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Modes of production during the Inka Imperial Period (1420–1535 AD) and the Early Colonial Period (1535–1660 AD) in the Jujuy Valley, Argentina

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The transition between the Inka Imperial Period and the Early Colonial Period in the current territory of Argentina corresponds to the Spanish invasion and the impact it had on the native populations. The imposition of the early colonial mode of production, based on the exploitation of South American mineral resources and their export to Europe, in turn, gave rise to a series of subsidiary industries. Among them, cattle breeding, muleteering, and slaughtering to obtain dried beef occupied a prominent place since their destination was the sustenance of the mining workforce. In this work, based on historical sources and archaeological studies, we propose to interpret the relationships between landscapes, environments, territories, and human populations from the imposition of the early colonial mode of production, considering pre-Hispanic modes of production and anti-production. To do this, we focus on the different resistance strategies of the original populations and the advances and setbacks of the conquerors for the effective control of the territory, particularly the Jujuy Valley. The following pages do not aim to provide new data on the topic, but rather to offer a different analysis and approach to it.

KEYWORDS

Inka, early colonial, modes of production, Avá-Guaraní, resistance

Introduction

The Spanish invasion was one of the most traumatic moments experienced by American societies. From the arrival of Columbus in 1492, a process of collapse of Indigenous societies began, which continues to have ongoing effects today. At the same time, the Spanish invasion initiated a series of capital accumulation cycles that directly and indirectly supported the emergence and implementation of the capitalist system in Europe (Arrighi, 2010; Moore, 2015; Stokes, 2022). Once the initial shock of first contact had passed, the Spanish Crown (and the Portuguese) began organizing the conquered territories, implementing different strategies of domination.

The case that we present is situated in South America, in the territories that currently correspond to the countries of Bolivia and Argentina. Our objective is, based on a specific example (the Jujuy Valley, Argentina), to highlight the different objectives of the invaders and the Indigenous societies; and how the implementation of the capitalist mode of production involved a struggle with two pre-existing modes of production

(and anti-production): on the one hand, the Inka frontier mode of production, and, on the other hand, the Guaraní Avá mode of anti-production. We adopt a perspective focused on the different agencies that emerged in the early moments of the colony, or Early Colonial Period (1535–1660 AD). This period is of great importance in the colonial process because it allows for the identification of the different strategies of struggle, resistance, and negotiation implemented by Indigenous peoples even before the actual arrival of the Spaniards. To fulfill our purposes, we have based our analysis on primary and secondary sources already worked on by other authors, seeking a reinterpretation of these sources that allows us to integrate the three models, along with the relationships and tensions that were generated.

To carry out our interpretation, and as can be inferred from what has been written so far, we use the concept of the mode of production, derived from Historical Materialism (Garavaglia, 1984; Marx, 2015). However, we expand the Marxist definition to, on the one hand, remove the deterministic connotations that have colored this concept since structuralist Marxism; and, on the other hand, broaden it so that it does not solely refer to the sphere of economic production. To this end, we consider that this concept (without forgetting the economic aspect) also involves part of what Heidegger (2012) calls "being-in-the-world." We understand the mode of production as a form of "dwelling" (Ingold, 2000; Vaquer, 2021) with particular logics. We use the term "mode of anti-production" for the Avá, due to the particular characteristics of this Indigenous group, which actively avoided both internal state formation and encroachment by outside states. The concept of a mode of production, in its original Marxist definition, is most effective when applied to states and state-like entities with clearly defined class structures (Marx, 2015). However, this framework runs into problems when applied to non-state social groups such as the Avá, with this group developing social mechanisms that prevented the emergence of an elite/ruling class. In contrast to the Inka Empire, where surplus production supported (and was controlled by) a ruling class, the politically decentralized, continuously fragmenting structure of Avá society impeded surplus production and class stratification (Clastres, 1994).

In our interpretation, each mode of production (and anti-production) implies a particular territoriality. By defining different modes of production and territoriality in a broad sense, we seek to interpret their clash in the Jujuy Valley during the Early Colonial Period, and the power struggles for their imposition and resistance. Our hypothesis is that the territoriality of the three modes of production was linked to the relationships between populations and specific types of environments or biomes. However, this does not mean that we consider the environment as determinative, although it is an influential factor, since knowledge of it represented the possibility of acquiring resources through various activities and a particular way of "being-in-the-world." In the 16th century, we find two opposing ways of life in conflict on the eastern frontier of *Tawantinsuyu* (the Inka Empire): the Inka mode of production and the Avá mode of anti-production. On one hand, the Inkas had a way of life centered on the valleys and lowlands for the exploitation of specific resources, particularly the large-scale production of maize (*Zea mays*). On the other hand, Avá territoriality could be said to constitute a mode of anti-production, combining a warrior *ethos* with a constant, centrifugal impulse toward mobility that prevented state formation (or Inka state expansion) in Avá-occupied areas.

It is at the height of this struggle that the Spanish invaders appear, attempting to implement another mode of production, based primarily on mining but dependent on other subsidiary industries such as livestock farming to feed the mine workers (Assadourian, 1982). In this sense, the Jujuy Valley was not a primary mining production area but functioned as a "secondary commodity frontier" (Stokes, 2022), a secondary production area that supplied the primary mining production areas (mainly Potosí).

The production that the Spanish wanted to implement in this valley was mainly the fattening of cattle to transport them alive to slaughtering areas, to make *charque* (naturally dried meat due to the climatic conditions of the Puna), and to distribute it in the mining centers. Consequently, we have a second clash of modes of production: the Inka mode, which emphasized agricultural production in the Jujuy Valley, and the Spanish mode of production that needed the land for cattle grazing. The Spanish also had to deal with the "hot" frontier with the Avá (Saignes, 2007). Both activities are mutually exclusive, so the imposition of the new mode of production entailed different territorialities, spatialities, and struggles and resistances by Indigenous groups. These modes of production also involved different symbolic systems and different ways of inhabiting the landscape.

The Valley of Jujuy

The Jujuy Valley is located at an average altitude of 1,200 m above sea level in Northwestern Argentina (Figure 1). The climate is subtropical mountainous with an average annual precipitation of 400 mm, with a summer rainfall regime. Biogeographically, it belongs to the Yungas region, specifically the Montane Forests district (Arana et al., 2021). The Yungas are fundamentally important for this area due to their great biological diversity and for containing the headwaters of important water basins. The province is characterized by foothill forests and cloud forests with evergreen or semi-deciduous trees with multiple strata. One of the most notable features of the Jujuy Valley is that it is located at the confluence and in the proximity of the three districts that make up the biogeographical region of the Yungas (transition forests, montane forests, and cloud forests). Additionally, it is close to the Chaco domain to the east and the Monte region to the north and west.

The Inkas and Avá in the Jujuy Valley

The occupations of the Jujuy Valley during the Inka Period are little known due to the expansion of the urban core of the City of San Salvador de Jujuy. However, we have evidence of Inka presence in three locations near the Valley. The first is located in San Antonio Department, the second in Cucho de Ocloyas, Tiraxi, Manuel Belgrano Department, and finally Huajra in the Tumbaya Department, south of the Quebrada de Humahuaca (Garay de Fumagalli, 2018). In San Antonio, there is the Agua Hedionda site, an Inka administrative center that features a plaza

