Yavi-Chicha and the Inka expansion: a petrographic approach

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The social complexities underlying imperial control are manifest in the material culture of everyday life encountered at archaeological sites. The Yavi-Chicha pottery style of the south-central Andes illustrates how local identities continued to be expressed in practices of pottery manufacture during the process of Inka expansion. The Yavi-Chicha style itself masks a number of distinct production processes that can be traced through petrographic analysis and that relate to the different communities by whom it was produced and consumed. The dispersion of pottery fabric types in this region may partly be attributable to the Inka practice of mitmagkuna, the displacement and relocation of entire subject populations.

Keywords: Inka empire, Yavi-Chicha style, ceramic style, petrographic analysis, mitmaqkuna, imperial expansion

Introduction

Yavi-Chicha is a regional pottery style that was widespread in the south-central Andes of southern Bolivia, north-western Argentina and northern Chile during the Inka expansion of the fifteenth century AD. The accepted concept of style is 'a way of doing things'; in other words, style is conceived as practice, a practice that must have played an active role in establishing social relations (Hodder 1990). Style in archaeology has often been linked with identity, social practices, interaction or the transmission of information (which may include markers of power, ideology or ethnicity) (Wobst 1977; Shanks & Tilley 1987; Berenguer 1998). Similarities in the production and decoration of certain objects allow us to define styles and these convey traces of identity and social agency (Wiessner 1983; Gell 1998). The ceramics that make up the Yavi-Chicha style allow us to explore the way in which ceramic style was related to ethnic identity and imperial strategies.

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The techniques used in the manufacture of the clay body throw particular light on the creation of styles within the south-central Andes during the period of Inka expansion, enabling the identification of social communities. These are revealed by petrographic characterisation of thin sections of vessels from various Inka-period archaeological sites in north-western Argentina and southern Bolivia: it demonstrates that the material falls into a number of distinct ceramic groups. While the *Yavi-Chicha* style is also found in northern Chile, no samples from this area were used in the present study. Figure 1 shows the distribution of *Yavi-Chicha* pottery within the Inka empire.

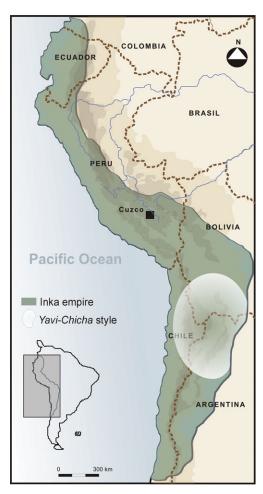


Figure 1. Map of the Inka empire with approximate distribution of the Yavi-Chicha ceramic style in the south-central Andes.

The strategy adopted here focuses on understanding the presence of the Yavi-Chicha style at Inka sites in the study area, and the relationship of this ceramic style to policies of control applied in the provinces of the Inka empire. Two important themes are considered: a) the range of governance strategies and policies that were adopted and that reflected the challenges of diverse societies (Malpass 1993: 238-42; Bauer 2007: 432; Santoro et al. 2010: 47); and b) how local ceramic styles can enlighten us about these various strategies of control, and in particular why these styles were not strongly influenced by Inka administration. The Inka empire, or Tawantinsuyu, extended over 5000km in western South America, from Ecuador to Chile, incorporating different environments and ethnicities with varying levels of political complexity. A range of direct or indirect strategies of domination were performed in the provinces as revealed by Spanish chronicles and the study of archaeological records (Malpass & Alconini 2010). Relations between the state and subjects groups had to be tailored to the existing organisations, capabilities and interests of both the central powers and the provinces (D'Altroy et al. 1994), with different existing scales of control in productive activities, such as

pottery production. In peripheral areas of the empire, such as north-western Argentina, to date there is no archaeological or ethnohistorical evidence of strong state interference in the production of pottery. However, in Bolivia there existed pottery centres like Milliraya (north-east of the Titicaca basin), where numerous *mitmaqkuna* groups settled to produce

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Taraco Polychrome Inka-style pottery, widely distributed in the Kallawaya territory (Alconini 2014).

