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Making space under the Inca: Space syntax analysis of a *mitmaq* settlement in Vilcashuamán province, Peru

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Title: Making space under the Inca: Space syntax analysis of a *mitmaq* settlement in Vilcashuamán province, Peru

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Abstract: The Inca *mitmaq* policy ambitiously resettled up to a third of its subject population. Despite the *mitmaq* policy's importance, we know little of the *mitmaqkuna*, the people resettled under it. Through a spatial analysis of an agricultural *mitmaq* settlement near the Inca provincial capital of Vilcashuamán, this article explores how Inca imperial control differentially affected various facets and scales of the *mitmaqkuna* social landscapes. The methodological strategy of using space syntax analysis to assess the centrality of Inca imperial presence in a settlement can be widely applied to imperial situations around the world.

Keywords: Incas, *mitmaq* resettlement, landscape, settlement planning, imperialism, space syntax

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Introduction

The Incas created the *mitmaq* resettlement policy to serve the state and to create docile social landscapes (Rowe 1946). The *mitmaqkuna* made up an estimated quarter to a third of the total subject population (D'Altroy 2014: 373). The *mitmaqkuna* were people relocated from their original homes to farm or craft for the Inca (D'Altroy 1992: 188; Rowe 1946: 269-270). The *mitmaq* was a socially intrusive policy because it relocated groups of people far from their original home landscape, which in the Andes is paramount as the foundation of a community's history, identity, and ritual (Allen 1988; Herrera 2007; Hyslop 1990; Rowe 1982). The local landscape contained the *pacarinas,* or origin beings, of the community. Pacarinas, which could be rivers, animals, trees or herbs, lakes, springs, caves, rocky outcrops, boulders or stones, were seen as active in the ongoing creation and fertility of the community (Albornoz 1967: 20). Relocation meant that one could no longer make regular offerings to the (ancestral) original *pacarinas*, bringing possible calamity to the community (Hyslop 1990). The Incas understood this because they also shared similar understandings of identity and history. According to

sixteenth-century cleric and extirpator of idolatry Cristóbal de Albornoz (1967: 20), the Inca recreated the *pacarinas* of the *mitmaqkuna* home landscape in their new setting, presumably to lessen their reluctance to leave their place of origin. The Incas allegedly also offered special privileges to the *mitmaqkuna* to make the relocation more palatable (Cieza de León 1959: 57; Cobo 1979: 90).

Despite the profound reorganization of domestic labour and social landscapes that the creation of the *mitmaqkuna* class implied, we understand little about what the daily life of the *mitmaqkuna* was like or even what their settlements looked like. We do not have any archaeological evidence of how the Inca and *mitmaqkuna* recreated the *pacarinas* of their home landscapes. Hyslop (1990: 107) suggested that moveable *pacarinas* such as small stones or pieces of the originals were used in the recreation. In contrast, archaeological evidence of a probable *mitmaqkuna* settlement called Yanawilka near the Inca provincial capital of Vilcashuamán shows that home landscapes were recreated through finding similar surrogate features of the new landscape. This article explores how the *mitmaqkuna* of Yanawilka recreated social space through carefully choosing a settlement location with natural features that not only could stand in for the home *pacarinas* but also recreate the traditional moiety community structure. These ritual concerns trumped other considerations, such as having a water source on-site. While the general settlement location reflected Inca state interests, the inhabitants of the *mitmaq* settlement exercised autonomy in settlement planning and choice of local landscape to recreate sacred space evocative of their former homes. The choice of settlement location and the recreation of *pacarinas* were negotiated between the Incas and the *mitmaqkuna*, in contrast to Albornoz's characterization of both as solely the work of the Incas.

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Archaeological research on *mitmaqkuna* settlements

Despite extensive discussion in ethnohistorical sources and its overall importance to the Inca state, little archaeological evidence exists on the details of the *mitmaq* policy. We know little of the domestic daily lives of these *mitmaqkuna* colonists despite their prevalence in the Inca Empire (Haun and Cock Carrasco 2010). Although considered the most reliable chronicler (Rowe 1946: 195), Cieza de León (1959: 82-83) had strong biases against the narratives of the common folk, saying "I always follow the best opinion, that of…nobles, for what the common folk tell cannot be considered the truth just because they say it is." Because of this bias, he often

spoke highly of Inca power and emphasised how much their subjects were in awe of them. Therefore, archaeology is necessary to provide alternative lenses into the Inca subjects' daily lives.

Currently, there has been little archaeological research on confirmed *mitmaq* settlements. Identifying *mitmaq* settlements in the archaeological record is challenging for many reasons, including the difficulty of discerning the cause of migration (Alconini and Malpass 2010: 281, 293-295; D'Altroy 2014: 376-377; Hu 2018: 214). There are several possible candidates for *mitmaqkuna* settlements based on settlement planning, hybridised ceramic styles, and non-local architectural styles (Covey 2000; Makowski 2002; Rossen *et al.* 2010; Trimborn 1981), but they lack conclusive evidence that the Inca *mitmaq* policy was responsible for their establishment.

The best candidate for a *mitmaqkuna* colony is Milliraya near the northern shore of Lake Titicaca (Spurling 1992). Both ethnohistoric and archaeological evidence (surface survey) strongly support Milliraya being a *mitmaqkuna* colony dedicated to weaving and pottery. The artisans were from different *ayllus*, or kin groups, and were administered by two overseers and officials representing the different *ayllus*, but no state officials were resident on-site (Spurling 1992: 386). Information on domestic daily life at Milliraya is still lacking, especially with regard to the organization of social space.

Based on a combination of ethnohistoric, archival, radiocarbon dating, ceramic, and architectural evidence, Yanawilka was most likely a settlement of *mitmaqkuna* from the Condes ethnic group (Hu 2016, 2018). AMS radiocarbon dating and diagnostic Inca-style pottery sherds placed below foundation stones of domestic structures securely place Yanawilka's founding in the mid-fifteenth century, after the Incas arrived in the area (Hu 2018). Sixteenth-century Spanish ethnohistorical records indicate that the Incas had almost completely depopulated the province of Vilcashuamán and resettled it with *mitmaqkuna* (de Carabajal 1965 [1586]). Colonial-era land titles also list Yanawilka as belonging to the *mitmaqkuna* group called the Condes (Hu 2016: 47). According to ethnohistoric sources, the Condes were allies to the Inca (Salas 2012).

