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Daily practices and early village settlement. Dynamics in North-western Argentina.

Julián Salazar.

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The Origins of Food Production

Los orígenes de la producción de alimentos



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The Origins of Food Production

Los orígenes de la producción de alimentos

NURIA SANZ
Editor



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The Origins of Food Production
Los orígenes de la producción de alimentos

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Daily Practices and Early Village Settlement Dynamics in North-western Argentina

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Abstract

This chapter discusses comparative data on daily practices, household materiality and settlement patterns from north-west Argentina and addresses the question of early village formation, growth and abandonment from the perspective of social actors engaged in this process. This approach, which takes into account the recursive relations between objective structures and practices, not only illuminates the agents and social scales articulated in the process of village life expansion in the south Andes, but also contributes to understanding the similarities and variations with other cases on a global scale. The earliest village settlements in north-western Argentina started to grow after 2500 BP. During the first millennium AD, several sedentary agropastoral settlements systems were founded, expanded, transformed and abandoned during the Formative or Early period. As in many regions worldwide, there is clear evidence of rapid demographic growth, as well as the development of intensification strategies and a high degree of landscape domestication. Nevertheless, particular historical trajectories that shared some of those features were not identical worldwide. In several south Andean cases, residential sites tended to spread out along the landscape keeping considerable distances between houses and fields, precluding the formation of really large and clustered village settlements. These processes lead complex demographic contexts with the development of densely inhabited regions but with scattered and spaced layouts. One clear example of this particular setting that is discussed in this chapter was recorded on the Tafi Valley, a high elevation basin located in north-west Argentina.

Introduction

Early village landscapes constituted new social contexts for human life. Sedentism, agropastoral labour, demographic growth and the aggregation of people set up new ways of establishing, changing and managing social relationships. This new social, adaptive and ideological milieu was faced with the development of traditions of practices which

were created and sustained through the repeated cycles of daily life and materialized in the archaeological record (Bandy, 2010; Bocquet-Appel, 2008; Hodder and Cessford, 2004; Kuen Lee, 2007; Kuijt, 2008; Schachner et al., 2012). Life in these contexts was provisional, improvisational and innovative and in a real historical sense the social developments that took place in these societies were generative (Bandy and Fox, 2010). The ways of living, social relationships, power structures and belief systems that came into being in various locations around the world, which were both the medium (conditions allowing) and the artefacts (products) of becoming villagers, could be understood as varying historical responses to similar cross cultural conditions.

The Neolithic transition was understood, in classic evolutionist approaches (for example, Childe, 1925), as the adoption of a monolithic package of interlinked cultural traits: agriculture, sedentism and pottery, defining a new way of life and a new social and spatial setting: villages. From the evolutionist standpoint this human achievement was a necessary step upon which more complex and hierarchical societies could develop and, in accordance to this expectation, the Neolithic was studied within a teleological framework in order to explain the forthcoming phenomena rather than the dynamics of the people engaged in those processes. As a consequence, trajectories where no complex social polities or states emerged were dismissed (Fox, 2010).

In the last decades, different research projects have shown how variable, complex and reversible the transition from hunter-gathering strategies to an agropastoral way of life could be. Researchers have especially stressed the importance of understanding historical trends lacking a state or chiefdom formation to establish alternative pathways of social evolution and the variable and non-essentialist ways in which economic, political and cultural aspects of human practices may have been engaged in the formation and reproduction of historical processes (Drennan and Peterson, 2008; Fox, 2010; Pauketat, 2007; Yoffee, 1993).

Different approaches interested in early village societies have shown that early permanent population concentrations were frequently unstable. It is recognized that there is a clear relation between the rapid growth and the dynamics of the early village settlements (Bocquet-Appel, 2008), fission being the predominant mechanism for resolving intra-village conflict (Bandy, 2004; McAndrews, 2005). According to this explanation the only way to overcome demographic thresholds of conflict and prevent an endless fission process, was to develop higher level social institutions to handle information contradictions (Bandy, 2005).

