Journal of Material Culture
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Journal of Material Culture 2013 18: 27
DOI: 10.1177/1359183512473558

The online version of this article can be found at:
http://mcu.sagepub.com/content/18/1/27

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Journal of
MATERIAL CULTURE

Article

Journal of Material Culture
18(1) 27–51

DOI: 10.1177/1359183512473558
mcu.sagepub.com
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The building and rebuilding of walls: Aspirations, commitments and tensions within an Andean community and the archaeological monument they inhabit

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Abstract

Walls are at the foundation of 'civil society': physical and symbolic barriers that differentiate people and activities. Cooperation in construction work expresses people's aspirations and can be a focus for the development of group solidarity. However, walls change the control and use of space, causing tensions and social divisions. In Raqchi, a small Peruvian village whose houses and fields are located within the ruins of a major archaeological complex, walls are a major concern. The work involved in house building, community projects, a monumental Inka temple and recent heritage reconstruction shows how the choice of materials and techniques is influenced by social relations and labour exchange. Tensions are expressed over land ownership and community priorities as well as with heritage management. The community's identity and status are also strongly influenced by building work that is dependent on the Catholic Church, NGOs, the municipality and the nation state. Walls can be read as a document of this contested history.

Keywords

agency and structure, construction, heritage, houses, Inka, labour, materials

Building relationships

Before I built a wall I'd ask to know
What I was walling in or walling out,
And to whom I was like to give offense.

('Mending Wall' by Robert Frost, 1914)

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In Robert Frost's poem Mending Wall, two men meet to repair the barrier between them. The wall is continually in need of repair for 'something there is that does not love a wall', as natural weathering, people or malignant spirits cause collapse. But the author, who has called his neighbour to share in their annual task, asks why they should bother repairing a section that only separates an orchard from a pine forest. The neighbour replies with the old proverb: 'good fences make good neighbors.' As the men chat, it is clear that the shared labour of repairing their wall helps to make them 'good neighbors'. In the Peruvian village of Raqchi, individuals also express their 'good neighbourliness' through the building and rebuilding of walls: where the walls are built, what materials are used and whose labour is deployed are tactical decisions that help to shape livelihoods, kinship ties and citizenship.

Walls are at the foundation of 'civil society': they are physical and symbolic barriers that separate people and activities. A building encloses and demarcates space, and helps to differentiate and protect what is inside from what is outside. Thus, walls play a vital role in structuring society, and the construction and use of buildings is an active process that can change social relations and identities. Building projects require people to cooperate in an effort to materialise their aspirations, and the walls come into being through a process of conception, organisation and construction work. This commitment of time, energy and materials is only possible because the organisers are able to bring workers together and motivate them. But construction choices are partly shaped by historical conditions, such as the location of previous structures, personal wealth, land ownership and social networks. As people's aspirations and power to act change, or the buildings themselves deteriorate, people choose whether to repair or remove earlier walls in the course of new construction projects. Thus, central questions for our analysis of any construction are: what materials and labour were used? Why were people prepared to make this commitment? What did the walls do? And how do ancient walls contribute to present-day construction decisions and social relations?

Materials

The degree to which people are able to select the materials used in a building project depends on their economic resources. Builders also require knowledge and skill to work materials with physical properties that are appropriate for the construction and function of the building. This knowledge is learnt from previous generations, but it can also be adapted as people respond to changes in their access to materials, aspire to push the boundaries of their technical ability or are able to use their social and economic networks to bring in new materials and new technical skills. In this article, I draw on the concept of the *chaîne opératoire* (operational chain; Schlanger, 2005) to study the selection of raw materials and techniques for construction, the purpose and function of the building, and subsequent periods of repair or restoration. This includes the concept of 'technological choice', which highlights how similar objectives may be achieved by selecting distinctive materials and techniques, and how these choices reveal aspects of the cultural context and intentions of the actors (Lemonnier, 1992, 1993).

Labour

All construction projects rely on bringing together a labour force, but the way that workers are solicited or coerced, and the degree to which cooperation is reciprocated, varies greatly and creates distinct social relations. Marx (1976[1890]), starting from a premise that individuals should ideally be in command of their own labour, stated that capitalism and wage labour had alienated workers from the product of this labour. Disparities in those who provide and those who direct labour are a fundamental basis of inequality in most societies. However, the presumption that individuals desire autonomy and control over the product of their labour is not universal. Gose (1994) and Harris (2007) point out that Andean ideals of reciprocity focus on the social benefits of labour exchange, with a tendency to revile individuals who avoid such commitments. Isbell (1977) used the words of one of her informants to describe the people who participate in collaborative work as 'those who love me'. However, a contribution to a particular project may also be due to people's need to access reciprocal labour or cash payment, rather than approval of the specific construction project to which they are contributing.

Aspirations

All construction projects are 'future-orientated'. They materialise the aspirations of the builders by creating physical structures that are intended to enable particular activities or express ideals (Rapoport, 1982). While builders may aspire to change their social status or realise personal ambitions (Colloredo-Mansfeld, 1994), aspirations may also include providing a home for a family, protection for animals or an expression of religious devotion. In the longer term, the act of construction and the existence of buildings can play a significant role in structuring people's social organisation and sense of community (Moore, 1986), so that communal Neolithic burial mounds, medieval churches and national parliamentary buildings become a focus of identity and commitment for subsequent generations. Equally, aspirations may not be realised, the fortunes and social conditions of families and communities change, and people may need to adapt, abandon or destroy earlier structures in response to current conditions and changing aspirations.

Agency and structure

Through their labour, people continually recreate and reform the societies they live in, reproducing and transforming institutions such as the household, the community and the state. The building and rebuilding of walls provides a productive focus for looking at the relationship between individual agency and social structure (Giddens, 1984). For instance, the building of a house in the Andes necessitates the help of kin and neighbours to build the walls and roof the structure. This cooperative labour and the accompanying rituals both confirm pre-existing kin-ties and create new relationships (Arnold, 1991; Carter and Mamani, 1989). Similarly, the construction and cleaning of a canal depends on mobilising community labour and, in doing so, it can rebuild the community's social structure and affirm members' access to water rights (Isbell, 1977; Urton, 1981). The role of walls in actively changing not only the control and use of space, but also wider social

structures, has been a major research theme, with a particular focus on the enclosure movement in Europe (Marx, 1976[1890]; Neeson, 1993; Williamson, 2002). The physical structures can also become a mnemonic through which social relations involved in their construction and use are recalled, so that people can read the construction of a wall as a part of their social history (Urton, 1988). This article describes the relationship between several construction projects undertaken at the household, community and state level, to consider how cooperative labour can be a focus for both social integration and differentiation.

Heritage

The removal of modern walls, the revealing and repairing of ancient walls and the demarcation of protected areas are frequent features of heritage management. Such construction work can have a major impact on the community living in the area. This is a significant factor in the complex interaction between indigenous rights and the management of national heritage (e.g. Truscott and Young, 2000), and it is further complicated by the fact that the people who do the physical labour of clearing and restoration are rarely acknowledged (Quirke, 2010). It is sometimes stated that archaeologists cannot study 'the past' because the materials we identify as 'ancient' are always present 'here and now', and any interpretations of these materials depend on the issues and concerns that we have today (Shanks and Tilley, 1987). Partly for this reason, Holtorf (2001) has questioned the concept of the past as 'a non-renewable resource', pointing out that we are always able to identify and claim more and more diverse remains as 'heritage'. These 'theoretical debates' are a material reality for the residents of Raqchi, where the archaeological recognition of old walls has caused their agricultural fields to be declared a national monument. Yet the identification of material remains from the past, and the desire to enhance these as a symbolic resource that can be used in the present is not a preserve of modern heritage management; ancient monuments were re-used long before the modern era (Bradley and Williams, 1998). The history of Raqchi is particularly pertinent, as the Inka temple here was itself designed to engage with the structures and the symbolic power of earlier periods.