Methodology: Space syntax analysis of path structure

Bill Hillier's and Julienne Hanson's work on understanding the social logic of space through space syntax methodologies is particularly appropriate for identifying areas in

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Yanawilka that were structurally most central and integrated into the general settlement (Hillier and Hanson 1984; Hanson 1998; Morton *et al.* 2012). For Yanawilka, a comparison of the connectivity and integration of path segments with their proximity to certain architecture and public spaces can reveal important aspects of community organization. Axial lines, a space syntax proxy for lines of movement, were generated using DepthMapX to represent the path structure at Yanawilka. By comparing the path segments that had axial lines with the highest integration and connectivity to the functions of the surrounding spaces, we can assess whether the settlement was designed for the needs of visitors or of the inhabitants (Ferguson 1996: 101). The connectivity of an axial line is simply the number of axial lines that intersect with it. The integration measures how easy it is to move to every other axial line in the overall structure. Integration correlates well with degree of foot traffic (Hillier et al. 1993). Axial line analysis can help us understand which path segments were structurally most central and integrated at Yanawilka, as well as whether there was centrally-directed settlement planning (DeMarrais 2001).

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Choosing a new settlement location

What were the main characteristics of the *mitmaqkuna*'s new settlement location at Yanawilka? Do these characteristics indicate Inca state or *mitmaqkuna*-driven concerns? I argue that while the general settlement location reflected the security and economic interests of the Inca state, the specific landscape features of the site reflected *mitmaqkuna* concerns with the ritual aspects of social organization.

Two aspects of Yanawilka's location served Inca state economic purposes. First, at 3050-3080 meters above sea level, Yanawilka is located in the fertile and warm Pomacocha/Vischongo valley, which also allowed easy access to four major ecological zones and their diverse foods: *quechua* (2400-3200 masl), *suni* (3200-3600 masl), *puna* (3600-4300 masl) and high *puna* (4300-4800 masl) (Cama Salazar and Paucarima Cerón 2005: 26-28; Pulgar Vidal 1946). In the fertile *quechua* zone, in which Yanawilka is located, a wide variety of foods can be grown: maize, beans, garden vegetables, *quinoa*, *cañihua*, potato, *ulluco*, *oca*, *mashwa*, and *tarwi* (Hastorf 1993). Second, at only 300 metres away from a major Inca road, Yanawilka's location was close to several major Inca settlements, including the royal estate at Pumaqocha-Intihuatana (2.6 km to the periphery and 4.5 km to the palace by foot) and the important provincial capital of

Vilcashuamán (5.2 km by foot) (Figure 1). Judging from the presence of agricultural tools and the lack of evidence of craft specialization at Yanawilka, the *mitmaqkuna* of Yanawilka were probably agriculturalists who provisioned the nearby Inca settlements. Both Pumaqocha-Intihuatana and Vilcashuamán have extensive storage units or *qolqas* for food and other supplies (Huamani 1998, 2005; Santillana 2012). From a security point of view, Yanawilka was distant enough from the Inca settlements and small enough (around 60-70 structures) not to pose a significant danger of surprise rebellion. Yanawilka was also visible from the main Inca road, which was frequently patrolled by agents of the Inca state (Cieza de León 1959: 127).

Site selection did not solely reflect state economic and security interests, however. Yanawilka stood out in the local landscape and had obvious ritual significance. Yanawilka includes two rocky outcrops, each situated at the peak of a low hill (Figure 2). The toponym "Yanawilka" refers to the more prominent rocky outcrop of the eastern hill. "Yanawilka" in early colonial Quechua referred to a type of priest who occupied the lowest tier in the Inca priest hierarchy; "Yanawilka" also signified any person who was old and wise and expert in medicinal plants (Hyland 2003: 160-162; Jiménez de la Espada 1879: 163, 182). Today, the western hill and surrounding area go by the toponym "Saqapayoq," of unknown meaning. Rocky outcrops were commonly sacred places (*huacas*) and *pacarinas* for native Andeans (Hyslop 1990: 102-108). Most of the structures (44/63) incorporated a large natural stone or boulder into the foundations or the walls (Figure 3). The Incas incorporated rocky elements of the landscape into their structures as "origin stones" or foundation stones to graft life force from the landscape (Dean 2010: 82). Likewise, the inhabitants of Yanawilka may have purposefully incorporated boulders and large stones of the landscape into their domestic structures.

The hills were where the vast majority of the domestic structures were located. Environmental reasons for this include good drainage during the rainy season and the fact that the hills were not, and still are not, suitable for agriculture. Yanawilka was located near several sources of water, with the closest one approximately 250 meters away, but there were no water sources on site, indicating that the distinctive characteristics of Yanawilka's landscape trumped the preference to have sources of fresh water on site.

Moiety and settlement structure

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Yanawilka was an ideal place to settle for ritual and social reasons. Specifically, the two low hills with rocky outcrops made an ideal landscape with which to recreate a moiety social organization. The specific lines of evidence for a moiety social structure are the spatial clustering of structures into two main groups on those two low hills, and the presence of a central public area between the two hills.

Moiety organization was common in the ancient Andes, and duality was evident in the beliefs, material culture, and social organization of the Inca and most of their subject populations (Moore 1995; Pärssinen 1992; Zuidema 1992). The moiety division in the late pre-Hispanic Andes was referred to in Quechua as "hanan" or upper and "hurin" or lower. Hanan was associated with the "right" direction and hurin was associated with the "left" direction (Garcilaso de la Vega 1989: 44-45). Hanan Cuzco was higher in elevation than *hurin* Cuzco (Ossio Acuña 2015: 122). In the case of Yanawilka, "hanan" and "hurin" were consistent with these directional associations. From the vantage point of the Inca road (north of Yanawilka), the "hanan" moiety is both on the right and higher in elevation than the "hurin" moiety (Figure 4). The "hanan" moiety is on the western side and the "hurin" moiety is on the eastern side of the settlement of Yanawilka. The organization into upper and lower moieties of settlements was consistent with the Inca policy of making non-Inca settlements imitate Cuzco (Garcilaso de la Vega 1989: 45). Although distinguishing whether the *mitmaqkuna* were organised into a moiety structure because of persistence of traditional social structure or because of Inca imposition is difficult, the lack of Inca design elements in settlement planning suggests the former.