This proposal was capable of explaining the onset of hierarchical and centralized polities in several trajectories. The problem with this approach is that it assumes that the 'new' institutions and practices were those higher level ones, and that other sequences, for example, those where no collective supra-household institutions appeared and no large village sites were formed, continued using 'old' and almost 'natural' ways of fission. All the responses to the stresses associated with the adoption of agriculture, sedentarisation and crowding are at some point new and generative, considering they constitute social behaviours without comparable material correlates before this point in the archaeological sequences. Nevertheless none of them is totally new, because each is developed by agents whose cultural structures were reproduced in precedent social, political and demographical contexts that had great variability. Thus, if we are to understand the question of becoming villagers worldwide, as I think we must in order to explain particular cases, we must also understand those cases where crowding and supra-household structures were rejected, but in which other kinds of community were created to share work, for protection, to avoid risk and especially for social and biological reproduction. In other words, we should take into consideration all of the different ways of living together, which appeared after the adoption of agriculture and sedentary life.

This paper discusses comparative data on daily practices, household materiality and settlement patterns coming from north-western Argentina and addresses the question

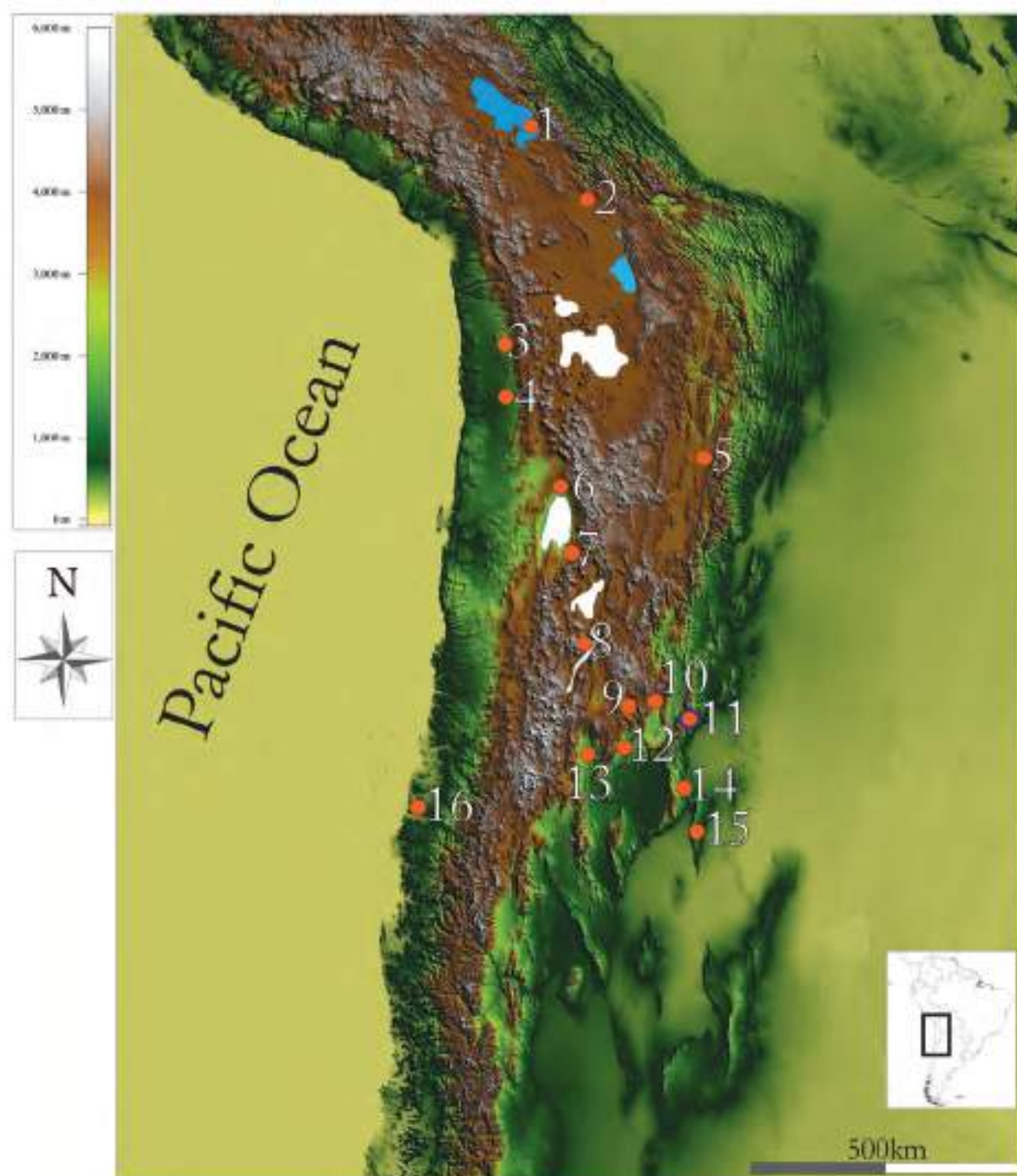
of early village formation, growth and abandonment from the perspective of social actors engaged in this process. This historical approach, that takes into account the recursive relations between objective structures and practices, sheds light on the agents and social scales articulated in the process of the expansion of village life in the south Andes, and contributes to the understanding of the similarities and variations with other cases on a global scale.