Style and polity cannot always be equated in Inka provinces due to the continued use of local symbols in state contexts (Hayashida 1999: 347). Hence the social meaning of technological choices must be explored (Sillar & Tite 2000: 12), in particular the selection of raw materials and techniques. This can reflect the diversity of social relations that operated under Inka rule, and which are manifest in the *Yavi-Chicha* style.

The pottery discussed in this paper constitutes one of the most conspicuous ceramic traditions of the south-central Andes from *c*. AD 500 to the time of the Spanish conquest. This tradition had its origin and main distribution area in the highlands of Jujuy and southern Bolivia. *Yavi-Chicha* vessels have also been found in mortuary contexts in San Pedro de Atacama (northern Chile), suggesting that this style tracks pre-Hispanic social interactions at a macro-regional level. These ceramics attained a special significance for modern researchers because of the wide geographic dispersion they achieved during the Inka period, but they also reflected longer-term processes. Ávila's (2009) stylistic studies allow researchers to consider an early *Yavi* component for the Regional Development I period (AD 900–1250) and a late *Yavi-Chicha* component for the Regional Development II and Inka periods (AD 1250–1530; the dates given here for both periods relate to northwestern Argentina).

The feature that typifies this style is the presence of white non-plastic inclusions visible in most ceramic fabrics. In north-western Argentina, ceramics with white inclusions dating to the period of Inka domination are not plentiful (between 1 and 4 per cent of the total pottery found). However, they are always present in settlements, and are considered a hallmark of Inka-period occupation. In addition, *Yavi-Chicha* vessels appear linked to the processes of annexation of north-western Argentina into *Tawantinsuyu* (including hospitality ceremonies, ancestor worship, as possible gifts to local chiefs, and in management and control tasks). As Beierlein (2009) has noted, although in most cases these material remains are not strongly represented in local material culture, this does not mean that their role and significance was not important.

The characteristic *Yavi-Chicha* shape is a small bottle or jar with asymmetric handles (Figure 2). They generally carry black painted designs, and occasionally representations of a figure with a hat (or headdress?). These vessels, as well as bowls and subcylindrical vases with vertical handles, may also display very fine designs that combine spirals, triangles, staggered shapes, scrolls and cross-linked 'amoeboid' strokes (Krapovickas 1984; Raffino *et al.* 1986; Krapovickas & Aleksandrowicz 1986–87; Ávila 2008, 2009).

The southern part of Bolivia and the highlands of Jujuy (Puna) in north-western Argentina comprise a continuous environmental and cultural zone where the origins of the *Yavi-Chicha* style can be established. Through paste petrographic characterisation, manufacturing variations are presented. Also as an example of the wide dispersion of the *Yavi-Chicha* style during Inka times, and its distinct manufacturing processes, comparisons between *Yavi-Chicha* vessels found in the rest of north-western Argentina and those from the core area will be discussed.



Figure 2. Typical vessels of the Yavi-Chicha ceramic style.

Study sample and analytical procedure

Petrographic analysis was conducted on thin sections of 54 ceramic fabrics with white non-plastic inclusions, each from a different vessel. The fabrics analysed were sampled from hundreds of *Yavi-Chicha* sherds from excavated collections or surface materials recovered at different sites (Figure 3). The sample sherd assemblage was specifically selected to include specimens of different ceramic types with white inclusions. For this reason the *Yavi-Chicha* pottery types Yavi Chico Polichrome, Engobe Morado, Portillo Ante Liso, Black Polished, Pink Smoothed, Grey Smoothed, Grey Incised, Orange Polished, Casabindo Painted, Coarse and Inka types were included in the studied sample, due to the universality (at a macroscopic scale) of the diagnostic white non-plastic inclusions.

The specimens come from 19 archaeological sites in north-western Argentina, mostly in the province of Jujuy. The sample also includes sherds from 16 archaeological sites in southern Bolivia (Tarija Department) for comparative purposes. Much of this small collection was assembled after several years of analysing ceramic fabrics from numerous sites located in different environments of north-western Argentina, with special emphasis on the Quebrada de Humahuaca and the 'Puna' in the province of Jujuy (Cremonte 1992, 2006; Cremonte *et al.* 2007). The Quebrada de Humahuaca is a narrow mountain valley located in semi-arid central Jujuy between approximately 1800 and 2800m asl. The Puna de Jujuy is a large desert plateau that extends to the north and west, at an average altitude of 3500m asl. Figure 3 shows the location of the archaeological sites from which the samples originated. This programme of ceramic analysis inspired a growing interest in manufacturing technologies, encouraged by the pioneering work of Krapovickas (1984).