The structures were in two clusters centred on each hill, and each hill had their own major rocky outcropping as a ritual focus (Figure 5). The locations of the rocky outcrops displayed symmetry, being near the opposite ends of the site. They apparently were esteemed by the inhabitants of Yanawilka because each had retaining walls around them, as *huacas* often do (e.g., McEwan 2014). Each cluster of structures was roughly equal in number, with the upper moiety (Saqapayoq) consisting of approximately thirty-five structures and the lower moiety (Yanawilka) consisting of approximately forty structures. Due to the bad preservation of most structures at Yanawilka, not all of the structures identified had certain status as structures. If one only considers non-dubious structures, the upper moiety had twenty-seven structures, and the lower moiety had thirty-five structures.

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A central public area was between the two hills, and each hill had an additional two public areas. The multiple public areas suggest that there were divisions beyond the basic moiety division. At the community level, many Andean peoples were divided not only by *hanan* and *hurin* moieties, but also by a quadripartite "ceque," a system of radiating lines from a centre point (Hyslop 1990; Zuidema 1964). At least three small caves served as gravesites, and they were distributed between the moieties (Figure 6). As openings to the earth and netherworld, caves were widely considered *pacarinas* by native Andeans (Herrera 2007: 174). The fact that there was more than one grave site suggests multiple social groups at Yanawilka, possibly aggregated from different communities in the Condes homeland.

Moiety hierarchy

Although the "hanan" and "hurin" moiety distinction does not automatically mean that the upper moiety has elevated social status (Garcilaso de la Vega 1989: 44), at Yanawilka, the upper moiety (Saqapayoq) may have had higher status than the lower moiety (Yanawilka). Evidence for the elevated status of the "upper" moiety includes the slightly larger average size of the interior areas of the structures of the Saqapayoq cluster and the more intensive landscape modification of the Saqapayoq cluster.

There was more landscape modification of the upper moiety (Saqapayoq). Although the absolute lengths of the retaining walls of each moiety were almost exactly the same (1127m upper moiety and 1158m lower moiety), the retaining walls were denser in the upper moiety than in the lower moiety (820 meters/ha versus 719 meters/ha). Retaining walls are identified as walls that kept the slopes stable, with the elevation on one side of the wall higher than the other side. There was also significant artificial fill in the upper moiety, especially around the rocky outcrop "Saqapayoq." Furthermore, the area immediately to the northeast of the rocky outcrop "Saqapayoq" had a series of raised pathways that also served as the berms of the semi-subterranean structures of that area. The public areas of the upper moiety also showed more labour investment, with more clearly delineated stone boundaries and landscape modification. The southernmost public area was located inside a natural depression in the landscape, but the depression itself was made deeper by excavation. Most likely, the artificial fill of the southern half of the upper moiety came from this depression.

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The upper moiety had stairs, whereas the lower moiety did not. The higher density of retaining walls and the presence of artificial fill and stairs show that more labour hours were spent in the construction of the upper moiety. Despite extensive landscape modification of the entire site, the retaining walls and fill generally respected the natural contours of the topography. The landscape modification served to stabilise or enhance rather than reorder the landscape.

The elevated status of the upper moiety is further supported by its structures being significantly larger overall than the lower moiety's (Figure 7). Domestic structure size is a common proxy in archaeology for wealth and status (Kohler *et al.* 2017). Only interior areas of the structures were measured, as bad preservation often obscured the true outside boundary of the structure walls. Comparing only the non-dubious structures, the difference between the interior structure sizes of the Saqapayoq (upper moiety) and Yanawilka (lower moiety) clusters is highly significant, with a p-value of less than 0.01 for all statistical tests (t test, F test, Mann-Whitney, and Kolmogorov-Smirnov). As a single population, the interior areas of the structures are not normally distributed (Shapiro-Wilk W: 0.9421, P value: 0.0051). The interior areas of the structures are normally distributed only if we consider two separate populations consisting of the upper and lower moiety. This further reinforces the hypothesis that there was a moiety social structure at Yanawilka.

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Mitmaqkuna autonomy in settlement planning?

Two lines of evidence suggest that it was the *mitmaqkuna*, and not the ruling Incas, who were primarily responsible for Yanawilka's settlement planning. First, Yanawilka lacks hallmarks of Inca settlement planning such as quadrangular structures with trapezoidal niches and public spaces and an administrative core with Inca architectural canon (Hyslop 1990). The presence of an Inca administrative core and the frequency of Inca architectural canon are more consistent with direct rule on site and intense Inca intervention (D'Altroy 1992; DeMarrais 2001; Meddens and Schreiber 2010). Thus, the lack of an Inca administrative core suggests a more indirect rule strategy. The construction style of the structures at Yanawilka was non-Inca. All of the structures are single rooms, but they vary in interior shape. The interior shapes are circular, elliptical, and imperfectly rectangular/square with rounded corners. Generally, the walls are no more than two courses of stone high and wide, though in the past may have had more courses of stone. The anomaly is a possible Inca-style small square structure, measuring about three by

three meters (including walls), located between the moieties, but away from the central public area. This structure had several courses of relatively well-fitted stone (Figure 8). The interior space measured only 5m², much smaller than the average Yanawilka structure. The minimal presence of Inca-style construction at Yanawilka is more consistent with the *mitmaqkuna* of Yanawilka enjoying relative autonomy in settlement planning.

Second, the possible Inca-style structure was located away from the central areas of communal and ritual activities. A space syntax axial line analysis of the network of Yanawilka paths reveal that the paths near the central public area and the area around the rocky outcrop of the Saqapayoq moiety showed high connectivity and integration, as expected for ritually and communally important areas. Although the central public area and the possible Inca structure are both similarly located between the moieties, the path segments near the possible Inca structure are not as connective and integrated into the overall path structure of the settlement as the central public area (Figure 9). As expected for the central public area's important role in community life, the most highly connected and integrated axial lines pass by it. Although axial lines that pass by the Inca-style structure have higher than average integration, they have low connectivity, which may reflect the Incas' unimbedded governance at Yanawilka (Figure 10; Table 1). The small size of the possible Inca-style building combined with its isolation from other domestic structures and in the network of paths at Yanawilka suggests that the Inca did not play an important day-to-day role at the settlement. Most likely, Yanawilka was occasionally visited by a low-ranking Inca administrator who did not live on-site full-time, as was the case in the *mitmaqkuna* colony of Miliraya (Spurling 1992: 386). In both settlement design and the level of Inca presence on-site, Yanawilka displays little evidence for Inca intrusion, and the *mitmaqkuna* themselves were most likely the ones responsible for the spatial organization and landscape architecture of Yanawilka. The settlement planning catered to the specific communal needs of the *mitmaqkuna* by recreating the local sacred landscape of their former home.