Raqchi: Andean community and national monument

Raqchi is a Peruvian village, 3480 metres above sea level, 110 kilometres south of Cuzco. It has around 100 households and a small plaza where the church and school are located. The majority of the community's territory is covered in loose rock thrown out over a thousand years ago by the small volcano Kinsich'ata. Residents grow crops on their limited agricultural land during the wet season and make pottery during the dry season, taking on paid work when available. The limited resources available to residents have encouraged some out-migration to areas of higher employment, but the continuing life of the community is expressed in the construction of new houses and investment in community resources such as the church, school and piped water.

Raqchi possesses one of the most dramatic archaeological monuments in Peru, dominated by a curious 12-metre high wall with fine Inca stonework at its base

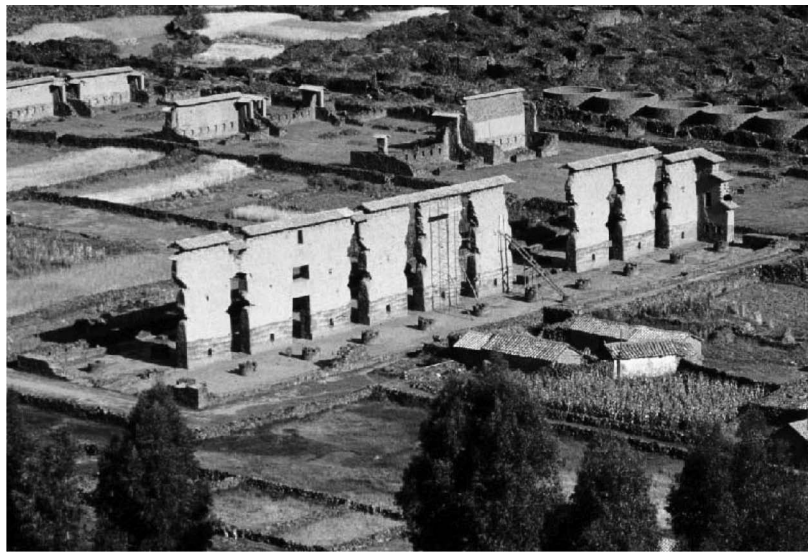


Figure 1. View of the Inka temple at Raqchi, surviving central wall and pillar bases, with house immediately to the side of the temple wall (1997). © Photograph: Bill Sillar.

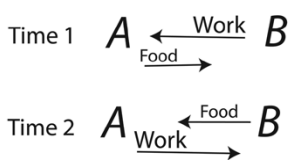
(Figure 1). This wall originally formed the central roof support for a 92-metre long rectangular 'temple' dedicated to the creator deity Viracocha. The archaeological remains of this temple and the surrounding complex of pre-Hispanic buildings have been designated a national monument that is managed by the Peruvian National Institute of Culture (INC). During the last 80 years, archaeologists and government officials have intermittently invested time and resources to clear, preserve and reconstruct these ruins; some modern houses have been removed and agriculture has been prohibited. This has led to tensions between heritage managers and villagers, although work on the archaeological site and increasing tourism also offer the community new economic opportunities.

I first visited Raqchi in 1985 and have been lucky enough to live in the community on various occasions when conducting ethnographic and archaeological fieldwork (Sillar, 2000; Sillar et al., 2013). I start this discussion with a consideration of the family home in order to illustrate the social relations and negotiations implicit in building projects, through a consideration of the choice of people and materials used in relation to traditional labour exchange and the cash economy. I then look at how the relationships between individual households combine to build a larger-scale community and how the construction projects they organise create the spatial organisation and social structure of the community and its relationship to the state. I then go back in time to consider the choice of building materials and techniques used in the construction of the Inka temple and the labour relations and motivations for this monumental construction. In the final section, the biographies of the Inka site and the modern community come together as I look at the work undertaken to present the archaeological site to the public and the impact that this has had on the community.

Building a house: The choice of labour and materials

The form and size of a new house in Raqchi is decided upon and usually designed by the young couple who will occupy it. This depends on the aspiration of the couple, moderated by the materials and labour they are able to access. Most houses in Raqchi consist of at least a small kitchen and a larger room that is used both for storage and for all the family to sleep in. As the family and house develop further rooms for storage, workshops, subsidiary bedrooms or animal pens may be added. An essential element is a wall surrounding the house compound that separates it from other households and demarcates a patio for daytime activities. Within the house enclosure there is intensive cooperation as the patio's occupants share cooking hearths, stores and animal corrals. The enclosure wall constitutes a distinct separation from the people and economy of other households and, in cases where a parental patio is split between two siblings, a dividing wall has eventually been constructed. A viable household necessitates the availability of land for the house structure, making the demise of old households and the generation of new ones reliant on a re-negotiation of rights of access to land. Plots of land or old houses can be bequeathed to immediate kin and community members, but Peruvian law restricts its sale to non-community members.

New house construction is coordinated by the young couple who will become the future occupants. The process of construction requires the couple to engage in traditional forms of reciprocal labour exchange, called *ayni*, to draw together a work force. *Ayni* exchange begins by a member of one household (A) petitioning someone from another household (B) to come and work for them (offering them food and drink while they do so); this is repaid when B requests A to do comparable work, such as agricultural activities.



Where a young couple is able to draw extensive support from their kin networks they can amass large *ayni* work parties during which workers generate a competitive dynamic; for example, two groups headed by the different sides of the family may compete to see who can prepare the most adobe mud bricks. As the couple requests and repays successive *ayni*, they are brought into a widening circle of reciprocity. By the end of the house-building process, most couples have taken on so many work obligations that 'they will be involved in lending and borrowing goods and services for the rest of their lives' (Carter, 1977: 210). Although the house-roofing ceremony confirms the separate status of the couple, the new household becomes permanently enmeshed in labour obligations to other households and the rest of the community.

As in many highland Andean communities, the older households in Raqchi are built from fieldstone in mud-mortar, characterised by a series of one-room, single-storey buildings around a patio. However, some houses from around the 1900s and most

modern ones draw upon urban architectural forms and are built from adobe bricks as two-storey structures with interior dividing walls. Stone houses are now considered more difficult to build than adobe brick houses, requiring more skill to position the rude volcanic stones. Curiously, I was told by several people that it takes more water/mud to build a stone house than an adobe one! In discussion, it became clear that this referred to the large amount of mortar used between the stones: although an adobe house requires much more mud for the adobe bricks, these can be prepared some distance away and transported to the house when dried, with a lesser amount of mortar needed between the regular flat surfaces of the bricks. Water is an important component of the construction process and a large amount of female labour was needed to transport water in pottery jars – although this is less of an issue since the village has gained piped tap water. Most construction work takes place during the dry season when labour is more freely available, adobe bricks can dry and exposed walls are not damaged by the heavy rains (Gose, 1990; Sillar, 2010).

House roofing is referred to as *wasichakuy*, literally 'to make a house', and by extension the same word refers to marriage. It is usually accomplished by a particularly large work party headed by the combined forces of the couple's immediate kin and concludes with a festive meal. Several anthropologists have reported the distinctive duties of the bride and groom's families in providing the materials and labour for building the house, particularly the ceremonial roofing (e.g. Arnold, 1991; Carter and Mamani, 1989; Mayer, 1977). In the past, large work parties were organised to collect native grasses from the high pastureland to be used for thatching. However, the high demand for human labour involved makes this 'free' material very costly to use and, combined with the greater frequency of repair and replacement, this means that thatch is no longer used in Raqchi (cf. Colloredo-Mansfeld, 1994). The main alternative is ceramic roofing tiles, usually acquired from Sicuani, 15 kilometres away, and transporting and positioning these tiles with a little mud mortar remains a labour-intensive task.