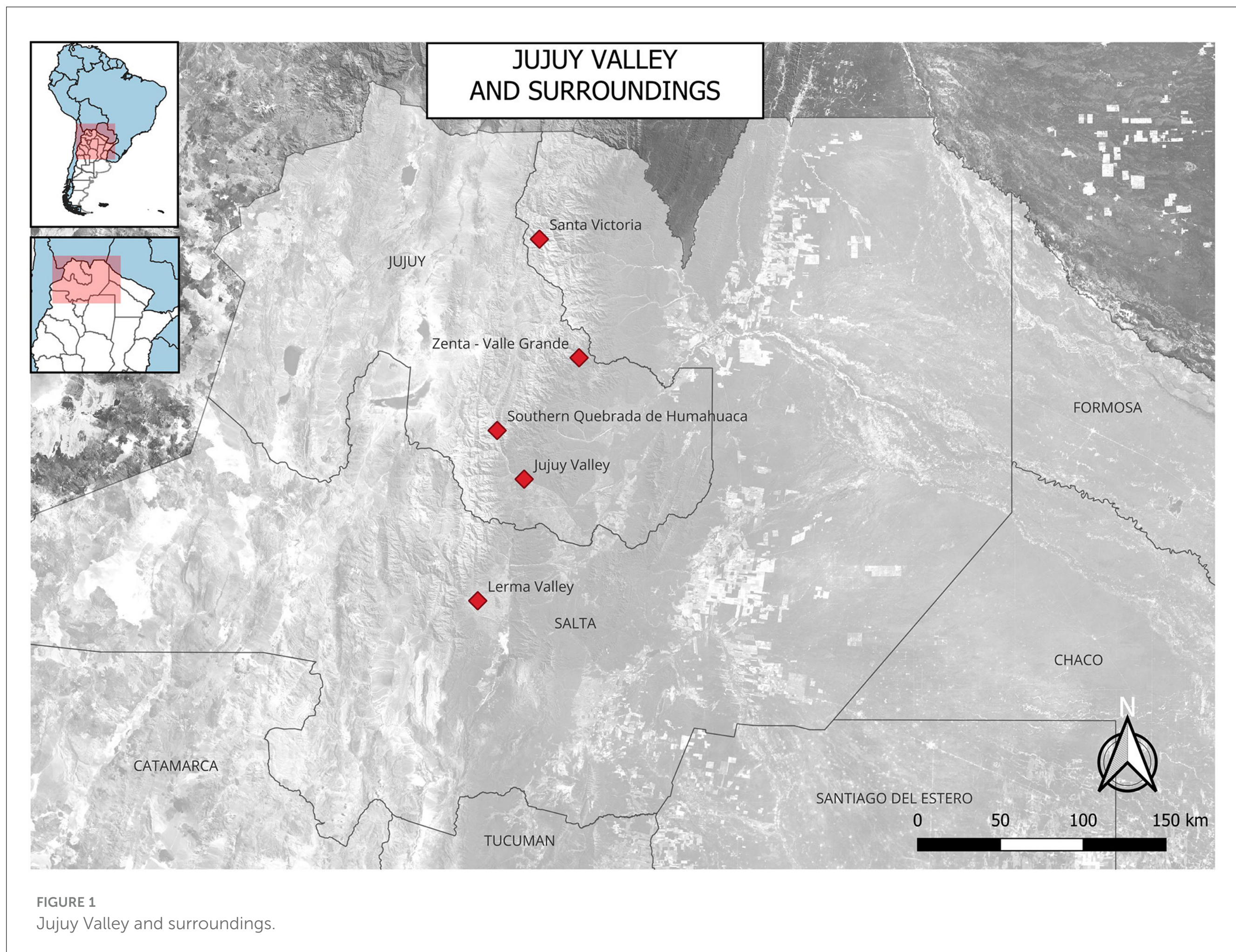

FIGURE 1
Jujuy Valley and surroundings.

and several associated secondary sectors and sites (Cremonte et al., 2005; Peralta and Cremonte, 2013). Within one of the *kanchas* associated with the plaza, there are 90 *qollqas*, deposits or silos for storing grains. The dates obtained at this site place its occupation at the end of the 16th century, almost contemporaneous with the arrival of the Spanish. According to studies, Agua Hedionda is an administrative center dedicated to agricultural production, with direct connections to the Lerma Valley and Quebrada del Toro in Salta, and the eastern Chaco lowlands.

Agua Hedionda was part of the southeastern frontier of the Inka Empire in an area without previous occupations by local populations. This frontier was characterized by being a space of connection and particular cultural dynamics of interaction. It was a porous and discontinuous frontier designed to protect productive settlements and regulate exchanges. In this sense, Cremonte and Garay de Fumagalli (2013) propose that the Agua Hedionda system was established on the border margin with the aim of being a productive center to finance state expansion toward the east, controlling rotating labor contributions.

The Pukara de Alto Padilla is located in the Jujuy Valley, on a river terrace of the Grande River in the urban area of the City of San Salvador de Jujuy. Although the site was documented, it was not systematically excavated until early 2023. The work at the site was carried out in collaboration with the Provincial Heritage Directorate of Jujuy and included the division into sectors, surveying, recording, and surface collection of materials and structures, surveying and mapping, and the excavation of two test pits. The progress of the research allowed us to determine that it was an Inka ceremonial administrative center, with a plaza and associated public and ceremonial structures (Figure 2). We also surveyed an area with terraces for agricultural production and various processing tools such as grinding stones and mortar bases. On the surface, we recovered fragments of a star-shaped mass, a ceremonial *tumi* knife, provincial Inka ceramics, and several fragments of ceramic styles from the Lowlands. The ceramic assemblage recovered in two test pits also contains styles linked to the forests and the Chaco, as well as ornithomorphic plates and various undetermined decorated styles. Within the site, we detected the presence of rectangular structures that may have been used for storage or served ritual functions as open tombs (Vaquer et al., 2024).

Another notable feature of the site is what we call the “Central Sector,” which is surrounded by a perimeter wall on the terrace overlooking the valley, with controlled access from other sectors through walls and enclosures located in strategic positions. In the Central Sector, there is the main plaza of the site, measuring 130 m

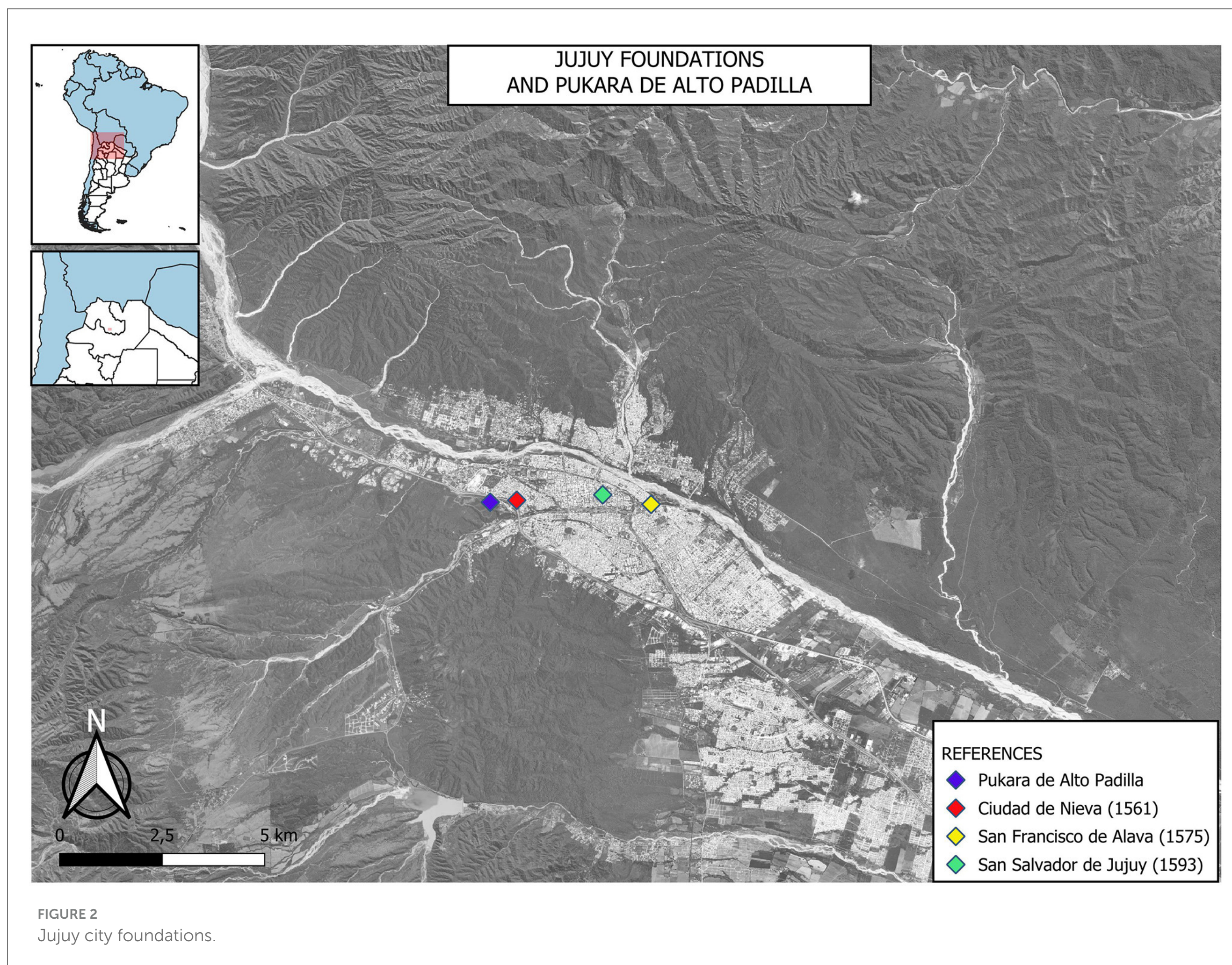

FIGURE 2
Jujuy city foundations.

by 87 m; a *kallanka* of 40 m by 20 m, and an *ushnu* of 20 m by 20 m located on the edge of the terrace with visual control of the valley floor. Around the plaza, there are several sets of enclosures that may have had residential or specialized workshop functions (see Morris, 2013 for a description of Inka features in administrative ceremonial centers).