South Andean Early Village Landscapes

The south Andes include a vast region that consists of the extreme south of Peru, the south-west of Bolivia, the north of Chile and the north-west of Argentina, from the Titicaca Lake to Mendoza province in Argentina, and from the Pacific Ocean to the eastern slopes of the Andes (Figure 1). This large region was unified around the fourteenth century by the Inka Empire and formed one of the four *suyus* of the Tawantinsuyu: the *Qollasuyu*. However, it had previously been really diverse and heterogeneous, including different trajectories in terms of chronology, demography, and the social and political structures that developed.

The Formative Period in the northern area (3600 – 2000 BP), was characterized by the appearance of large and clustered villages with ceremonial architecture, such as Chiripa settlements, and the foundation of social institutions such as the Yayamama religious tradition which continued with the formation of the Tiwanaku state, 1600 – 900 BP, (Bandy, 2001, 2010; Stanish, 2003). In the Bolivian Altiplano, another cultural process was developed by groups of food producers, especially herders, known as Wankarani. Wankarani sites are quite small tells spread out in a scattered layout. Previously interpreted as sedentary villages during a process of landscape colonization through a fission-growth process (McAndrews, 2005), they have been recently redefined as the result of small and transhumant herder groups moving around the Andean highlands in certain occupational cycles which formed that particular archaeological pattern (Capriles, 2014; Fox, 2010).

The southern area, although sharing a common cultural background with Andean societies, has followed a unique



- | | | | |
|---------------|----------------|--------------------|-------------------|
| 1- Chiripa | 5- Yavi | 9- Laguna Blanca | 13- Sanjil Valley |
| 2- Wankarani | 6- San Pedro | 10- Cajón Valley | 14- Ambato |
| 3- Caserones | 7- Tulán | 11- Tafi Valley | 15- Ancasti |
| 4- Guatacondo | 8- Tebenquiche | 12- Hualfin Valley | 16- El Mollo |

Figure 1. South Andean Region map with a selection of early village cases. © Julián Salazar



Figure 2. Tafi Valley, a typical Keshua Landscape: a sight of southern extreme of Cumbres Calchaquíes Range during winter, the driest season. © Julián Salazar

developmental trajectory (Leoni and Acuto, 2008; Pérez Gollán, 1992). Productive strategies were introduced by north-western Argentinian hunter-gatherer groups around 3500 BP through an enduring and complex process of regional population reorganization, mobility reduction and an increase of territoriality. The earliest village settlements started to grow after 2500 BP. Around the first millennium of the Christian Era, several sedentary agropastoral settlement systems were founded, expanded, transformed and abandoned, in the process defined as the Formative period (2500 – 1000 BP).

As in many areas worldwide, there is clear evidence that this process implied a rapid demographic growth, as well as the development of intensification strategies and a high degree of landscape domestication. Nevertheless, many villager populations were characterized by a tension between the aggregation of communitarian collectives and the fragmentation of segmentary groups with some

degree of autonomy, defined by productive and storage scale, residential settlements' distribution and ceremonial public places (Bandy, 2005; Fox, 2010; Haber, 2007; Leoni and Acuto, 2008; Sanhueza and Falabella, 2007). In most cases, residential sites tended to spread out along the landscape keeping considerable distances between houses and fields. This process did not finish with the formation of really large and clustered village settlements, but rather with the development of densely inhabited regions with scattered and spaced layouts.