Fifteen thin sections came from Tucute, Capinte, San Juan Mayo, La Quiaca Vieja and Cerro Colorado (Puna de Jujuy) and 16 came from the Quebrada de Humahuaca and its south-eastern edge. Thin sections from a tropical area known as the Yungas de Tiraxi complete the Argentine sample. This latter region includes the sites of Coctaca, Pucara de Tilcara, Pucará de Perchel, Pucará de Volcán, Esquina de Huajra, Álvarez Prado 1 (AP1) and Cucho de Ocloyas. Two samples were selected from the Inka centre Agua Hedionda, located

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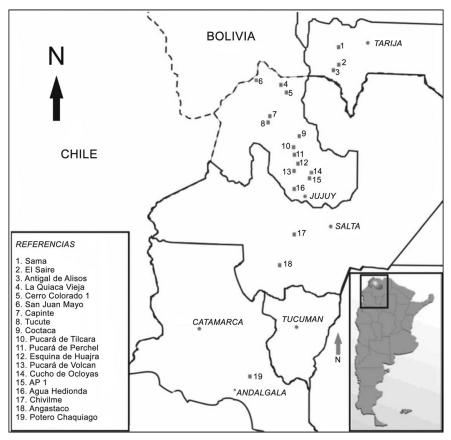


Figure 3. Location of archaeological sites from which the samples used in this study originated.

in the southern valleys of Jujuy. For the samples from the Salta Province, one sherd came from the Inka site of Chivilme (located in the Lerma Valley) and two came from Tambo de Angastaco (located in the Calchaqui Valley). The rest of the Argentine samples consisted of two fabrics from the Inka centre of Potrero-Chaquiago, located in the Department of Andalgala, Catamarca Province. From Tarija in southern Bolivia, 16 fabrics were analysed: 12 from the Sama highland sites of Patancas, Hornuyoj and Quisquincha, and four from the Tarija Valley sites of El Saire and Antigal de Alisos.

Petrographic characterisation used a polarising microscope to: a) record textural characteristics and structures of the clay body (Curtois 1976); b) measure the sizes of non-plastic inclusions and cavities in μ m (100 measurements per thin section); and c) conduct petrographic identification of non-plastic inclusions and their modal distribution by point counter (300 points per thin section) (Whitbread 1989; Freestone 1991; Quinn 2009). The qualitative and quantitative petrographic characterisation permitted the grouping of sample ceramic fabrics by their mineralogical associations.

In addition to these analyses, scanning electron microscopy (SEM+EDS) provided relevant compositional data. The resulting micro-texture and chemical analysis of white non-plastic inclusions complements the results from the mineralogical analysis by XRD.

This is not explored in detail here, but is touched on for comparative purposes in the next section.

Results of petrographic analysis

The results discussed below confirm, first, that most samples contain white inclusions of the same composition, suggesting they were included as temper. Second, they indicate the existence of macroscopically similar but petrographically different white inclusions in a limited number of fabrics. Finally, they establish significant petrographic and textural variation in the category of fine fabrics, and similarities between samples from north-western Argentina and southern Bolivia.

Composition of white non-plastic inclusions and their use as temper

In 85 per cent of the fabrics studied, the white non-plastic inclusions were rounded fragments of fine grained sedimentary rocks (altered pelites). The characteristics and likely origin of the raw material selected for temper were explored through field observations using experimental briquettes (Figure 4a) and compositional analysis through X-ray diffraction (XRD) and SEM (EDS).

The petrographic analysis of thin sections revealed that the white non-plastic inclusions were mostly sedimentary rock fragments altered to muscovite-sericite and quartz (Figure 4b). These sedimentary rocks (altered pelites) could be accompanied by sandstones or silty sandstones (greywacke). Likely places of origin of these rocks were examined.