Discussion

Although environmental factors such as drainage and conserving agricultural space also played into the organization of the settlement, the double-hill topography and prevalence of natural boulders and small caves made Yanawilka a perfect candidate to recreate an idealised home. The settlement location and spatial organization of Yanawilka were consistent with cooperative or negotiated decision-making between the Condes and their Inca rulers (e.g.,

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Wernke 2007, 2013). The Incas may have tolerated or encouraged a moiety organization because they themselves subscribed to hierarchical moiety social organization. Shared principles may have been encouraged or tolerated by the Inca and was one of the ways the Incas created subjects that were more culturally and politically sympathetic. Furthermore, by tolerating a spatial social hierarchy within a settlement, the Incas were able to replicate in microcosm their policy of divide-and-control on the wider landscape (via the *mitmaq* policy) (Acuto 2012). Overall, Yanawilka was an ideal place to settle because of its ritually appropriate landscape, proximity to Inca sites, and fertile agricultural surroundings. The *mitmaqkuna* who lived there were able to recreate a sense of community and home, and the Inca were able to keep an eye on the settlement and enjoy the fruits of the *mitmaqkuna*'s labour.

Yanawilka provides an understanding of the more varied kinds of privileges the Incas allegedly gave to the *mitmaqkuna*. The inhabitants of Yanawilka did not have access to luxury goods such as metals, abundant obsidian, elaborate pottery, or other exotic goods (Hu 2018). This contrasts with the possible *mitmaqkuna* settlement of Pueblo Viejo-Pucara, where prestige items such as spondylus shells, precious metals, and fine pottery were prevalent (Makowski 2002; Makowski and Vega Centeno A. 2004). At Yanawilka, privilege was more in the form of access to fertile agricultural lands and a degree of daily autonomy. The pattern at Yanawilka contrasts with Inca policy in the hostile conditions of frontiers, such as what is now northern Argentina. In northern Argentina, the Incas made great efforts to reorder native sacred landscapes and settlement patterns and plans for the purposes of control (Acuto 2012; Acuto *et al.* 2012; Acuto and Leibowicz 2018). The Inca occupation of the Soras and Andamarca Lucanas peoples revealed that the Incas were more likely to install administrative buildings in settlements of rebellious groups, such as the Soras (Meddens and Schreiber 2010). Thus, the ally status of the Condes *mitmaqkuna* (Salas 2012) was fully consistent with the lack of a significant administrative presence at Yanawilka. Yanawilka presents a complementary view of how negotiation and local autonomy were important even under areas of high state capacity and intrusive social policies such as the *mitmaq*.

Conclusions

Sixteenth-century descriptions of the Incas emphasised the impressiveness of Inca state capacity and the breadth and intrusiveness of Inca social policies (e.g., Cieza de León 1959;

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Garcilaso de la Vega 1989; Sarmiento de Gamboa 2010; Toledo 1940). Archaeological research has generally confirmed that the Incas did significantly impact their subject populations but has also shown great variation in Inca governance strategy and the degree of direct rule (e.g., Burger *et al.* 2007; D'Altroy 1992; Hastorf and D'Altroy 2001; Malpass and Alconini 2010). Nevertheless, most current characterizations of the degree of Inca control have been single-axis, neglecting permutations based on scale. The degree of Inca control, and imperial control in general, needs to be assessed at multiple scales and in multiple facets of daily life, not just characterised as simply more or less direct. The case of Yanawilka demonstrates that even in an area of deep Inca state penetration and under an intrusive social policy such as the *mitmaq*, there could be enclaves where subject populations could remake local landscapes for their own purposes. Inca imperial rule differentially impacted various aspects of social life at Yanawilka. Even though the inhabitants of Yanawilka had autonomy in much of the settlement planning and aspects of daily life, certain trade relationships, such as of obsidian, with other groups over the wider landscape may have been attenuated by the Inca for the purposes of control (Hu 2018). The Incas may have ripped the *mitmaqkuna* from their original homes, but the *mitmaqkuna* were able to recreate their home landscapes on their own terms. Nevertheless, the new sacred landscapes had smaller social horizons than before, as the Inca pursued a divide-and-control strategy over the wider landscape.

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Figure captions

Figure 1: The geographical setting of Yanawilka with anisotropic travel times (Naismith's rule).

Figure 2: Aerial photo of Yanawilka with the two major rocky outcrops indicated.

Figure 3: Example of a domestic structure with a boulder incorporated into the wall and foundation.

Figure 4: Panoramic view of Yanawilka from the Inca road looking south. Yanawilka is enhanced in the photo for clarity.

Figure 5: Topographical structure of Yanawilka in relation to the distribution of structures.

Figure 6: Locations of grave sites G1, G2, and G3 (in red text) in relation to Yanawilka site structure.

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Figure 7: Boxplots of the interior areas of Yanawilka structures.

Figure 8: Location of the anomalous Inca-style quadrangular structure (top) and a photo of its masonry (bottom).

Figure 9: Level of connectivity and integration of axial lines of path structure at Yanawilka represented by the intensity of the red. Arrow points to the location of the Inca-style structure.

Figure 10: Chart of integration and connectivity of all axial lines. The axial lines passing by the central public area are represented by blue inverted triangles and axial lines passing by the Inca-style structure are represented by red squares.

Tables

Table 1: Summary statistics of axial line analysis showing the high connectivity and integration of the central public area compared to the path segments near the Inca-style structure.