North-west Argentina (NWA) is ecologically defined by the presence of the Andes chain, and the ecological conditions are related directly to altitude above sea level, which sets the annual rains, access to humid winds, frosts and therefore the possibilities for producing different and very specific crops. NWA could be divided into three ecological altitudinal zones.

Yunga (800–1800 metres above sea level) is formed by the eastern slopes of the Andes, where almost all the humid Atlantic rains fall, producing a dense forest. Environmental difficulties for field work have prevented the development of archaeological research on this ecological step, but we know that, although agriculture or horticulture had been introduced at an early date, their inhabitants never totally reduced their mobility; they continued combining several food procurement strategies, within which hunting and gathering continued to be important along with horticulture and fishing (Ortiz et al., 2012; Seldes and Ortiz, 2012). *Keshua* (protected valley in *Qichua* language) are the high (1800–3000 metres above sea level) intermontane valleys of the Andes, which get some summer rains and have fertile soil on which to grow corn, squash and beans. They were intensely populated during the Formative period, and therefore archaeological research has traditionally concentrated on early village archaeological contexts (Tarragó, 1999). *Suni* and *Puna*, are two different

ecological steps of the high plateau, from 3000 to 4500 metres above sea level, with a dry environment and an overall scarcity of water sources. Nevertheless it presents some oasis and localized areas with important resources for Andean adaptations: grasslands for herding, lithic raw materials, and salt. Although agriculture is difficult, micro-thermic crops such as potato and quinoa were grown and complex irrigation networks in some special locations such as oases were developed (Quesada, 2006).

Palaeo-environmental studies showed that the environmental conditions during the first millennium of the Christian Era were more humid and colder than today, allowing vegetal coverage to grow in higher altitudinal zones (Caria and Sayago, 2008; Grill et al., 2013; Sampietro Vattuone, 2002). This was a key aspect for encouraging crop production and the expansion of agriculture all over the region. Different archaeological complexes associated with food producers and settled societies appeared and grew in a few centuries in *Keshua* valleys and *Suni* basins.

Tafí Valley

The Tafí Valley first millennium agropastoral occupations are one of the most important early village case studies in Argentina. Tafí is located in the north-west of Tucumán Province and it is part of the *Keshua* ecological zone described earlier (Figure 2). It is a small triangle like basin emplaced between two main range chains: Cumbres Calchaquíes, on the north, and Aconquija, on the south. Between 2300 and 1200 BP farmers and herders inhabited the Tafí Valley, building household compounds and agropastoral infrastructure on alluvial fans (Berberian and Nielsen, 1988; Duglosz et al., 2009; Franco Salvi et al., 2012; Gómez Cardozo et al., 2007; González and Núñez Regueiro, 1960; Oliszewski, 2011; Sampietro and Vattuone, 2005).

Over the last five years, field surveys in the northern Tafí Valley have focused on a 10km² area in the sectors of La Bolsa and Carapunco, recording all the archaeological features on the surface and developing a relative chronology. This includes the identification of potential archaeological structures using aerial photography, direct ground survey and field identification, mapping of archaeological features