Based on the interpretation of aerial images from the 1950s and 1960s, we were able to determine the extent of the site, covering a total approximate area of 250 hectares. Most of this area corresponds to agricultural sectors, among which irrigation channels and infrastructure stand out. The site is strategically located in a high area with excellent visual control of the surroundings. The perimeter wall defines it as a *pukara* or fortified settlement. Toward the northwest boundary of the site, we detected the presence of a road leading west, possibly toward Agua Hedionda.

Both Alto Padilla and Agua Hedionda are part of a productive administrative ritual system that developed spatially in the Jujuy Valley, from the San Antonio Department to the Lerma Valley, in the current province of Salta. In the latter, Boman (1992) reported the presence of 1,700 *qollqas* for storage. The Pukará de Alto Padilla would form the head of this system, with the most important ceremonial structures (plaza, *ushnu*, and *kallanka*) and a strategic location that allows control of access to the west, toward the productive heart of the system. Possibly in the neighborhoods surrounding the plaza or in its vicinity lived the administrators of the system. The presence of Yavi Chicha ceramics could indicate that these groups were in charge of managing agricultural production, as in other sites on the eastern frontier (Alconini, 2004; Meyers, 2015). We imagine that in Alto Padilla, the *mitayos* who performed agricultural tasks were received in a ceremonial context of reciprocity. Like in other sectors of the eastern frontier, Agua Hedionda would be the second ceremonial administrative site, since it has the same architectural elements but of smaller dimensions (Cremonte et al., 2005). It would also function as a "second line of defense" against attacks from the east.

The importance of this area during that time is evident due to the increasing need to pacify the area under different pretexts, given its productive capacity, its location as a transit route, as well as the formal establishment of Spanish domination, but also due to the imminent attacks, partly caused by the Avá groups. In a probanza (document of proof) from 1558 by Diego de Encinas, the witnesses responded concerning what happened in 1535 during Almagro's expedition to the region, to which he commented:

> "Don Diego de Almagro ordered Captain Rodrigo de Salcedo to go with horsemen to make war against some Chiriguano Indians who had fortified themselves in the town of Jujuy, where they had killed six or seven Spaniards." (Medina, 1895, p. 214. Our translation)

It is particularly interesting to consider the constant struggle for this space between the Chiriguanos/Avás and the Spaniards, with the former posing a constant threat to monarchic goals. This is evident when, in 1573, the president and judges of Charcas and La Plata issued their opinion on how to conduct a "licit war" against the Chiriguanos, so that they could be punished for the evils and crimes committed, justifying the confrontation and obliging encomenderos, residents, and yanaconas who were close to these groups to contribute (Archivo General de Indias, Patronato, 235, R. 2). This underscores the strategic importance of the Valley, which was constantly under threat and was a contested space between different ways of understanding and inhabiting the area.

In summary, the Jujuy Valley was a key location in the frontier strategies of the Inka Empire, hosting a ceremonial, administrative, and productive center in a strategic position. As mentioned earlier, the Jujuy Valley is situated in a geographically privileged position as a hub between different productive spaces and environments. It represents the furthest point in the southeast frontier line with the populations of the Lowlands.

The Spanish conquest and the resistance of Indigenous people

Juan Pérez de Zurita, appointed governor of Tucumán in 1558, continued with the conquering plan, founding some Spanish cities in the Calchaquí Valley and ordering the founding of the city of Nieva in the jurisdiction of Jujuy, in which residents of La Plata, who had encomiendas there, participated. Irrigation channels and water supply were opened, agriculture was practiced, and a temple was built which was soon after desecrated by the Indians (Vergara, 1961). However, this foundation would not last long (1561–1563), as a great Indigenous uprising led by Juan Calchaquí destroyed the recent foundations. Taking advantage of the situation, the Chiriguanos once again invaded different areas.

At this juncture, Martín de Almendras was appointed from Charcas to pacify the area, resulting in his death along with an encomendero from Humahuaca (Sica, 2019). Given the circumstances, it was impossible to travel through these areas, and facing the need to connect Charcas with the Tucuman governorate,[1] Viceroy Francisco de Toledo in the second half of the 16th century prioritized the founding of new cities in the Salta and Jujuy valleys, in addition to minimizing Chiriguano attacks.

To fulfill these objectives, the viceroy entrusted Jerónimo Luis de Cabrera, governor of Tucumán, to found a city in Jujuy or Salta, a plan that did not materialize because the governor instead founded the city of Córdoba (Palomeque, 2005). However, the encomendero of Humahuaca, Pedro de Zárate, would be the one to carry out this foundation, accomplishing it in 1575 under the name of San Francisco de Alava, accompanied by friars of the Franciscan order. After taking possession of the area, Zárate appointed the mayors and councilors. The city survived for just under a year, during which time the Spaniards claimed the area to provide themselves with water and establish their ranches for livestock breeding and cultivation (Vergara, 1961). Zárate, like the governor, was convinced that, to continue with the conquest plans, it was necessary to attack and pacify the Calchaquí Valley, an endeavor to which they dedicated themselves, without considering the alliance between the Calchaquí, Omaguaca, and Atacama Indians,[2] who took advantage of the conqueror's departure to attack the recently founded city.

Given the need to pacify the region and extract the mineral wealth found in the Cochinoca area, Governor Ramírez de Velasco entrusted a resident of Santiago del Estero, Don Francisco de Argañaraz, to carry out the foundation of the city in the Jujuy Valley, which was realized in 1593, under the name of San Salvador de Jujuy.

The first foundation, carried out in 1561, was in Altos de la Quintana, the present-day city of Nieva (Figure 3). Viana (1991) and Ambasch (2006) argue that the first foundation could have been established in the *pukara* located there, known as the "Fuerte de Hernán Gómez." Hernán Gómez was a Spanish soldier under the orders of Almagro who made the initial attempt to found the city of San Salvador de Jujuy. Vergara (1961) ventures to suggest that Gómez, upon returning from Chile, settled in this *pukara* to protect the land grants that Zárate had given. It is important to note that before the first foundation, land grants had already been issued, as Pizarro himself granted the encomienda of Omaguaca to Martín Monje in 1540 (Zanolli, 2005). In 1584, with two unsuccessful foundation attempts, Juan Vázquez de Tapia requested from the lieutenant governor of Salta "...that you grant me a pukará called Hernán Gómez, which was given to Captain Pedro de Zárate, for a ranch and livestock, with some lands there..." This grant with "corn plantations from said pukará up to the top" was awarded to Vázquez Tapia (AJS, Book of Land Grants, f. 16r).

The second foundation was established in the so-called Pukará Grande, located at the intersection between the Grande River and the Sivi Sivi River, now known as Punta Diamante. Before the third foundation, the adjoining lands of both aforementioned *pukaras* were requested by different individuals, such as Juan Fajardo, who in 1586 petitioned for the lands near Pukará Grande. Juan Chaves directly requested the said *pukara* "where—he says—the Indians burned down the town and routed the Spaniards who were settled there with Pedro de Zárate" up to the other *pukara* of Palpalá (Vergara, 1961).

With the lands distributed, the conquest had to be carried out and the city founded, Argañaraz and his group decided that the

1 In 1563, King Philip II of Spain created the governorship of Tucumán and included it within the Viceroyalty of Peru, under the jurisdiction of the Royal Audiencia of Charcas, with the Count of Nieva as viceroy. This governorship included the present-day provinces of Salta, Jujuy, Tucumán, Catamarca, La Rioja, Santiago del Estero, and Córdoba.

2 Saignes (2007) suggests that documents from the last third of the 16th century indicate the constant unrest among the Omaguaca, Pomanata, Churumata, Apanata, Odoya, Cochinoca, and Casabinbo Indians, as well as their strong connections with the Chiriguano.

FIGURE 3
Inka southeastern border sites, Avá regions and ecoregions.

city would be founded on the plain located between the Grande River and the Sivi Sivi River, as Governor Ramírez de Velasco had determined that it must have "good soil, climate, water, pastures, forests," insisting that here there were "very good areas and of great fertility."

There, they laid out, like a checkerboard,[3] the plaza, streets, blocks, lots, orchards, fields, ranches, livestock farms, and farmlands that would make up the city. A hut was erected to serve as a church, and the first cattle pens were established. To complete the conquest plan, Argañaraz distributed land to 45 colonists to settle in the city, although this was not enough to consolidate it, as growth was slow. Three years after its foundation, the City Council counted 20 permanent residents. In 1629, there were about 30 houses in the city, and in 1641, the number of male residents and inhabitants reached 83 (Sica, 2019).