	Connectivity (all)	Central area connectivity	Inca-style connectivity	Integration (all)	Central area integration	Inca-style integration
N	45	6	2	45	6	2
Min	1	2	2	0.57	0.86	1.00
Max	6	6	4	1.57	1.57	1.13
Mean	3.2	4.2	3	0.95	1.25	1.07
Std. err	0.19			0.03		
Std. dev	1.3			0.23		

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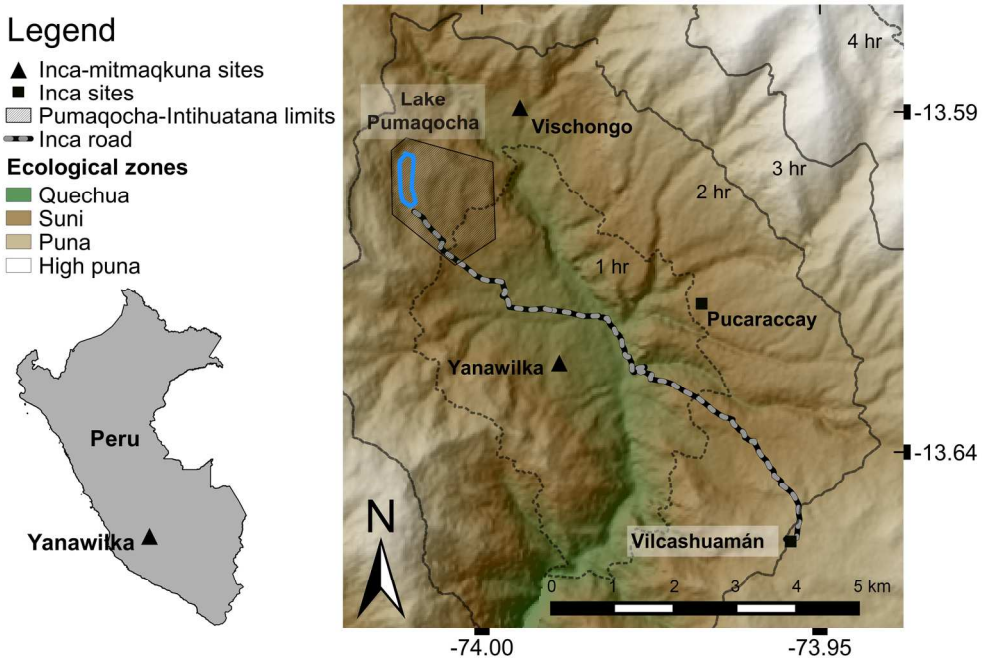
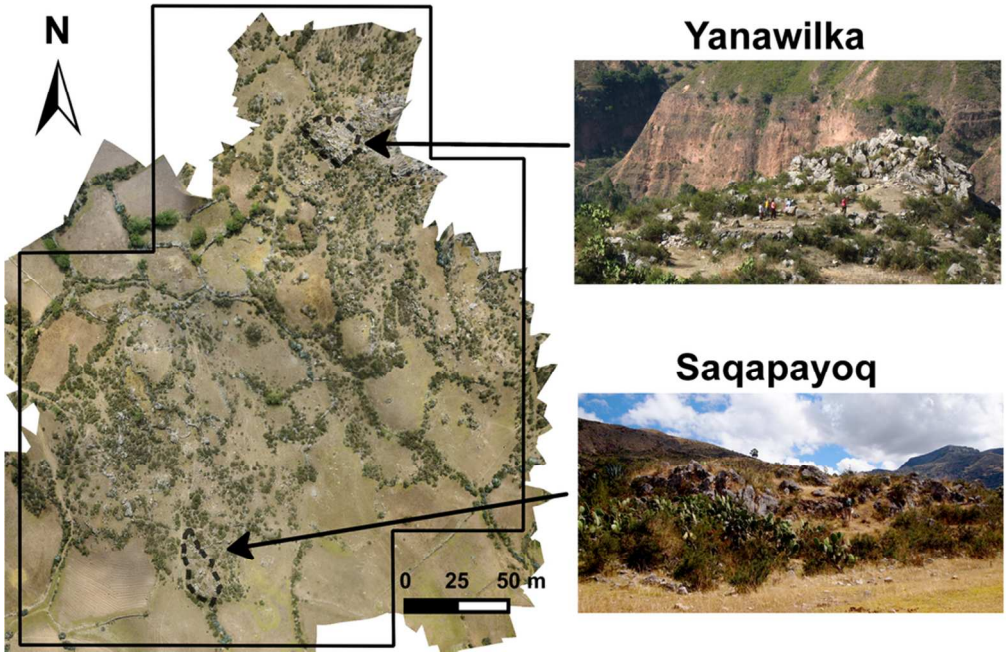


The geographical setting of Yanawilka with anisotropic travel times (Naismith's rule).

91x61mm (600 x 600 DPI)

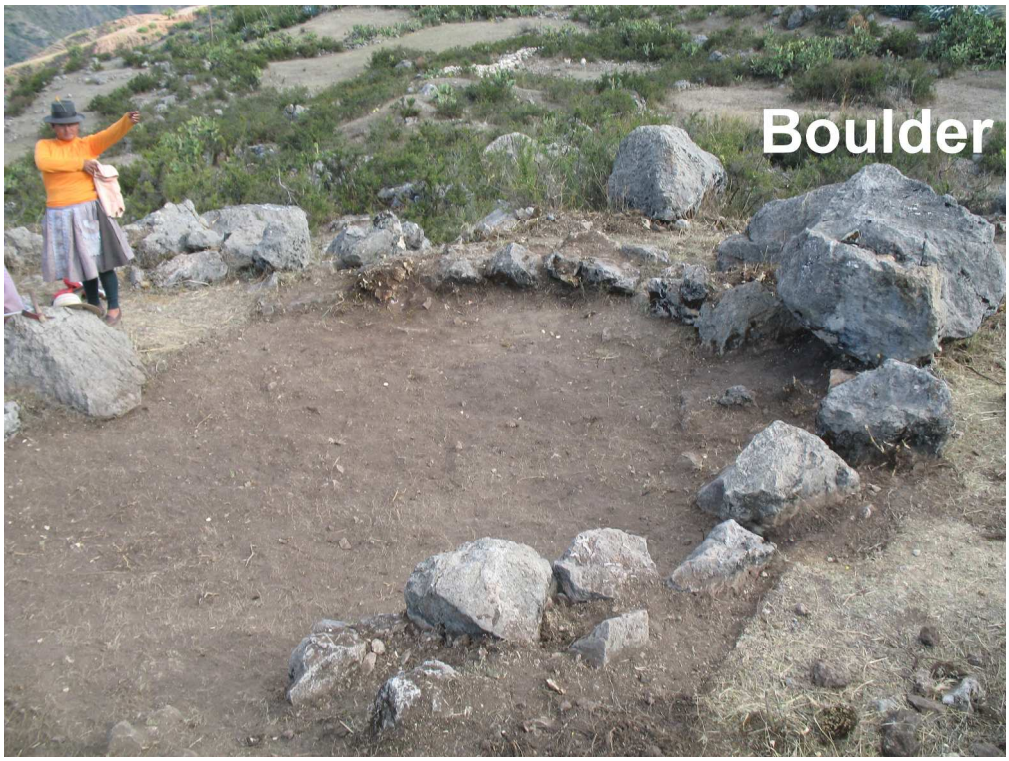
For Review



Aerial photo of Yanawilka with the two major rocky outcrops indicated.