'Each house lives because she is formed out of the living Earth, ritually enlivened during the *wasichayay* (house-raising)' (Allen, 1988: 44), and various offerings are given to the building and the ground on which it stands (Sillar, 2009). Denise Arnold (1991) records a series of libations during *Todos Santos* (All Saints Day) that use parts of the house from the foundations up to the rooftop, with libations on the right-hand side made by men and on the left-hand side by women, reflecting the matrilineal and patrilineal descent lines 'built in' by the two kinship groups who participated in the construction of the house. A house that has not yet been roofed is referred to as *raqay* rather than *wasi*, and a ruined or abandoned house is termed *raqay raqay*. Holguin's dictionary (1989[1608]) translates *racay* as a corral and *racay racay* as a corral or an abandoned village.

The circumstance of each family has a strong effect on their access to labour and building materials. Although Maximo Amaru Rodrigez[1] was born in Raqchi, he was living and working as a cobbler in the Peruvian capital of Lima when his father died and his parents' land was divided up between his other brothers and sister. Maxi returned to Raqchi with his partner Damiana in 1982 with the intention of starting a family. His immediate family refused to give him any land, and it was not until 1984 that pressure from the community authorities encouraged an uncle to give them a small rectangular

field where they could construct a new home at the edge of the lower part of the village (Hurinsaya).

Maximo and Damiana tried to do much of the building work themselves, but the hard labour of preparing adobes and erecting the walls requires cooperation, and they called upon the assistance of a small group of individuals through *ayni*. For this reason, in spite of their own lack of agricultural fields, they spent increasing amounts of time ploughing, planting and weeding the fields of their *ayni* exchange partners. They also continued to make and fire pottery at Maxi's mother's house to exchange for agricultural produce and raise the cash needed for construction materials, thus they were unable to complete their building within a single dry season.

Maxi and Damiana were used to urban-style housing and aspired to a house with internal dividing walls, including a 'living room' and a shop. Maximo demarcated and dug foundation trenches, using the resulting soil as mortar for the unmodified volcanic stones foundations. All the agricultural soil within the rectangular plot, as well as a pit dug in the corner, was used to make adobe bricks for the walls. Although window hollows and lintels were positioned in the wall, the couple could not afford to buy the metal settings and glass so the windows remained blocked with adobe bricks for several years. This draws attention to the dual aspects of aspiration and contingency that shape decisions during the construction process (Figures 2 and 3). Maxi adopted the urban approach of using wooden beams and pouring a concrete floor (Colloredo-Mansfeld, 1994), thus providing a temporary flat roof prior to the construction of a second floor.

In 1987, Maximo spent six months working as a cobbler in Arequipa to raise the money needed to buy corrugated iron to roof the second floor (which was to become the family bedroom). Although corrugated iron's poor insulation is problematic in the searing sun of the day and the freezing nights, it is relatively easy to transport and only requires two workers to position. His work as a cobbler also provided enough resources to stock their small shop; however, this was not successful and the 'shop' became a storeroom and 'stairwell' to the upper floor. The 'living room' had a new partition wall put up in order to create a small kitchen. Finally, building an enclosure wall made it possible for Maxi to fire his pottery in the patio with the wall protecting the open firing from the wind (Sillar, 2000; Figure 4). Since then pottery production has been the primary economic focus of the family and, in 1989, an NGO helped Maxi to build the first kiln in this pottery-making village.

More houses have been built in Hurinsaya in recent years, including one built immediately next door to Maxi. This new building had a significant effect, as Maxi and Damiana had to reduce the size of their structure in order to create enough space for a path between the two houses (each property contributing half of the land on which the path is located). The room forming the north-west 'wing' of their house was shortened and they created a slightly higher roof with a larger window opening so that this room could be used as a pottery-making studio (the cement from the old flat roof being incorporated into the re-built and heightened patio perimeter wall). By this stage, Maxi's pottery was selling well and they were able to pay a distant relative to plaster the walls of the remaining part of the 'living room', although this is mainly used as a store or bedroom.

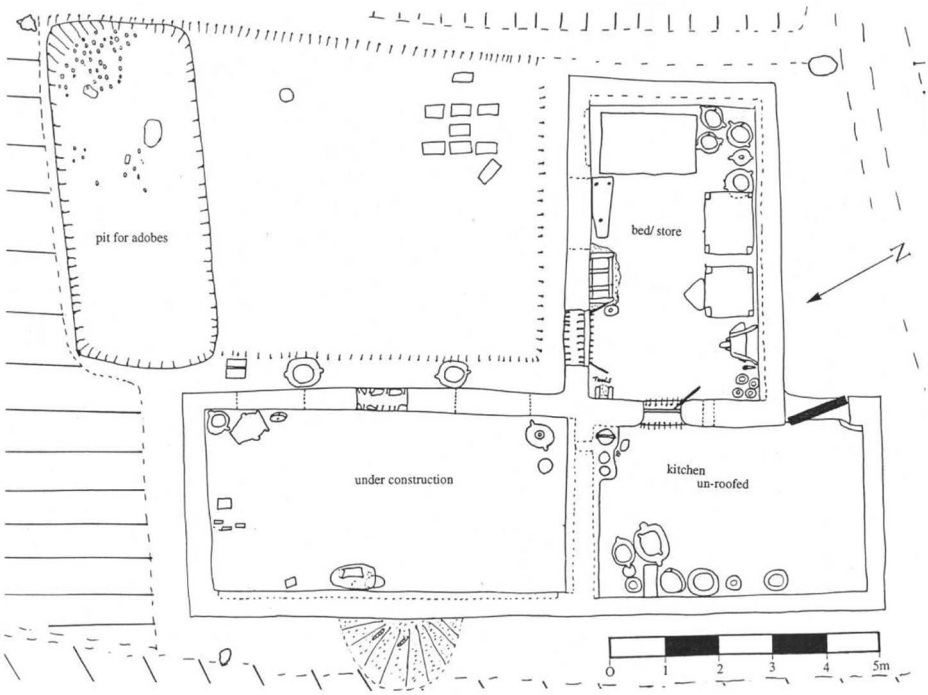


Figure 2. Plan of Maximo Amaru's house in 1985 while it was under construction. © Drawing: Bill Sillar.

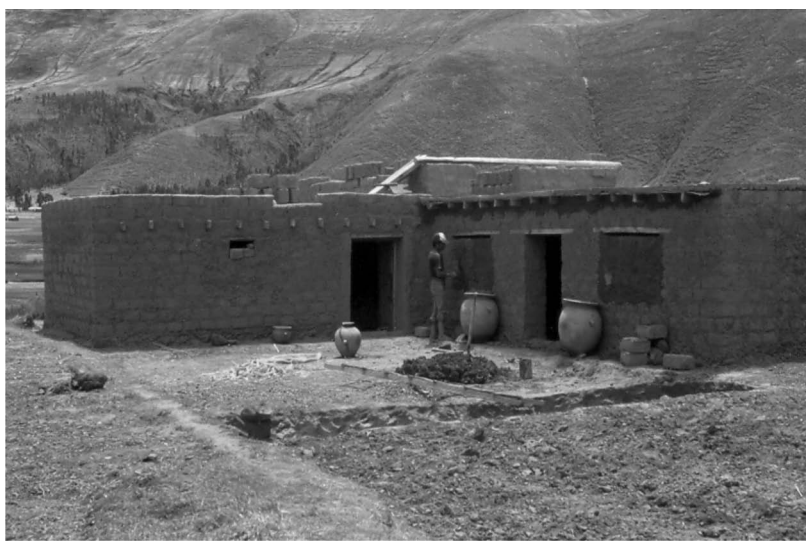


Figure 3. Maximo Amaru during construction work on his house in 1985 (in the process of blocking the window openings with adobe bricks). © Photograph: Bill Sillar.