Among the lands, grants, and encomiendas awarded by Argañaraz, he himself granted the last encomienda (Sica, 2019), in addition to granting himself a year later the "grant of lands that are below the pukará of Hernán Gómez" (de Argarañaz, 1594). The lands adjoining this grant, also granted to other neighbors, were intended to be lands for growing crops, vineyards, and other orchards.

Another interesting issue to consider is the time elapsed between the various foundations of Jujuy. From the first foundation in 1561–1563 to the second in 1575, there is a 12-year gap. From 1575 to the definitive foundation in 1593, there is another 18-year gap. However, we know that the first incursions into these lands, and the granting of the first encomiendas, took place around 1540. This means that it took half a century for the conquest plan to be implemented. During this time, the Indigenous peoples resisted and fought, but it also shows the time it took for the conquerors - and their various captains and groups—to understand and recognize the space and region, as well as to devise the necessary tactics to establish the foundations.

Not only can we refer to time, but also to space itself. The first two foundations were erected on *pukaras*, and the third one on a plain that seems to be the intermediate space between both fortresses. What caused this change? Probably, in addition to the advantages of this plain, it should also be considered that the surrounding lands, including the mentioned *pukaras*, had already been granted, although we are unaware of their effective appropriation. The cities founded by the Spanish, in general, were built on plains[4] and close to water sources. The first two attempts,

3 Following the urban planning provisions of the ordinances of 1573.

4 There are cases where the Spanish settled in Pukarás, such as in the case of Samaipata, where they occupied the fortress to attack the Chiriguanos, by

near watercourses but at high altitudes, must have been chosen for their strategic location—considering that the first fort was located near the *Qhapaq Ñan* (the Inka Road)—, in addition to taking advantage of what was already built, and at the same time, being a symbol of the colonizers' power by settling in their forts. If another *pukara* had been chosen for the third foundation, it would likely have been Palpalá, although its lands had also already been granted. However, the choice of the perimeter for the third foundation allowed the implementation and realization of spatial domination through the grid established by the conquerors.

Once the city was founded, it was endowed with a cabildo and its officials were appointed. This institution exercised its dominion over the jurisdiction of Jujuy, which encompassed the city and the countryside or rural areas. The territory extended to the boundaries of Chichas and Tarija to the North, to the territory of Salta to the South, to the high peaks to the West, and to the Chaco plains to the East, covering an extensive area with different ecological zones, from highlands in the Puna, dry valleys in the Quebrada, to humid and subtropical valleys in the Yungas.

During a nearly 50-year period, these lands were besieged by Spaniards and other Indigenous groups. This undoubtedly led to Indigenous resistance and combat, as evidenced by the various failed foundation attempts. After the conquest was completed, the space and ways of living changed, as did the productive logics, governmental institutions, and cultural patterns. Spanish power gradually strengthened, deploying strategies first to pacify, and then to connect and produce, for the benefit of the crown.

Geographical demarcation strategies were used to fulfill these goals, defining areas and zones for cultivation, housing, urbanity, and mining. Thus, the city of Jujuy, after two failed attempts, was definitively founded in 1593, with its urban core and surrounding lands clearly delimited. The urban core was delineated by the Grande and Sivi-Sivi rivers, along with shrines, chapels, and pastures for mule and cattle grazing. Adjacent to this was the surrounding land, intended to supply the inhabitants and serve commercial functions. In the city, the main governmental and ecclesiastical institutions resided, administering and extending their functions throughout the city, including the countryside. The city was laid out in a grid pattern, with the houses of the principal residents, shops, and taverns, with humble dwellings further away. Surrounding these were areas for irrigation and cultivation, as well as for livestock breeding and fattening, along with zones for mineral extraction and other resources. Once the city and its jurisdiction were delineated, and with the institutions and officials were instated, the Encomenderos began their work:

> "The process of relocating villages from the Inka eastern frontier to the nearby colonial-controlled area near the Jujuy valley, located southwest of the former Inka frontier that was being destroyed by the advance of forest groups, reduced the population and set in motion various productive activities that required labor." (Sica, 2016, p. 171–172)

orders of Viceroy Toledo. See Meyers (2015). Fuerte de Samaipata. Biblioteca del Museo de Historia/UAGRM, Santa Cruz de la Sierra.

As Sica suggests, encomiendas and reductions altered the old territoriality, access to resources, and transformed the symbolic relationship with space and landscape.

Modes of production and anti-production in the Jujuy Valley

The Inka mode of production in the southeastern border

Traditionally, the expansion of the Tawantinsuyu southward is linked to the reign of Tupac Inka Yupanqui after the year 1471 AD (D'Altroy, 2002; Hyslop, 1990; Pärssinen, 1992; Rowe, 1985). However, several authors working in the *Kollasuyu* (the southern province of the empire) have begun to question this model, primarily derived from Andean ethnohistory. Pärssinen (1992) proposes that there is a contradiction between the chronicles and the information from local sources regarding the chronology of the expansion. There is increasing evidence that undermines this model of a "late" expansion of the Empire. For example, radiocarbon dates obtained at various sites in Argentina suggest an earlier presence. García et al. (2021) compile all the Inka dates for Northwestern Argentina, with the earliest dates found in the southern Quebrada de Humahuaca, at sites like the Pukara de Volcán and the Pukara de Tilcara. Dates for these sites range around 1381 AD, while the most conservative estimates are around 1420 AD. Additionally, Williams (2004) reports dates from 1409 to 1436 AD for Potrero de Payogasta in the Northern Calchaquí Valley, Salta Province. The Tiraxi Settlement System, south of the Quebrada de Humahuaca and into the Jujuy Yungas, has dates between 1420 and 1430 AD at sites with Inka affiliation (Cremonte and Garay de Fumagalli, 2013; Garay de Fumagalli, 2018).

The Lowlands of Eastern Bolivia and Argentina are considered the eastern frontier of the Empire (Figure 4). Since the supposed appearance of the Chiriguanos or Avá around 1520 AD, a discourse has been constructed about the Lowlands as the place where subhuman populations resided, a land of wild cannibals who only sought to plunder and destroy. To protect themselves, the Inkas built a series of fortresses or *pukaras* to control the frontier, mainly managed by *mitayos* (Alconini, 2004; Saignes, 2007).

This eastern frontier would begin at near present-day Cochabamba, with Inkallacta (Rex González and Cravotto, 1977); Samaipata at the height of Santa Cruz de la Sierra (Meyers, 2015); Oroncota (Alconini, 2004); and Incahuasi (Raffino, 1983). Further south, in present-day Tarija, sources mention three Inka fortresses, the most important of which is Esquile (Ventura and Olivetto, 2014). This northern section of the frontier is directly located in the areas most densely populated by the Avá (Guapay, Izozog, Parapetí, and the Valle del Ingre) (Saignes, 2007). Raffino (1983) and Saignes (2007) refer to the fortress of Condor Huasi, located on the right bank of the San Juan de Oro River, Bolivia, but its exact location is uncertain.

For the Argentine territory, this frontier line begins at the border with Bolivia, in the Serranías de Zenta and Santa Victoria of the present province of Salta (Oliveto and Ventura, 2009; Ventura and Olivetto, 2014). The authors mention Titiconte as the possible administrative ceremonial center of the region. Here, the