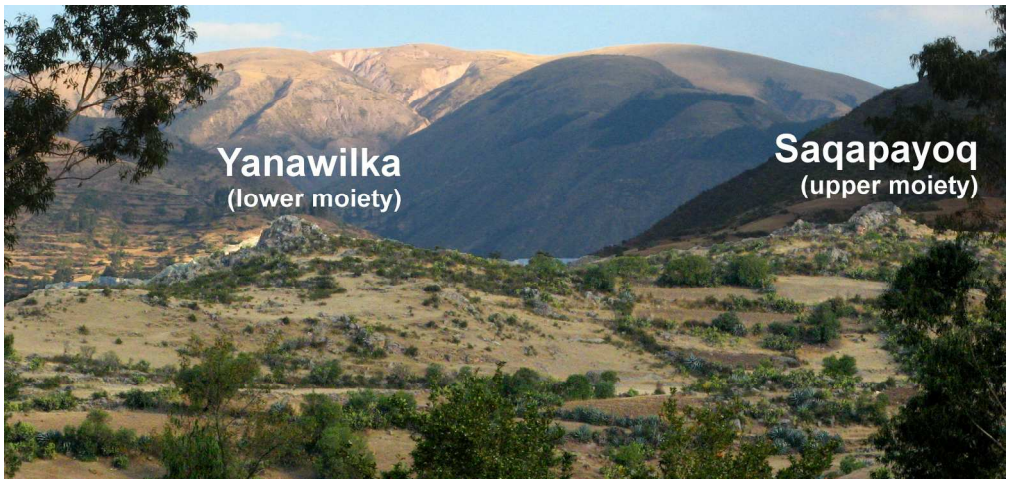
88x57mm (300 x 300 DPI)

Review



Example of a domestic structure with a boulder incorporated into the wall and foundation.

review



Panoramic view of Yanawilka from the Inca road looking south. Yanawilka is enhanced in the photo for clarity.

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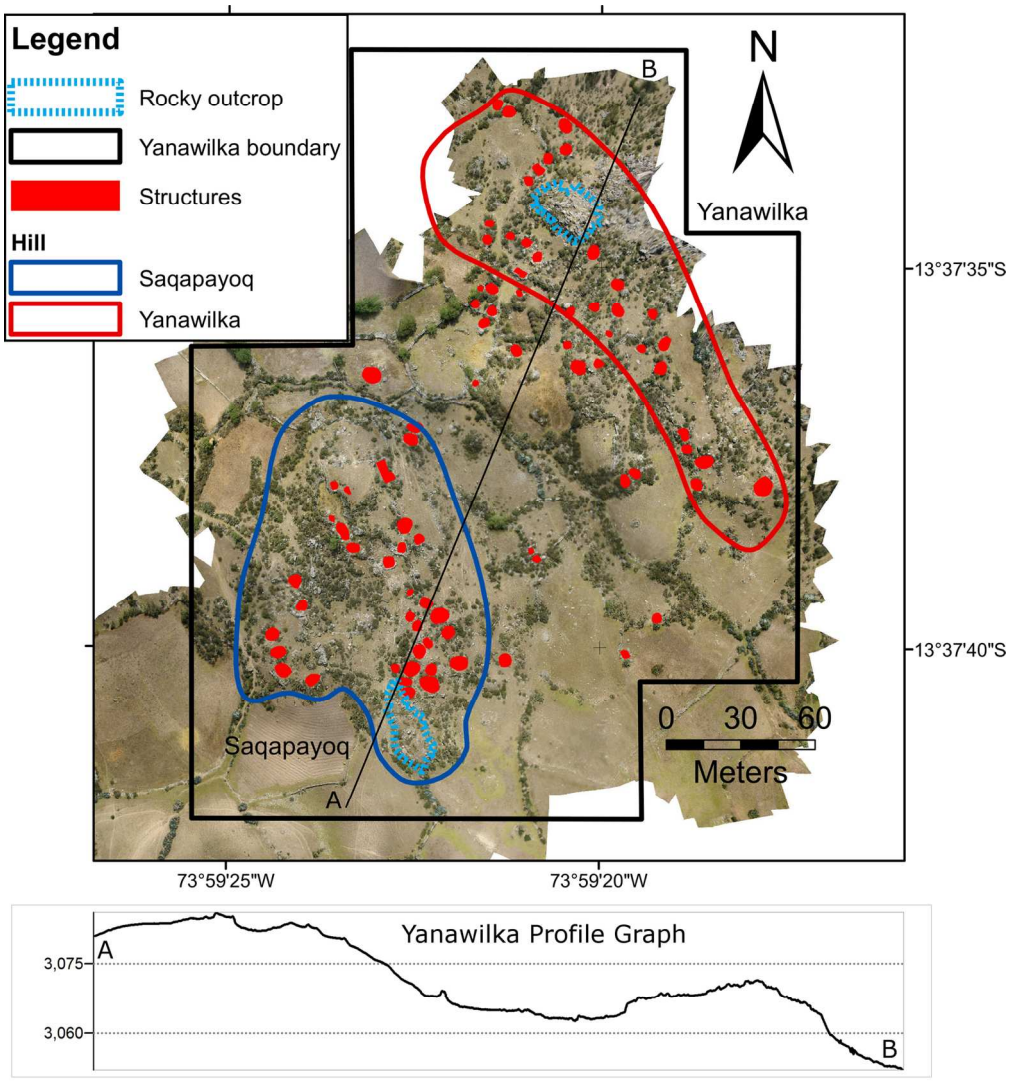
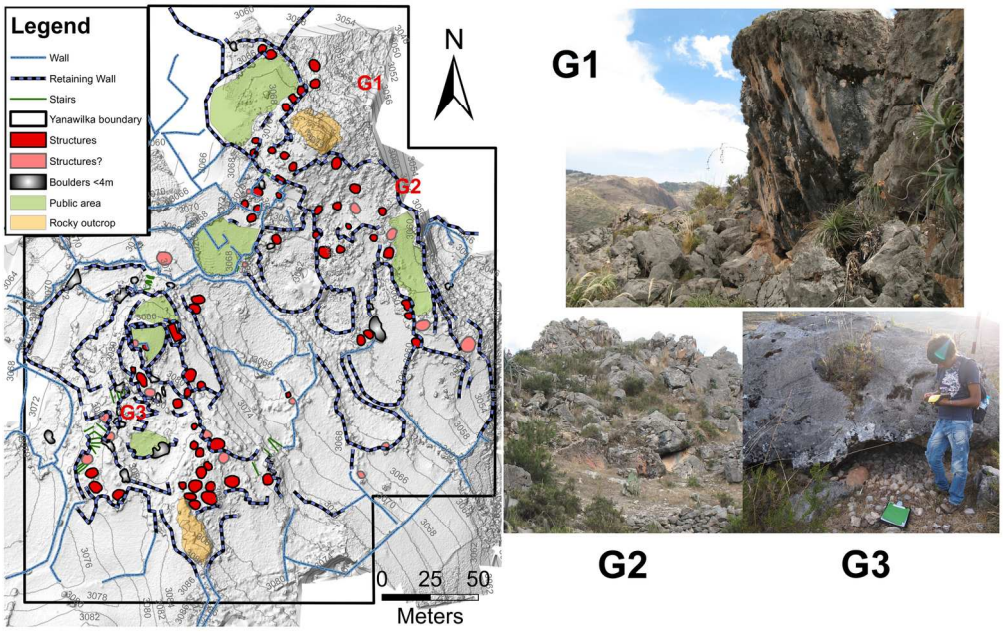


