaorco (Toohey, 2009) (Fig. 3). This pattern of rectangular design in the domestic built environment is also present in the Recuay culture of the Callejon de Huaylas in the central highlands (Lau, 2010).

Elite domestic residences in the highlands can perhaps best be exemplified by the country palaces of the ruling Inka elite such as at Machu Picchu (Salazar & Burger, 2004) and by elite residential structures associated with regional administrative centers like Huanuco Pampa (Morris, 2004; Morris & Thompson, 1985). The domestic built environment of the Inka ruling elite was designed to integrate an architectural stamp of Inca power within the local physical and social landscapes,



Fig. 3 Densely spaced domestic rooms and long corridors (to the *right*) on a broad domestic terrace at the Cajamarca site of Yanaorco (Photo by the author)

utilizing all of the classic architectural features of the Cusco Inca architectural style including the repeated *kallanka* pattern, double jammed doorways, windows, and niches and both cut stone polygonal and ashlar masonry styles.

Theoretical Directions in the Study of Andean Domestic Architecture

From a theoretical standpoint, the investigation of domestic architectural patterns has focused on a number of broad avenues of inquiry. An interest in ethnicity, identity, and interregional interaction has utilized the study of domestic architecture. Patterns in the domestic built environment have also been brought to bear on investigations of community and regional social organization and the study of social differentiation and stratification. Finally, architectural patterns are also utilized in the analysis of domestic economy at both the household and community scales.

Community Organization, Economy, and Social Organization

Household organization and patterns of economy are reflected in the organization of domestic space. Community organization and social organization on the other hand have been documented through the analysis of patterns of domestic architecture and its variability across archaeological sites. Domestic architectural units are often described as repeated patterns of architectural areas such as living/sleeping rooms, cooking rooms or spaces, storage features, and open patios which may be the locations of craft production activities or social gatherings (Bawden, 1982; Van Gijseghem, 2001; Vaughn, 2005). These minimal suites of domestic spaces are repeated at sites in the Andes both on the coast and in the highlands, perhaps representing immediate family units. Variability among these units has been utilized to understand community and social organization better. Inequality in

variables such as patio size, quality of wall construction, and elaboration of interior spaces can be indicative of the presence of strong economic or class distinction at sites like Galindo in the Moche valley. There, classes were physically separated with large adobe walls running between zones of low-status dwellings and those of higher-status residents. Architecture here is used to physically ensure social separation within the community (Bawden, 1982). The materialization of social separation is perhaps best seen in elite domestic architecture at the site of Chan Chan on the north coast (Conklin, 1990; Kolata, 1990; Moore, 1996; Moseley & Mackey, 1974).

Ethnicity, Identity, and Verticality

As a culturally conservative form of material culture, domestic architectural patterns are believed to mark social identity and be slow to change (Parker Pearson & Richards, 1994). Because of this conservative nature, it has been used to study issues of cultural identity in the Andes (Aldenderfer, 1993a; Aldenderfer & Stanish, 1993). Aspects of domestic architecture including form and plan, as well as the patterning of activities within space, are seen as outward signs of ethnic identity. Aldenderfer and Stanish's (1993) work has been done within a broader interest in Andean archaeology in themes of economic complementarity and verticality. Shifts in the organization of local domestic spaces can also signal the development of novel identities as well as sociopolitical relations as has been proposed for the late Moche site of Galindo (Bawden, 2005) in the north and on the south coast in the Nasca region (Van Gijseghem & Vaughn, 2008).

This necessarily brief review of domestic architecture in the Andes is limited in breadth and could not hope to discuss the entire range of the subject geographically, culturally, or temporally. Here, I hope to have presented some of the range and richness of patterning in the domestic built environment of the Andes and the anthropological questions that continue to be asked of it (Figs. 1, 2, and 3).

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