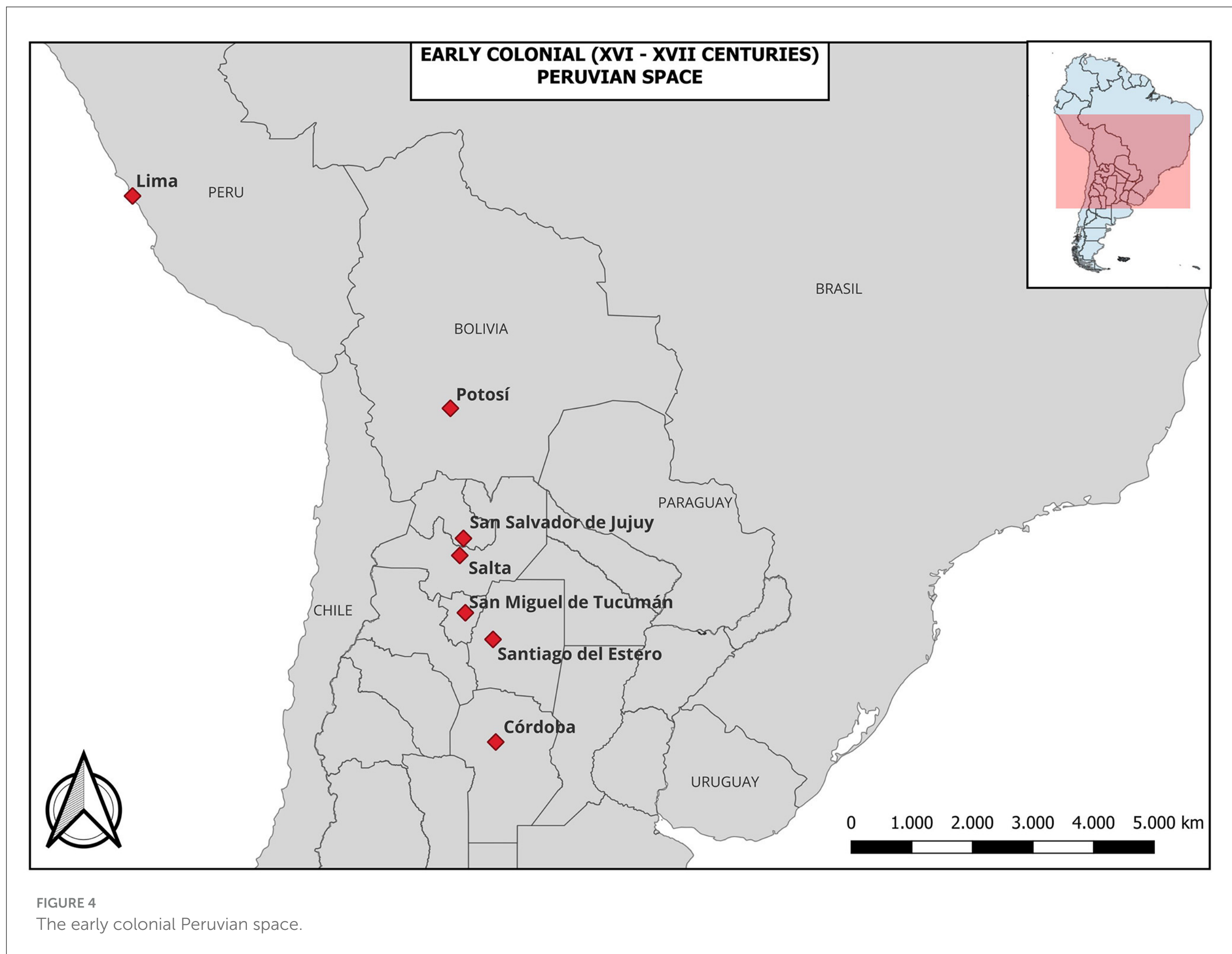

FIGURE 4
The early colonial Peruvian space.

Inkas mobilized *mitmaquna* from different regions, creating a true interethnic mosaic. The objectives of the Empire were linked to agricultural production, mining, and the exploitation of resources from forests and jungles. For this purpose, in addition to Titiconte and Pueblo Viejo de Rodeo Colorado, there are other sites in strategic positions for control and access to the Lowlands.

The Zenta—Vallegrande region in the Province of Jujuy presents a particular challenge, as no significant sites that could be considered administrative ceremonial centers have been reported (Cruz, 2010; Nielsen, 1989; Raffino et al., 1991). The Inka presence in this area is indicated by roads, *tambos* (roadside shelters), garrisons located in key points of the landscape, and sanctuaries. The authors mention the importance of the symbolic construction of the landscape for this region. In addition to the resources of the Yungas (rainforests), Inka installations were oriented toward exploiting mineral resources. It is important to mention that this region was under the orbit of the Quebrada de Humahuaca in pre-Inka times, which could explain the absence of Inka administrative ceremonial centers, as they were located in the main Quebrada, such as the Pukará de Tilcara (Otero and Tarragó, 2017). Another possible hypothesis is that it was part of a larger territory, which included the Santa Victoria region. Both sectors would have been under the Humahuaca sphere in pre-Inka times. If this is the case, in addition to the sites in the Quebrada, Titiconte would have been the regional administrative ceremonial center.

Next, we address the southern portion of the Quebrada de Humahuaca. In this region, there are two important sites: the Pukará de Volcán and Esquina de Huajra. The former has been occupied since the Formative Period with materials linked to the San Francisco Tradition (Cremonte, 2006; Garay de Fumagalli, 2018). During the Period of Regional Development (900–1435 AD), it was central in an interaction sphere that included Tastil and Morohuasi in the Quebrada del Toro, Salta; and settlements in the lowlands of Jujuy. The interests of these societies were the exploitation of forest resources, and agricultural production, as the southern part of the Quebrada de Humahuaca is limited by the heavy clay content of the soils. During the Inka occupation, the Pukará de Volcán functioned as a center, along with Esquina de Huajra, a settlement located in front of the Quebrada de Huajra that connects with the lowlands. Garay de Fumagalli (2018) proposes that during the Empire, the pre-existing interaction networks were modified, mainly oriented toward the east.

The Inka mode of production: agriculture

One of the characteristics of Inka imperialism was the diversity and adaptability of the different methods implemented in controlling and negotiating with local societies. As we saw above, the southeastern frontier of the Empire was comprised of varied regional dynamics resulting from the structuring of diverse social fields. The most important of these is the pre-Inka occupational history of the areas in question, as it allows us to account for the different *habitus* that came into play. In some cases, the Inkas relied on pre-existing social networks within the Empire, while in others, they created new ones. Thus, we have sectors of the frontier where ceremonial administrative centers were built on local settlements (Oroncota and Samaipata), and others where occupations were located in previously unoccupied places (Sistema Alto Padilla—Agua Hedionda). There are also situations where Inka presence is indicated not by the existence of ceremonial administrative centers, but rather through the construction of a ritual social landscape (Zenta—Valle Grande). It is also important to note that one of the commonalities across the eastern frontier is that the main settlements were occupied by *mitmaqunas* who came from various parts of the Empire, performing specialized tasks. In this sense, the formation of frontier social fields involved the coexistence of several different *habitus*.

The interests of the Empire in the East were related to the expansion of the agricultural frontier, as the Eastern Valleys and Lowlands are privileged areas for agricultural production. In this sense, occupations in the Tiraxi Settlement System could be related to the possibility of obtaining a second annual maize harvest (Garay de Fumagalli, 2018). However, there is no consensus on the destination of the agricultural surplus produced in the eastern frontier. We must not forget that maize was not only a food product in the Empire but was also used for the production of *chicha*, an alcoholic beverage indispensable in the reciprocal ceremonies aimed at forging alliances with local populations. If we move away from economic interpretations, maize production in the Empire had various purposes. The most obvious one is related to food demand in an expansive social formation. However, if we consider the eastern frontier as a “soft frontier” where the emphasis was on creating cultural relationships with the peoples of the lowlands, part of that production surely aimed at creating social bonds through reciprocal ceremonies.

The Avá-Guaraní mode of anti-production

The Avá, also known pejoratively in historical documentation as the Chiriguanos, are a Guaraní-speaking who inhabit the eastern foothills of the Andes in Bolivia and Argentina. They also occupy parts of the Bolivian and Paraguayan Chaco, with their presence being documented across these regions in the 16th century (Díaz del Guzmán, 1979; Saignes, 2007). While recent archaeological research suggests that there has been a long-term Avá presence in the Andean foothills, certain historical accounts describe a process by which invading Avá groups subjugated and merged with Arawak-speaking Chané groups in the Andean-Chaco transition zone (Díaz del Guzmán, 1979; Pärssinen and Siiriäinen, 2003).

The Avá of the Andean foothill forests were connected to a broader network of Guaraní-speaking communities that spanned South America along the tropic of Capricorn, reaching the Brazilian coast near São Paulo and the mouth of the Rio de la Plata in Argentina. These Guaraní-speaking groups concentrated in rainforest biomes, with both the Yungas and the Atlantic Forest to the east supporting major Guaraní-speaking populations. As Saignes (2007) argues, while the Avá attacked and absorbed other groups such as the Chané in the Andean foothills, their tendency toward continuous internal warfare prevented state formation, with multiple social mechanisms impeding the concentration of power in the hands of any individual.

Consequently, Pierre Clastres contends that contrary to the formulations of earlier Marxist anthropologists such as Maurice Godelier, these decentralized societies, existing outside the state, were more defined by systems of *anti-production* than production in the conventional sense (Clastres, 1994). If we understand production to be tied to the appropriation of a surplus by a ruling elite, then Avá internal conflict and mobility prevented such a system from ever developing. This is an important distinction, as the debate around modes of production has focused primarily on states with enduring class structures. In stark contrast to the Inka state's use of maize, the Avá used high-yield crops such as maize and manioc to support their mobility and decentralization, with Guaraní-speaking women specializing in the planting of these crops at waypoints along long-distance Avá distribution routes (Candela, 2018; Stokes, 2022). While the subjugation and partial absorption of Chané groups created a subordinate group of slaves amongst the Avá, the ritualized cannibalism of male slaves and enemy warriors, well-documented in the colonial record, also prevented these hierarchies from stabilizing over time into enduring class structures (Saignes, 2007). All of these features impeded both the formation of Avá states and the expansion of the neighboring Inka state, making the Avá both a state-preventing society and a state-obstructing society (Clastres, 1987; Scott, 2009).