Topographical structure of Yanawilka in relation to the distribution of structures.

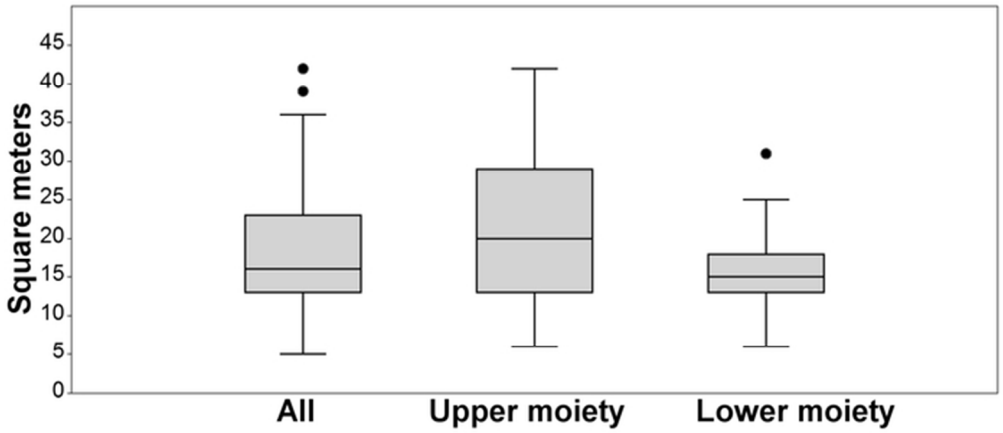
146x159mm (300 x 300 DPI)



Locations of grave sites G1, G2, and G3 (in red text) in relation to Yanawilka site structure.

85x53mm (600 x 600 DPI)

Review



Boxplots of the interior areas of Yanawilka structures.