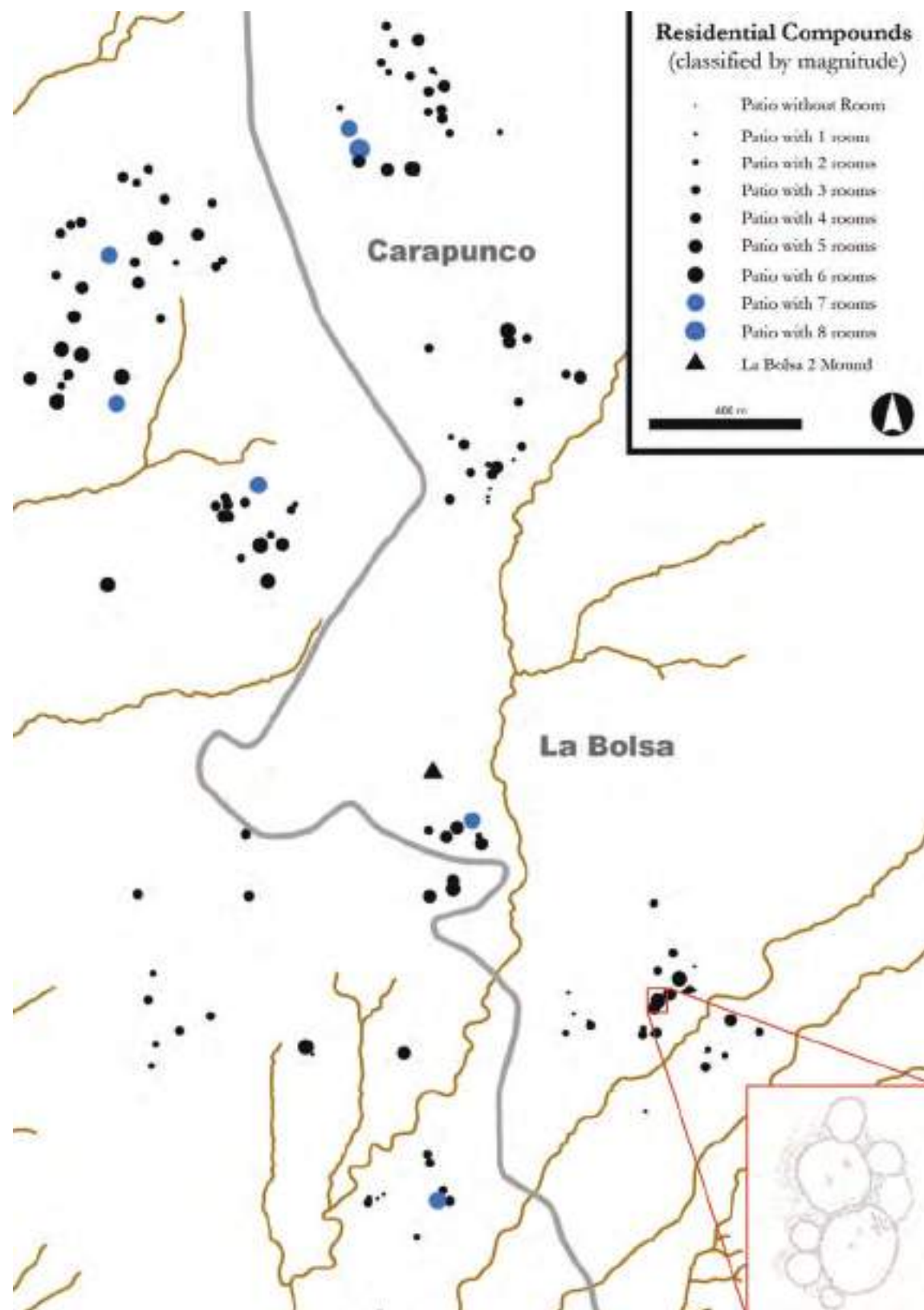


Figure 3. Archaeological household compounds, dated to the first millennium, recognized on North Tafí Valley surveys. © Julián Salazar

and relief topographic characteristics, and the use of transects and quadrats for collecting material in random sampled surfaces.

The surveys allowed the identification of a dense first millennium occupation, formed by houses, crop growing plots, corrals, irrigation devices, a ceremonial mound and other functionally undetermined structures (Figure 3). A total of 156 dwelling compounds were identified, implying 30,000 m² of built indoor space, 16,000 m² of them with roofs. In general terms the household compounds illustrate a similar occupational record, including residential buildings, crop growing structures and cattle handling enclosures. Some of these residential buildings are isolated, dispersed multifunctional compounds. In other cases, however, there are numerous residential clusters, associated with enclosed unroofed areas and functionally specialized features. In close association with residential occupations, 303 agropastoral enclosures, corrals and crop growing plots and 28 terraced fields were located, making a 53,000 m² productive surface. Lithic and pottery samples collected on transects and quadrats show a clear chronological association of almost all these surface features to the first millennium of the Christian Era.

Far from being an exceptional clustering of Formative sites, almost all of the inhabitable places of the Valley and nearby areas, especially the alluvial fans, were also densely occupied during this period. Figure 4, for example, shows the Río La Puerta alluvial fan, one of the largest residential compounds clustering in association with production-related structures. Figure 5 shows the first millennium dwelling compounds located at 3,000 metres above sea level on La Ciénega (Cremonte, 1996), a high ravine located close to the west of the Tafí Valley. If we consider that only a few occupations previous to 2500 BP have been recognized so far (Martínez et al., 2013), it is clear that demographic conditions in the region changed dramatically after the adoption of agriculture and sedentary life. If we take this to a wider scale, comparing the number of dated contexts and recorded sites, even including the agrocentric archaeological tradition that dismissed hunter-gatherer research, almost all the valleys of north-western Argentina show evidence of demographic growth in this period.