The thin section of a typical Acoite rock formation (Turner 1960) from the Chocoite creek, in the north-western Puna of Jujuy, showed the same texture as that observed in non-plastic inclusions in the ceramic fabrics. This rock was formed by intense hydrothermal alteration of limonite or claystones, resulting in the modification of its mineralogical origin, and leading to the formation of sericite-muscovite and quartz. The sericitic component appeared as very thin muscovite platelets of high birefringence.

The Ordovician Acoite Formation (Santa Victoria Group) has a very wide distribution in the Puna, extending northwards from the Argentine province of Catamarca to the Bolivian border. The Independencia Formation (Upper Arenig strata) belonging to the Cochabamba Group in Bolivia has the same characteristics as the Acoite Formation and a large areal distribution (Figure 4).

Analysis showed that the white inclusions in the fabric were rounded. This implied that they occurred naturally in sediments that had been added to the clay, rather than obtaining them through grinding the rock and adding them separately.

Field observations located a fluvial deposit with these features on the right bank of the Sansana River very close to the archaeological sites of Cerro Colorado and Yavi Chico on the Puna de Jujuy. The fluvial material is an aggregate of sandy, conglomeradic and unconsolidated silty clay sediment, represented by particles ranging from the clay fraction (<0.002mm) to gravel 2–4 mm in diameter. In this deposit, rounded fragments of pelites, siltstone and sandstone were well represented. This sediment was used to make experimental fabrics: this demonstrated that these white inclusions were similar to those found in archaeological fabrics (Figure 5a & b), reinforcing the hypothesis of their use as a pre-Hispanic temper.

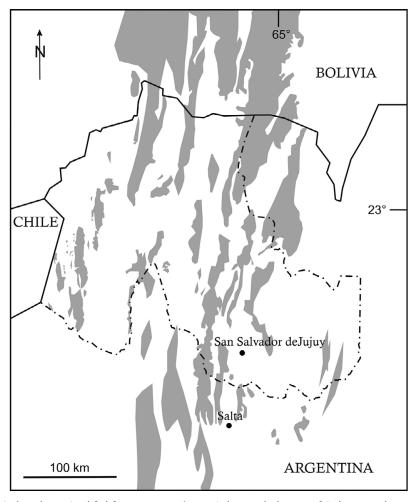


Figure 4. Geological map (modified from Vaccari et al. 2010) showing the location of Ordovician sedimentary sequences (light grey) belonging to the Santa Victoria Group (Argentina) and the Cochabamba Group (Bolivia).

XRD analysis of the white inclusions revealed that they were, in the majority of cases, quartz minerals and aluminosilicate. The latter varied from illite (PDF24-495) to muscovite (PDF 80-743). Electron microscopic (SEM+EDS) analyses of three samples of white inclusions extracted from the same fabrics showed similar compositions of aluminosilicate content. These analyses suggested the presence of muscovite, illite and sericite, mineral types that differ only slightly in potassium content. The results obtained by XRD and SEM (EDS) were consistent with the petrographic determinations from the polarising microscope.

Another important observation emerging from these analyses was that the XRD analysis confirmed the continued presence of illite, and revealed that it had maintained its structure and visualisation. This indicates that the firing temperature of the ceramic vessels could not have exceeded 700°C (the decomposition temperature of illite). Moreover, this firing temperature (below 700°C) could have contributed to the process of transformation of

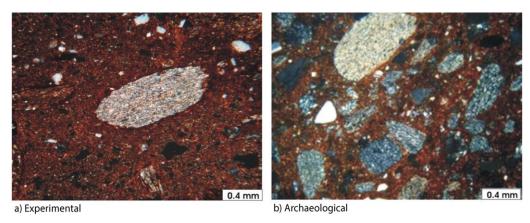


Figure 5. Photomicrographs of altered pelites (white non-plastic inclusions) in: a) an experimental fabric; b) an archaeological fabric.

(unstable) sericite into muscovite. Thus the presence of muscovite could be attributed to the mineral types originally incorporated into the ceramic, or could be the result of a thermal conversion process in the manufacturing stage related to vessel firing (Cremonte 2014: 231).