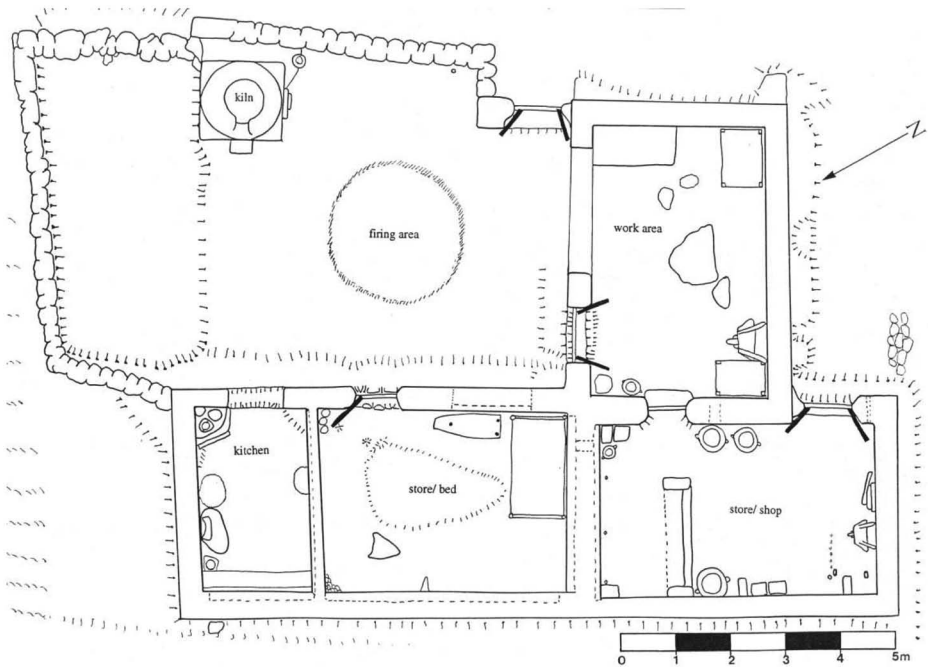


Figure 4. Plan of Maximo Amaru's house (1990). © Drawing: Bill Sillar.

Construction work draws people into exchange and social obligations, but the benefits of this exchange are uneven, depending on the resources (e.g. land, capital and social networks) of those involved. The choice of construction materials is partly made in relation to these considerations. Previously, all materials (stone, mud, wood and grass) as well as skills to build with them were available within the community. But, increasingly, construction is dependent on specialist materials (concrete, metal fittings, glass, plaster) produced outside the community and occasionally requires specialist skills to install. The act of building a new home, with its enclosure wall creating the space for more autonomous economic activity, has the complementary effect of binding the family into the social networks of the community. When a couple occupy their own house they also become recognised as a separate 'tax unit' and thus obliged to attend community assemblies and provide labour for community work groups.

Building the community: Space, time and commitment

The Inka buildings at Raqchi were abandoned in the early colonial period, and in the 1570s the population was forcibly resettled in the *reduccionés* (centralised settlements) of San Pedro and Tinta. The Spanish policy of *reduccionés* aimed to move Peru's Indian population to centralised towns and villages in order to enhance the collection of tribute and labour tax and to establish churches that facilitated Christianisation. Raqchi was only re-occupied around 1820 when there was less control over native housing. Families from

the districts of San Pedro and Tinta chose to relocate to live near the Inka ruins where they owned agricultural land. Some of the surviving houses from this period are quite large single-floor residences with carved stone doorways, suggesting that these families were able to draw upon substantial labour resources. Legally, Raqchi remains an annex of the municipality of San Pedro.

At the heart of the modern community of Raqchi are its small church and plaza, located less than 200 metres west of the Inka temple. The plaza is where community assemblies and religious festivals take place and, in recent years, where a small artisan market has been held. The church, and the school which was positioned opposite it, lie on a dividing line, with the houses to the south-east in Hanansaya (upper side) and those to the north-west in Hurinsaya (lower side) (Figure 5). In the 1980s, there were roughly 40 households on each side, with the political roles divided fairly evenly between the two sectors (the community president is usually from one side and the vice-president from the other with this alternating at most elections). The location of a new household determines which part of the community they work for during *faenas* (communal work parties), and influences the social network they call on for *ayni* labour exchange. Although there is a tendency towards patrilocal residence, house location depends on where the couple can access suitable land and, in the last 20 years, most new houses have been built in Hurinsaya, changing the political balance of the community (see below). The purpose, structure and timing of *faenas* are proposed by the *junta directiva*, elected by community members. The community assembly agree which construction or maintenance projects

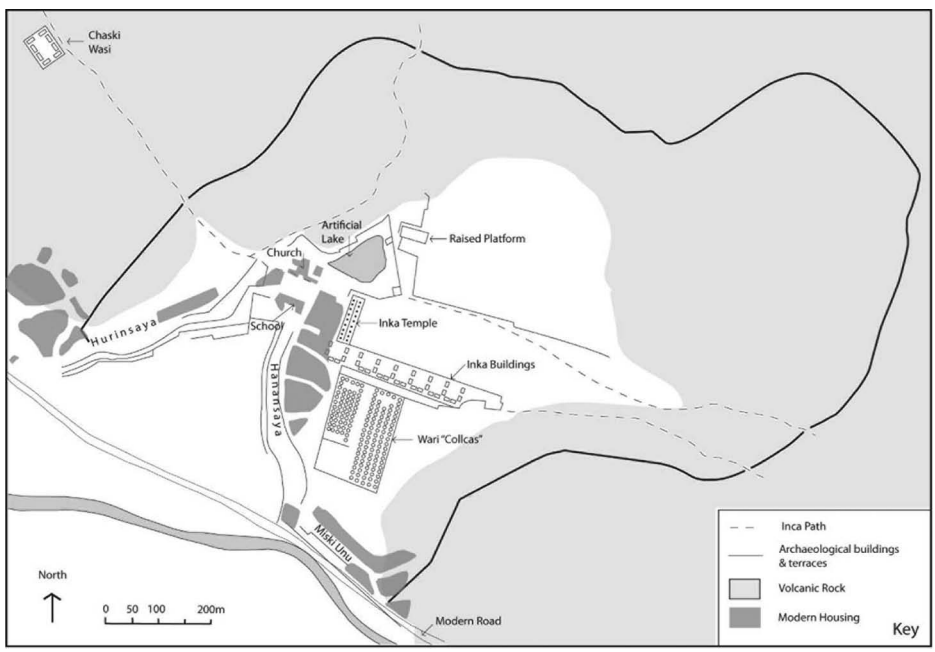


Figure 5. A schematic plan of the village of Raqchi in relation to the archaeological monument. © Drawing: Bethan Davies.

should be undertaken and how many days work each household should contribute. Through their obligatory participation in these activities households affirm their community membership and rights to land, water and other resources.

Some of the oldest community members state with pride that their grandparents built the church without the aid of external architects or engineers. The large amount of labour invested in building it was organised by the community in a long series of *faenas*. The church straddles the dividing line of the community, and the two towers were built by different sides of the community, Marcos Arosquispa overseeing the construction of the tower of Hanansaya and Manuel Amaru overseeing the building of the tower of Hurinsaya. It is said to be for this reason that the towers are of different heights and widths (Figure 6). Much of the church is built out of local volcanic stone and mud mortar, with some re-use of Inka stonework and other stones being dressed to create the flat surface, corners and decorative features. Community members today do not have these stone-working skills, which is why it is only the older houses from around this time that show carved stone used in their doorways. The small church has been consecrated and is occasionally attended by the priest from San Pedro, particularly on the festival days of the village saints. Two of these saints, San Miguel and the Virgin de Nevis, are secondary saints of San Pedro and Tinta, thus acknowledging the old *reduccionés* where Raqchi's members came from. The church continues to expresses the interface between individual households and the community with embellishments, such as the glass doors over the alcoves where the statues of the saints are kept, the painted decoration and the benches, donated by couples who have taken on annual *cargos* (religious or civic responsibilities) of running a saint's festival. The social and religious commitment of building the church was a very effective political statement of the residents' aspiration for Raqchi as a distinct community.