Despite the important occupation recognizable in the archaeological record, human groups living there never formed very crowded village settlements, as the classic Neolithic model describes. Although they formed some residential compound clusters, for almost a millennium they did not produce large and dense residential sites but



Figure 4. Satellite image of Río La Puerta alluvial fan archaeological occupations. This image shows the effects of current houses and neighborhoods on the archaeological sites. © Julián Salazar

generated continuous and fragmented village landscapes. Continuity is defined by the high overall occupation of the land, the absence of limits or borders between settlements, and the recurrence of dwelling compounds as the main features constructing the landscape. Fragmentation is characterized by the sustained spacing between houses, the absence of public spaces ordering the spatial distribution and fragmented and identifiable crop growing plots. A closer analysis of one of these settlements could give a clearer view of the early village context of this region.

La Bolsa 1 (LB1)

La Bolsa 1 is a clustering of household compounds located on an alluvial terrace in the north area of the Tafí Valley, inhabited between 2100 and 1200 BP (Figure 6). This settlement includes 21 household compounds and a 25-hectare complex system of agricultural structures. The site layout shows a spontaneous outgrowth rather than

strong communal planning. Household compounds are spatially segregated architectural units of about 200 m² that consist of food storage space, craft production areas and areas demonstrating strong traces of kin identity. The dwellings include circular structures around an open patio, built with big stone masonry. The chronology shows that this site was occupied all through the first millennium AD.

The occupation of alluvial terrace LB1 began around the second century BC. The earliest evidence comes from an excavated cultural midden associated with a water managing channel crosscutting the settlement. This drainage system controls rainy season rapid flooding and facilitates irrigation of lower fields. The recovered pottery assemblage from this midden consists of coarse red pottery with thick inclusions (91.2%) and a lower proportion of fine red and orange groups with thin inclusions (7.2%). The recovered animal fauna include *Camelidae* sp. that is radiocarbon dated to Cal. BC 360–270 (AA81302: 2,110±66 BP) (Franco Salvi and Berberían, 2011). There are limited remains from this early occupation but they demonstrate

the presence of agriculture in the region before 2,000 years ago. This is accompanied by other remains, including a crop growing terrace with a cache of llama (*Lama glama*) remains which suggests the presence of fertility and agricultural rites occurring at Cal. 70–210 AD [AA89140: 1,883±46 BP] (Franco Salvi and Berberían, 2011). This ritual cache includes the skull and four flexed, articulated limbs of an adult llama, covered by a little rock mound.

The construction of the earliest dwellings occurred around 2,000 years ago and, many of these, such as U14 residential compound, were used for hundreds of years after this point. For example, the burial cist in the centre of the open courtyard of the U14 residential cluster has been dated to Cal. AD 139–313 [AA85756: 1799±37 BP]. Four radiocarbon dates from the last occupational floors demonstrate that this building was still in use around Cal. AD 690–860 (Salazar, 2010).

As the C¹⁴ dates show, many of these houses were occupied, at times intermittently, over a long period, with structures enduring almost ten centuries. Developing a complete, dynamic, detailed settlement biography is a difficult, if not logistically impossible, task. Available data highlight that we need to think of house clusters and terraces as forming a multi-temporal landscape where select practices were materialized in the archaeological record. With repeated use, moreover, they were modified, cleared and created a complex palimpsest of human action (Bailey, 2007). The continuity of these practices in the construction of houses, settlement layout and agricultural features illustrates a long-term social logic and a period of stability. It is possible that these dwelling clusters were spontaneously produced by autonomous households organized around distinct roofed residential and non-roofed courtyard spaces. This is seen in three ways.

First, residential compounds were always built as distinct isolated units, separated from other dwellings. Each one formed a cell, separated from the next one by distances from 2m up to more than 100 m. When viewed from outside the building they constitute clear units, desegregated from the other residential compounds. From inside, the experience of sensorial features such as sound, view or smell coming from neighbouring houses is totally restricted. The spatial separation of these household units supports arguments for a degree of privacy and independence from other households.