Father Alcaya's chronicle of 1605 relates that, in the early 1500s, the Inkas settled in Samaipata, on the border between the Andes and the Guapay plain in the Bolivian Chaco. Their objective was agricultural production, so they negotiated with local Arawak groups. Later, they detected the presence of silver mines on the Saypurú hill, moving further into the Chaco. The agricultural production of Samaipata was destined to sustain the mineral exploitation at Saypurú (Cruz, 2017; Meyers, 2015; Saignes, 2007). Around 1526, the wealth of this frontier attracted Guaraní warriors, who crossed the seized the mine, the fortress of Samaipata and members of the local Inka nobility. It was not until around 1530 that the Inkas were able to re-establish the border thanks to the intervention of an envoy of Huayna Capac, the emperor at the time.

However, Avá pressure continued to the west and south. In 1548 and 1553 new reinforcements arrived for the Avá on the frontier, and expansion increased. According to the account of the priest Martín González and the half-Guaraní Paraguayan colonial administrator Ruy Díaz del Guzmán, this new influx of Guaraní warriors was comprised in large part of deserters from attempted Spanish incursions from Paraguay to the Andes (Candela, 2018; Combès, 2013; Díaz del Guzmán, 1979). Villages in the Andean foothills, mostly occupied by Inka *mitimaes*, were

subjected to periodic plundering, even to the point of abandonment and depopulation in several regions. During this period the Avá not only impeded Spanish advances into the Chaco and the Southern Amazon, they also pushed back the colonial occupation and, according to the contemporary Jurist Juan de Matienzo, threatened the Spanish capacity to operate the silver mines of Potosí (Matienzo, 1910; Saignes, 2007).

But what motivated the movement of the Guaraní who became "Chiriguanos"? Saignes, following Clastres, proposes a religiously motivated expansion based on the search for the "Land Without Evil." However, subsequent research has critiqued the reductionism of this argument, instead emphasizing other ecological and cosmological factors in driving Guaraní mobility (Meliá, 1987, 1997; Barbosa, 2015). In this regard, contributions by Guaraní writers and communities are gaining increasing recognition, with these accounts emphasizing the long-term Guaraní travel routes crossing South America (Popygua, 2017; Ladeira, 2007).

To contextualize the Avá anti-production mode, it is necessary to understand Guaraní circulation. While the historical scenario preceding Avá predominance in the Andean foothills and Chaco is uncertain, it appears that in earlier periods independent Arawak-speaking groups were more prevalent in this region. Although belonging to a common linguistic family, these Arawak populations had great socio-cultural variability (Jaimes, 2018). Many of these groups appear to have lived in villages near rivers cultivating crops such as maize, manioc, chili peppers, squash and beans. The expansion of these groups even reached the Rio de La Plata basin in Argentina (Bonomo et al., 2019).

According to linguistic and archaeological reconstructions, Guaraní-speaking groups comprise one branch of a broader movement of groups from the Tupian language family out of the Amazon into the Atlantic Forest and the Yungas (Noelli, 1996). These Tupi-Guaraní groups, as they are described in the literature, utilized maize and manioc cultivation to travel across large distances at an even faster pace than the preceding Arawak groups, resulting in an overlap between Guaraní and Arawak territories. Over the course of the last 500 years, Guaraní-speaking groups have displayed a diverse array of social forms, from the Aché in Paraguay, who until recently lived in small, mobile family units and subsisted primarily through hunting and foraging, to the large village formations, documented in the 16th century (Clastres, 1998). Although these villages utilized extensive crop cultivation to support relatively dense populations, they were not in any sense sedentary. Instead, Guaraní village inhabitants regularly dismantled and moved their settlements, practicing shifting agriculture, clearing forest in new areas to plant their crops and letting the forest regrow over their previous fields.

The Guaraní villages described by early colonists in Paraguay were often surrounded by defensive palisades and composed of a group of communal houses around a central plaza. Each of these houses could be occupied by a relatively autonomous family group. Members of villages or *malocas* could live in relative harmony, but relations between villages could alternate rapidly between alliance and open war. Cycles of conflict led to political fragmentation. In the event of internal conflict, it was common for smaller groups to split from villages and move elsewhere. However, this system of decentralized violence did not prevent the development of extensive distribution networks. According to Saignes, referring to the Chiriguanos:

> "it is difficult to grasp a collective identity that reproduces itself through a perpetual internal tearing apart that poses both territorial fragmentation and local cohesion, random alliances and confrontations." (Saignes, 2007, p. 33)

According to Stokes (2022), Guaraní mobility can be understood as a form of circulation rather than migration, as it consisted of a continuous flow of people and objects between the Atlantic Forest and neighboring biomes. According to early colonial sources, while men were engaged in warfare, women cultivated crops and transported goods over long distances. Since their arrival in the Atlantic, metals from the Andean region were among the most sought-after goods by the Guaraní groups. There is evidence that the Arawak groups located in the Paraná River Basin already had access to these networks and exchanged metals with the Andean groups (Bonomo et al., 2019).

Possibly, increased westward circulation occurred in search of the sources of metals and for the control of distribution routes. As mentioned above, Avá-Guaraní groups were highly mobile. Regarding the chronology of expansion, Bonomo et al. (2015) propose that there was a flow of Guaraní mobility between 1000 AD and the Spanish arrival, which included an increase in the number of sites in occupied localities and expansion into new areas. In summary, the Avá-Guaraní mode of anti-production included settlements along the banks of the main rivers utilizing agriculture, hunting, fishing and foraging. Itinerant crop cultivation was a key feature of this system. Guaraní groups mixed with Arawak-speaking communities, and eventually came to predominate over them, in the Andean foothills, creating the in the Chiriguano-Chané peoples mentioned in the sources, who were at war with the Inkas and later with the Spanish.

Early colonial mode of production

The history of the arrival of the Spaniards in America is well-known, but what interests us here is the reconstruction of their arrival in the lands of Jujuy, the forms of resistance, and the ways in which this region eventually came under Spanish dominion, marking the beginning of the colonial period. Internal disputes among the Conquistadors led them to seek new conquests, forming their own individual armies. News of great riches and labor in the Kingdom of Chile motivated Diego de Almagro to venture southward in the mid-1530s (Ortiz, 2008). As part of his strategy, he sent ahead the high priest Vilchoma and Inga Paulla and others to pave the way with their authority (Lozano, 1733, as cited in Vergara, 1961). However, of this advance party, three were killed, and two fled. Upon hearing this, Almagro sent Captain Salcedo to punish them for their actions. Meanwhile, "the [Indigenous] Jujuíes sensed what was going to happen" (Vergara, 1961, p. 50) and prepared for the arrival of the Spaniards. Salcedo failed in his mission, as did Captain Chaves, another envoy of Almagro. Meanwhile, Cristóbal Vaca de Castro, the Governor of Peru, entrusted Diego de Rojas with the conquest of Tucumán. After Rojas died in Salta, Captain

Heredia continued the conquest, crossing the valley until reaching the Quebrada de Humahuaca.

Faced with ongoing Indigenous resistance and the inability of the colonists to dominate these territories, in 1549 the President of the Royal Audiencia of Lima appointed Juan Núñez de Prado to conquer Tucumán and fulfill the Spanish colonization plan. However, once again, the Indigenous peoples resisted, eliminating the invaders. The main objective of this expedition was to open the way to the Río de la Plata and counteract the advance of the Chiriguanos. The colonization plan began to take hold through the foundation of a series of cities, with Santiago del Estero being the first of them. However, many of these cities were quickly destroyed, among other reasons, due to Indigenous resistance, as uprisings began in the Calchaquí valleys and highlands, and there was jurisdictional conflict between the troops coming from Chile and those from Peru (Sica, 2019). Meanwhile, the territory of Jujuy suffered attempts at administrative absorption first from Charcas, and then from Tucumán.

The abrupt arrival of the Spanish brought significant changes to the Inka model, although the Europeans also utilized certain Indigenous strategies and institutions for their own benefit. This blend of Indigenous and foreign elements forged a new production model, altering the rules of the game for the inhabitants of these lands. As seen in the previous section, the Inkas had a well-organized system linked to agriculture, mining, and the exploitation of natural resources from jungles and forests. These productive activities also defined and shaped different ways of living, while simultaneously contributing to the region's diverse landscapes and architecture.