Figure 6. The church at Raqchi during the celebrations for San Miguel (1991) (note the repair to a crack in the right-hand tower). © Photograph: Bill Sillar.

Like the church, the building of the school was organised through community *faenas*, with a bipartite symmetry along the same axes as the church. Although Peru officially ended native labour tribute in the 19th century, the community continues to supply labour to construct state infrastructure such as roads, water supply, electricity and schools. Indeed, the word *faena* is of Spanish origin (unlike the Quechua terms *ayni, mink'a* [collective work repaid with food] or *mita* [compulsory labour service]), suggesting that it may have been imposed by the Spanish, perhaps during the time of the *reduccionés.* The state provides materials and technical knowledge and district officials mobilise and direct community labour. Although such demands on community labour have usually been on projects that have a fairly direct benefit to the community itself, it is notable that such labour demands are not placed on urban populations or rural elites, so we could ask why *communeros* (community members) agree to give their labour in this way. Gose (1994: 58–60) alludes to the 1920s when legal recognition of communal land was linked to an obligation by native communities to provide labour for *conscripción vial* (road construction). Gose suggests there is an ongoing assumption that *faenas* organised for state projects imply that the state recognises communal land-holding rights.

In 1970, there were 42 households in Hanansaya and 37 in Hurinsaya when the Ministry of Agriculture offered technical expertise and materials to install piped water. Within the territory of Hanansaya there are four springs, but in the territory of Hurinsaya there is only one spring, which is located well below the level of the houses. As Hanansaya would not agree to provide water to Hurinsaya, the only agreement that could be reached was to pipe water to the school from which both sides of the community would benefit (Ministerio de Agricultura, 1970). By the late 1980s, Hanansaya agreed that water from the spring behind the church could be pumped to all households in the community. However, although water pipes were installed, there was not enough water or power to reach all households and, when the pump failed, community members returned to collecting water in ceramic jars. In 2007, a new piped water scheme was proposed to bring water from a small highland lake above Cuchuma (8 kilometres from Raqchi). The implementation of this project was delayed for two years while the community awaited permission for the water pipe to pass through the area of the designated archaeological park. Every household in Raqchi provided labour for eight *faenas*, with each household digging 10 metres a day to install the plastic pipes supplied by the municipality of San Pedro. As part of their agreement to access the water, Raqchi was obliged to make 3000 adobe bricks for Cochuma to use in public works and provide a dance troupe once a year for the annual festival at Cochuma. The water pipe passed through the land of the neighbouring community of Quea, which is to be recompensed by 3000 soles,[2] again to be raised by the community of Raqchi. After much work and careful negotiations, in July 2010, cool water from Cochuma finally flowed through household taps in Raqchi.

Faenas are a significant demand on household labour and with a continual series of projects, such as the construction of an Artisan Centre, Club de Madres, widening roads, etc. community members complain if projects are considered unnecessary or are thought to benefit one part of the community more than another. In 1998, the Intermediate Technology Development Group (ITDG) sponsored a project to reconstruct the canal system serving the Inka terraces at Raqchi, offering to provide materials and expertise, while the community provided the labour. In fact, the restoration mainly used

local materials (stone, sand and clay) as canals built using traditional techniques and clay lining have proven to be better at accommodating the extreme changes in temperature and humidity, whereas cement is more prone to fatal cracking (Kendall, 1997). While the project was agreed upon during a community assembly, it aroused some resentment because only a few households had land that would benefit from the irrigation. ITDG complained that Raqchi had not provided sufficient able labourers, as many of the households had been sending older women. Thus, although the need to rebuild the canal system may be construed as a 'community' task, some community members expressed their limited commitment to the project through a lower input of labour (cf. Sallnow, 1989: 252).

We can discuss the 'community' of Raqchi not only because it has a legal status and administrative structure, but because it has a physical presence that is continually being maintained and developed by the residents. Many construction projects feed into the spatial politics of the community where the location of individual households and fields relative to structures such as the church, school, roads and canals has an influence on the acceptability, or otherwise, of *faenas*. Although these projects are implemented by community labour and require sufficient support from across the community, many of them are also dependent on external agencies such as the state, the municipality and various NGOs. In fact, the central features that define the community and its identity (such as the church, the school, the *junta directiva* and the Inka ruins) are fundamentally interfaces with external organisations, such as the Catholic Church, the municipality and the nation state (Araujo-Ferreira, 2012).

Constructing the state: Biography of a unique Inka building

The territory around Raqchi was controlled by the Canas and Canchis ethnic groups who were incorporated into the Inka empire early in the 15th century (Sillar and Dean, 2004). The Inka empire converted the ethnic groups they conquered into administrative units; this tended to stabilise the boundaries and populations of these ethnic groups and reinforced the position of the *kurakas* (ethnic leaders) whom the Inka maintained in a client position, using them to raise a *mita* for the Inka state (Murra, 1975: 31–32). In carrying out *mitas*, members of an ethnic group worked on state projects while retaining allegiance to their *kuraka* and land-rights in their homelands. This provided a large mobile workforce for the Inka army, construction projects, agricultural duties and artisanal work (Murra 1975: 29). The Inka called their empire *Tawantinsuyu: tawa* ('four') and the suffixes *ntin* ('together') and *suyu* (usually translated as 'quarters' or 'parts'). But *suyu* is translated in Bertonio's (1984[1612]), ch. II: 331–332) Aymara dictionary as 'that part of a task that one or more persons takes to work on, for example a church, a field, a building etc.', leading Harris (2007: 151) to suggest that the empire itself was conceived of as a gigantic cooperative labour project.

During the height of their empire, the Inka constructed a major planned site at Raqchi dominated by the large building that Garcilaso de la Vega (1989[1612], ch. XXII: 290) describes as a temple dedicated to the creator god Viracocha. Prior to the Inka conquest, the Canas already venerated Raqchi (which they called Cacha) as their place of origin

where the creator deity Viracocha commanded them to emerge from the ground and then saved them from the erupting volcano (Betanzos, 1996[1557], ch. II: 9–11). The Canas worshipped a great statue of Viracocha, which probably dated back to the Middle Horizon, more than 500 years before the Inka (Sillar et al., 2013). Betanzos recorded that the Inka leader Huayna Capac visited Cacha/Raqchi and, on hearing the legend of Viracocha and seeing the statue, proclaimed that 'the remembrance of this event should be greater' (Betanzos, 1996[1557], ch. XLV: 175), and ordered the erection of a large building in which the statue was to be relocated.

The central wall of this 'large building' or 'temple' still reaches a height of 12 metres, using the best quality Inka stonework at its base and rectangular adobes above (see Figure 1). This wall formed the central partition and roof support for a rectangular building measuring 92 metres by 25.25 metres. The stone bases of 11 pillars are set down on either side of the central wall, with one pillar surviving to a height of approximately 8 metres. Betanzos (1996[1557], ch. XLV: 175) explains that in order to roof this enormous structure the Inka used the two lines of pillars to support beams running the length of the building. Cross-timbers of the sloping roof ran from the middle wall to the lengthways beam on the pillars, then further cross-timbers went from the lengthways beam to the outer walls (cf. Gasparini and Margolies, 1980: 248, Fig. 234) (Figure 7). This building technology was quite foreign to the Canas and required skilled workers trained in the new building techniques that were being developed in the imperial capital of Cuzco. The close-fitting Inka stonework is a technology imported from Cuzco, although the stone itself was selected from Kinsich'ata. The adobes also adopt a 'new technique' used in Inka Cuzco: placing mud over abundant *ichu* grass and rolling it like a Swiss role before shaping it into long thin rectangular blocks. The covering of this, the largest roofed structure in the Inka empire, must have been a major undertaking. None of the native trees in