Second, space within the Tafi Valley Formative communities was symmetrically organized and distributed. Spatial syntax



Figure 5. Archaeological house compounds in La Ciénega ravine (3000 metres above sea level). © Julián Salazar

analysis is a proper tool to think about spatial structural principles especially spatial distribution, access, freedom and restriction for movements around and control over certain places and features within landscapes. Alpha analysis (Bermejo Tirado, 2010; Hillier and Hanson, 1984) is the study of settlement space through axiality and convexity, and we think it could be a useful way to understand how people moved throughout these particular village landscapes.

This methodology recognizes four spatial categories that constitute a bipolar sequence from built environment to exterior areas of the site: 'X' (primary settlement cells, in this case dwelling compounds); 'x' (secondary limits, as gardens or productive structures); 'y' (settlement open space) and 'Y' (exterior). The spatial structure of 'y' is considered in terms of axiality, maximum extension of linearly unified system of space and convexity, maximum extension of bi-dimensionally unified spaces. In order to trace the convex map, minimum number of convex spaces covering 'y' were drawn. In turn, axial map implied drawing

as long of lines as possible, in such a way that all convex spaces and axial lines were crossed without repetition.

In LB1, 36 built islands (15 X y 21 x) and within outdoor space, 64 convex spaces and 33 axial lines were identified (Figure 7). This quantification allows us to calculate some indexes which describe the distribution and symmetry of inhabited settings: Convex Articulation (N Convex Space / N Island) = 1.78; Axial articulation (N Axial Lines / N Islands) = 0.92; Convex Space Axial Integration (N Axial Lines / N Convex Spaces) = 0.52. These indexes show that 'y' space (open spaces within settlements) on LB1 was neither divided nor hierarchized. There are no segregated open spaces; all spaces are accessible both for circulation as well as for perception. If we consider space syntax in terms of distribution and symmetry, LB1 is a distributed system, where several possible paths link convex spaces between each other. This system is symmetric because there are no obliged places to cross in order to have access to another one. In Hillier and Hanson's terms (1984), this kind of spatial structure, characterized by non-exclusivity, weak rules and

borders and absence of hierarchical differentiation of places maximizes encounters between settlement inhabitants.

Space syntax analysis (Hillier and Hanson, 1984; Mañana Borrazás et al., 2002; Vaquer and Nielsen, 2011) has demonstrated that the village open space settings are rarely divided or hierarchically organized. All of these spaces are accessible by physical movement of the human body and by line of sight. There are no plazas or public places in the settlements, nor any other feature connected to a centripetal growing pattern.

The presence in another alluvial fan with first millennium occupation which may have served as a gathering place for community members, in LB2 reinforces this idea. This earthen mound is located in an outdoor space, far away from any other roofed residential or work structure and is characterized by open access and good visibility. The mound, still unexcavated, seems to be built by the sequential accumulation of natural soils and cultural deposits.

Third, non-residential space is also organized in a patterned way. Agricultural outbuildings were often rebuilt with a continuity of design and placement within the alluvial landscape. Field systems are not large but rather clearly form delimited plots defined by stone wall enclosures (*canchones*), as well terraces shaped by perpendicularly attaching several containment walls to elongated clearing fields rock mounds. Recorded field plots average size is near 400m² and they are always spatially associated with at least one dwelling compound (Franco Salvi, 2012). Field plots are easily distinguishable owing to the visibility of associated material features including rock mounds, terraces or enclosures (Figure 8).

Settlement pattern tendencies across this kind of landscape were reproduced by multiple agents' strategies and practices in the context of quotidian life rather than decisions made by a centralized authority or the adaptation principle of the overarching system. If we want to understand the social logics of this kind of social configuration, which we are describing on a large scale, we should address the practices of the people and especially the places and material settings where these practices were produced and reproduced. With regards to the relationships between practices and material settings, we should consider the groups that are being formed, transformed and disarticulated in these social processes.