The Spanish, upon arrival, conquered and settled as their expeditions progressed, encountering varying degrees of resistance depending on the locations and their inhabitants. However, by the 16th century, they transitioned from conquerors to settlers, with the aim of accelerating the implementation of the European economy (Assadourian, 1994) (Figure 5). To solidify their conquest, lands were granted to Spanish colonists through land grants and encomiendas, which not only provided a piece of land but also Indigenous labor to work it. Consequently, communal lands became the exclusive property of individuals, establishing a private model of exploitation. This process also led to the deculturation of the Indigenous population, as they not only witnessed their lands being distributed but also had to resist the loss of their original habits in favor of a process of individuation (Zanolli and Lorandi, 1995).

The extensive impact of the conquest is well documented, along with how it modified various aspects of daily life, including political, geographical, economic, cultural, and religious dimensions. These lands transitioned from being part of the *Tawantisuyu* to the Spanish Empire, witnessing their wealth being taken to the Old World and the labor of their Indigenous populations enriching another crown and another deity. From this perspective, the city of Jujuy, which belonged to the *Kollasuyu* during the Inka era, became part of the Governorate of Tucumán within the Viceroyalty of Peru.[5]

5 With the Bourbon reforms, the Viceroyalty of Peru, due to its vast expanse, was divided, and the Viceroyalty of the Río de la Plata was created in 1776 for greater and better influence and administration by the Spanish crown.

The territories were organized into administrative geographic units by the Spanish, who began their assigned project of extracting the greatest economic benefit from these lands, turning them into the sustenance of Spanish ambitions. They distributed encomiendas and redefined the *mita* system for forced labor, stipulating shifts and methods without regard for human costs. They arranged for the relocation of communities and inhabitants, far from their roots, to fulfill their objectives. Although this practice was already in place, the duration extended, and Indigenous peoples became the property of the conquerors in one way or another.

The conquest entailed a lengthy process of establishment and combination, eventually forming what Assadourian (1982)[6] termed the "Peruvian space"[7] (Figure 5). Initially, the economy focused on the productions of each region to achieve surpluses that would subsequently enable the expansion of commercial activities. By 1570, Toledo, the viceroy of Peru, successfully organized a colonial economic system specialized in the production of silver minerals destined for the external market. Meanwhile, Indigenous populations were required to subsidize the Spanish economy through tribute, *mita* labor, and work on what had become encomienda lands, to supply the internal market. These exchanges were complemented by enslaved people and goods from Castile, which, both of which acquired another symbolic and monetary value due to being imported from elsewhere.

The economic hub created around Potosí, with its mountain and metal extraction, and Lima, as the port of departure for mineral riches and the entry point for foreign goods, turned this area into a potential consumer market. The success built around Potosí led to a regional specialization of neighboring spaces, which contributed goods, crafts, and livestock, resulting in an expansion in regional transport networks in the following years through winter grazing and mule raising. Thus, the Spanish economic system organized and promoted the production of silver "destined to drain toward the metropolis, and this drainage ultimately acted as a dynamizing element of the regional whole" (Assadourian and Palomeque, 2015, p. 40) within the Peruvian space.

Discussion

In this work, our aim is to consider how territory and territoriality were key concepts in understanding dominance and power struggles among different social groups. This goes beyond a vision of dominance characterized solely by the pursuit of resources, but rather involves a more complex logic where modes of production and anti-production, social and political structures, and conceptions related to nature, the environment, and different biomes are at stake. Thus, the discussion in these pages leads us to think about territoriality from a more complex perspective, which involves a constant interplay of territorialization and deterritorialization, the result of ongoing conflicts and struggles among these three fronts: Inka, Avá, and Spanish.

6 The work published in 1982 by Assadourian is the result of the compilation of a series of articles by the author published in the 1970s.

7 This term refers to the area comprising territories that included parts of the future countries of Argentina, Paraguay, Uruguay, Bolivia, Chile, Peru, and even Ecuador.

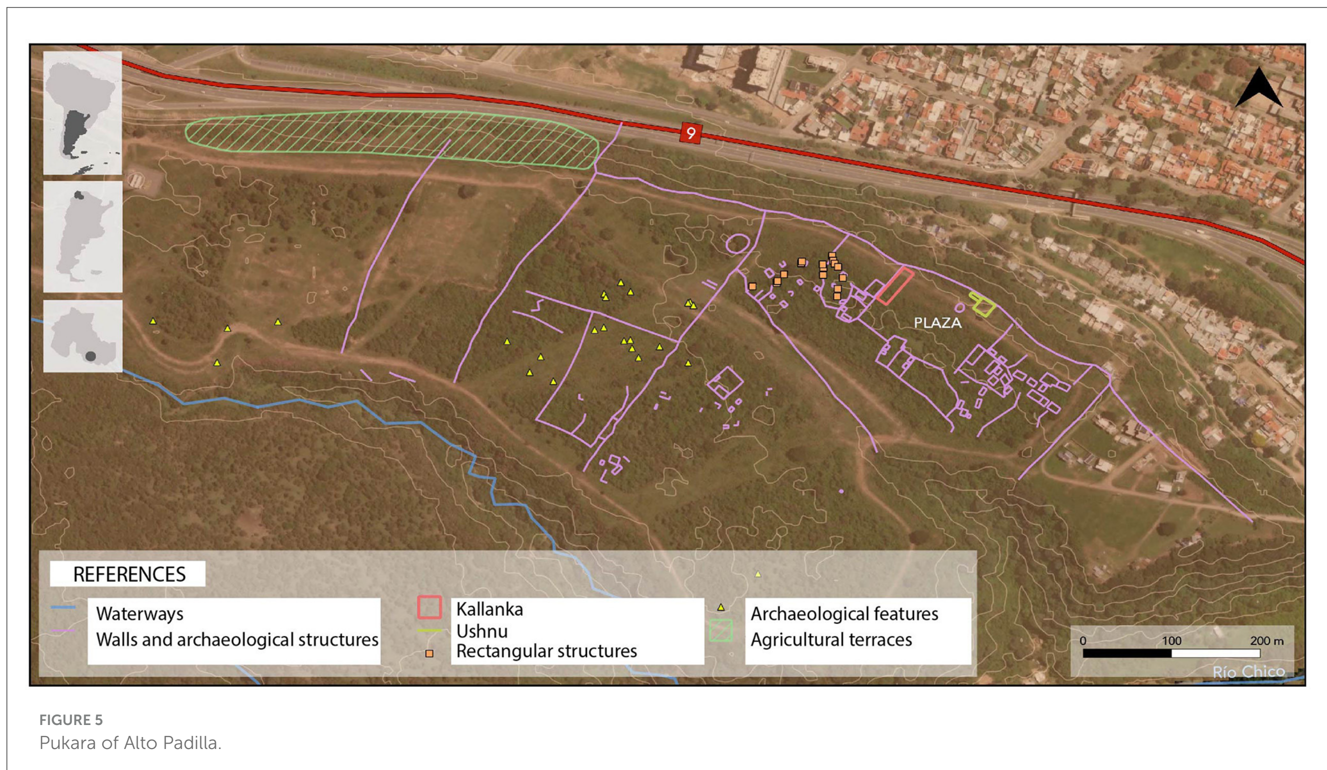

FIGURE 5
Pukara of Alto Padilla.

Territoriality can be understood as the constant interaction between humans and the landscape, involving the appropriation and domination of territory through sustained exercise of both symbolic and material power (Porto-Gonçalves, 2009; Zanotti, 2018). Territoriality begins with territorialization, as a process of appropriating that space, which will be transformed into territory (Trivi, 2011). This territory was the battleground between groups that saw in it the necessary conditions and resources to assert themselves and take possession of it. However, and although it exceeds the objectives of this work, it is important to also consider to what extent the idea of territory and territoriality that we apply to the past derives directly from our modern conception linked to the Nation-State. One conclusion we can draw from this work is that, at least in pre-Hispanic times, the borders between territories were porous and changing, advancing and retreating according to the rhythm of the different relations between the Inkas and their eastern neighbors. Although there was a line of defensive *pukaras*, this did not necessarily imply conflictual relations, at least not permanently. With the arrival of the Spanish invaders, this changed, as they attempted to achieve expansive territorial dominance with fixed boundaries. At this point, it is crucial to recover the different strategies of resistance of regional Indigenous peoples, which, as we have seen, hindered effective Spanish control. This is clearly seen in the history of the city of San Salvador de Jujuy and its successive foundations, and in the Avá resistance that was only overcome in the 19th century (Saignes, 2007).

The Jujuy Valley emerged as a territory in dispute from pre-Hispanic times, and although we do not have enough information to characterize the pre-Inka populations, we know that different Indigenous groups and communities coexisted, and that some of them were under Inka rule, as a result of the territorialization and territoriality practiced by the latter during their period of dominance. The Spanish, on the other hand, swept through during the invasion, maintaining those productive areas that had been established or expanded under Inka rule, which, later on, would see cattle grazing as another way to make use of this space. Meanwhile, the Avá, with their logic of mobile agriculture, sought out biomes that would facilitate this way of life, supplemented by hunting, fishing, and foraging.