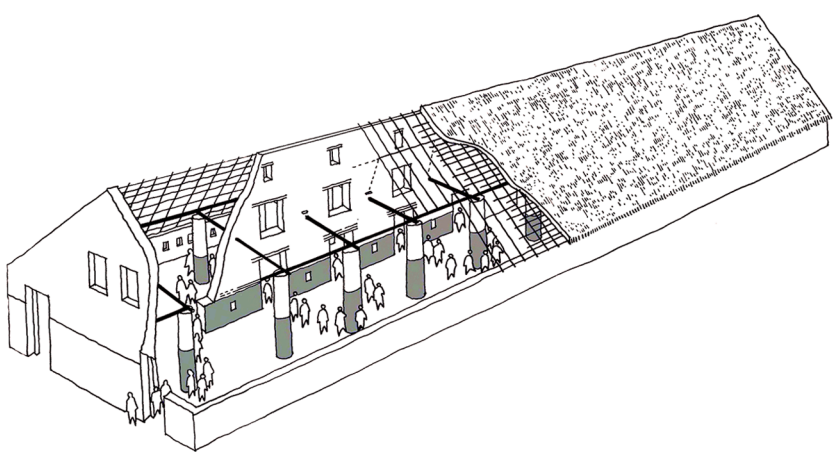


Figure 7. Hypothetical reconstruction of the temple at Raqchi. Drawing by Bethan Davies based on observations in Raqchi, Gasparini and Margolies' (1980: 248, Fig. 234) reconstruction drawing, Betanzos's (1996[1557], ch. XLV: 175) description of the roof, and Garcilaso de la Vega's (1989[1612], Bk 5, ch. XXII: 290) description of how people moved through the building.

the area provide lengths of wood able to span the 8 metres between the pillars, and the sloping beams of the roof would have been even longer. The wood for the roof must have been carried by people for approximately 75 kilometres from the lowland *montana* (subtropical forest) region. The thatchers would have been working over 12 metres above ground level and required a huge supply of native grasses to cover some 2500 square metres. The materials and techniques as well as the scale of this building required a substantial labour force, including people with unusual technical skills, which the Inka enticed, persuaded or forced to work here.

Such grand structures, and the spectacular rituals that took place within them, announced and perpetuated the Inka state's presence (Hyslop, 1990). When Betanzos (1996[1557], ch. XLV: 175) attributed this construction to Inka Huayna Capac, he was drawing from a genre of oral history that recorded the lives, or biographies, of individual Inka rulers (Julien, 2000). These biographies included a specific focus on building projects, and it is clear that such monumental constructions added to the present and posthumous fame of Inka rulers (Niles, 1999). The Inka incorporation of this prestigious shrine was not only motivated by the desire to subjugate conquered peoples. Like the Christian crusades in the 'Holy Land', the capture of ancient shrines may have been a central aspiration that influenced the direction and focus of state expansion (Gose, 1993; Sillar et al., 2013). Embellishing Viracocha's shrine was staking a claim on the origin and ordering of the Andean world. Like the USA putting a man on the moon, the Inka were taking high risks in using all of their latest technology and engineering skills to engage with a primeval part of their cosmos.

Garcilaso de la Vega (1989[1612], ch. XXII: 290) gives a confusing description of the temple at Raqchi that does not easily fit with what survives on the ground or Betanzo's account. But he does provide an interesting description of how people processed inside the temple:

> On entering the temple by the main gate, they turned right down the first passage until they came to the wall at the right-hand side of the temple; they then turned left down the second passage and went on till they came to the opposite wall. There they turned right again down the third passage, and by following the series of passages in the plan … they came to the twelfth and last where there was a staircase up to the upper floor.

There is no evidence of passageways, but people entering the building by the surviving doorways have their progress immediately blocked by a pillar, which they must walk around (Figure 8). The Inka could have offset the location of the pillars and the doorways, so we can assume that this impediment to direct linear access was deliberate. If, on entering the building, participants initially walked around the pillar towards the outer wall before turning back and through one of the openings in the central wall, they would have begun to trace a path similar to Garcilaso de la Vega's description of a zigzag motion (Figure 7). If they continued this pattern to the end of the building, the pilgrim would take 12 different directions before arriving at the far end facing the artificial lake and the volcano. Garcilaso's description suggests that there was a higher-level structure at this point in which the statue to Viracocha was located. I believe that the procession through the vast temple at Raqchi was designed to communicate with the mythical past; as participants wound their way through the temple, they moved back in time towards the

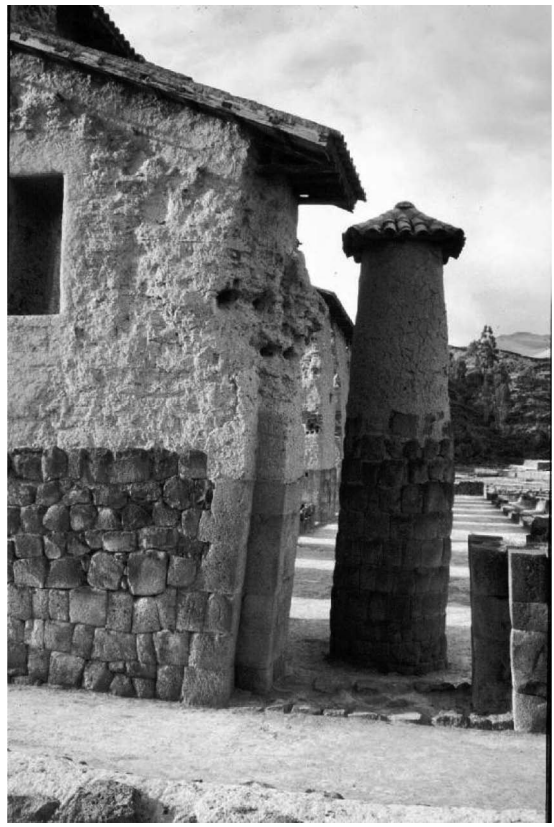


Figure 8. View through a partially restored doorway of the temple showing an original surviving pillar blocking direct access. © Photograph: Bill Sillar.

sacred statue of Viracocha, the volcano and the place of origin from which the Canas emerged (Sillar, 2002). This high-roofed temple with its central wall and pillars was designed as an architectural expression of Andean cosmology, a theatre for appropriate rituals, similar to a church or a mosque.

> Although the temple was so curious in its construction, it was destroyed by the Spaniards, like many other notable works found in Peru, which they should have gone to the trouble and expense of preserving so that in future ages people might see the great things they had won with the strength of their arms and their good fortune. But they have pulled them down deliberately as if they were jealous, so that today only the foundations of the building remain: the same is true of many others, a thing which thinking people deeply deplore. (Garcilaso de la Vega, 1989[1612], ch. XXII: 292)

This destruction focused on the northern end of the temple (where Garcilaso states the statue stood and the Spanish search for treasure was located). Some of the structural timbers in the central wall show evidence of having been sawn-off, possibly extracted for

Spanish construction projects (such as the early colonial church of San Pedro). The massive physical presence and structural role of the central wall also meant that, unlike some other Inka buildings, the temple of Viracocha could not be adapted into a church as it did not provide the open nave required for Christian rituals; the physical form of the Inka structure resisted religious conversion.

As the first generation of mixed Andean and Spanish parentage, Garcilaso's comments express both indigenous horror at irreverent destruction and a developing scholarly and romantic desire to preserve the Inka past. In fact, the preservation of ancient walls at Raqchi was also a feature of Inka planning, as Huayna Capac's temple and associated structures respected the vestiges of earlier Wari walls. Our excavations in the enclosure with 152 circular structures (previously considered to be Inka *collcas*) have demonstrated that these buildings predate the Inka occupation by approximately 500 years (Sillar et al., 2013). Yet the alignment of the Inka buildings is planned in relation to this earlier enclosure (Figures 5 and 10). Thus, the Inka appropriation of the sacred site of the Canas responded to the vestiges of earlier buildings as well as the ancient statue and potent mythical history of the site. In the last 80 years, such 'heritage management' has become a dominant feature of the cultural and economic policy of the Peruvian government, and the enactment of these policies has had a very direct effect on the small community of Raqchi.