Most Quebrada de Humahuaca fabrics, from Coctaca, Pucará de Tilcara, Pucará de Perchel and Esquina de Huajra, were very similar, comprising 20–30 per cent generally rounded altered pelites, rare sandstone grains, abundant quartz and rounded plagioclase (Figure 6a). Samples from the Inka centre Agua Hedionda, located in the southern valleys of Jujuy, should be added to this group, as should the western Puna de Jujuy samples from Tucute, Capinte and San Juan Mayo. Sherds with this type of fabric could be assigned—or would correspond—to the Yavi Chico Polychrome, Casabindo Painted, Black Polished, Pink Polished, Pink Smoothed and Engobe Morado styles.

Composition of petrographically different white non-plastic inclusions

Some samples differed from those above in that they contained white inclusions corresponding to other minerals and rocks. One was found in the two fabrics from the Inka centre of Potrero-Chaquiago (Department of Andalgala, Catamarca Province) corresponding to the Inka Black on Red and Yavi Chico Polychrome styles (i.e. the upper body of a bowl decorated with very diluted paint traces). In both fabrics, the white inclusions were rounded fragments of vitroclastic rock (the raw material would be a pumice-like rock or ignimbrite), as seen in Figure 6b.These same inclusions were found in other Inka and Potrero-Chaquiago *Yavi-Chicha* sherds.

Another case was found in three sherds from the Tarija valley, two of them with purple slip (i.e. 'Engobe Morado') and the third with black polished surfaces. In these fabrics the white inclusions are sandstones (Figure 6c). The fabric of a Black on Red Inka plate from Pucará de Tilcara closely resembled these Tarija samples, comprising nearly 23 per cent fine sandstone and only 10 per cent altered pelites. The Light Grey sherd Sama3 from the site of Patancas presented the same altered pelite/sandstone relationship, but its textural characteristics differed. The Black Polished sherd Sama11 revealed very different fabric

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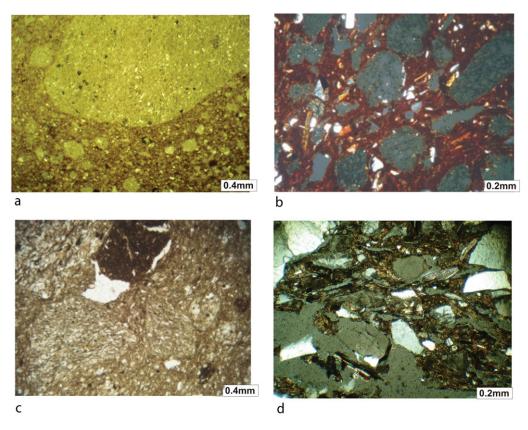


Figure 6. Petrographic varieties of white inclusions: a) altered pelites; b) pumice fragments; c) fragments of sandstone; and d) fragments of granite and granodiorite.

elements such as abundant coarse-grained granite and granodiorite fragments associated with K-feldspar, perthite, plagioclase and abundant quartz. This was responsible for the white colour of the non-plastic inclusions (Figure 6d).

Composition of white non-plastic inclusions indicating geographic variations and similarities

Fine fabrics comprised a heterogeneous group in terms of matrix structures, including the presence and absence of some components and their relative percentages. The sample from the Inka site of Chivilme (Lerma Valley, Salta) with a purple slip differed in presenting some andesite (suggesting a volcanic environment) and shale, accompanying a few altered pelites in sizes greater than 15μ m. Similar mineral profiles were found in samples Ma3 and Ma6 from Quiaca Vieja (the latter incorporating a higher percentage of white inclusions), and the two Yavi Chico Polychrome sherds Ma4 and Ma7 from the same site. Bolivian fabrics from Patancas were also similar, consisting in both cases of Polished Orange ceramic. A fine-ware sample from Pucará de Tilcara resembles a purple polished sample from the Inka garrison of Cucho de Ocloyas (Yungas de Tiraxi). Two specimens from Angastaco (midvalley Calchaquí, Province of Salta) were also fine fabrics. The latter had less than 10 per

cent altered pelites, but both also contained some grog, as do other ceramics manufactured locally (Cremonte *et al.* 2010). These sherds, then, were similar to each other, but not to any others in the sample presented here.