It is important to note that the Jujuy plain encompassed a biotic area that satisfied the interests of all three of these groups; however, the clash between them stemmed not only from attempts at domination and territorialization but also, within it, from different visions and conceptions regarding nature and the use and modification of the landscape in question. Existing literature on the impact of the clash of these cultures mostly refers to two of them, Indigenous American and Spanish, without considering that within the former, multiple ways of understanding nature at a cultural level coexisted, as well as diverse ways of considering social, political, and state structures—or lack thereof—among others. This work analyzes the clash between three cultures engaged in constant territorial struggle, with this territoriality also generating other conflicts that must be considered.

Without looking in detail at the history of different stances, we must allude to the symbolic dimension resulting from the relationship between humans and nature, and the ways of perceiving the natural environment that give rise to specific social representations (McDermott, 2005). Andean societies established a close and respectful relationship with the natural world. Therefore, the cultural paradigm surrounding these societies included (and continues to include) environmental care, making use of and benefiting from the landscape without generating massive changes

in the occupied areas. However, the European logic differs from this, as the idea that humans were superior to nature and other living beings did not establish a relationship but rather subordinated nature to human interests (Montañez and Martínez Gallardo, 2013).

From this perspective, the Europeanization of America came hand in hand with these conceptions, which saw the free manipulation of the environment and the landscape, to the point of disregarding the harmful effects on fauna, flora, and the inhabitants of these lands (Tudela, 1992). Plant and animal species were considered for their utility by both Indigenous Andeans and Spaniards, although the former understood from their worldview that the relationship between humans and the surrounding environment went beyond productive ambitions. While this is something we will continue to explore, for the case of the Inkas and the Avá, territories were associated with particular biomes; their worldviews being structured by and structuring these relationships. With the arrival of the Spaniards, there was a disruption of the relationships between populations and ecosystems, as the objective of the colonists was the exploitation of natural resources within an emerging capitalist framework. This process, which began over 500 years ago, still resonates today in extractivist mining projects that threaten the homelands of Indigenous peoples in Argentina.

Indeed, the clash of cultures was also evident in their conception of territoriality. Among the Inkas and the Spaniards, this was characterized by formal settlement, thus dominating the territory and its inhabitants, whereas for the Avá, their mobile itinerary meant that occupation of territories was not established through the foundation of cities or the implementation of state bureaucracies. This difference arises from the diverse ways in which the three groups organized themselves politically, socially, and economically. It is also worth noting that the logic of production was not egalitarian for these groups. The Inka organized significant population redistributions but maintained a system that was inward-focused at its core, providing provisions for populations across the Empire and extracting a surplus for the benefit of the ruling Inka elite. The Avá system was also predominantly inward-focused, although it is clear that the Avá in this sense did not seek to generate surpluses, as there was no social stratification that required it, meaning that their system cannot in this sense be described as production-focused. As for the Spanish model, it was oriented toward overseas exports, as the potential gains from the implemented production system were for the metropolis.

Indeed, the use of the landscape took on diverse meanings, as while for some it was the space they inhabited and shared, for others—the Spaniards—the landscape was the means and end to satisfy their economic aspirations—both individual and monarchical. Therefore, the care or mistreatment of nature is a point that should not be overlooked in this analysis. The struggle between these groups—Inkas, Avá, and Spaniards—as already mentioned, was a dispute over territoriality and resources, and this can be observed in the case of mining, with all three groups taking an interest in precious metals. Whether it was for agricultural areas or mineral extraction, these three groups clashed, exerting their material and symbolic power to achieve the deterritorialization of their opponents. The Inkas and Spaniards, by installing and executing their architectural, economic, and social structures and the Avá, disputing power with the Inkas and the Spaniards while also mitigating against the internal concentration of power through constant splintering and decentralization.

Modes of production were intrinsically linked to the environment, and each group developed adaptive strategies to harness the natural resources available in their surroundings. This interaction between Indigenous groups and the Spanish gave rise to a complex network of social, economic, and cultural relations that transcended mere resource exploitation and territorial dominance. Porto-Gonçalves (2009) reminds us that in any territory, multiple forms of territoriality always coexist, each with its own dynamics and meanings. In the case of the Jujuy Valley, this diversity of territorialities was manifested in the clash and interaction between the Inkas, the Avá, and the Spanish, who brought with them their own conceptions and practices regarding the landscape, natural resources, and social organization. This cultural and territorial clash generated conflicts, but also processes of hybridization and mutual adaptation that shaped the configuration of the territory and its use over time.

Final reflections

This work served as an initial exploration into a complex topic, aiming to lay the groundwork for future research and discussions. The case of the Jujuy Valley allowed us to examine the different modes of production present during the Inka period and after the Spanish invasion. In this regard, our approach moved from a micro to a macro scale, attempting to interpret how local phenomena were linked to global phenomena, and *vice versa*.

We observed how the Inka mode of production in the Valley was based on agricultural production linked to the exploitation of resources from the Lowlands. However, as evidenced by research at the Pukara de Alto Padilla, the relationships between the Inkas and their representatives with the peoples of the Lowlands were complex and not necessarily always violent. In the recovered ceramics from the surveys and surface collections, a significant proportion of the decorated pottery corresponds to Yungas and Chaco styles such as corrugated, incised, and textile imprints (Vaquer et al., 2024). Consequently, there was an effective presence of these populations in the *pukara*, or at least close ties with them were established.

The scenario we propose for the Jujuy Valley is that in the early stages of the Inka expansion eastward (possibly before the orthodox historical model), the Inkas or their representatives relied on pre-existing relationships with the Indigenous populations that were not conflictive. With the arrival of the Avá in the 16th century or shortly before, these relationships became problematic and contentious. However, considering the Avá mode of anti-production, attacks were sporadic and isolated at certain times. The raiding mode did not imply an effective settlement in Inka territories. This same mode of anti-production prevented the Inkas from expanding into Avá territories, as, similar to what happened on the borders of the empire with non-centralized social formations, there were no intermediaries to negotiate or establish alliance networks. Although we do not yet have material evidence of the Avá presence in the Valley, their geographic position is right on the border, both east and south, of these peoples.

The Spanish invasion radically altered this scenario. As we have seen, the valley was a central location for communication and the transportation of resources between the Governorate of Tucumán and Upper Peru. Additionally, it served as the gateway for the exploitation of the mineral wealth of the Jujuy Puna. Sources indicate an early Spanish presence in the valley, possibly brought by the Inkas as a solution to the "Chiriguano problem." The Pukara de Alto Padilla (or "Fuerte de Hernán Gómez") was one of the possible sites of this initial Spanish settlement. Subsequently, with a concrete territorial plan, the Spanish attempted to found the city twice, only to be thwarted by the resistance of local Indigenous peoples. This resistance persisted for 30 years and was led by the Omaguaca, Calchaquí, and Avá peoples. It was only after the founding of the city of Salta to the south that the third and definitive foundation became possible.

The foundation of 1593 implied a reorganization of the territories, converting Inka agricultural spaces into cattle-raising areas, integrating the Valley into a circuit of cattle capture and breeding to supply the miners who were starting their work in the present-day provinces of Córdoba and Santa Fe, about 1,000 km south of Jujuy (Conti and Sica, 2011; Sica, 2019) (see Figure 5), and ending in the mining center of Potosí. The urban space of the Valley was modified to meet the needs of the Spanish, and the lands, along with their inhabitants and resources, were distributed in grants. The foundation was the first step in integrating Jujuy into the emerging capitalist system.

From this scenario, which as we have outlined is a first approximation, a series of questions are raised that will guide future research. Among them, we can mention the relationships between the pre-Inka Indigenous peoples in the Jujuy Valley and the Inkas; the role of the Avá in this particular portion of the frontier and their struggle against the advance of the Inkas and Spanish; the urban characteristics of the early foundations and their locations; the relationships between the modes of production described in this work and the particular biomes they encompass. These questions span multiple disciplines such as Archaeology, History, and Environmental Sciences. We take on the challenge of continuing to work in these directions.

However, and we want to emphasize this fact, the resistance of Indigenous peoples has continued and continues today in the face of the advance of extractive mining in their territories. We hope that this work can serve as a contribution to a struggle that has already lasted for more than 500 years.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

JV: Conceptualization, Investigation, Methodology, Writing – original draft, Writing – review & editing. LL: Conceptualization, Investigation, Methodology, Writing – original draft, Writing – review & editing. FS: Conceptualization, Investigation, Methodology, Writing – original draft, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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