Developing a national monument: Reconstructing the community

The deliberate destruction reported by Garcilaso was followed by a period of further dilapidation after the abandonment of the Inka site at Raqchi. The inside of the temple was filled with soil (presumably originating from the 'melting' of Inka adobes). Bingham's (1922: 128) photograph shows crops growing inside the temple and houses constructed nearby. Much of the fallen masonry around the ruins, including the circular *collcas*, were cleared to create small fields with dry-stone enclosure walls. Planting crops within abandoned buildings has advantages as the old walls provide protection from wind and frost, radiant heat helps to mature crops and moisture retention can be improved, although the fertility and depth of the soil are variable.

The focus on preserving and restoring archaeological monuments in Peru was strongly influenced by Julio Tello, who used his role as a deputy in Peru's National Congress to champion heritage legislation. Tello was in the *indigenismo* movement, promoting native culture at the core of Peruvian national identity, and was himself involved in clearing and reconstructing archaeological sites such as Chavin and Pachacamac. In 1929, Tello was a major force in writing Peruvian National Law 6634, which affirmed that all prehistoric structures are the property of the state, although the land on which they rested may still be under private ownership (De Trazegnies, 2000: 43). In subsequent legislation (e.g. National Law 24047 of 1985) this has been modified to declare that it is the Peruvian state's duty to protect and conserve the archaeological heritage, although this need not involve the direct ownership of the structure itself. In 1971, the Instituto Nacional de Cultura (INC) was created with the explicit aim of enhancing the identity of the nation by protecting, conserving and promoting its patrimony and cultural manifestations. Since

the passing of law 29565 in 2010, the INC has been incorporated within the Ministerio de Cultura del Perú.

In 1934, the 400th anniversary of the Spanish re-founding of Cuzco was marked by a series of government-funded excavation and restoration projects. This focused primarily on Sacsayhuaman (Valcarcel, 1934a, 1934b), which from 1944 onwards became the venue for the *indigenista* revival of the Inka festival of Inti Raymi. On 21 May 1950, an earthquake in Cuzco brought concerns over preservation to the forefront of public attention. UNESCO authorised a technical mission to advise Peru in conservation and restoration. The report discusses how to balance the preservation of Inka buildings, the restoration and rebuilding of colonial structures and modern development. But the commission did not support those *indigenistas* who had 'clamoured to remove [the church of] Santo Domingo for the clearance of the Inca ruins [of the underlying Corichancha Temple]' (UNESCO, 1952: 8).

Since the 1930s, Raqchi has also been the subject of conservation and restoration programmes. There is hardly any documentation on the early clearance and reconstruction work at the site but, for the residents of Raqchi, work on the archaeological site is as deeply ingrained in the community's social memory as work on their family homes or the community church. In fact, the first interventions were community *faenas* organised through the municipality of San Pedro in the 1930s to clear the original Inka paths and the artificial lake in front of the temple. This was followed in the 1960s by the community working with Manuel Chavez Ballon to remove the agricultural soil and rubble from the collapse of the earlier wall from the southern end of the temple.

From 1974 to 1980, a Spanish archaeological project directed by Ballesteros Gaibrois collaborated with the INC to excavate the rest of the temple interior, revealing the two rows of pillars and the foundations of the outer walls. The restoration of these outer walls has been controversial. Firstly, only the very base of the eastern wall foundations survived, so restoring them to above the height of the foundations implies that there were no doorways, although this is not proven; secondly, the restoration used cement, undermining the common conservation ethos of 'authenticity' and 'reversibility'. Within this project, Oscar Nunez del Prado undertook extensive excavations and reconstruction work for the INC and cleared large areas of field boundary walls. This work revealed previously buried parts of the Inka site, but it also resulted in several community members losing access to their fields. The termination of agriculture was both enforced and symbolised by placing rectangular piles of stone in the centre of each open area. This policy has been continued in other parts of the site (and the rectangular piles are occasionally misinterpreted by tourists as the base of ancient buildings). In spite of protest from the community, the INC did not pay compensation to field owners, but the project offered some work to those community members whose fields were affected. In 1993–95, an extensive project within the large enclosure revealed the remains of 152 *collcas*. Much of the original outer perimeter wall of the enclosure was reconstructed, with the restored wall now serving as a boundary line preventing agricultural activity within the area (compare Figures 9 and 10). This prompted the following comment from a resident of Raqchi (interviewed on 11 July 1999, transcribed and translated from the Quechua by Gina Maldonado):

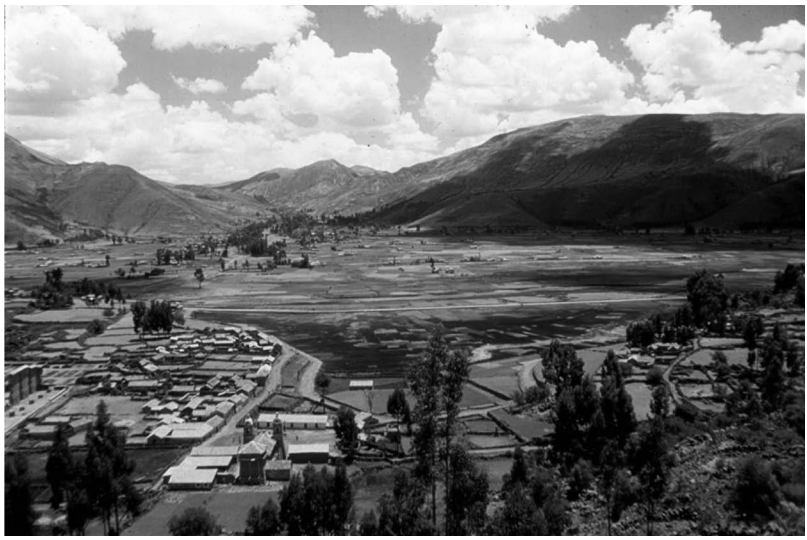


Figure 9. The plaza and houses of Raqchi with the archaeological ruins including part of the temple to the left (1985). © Photograph: Bill Sillar.

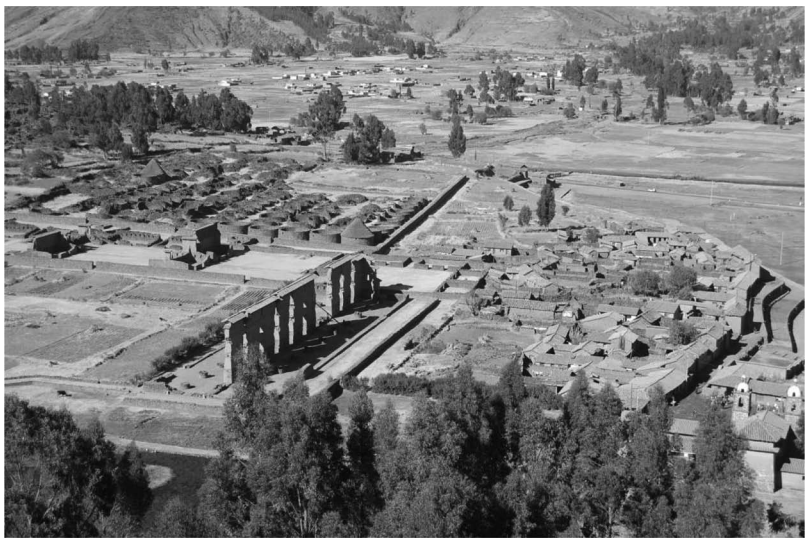


Figure 10. The archaeological site and village in 2010 (more of the archaeological monument has been cleared and restored with a house that was close to the temple and fields within the *collcas* seen in Figures 1 and 9 removed. © Photograph: Bill Sillar.