Discussion

As stated above, a feature of the pottery contexts of the Inka-period occupations in north-western Argentina is the inclusion of *Yavi-Chicha* vessels accompanying other local or provincial Inka styles. A large proportion of these vessels reveal white inclusions in their fabrics, suggesting a Puna or southern Bolivian highland manufacturing tradition.

Given the variety of mechanisms employed by the Inka administration in their economic policies, the presence of these ceramics could be due to a variety of situations (D'Altroy et al. 1994; Williams & D'Altroy 1998). As demonstrated above, different behaviours can be identified in the manufacture of the vessels with white inclusions in relation to their petrography and stylistic attribution. Such pots might correspond to: 1) vessels displaying Yavi-Chicha iconographic elements, and fabrics with white inclusions indicating a uniform petrography which includes altered pelites; 2) vessels displaying Yavi-Chicha iconographic elements, and fabrics with white inclusions corresponding to different and varied petrography; and 3) vessels displaying other decorative traditions (i.e. Casabindo Painted, Black Polished, Inka local types, etc.) and fabrics with white inclusions of varied petrography.

There are several possible explanations for the presence of such ceramics in Inka contexts at archaeological sites in north-western Argentina.

In Pucará de Tilcara, *Yavi-Chicha* vessels with white inclusions in their fabrics and fine Inka types were distributed in the sector of the settlement with more sophisticated architecture. They were spatially associated with Inka constructions located in the highest part of the settlement corresponding to the ceremonial centre. These ceramics would have been used as status elements by the Inka administration.

In Esquina de Huajra (an Inka settlement located in the central-southern sector of the Quebrada de Humahuaca), ceramics with white inclusions comfortably echo those of other sites in the region. They are similar to fabrics from the Casabindo area of the western Puna de Jujuy where Casabindo Painted sherds with white inclusions are also frequent. These latter sherds are interesting because they are not common in the Quebrada de Humahuaca in general, while vessels bearing white non-plastic inclusions were not previously seen in the Casabindo area either. There was perhaps a link between Esquina de Huajra and inhabitants of the western Puna. Huajra may have been a point of convergence or node in regional caravan networks from which certain non-local ceramics and other goods, such as coloured mineral powders and turquoise beads found in some burial offerings, would have originated (Cremonte *et al.* 2009).

Population groups (*mitmaqkuna*) may also have been moved by the Inkas to meet increasing labour requirements, as was common throughout the empire: that also may have brought this new material tradition to the region. Cucho de Ocloyas was a small Inka garrison located in the eastern part of the Quebrada de Humahuaca, on the eastern Inka frontier. It was in a *yungas* (subtropical mountain forest) environment, facing a natural

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entrance from the forested plains of the Chaco. At this site, sherds with white inclusions were treated with a polished purple and orange slip. These were small open vessel fragments assignable to the *Yavi-Chicha* style accompanied by other Humahuaca Inka specimens, and a significant set of corrugated and unguiculated (nail-decorated) ceramics, some with ropelike impressions which have been assigned to Chaco traditions. *Yavi-Chicha* ceramics and Inka fine-wares likely reflect *mitmaqkuna* whom the Inka administration installed here in order to control the extraction of *yungas* resources and to increase interactions with Chaco groups (Cremonte *et al.* 2005). A similar situation could explain the presence of *Yavi-Chicha* remains in the Inka centre of Agua Hedionda (Cremonte 2007).

In the Potrero-Chaquiago administrative and manufacturing centre (Andalgala Department, Catamarca Province), none of the *Yavi-Chicha* sherds had white inclusions derived from altered sedimentary rocks; instead they were rounded pumice fragments. This further demonstrates the close correlation between *Yavi-Chicha* and Inka pottery because the latter usually show pumice inclusions in their pastes, and in the way in which, using other raw materials, the same visual effect in fabrics could be achieved. The use of pumice (volcanic) fragments in place of altered sedimentary rocks was originally interpreted as the work of *mitmaqkuna* potters from the 'Puna or Altiplano' (Cremonte 1991; Williams & Cremonte 1994). This hypothesis warrants re-examination following the identification of fabrics with smaller but very abundant pumice fragments in Inka Pacajes style fragments from northern Chile and other north-western Argentinian Inka sites. These volcanic fabrics indicate a different manufacturing tradition, though probably one of highland origin as well.