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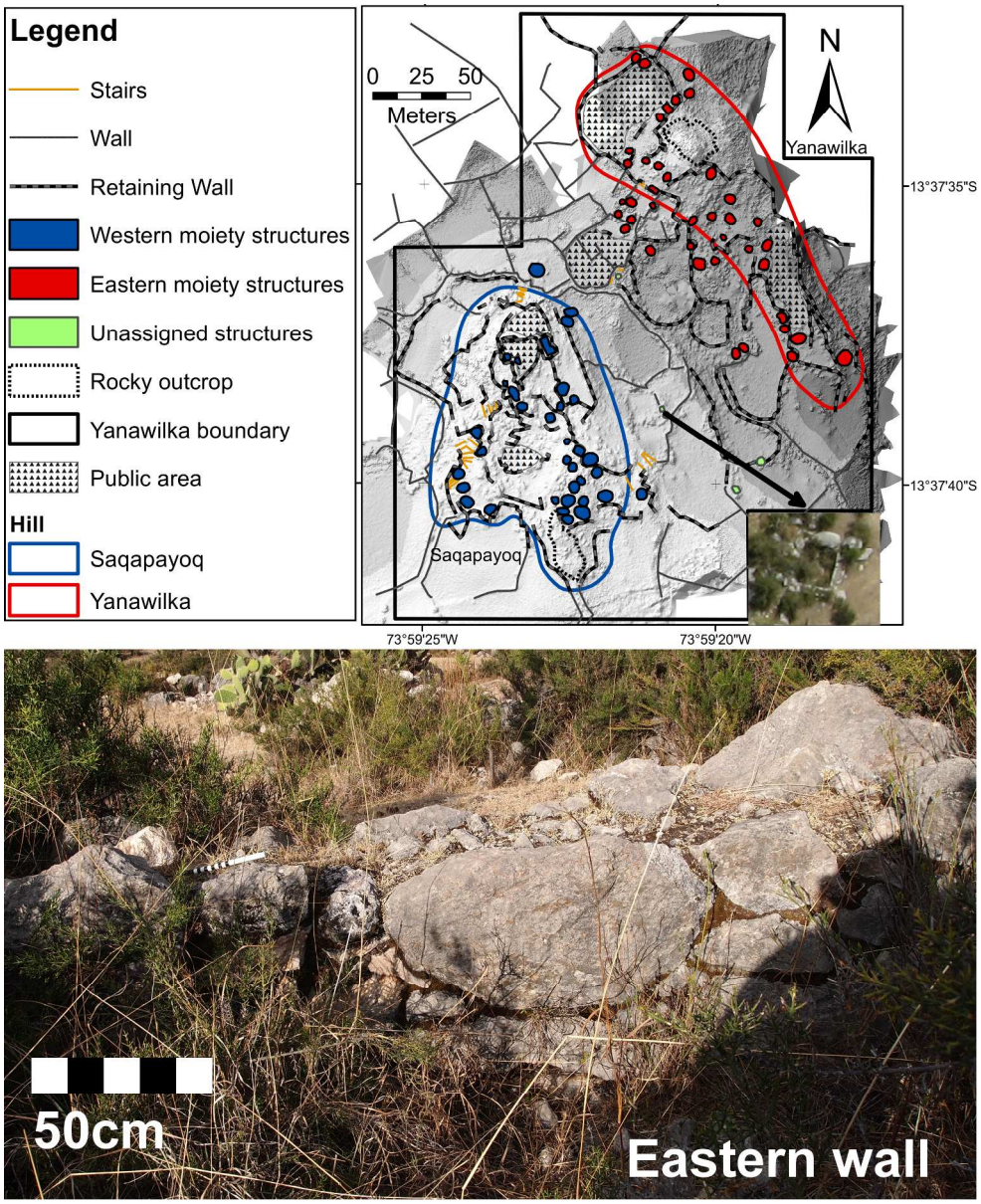
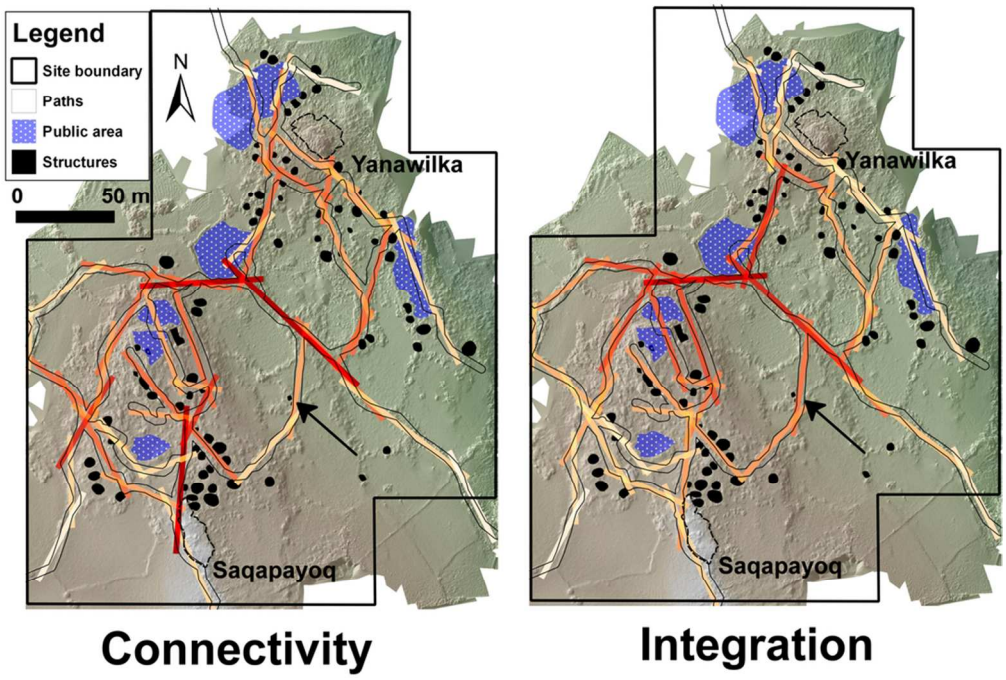


Location of the anomalous Inca-style quadrangular structure (top) and a photo of its masonry (bottom).

166x204mm (600 x 600 DPI)



Level of connectivity and integration of axial lines of path structure at Yanawilka represented by the intensity of the red. Arrow points to the location of the Inca-style structure.

91x61mm (300 x 300 DPI)

For Review

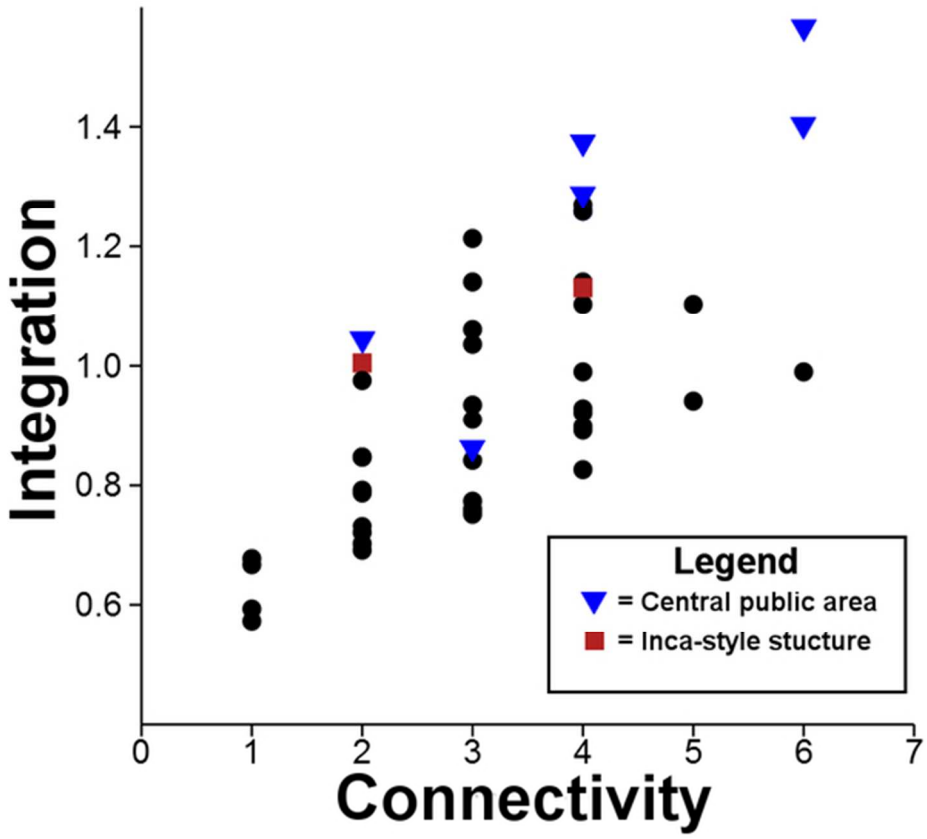


Chart of integration and connectivity of all axial lines. The axial lines passing by the central public area are represented by blue inverted triangles and axial lines passing by the Inca-style structure are represented by red squares.

55x46mm (300 x 300 DPI)