> Here in Raqchi we have limited agricultural land, that's why we have to live by working with our hands (making pottery). We don't have fields, just lots of stone. The stones also belonged to the Inka, that is why they are controlled [by the INC]. These Inka walls have been re-built

> over our best quality maize fields. We used to have fields where the *collcas* were built, but now where we used to have fields they have built these round storehouses. As a result, we lost our fields, we can no longer use our fields.

In order to enhance (*puesta en valor*) the Inka ruins, several families living close to the Inka temple were forced to leave their homes. In the late 1970s, one house to the south-west of the temple was demolished to expose the outer wall. Around the same time, two families living next to the raised platform were pressured into vacating their houses. In 1993, COPESCO (Comisión Especial Perú-UNESCO, set up to promote tourism and development) proposed demolishing all of the houses of Hanansaya and relocating them within Hurinsaya, in order to remove all the modern structures obscuring the Inka ruins (offering to rehouse those affected and build a new and improved school, as well as an artisan centre, water supply, electricity, etc.). The residents of Hanansaya were strongly opposed to this plan and mounted a long protest, preventing COPESCO from preparing full survey plans, so that the project was eventually abandoned. In 2001, a household to the west of the temple was persuaded to leave their home (compare Figures 1 and 9 with Figure 10), and in this case the INC arranged for the construction of a new house in Hurinsaya. The INC has imposed a prohibition on most building work in Hanansaya so that new houses are only being built in Hurinsaya, thus changing the balance of the community's social/spatial organisation. The households remaining in Hurinsaya have been informed that they cannot add second storeys to their houses and almost the whole community is now obliged to use ceramic tiles (not corrugated iron) for their roofs in order to promote a unified and pleasing aesthetic for tourists.

It is notable that COPESCO's proposal identified the church for protection and display to tourists (although it is of a similar age to the houses of Hanansaya that they wanted to remove). Official INC promotional literature, tour guides and the community have all presented the church as a part of Raqchi's cultural heritage. The community has petitioned the INC on various occasions to help in its conservation and reconstruction. In 1980, the INC oversaw the reroofing of the church and, in 1985, further work was undertaken to stabilise the walls and replaster some of the interior. When substantial cracks in the eastern tower (Hanansaya) developed in the early 1990s, the community again lobbied the INC, which eventually assisted with these repairs (Figure 6). Thus, some features of the communities' infrastructure have been absorbed into the heritage management of the national monument, and the community has successfully used this to lobby for funding and technical skills.

Throughout these restoration projects, there has been a complex relationship between the use of external workers and personnel from the community. Several projects have employed Raqchi residents, and on some occasions this has been used as a way of calming the protests of residents who are losing access to their fields. While there is still resentment about this, many residents feel that INC control over the site means that their loss of any fields located at the centre of the archaeological site is inevitable. Gaining some paid labour seemed the best recompense they were likely to get. Community residents are well aware that their labour is being used to restore ancient walls that become barriers excluding them from their own fields, while heritage managers are using one of the few resources available to them (money to pay labourers) to soften local protest and

achieve their mandate. But when external workers from Cuzco are brought in to work on the ruins, this is frequently resented by the community, even though specialist skills in conservation and reconstruction are respected by the community. A more fundamental concern expressed by community members is how much the archaeological site may 'grow' in the future.

Since 2000, levels of tourism to Raqchi have been increasing. The archaeological site, which was previously free to enter, has for the last 10 years been accessible only on purchase of a ticket from the INC (with a share of this income going to the district capital of Sicuani and the municipality of San Pedro). Members of the community have set up an association of artisans and traders with a daily market in the village plaza where local pottery and other goods are sold to visiting tourists. The community obliges stallholders to wear 'traditional clothes' and take turns to keep the church open for visitors. The municipality constructed a modern toilet block to the side of the school (with ceramic tiles and flushing toilets). This toilet block is staffed by a community member and the income goes to the upkeep of the toilet with all profit for community use.

With the aid of an NGO, a dozen households have set themselves up to provide tourist accommodation within their family homes. These houses have been altered to provide private bedrooms, a toilet and shower, and enlarged kitchens with tables and chairs. Visitors are encouraged to stay for two nights and are offered tours of the community and volcano as well as the archaeological site. Many tourists aspire to such close contact with a local family and enjoy the opportunity to participate in pottery making as well as an evening of local dance and ritual offerings. This is changing the structure and facilities of some households.

Conclusions

The sequence of building, modifying, destroying and rebuilding structures is shaped by a series of material and technical choices that are influenced by the social context and economic resources of the actors. The choice of who does the work depends both on the technical skills that are required and on the social and economic relations that those coordinating the project are able to engage in. Recent applications of the *chaîne opératoire* have paid little attention to this issue of labour relations, but the selection of workers and 'payment' methods have significant effects on technological choice and construction sequences.

Field boundaries, houses and monuments are a material manifestation of people's aspirations that are only realised because of people's willingness to work together. For those involved, the sequences of wall construction and repair can be read as a material biography of these social relations, a mnemonic for kinship cooperation, community obligations, leaders' aspirations and the impositions of external agencies (Urton 1988). Those working on construction projects may be committed to the outcome (justifying their individual contribution to corporate goals) or they may be expedient (responding to immediate conditions and unequal social relations), but it is almost always strategic with the aim of justifying access to other resources in the future. House walls, churches and canal systems are not only the physical product of social commitments but also play a vital role in maintaining and developing social structures. For archaeologists,

one question is: to what extent can we use the remains of ancient walls to interpret the commitments and tensions of past societies, when those involved in their construction are not there to explain it to us? The location of the structure, the source of raw materials, the technical skills required, the sequence of construction, the scale of labour mobilisation and the function of the wall can all provide clues as to who participated in a construction project and its longer-term effect.

Peru's use of legislation to restrict access, appropriate fields and eject occupants from archaeological sites is not unusual. In many parts of the world, people have had their lives disrupted as previously unnoticed features are recognised as the vestiges of past societies and claimed as national heritage. Through archaeological discovery and conservation work, ancient walls once again become active barriers in people's social relations. This process requires consultation and just compensation to those affected, as the Peruvian authorities now acknowledge. The growing recognition of 'intangible heritage', in the form of cultural traditions and customs, has become one way for communities to assert their rights to access and use heritage sites. The residents of Raqchi have used the buildings of their community, their artisan production, clothing and other traditions to highlight the heritage of their living community, demonstrating that they are a significant part of the history of the site and not just a blemish on the Inka ruins. But the building, rebuilding and removal of walls in Raqchi remains of deep concern to families, community members and national authorities.

As Robert Frost observed, although 'good fences make good neighbors', nonetheless 'something there is that does not love a wall.'

Acknowledgements

My archaeological work in Raqchi was funded by a Leverhulme Special Research Fellowship. I would also like to acknowledge further financial support from Cambridge University, University College London and the University of Wales at Lampeter. I would like to express my thanks to the INC residents who facilitated our work in Raqchi and kindly informed us of their own work at the site, particularly Pedro Taca Chunga, Alicia Quirita and Washington Camacho. I would also like to thank Emily Dean, Amelia Pérez Trujillo, Gina Maldonado and Mike Porter for help and discussion. This paper benefited greatly from the detailed criticism and helpful advice of two anonymous referees. I hope this paper is a testament to the fortitude and kindness of the residents of Raqchi, and I am continuously grateful to the community for their help.

Notes

1. I am particularly indebted for this article to Maximo Amaru, who first welcomed me into his half-constructed home in 1985, invited me to become *padrino* for his formal marriage to Damiana in 1991 and tragically died in a hit-and-run accident in 2008. My dear *comadre* Damiana still lives in their house.
2. Peruvian currency: 3000 soles are worth approximately £750.

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