Among the many questions arising from these studies is the possibility that these white non-plastic inclusions carry ethnic significance, perhaps pertaining to the ethnohistorically identified *Chichas*. Initially, white inclusions seemed to correspond to 'traditional' manufacturing behaviours found in earlier contexts of the Argentine Puna, and at those sites in the Quebrada de Humahuaca which are assignable to the Regional Development I period (c. AD 900–1250), although that may be earlier. In the Puna, fabrics with white inclusions predominated in the Portillo Ante Liso type of the Cerro Colorado Phase, chronologically located in the second half of the first millennium AD. Isla-style containers in the Quebrada de Humahuaca incorporate the same white inclusions (c. AD 700–1100). In addition to the pre-Inka traditions, even earlier manufacturing traditions with similar aesthetics existed before the creation of what we now call *Yavi-Chicha*.

On the other hand, not all ceramic types assignable to the *Yavi-Chicha* style have white inclusions. Perhaps potters were able to select different materials to be added as temper or chose not to add any at all, as seen in the fine-wares studied here. No direct correlation between the decorative treatment of surfaces and the presence or absence of white non-plastic inclusions was identifiable in this study. A paradigmatic example was the Yavi Chico Polychrome style: this type of decoration was present on almost all possible ceramic fabric types. Co-variation between fabric type, decorative or morphological attributes, and contexts of use were not explored in the present study and remain vital next steps in this discussion.

Technological concerns remain. Were white inclusions added to promote the longevity of the vessel, in order to protect against thermal shock and ensure fracture-resistent or

crack-resistant walls? Although altered pelites were the most common inclusion, other materials—such as pumice, sandstone and granite-granodiorite fragments—were also used, suggesting longevity was not the ultimate motivation. Mineral modifications leading to greater wall strength could not be expected from these rock fragments as their rounded shapes are not conducive to good sintering (bonding or cementation) of the clay matrix. Nor do they seem to have been subjected to firing temperatures exceeding 700°C.

We more likely find the meaning of the white inclusions in the symbolic dimension. Their sharp contrast in a commonly pink matrix, often visible on the internal and external surfaces of the sherd, may have had an important aesthetic effect. Perhaps we are witnessing a 'way of doing things' or 'our way of doing things' aimed at achieving a specific design manifestation. The importance of surface appearance could explain the replacement of one raw material by another, giving a similar appearance to the vessel surface, regardless of design style or tradition. The choice of tempering material was hence used to make visual statements by intentionally manipulating the surface appearance of the vessels. From this perspective, although the significance of different pottery fabrics may be difficult to grasp, we must not underestimate their role and importance within the framework of specific social practices that constitute 'style' as it is currently conceived in archaeology (Conkey & Hastorf 1990; Arnold & Hastorf 2008).

Conclusion

In the Inka empire, tribute was exacted through labour rather than goods. Production, therefore, was based on the traditional knowledge of the producers. The state may have encouraged the production of local styles so that the contribution of particular ethnic groups was highlighted (Hayashida 1999). The fabrics analysed in this study are therefore likely to have been material expressions of identity. The identity that was captured in this way, however, would refer back to a group memory of historic relevance throughout a macro-regional area that included Bolivia's southern highlands and the north-western sector of Argentina. Interestingly, this style, which is found embodied in ceramic fabrics, appears to have been used preferentially in particular contexts. This fact serves to track different practices of social interaction and control employed during the period of Inka domination. The discovery of Yavi-Chicha pottery and Inka fine-wares together in ceremonial contexts could imply a desirable preferential elevation of this local tradition. Alternatively, the survival of localisms through the application of different technological choices might have had a hidden or silent meaning among the potters and consumers of that style, perhaps representing resistance against the imperial power by local populations that had been subsumed into or relocated (as *mitmagkuna*) within the Inka realm.

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