Figure 6. LB1 settlement. On the top, a sight of the alluvial fan. On the bottom, archaeological mapping.
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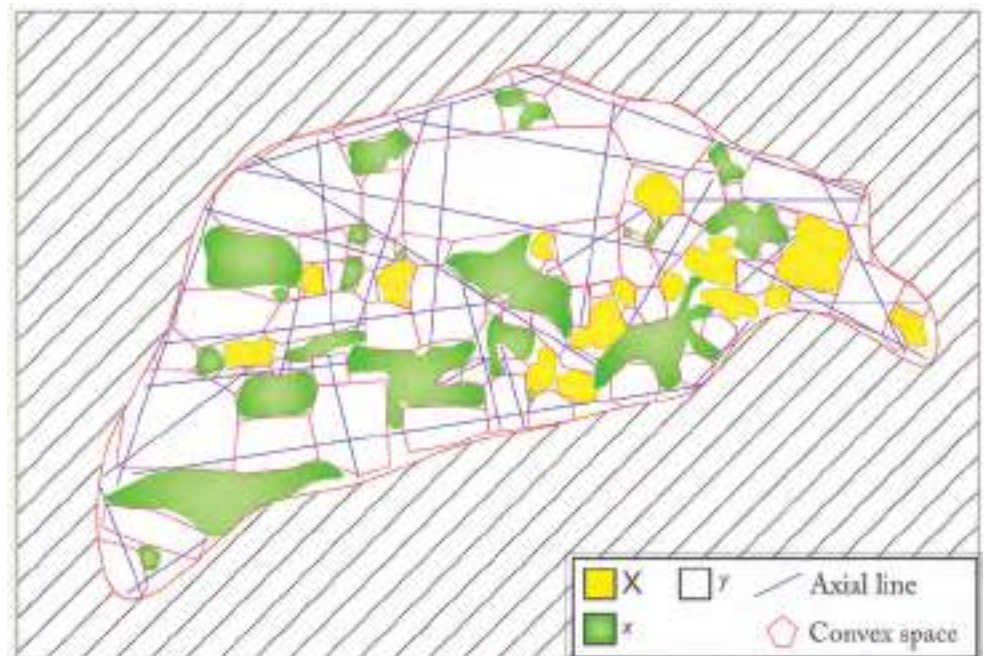


Figure 7. Axial and convex map of LB1 dwelling compounds cluster.
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Material Settings for Daily Practices

Residential structures were the central nodes around which daily life in the Formative period of the Tafi Valley was organized. Even today, with their high and thick walls and large artificial foundations, these buildings are highly visible in the landscape even though they are covered with thick layers of soil. These buildings are found on all alluvial terraces and are a recurrent feature in early village settlements in the Tafi Valley and in neighbouring valleys and ravines (Figures 4, 5 and 6).

Enduring for almost a millennium, this architectural domestic pattern consists of circular or sub-circular semi-subterranean rooms, ranging in size between 2 and 20 m², probably roofed and connected by formal pathways to a circular larger unroofed courtyard or patio. A single entrance connected the patios to the outside areas. At times other irregular and larger structures were attached to the unroofed courtyard. These clusters vary in size and number of structures attached to the central patio courtyard (from 3 to 15, with an average of 5), but in all cases the structures maintain the same spatial organization of circular rooms connected to a large central patio.

Excavation of one of these residential compounds provides us with a detailed stratigraphic and temporal understanding of building lifespan, the sequence of construction and eventual abandonment. Residential cluster unit U14, for example, is located in the densely occupied area of the LB1 settlement (Figure 6). It is formed by seven stone structures, four circular rooms (R2, R3, R4 and R6) attached to the main courtyard (R1) and two peripheral irregular enclosures (R5 and R7) (Figure 9).

The entrance into the patio was located on the southern wall of courtyard R1, although it is much more informal and narrower than the interior doors between rooms. Also seen in residential cluster U10 (Salazar et al., 2007), this entranceway illustrates greater fluidity within the house than between the interior of the house and exterior areas. This dwelling was separated from, yet integrated with, outdoor space. Consideration of the organization of internal space, such as with a *gamma* analysis (Blanton, 1994; Hillier and Hanson, 1984), illustrates an asymmetric and hierarchical spatial distribution, with the courtyard as an obliged setting when entering into, exiting from or circulating through the house. Therefore, co-residents shared interior space and this interior setting was private and distinct from the exterior.



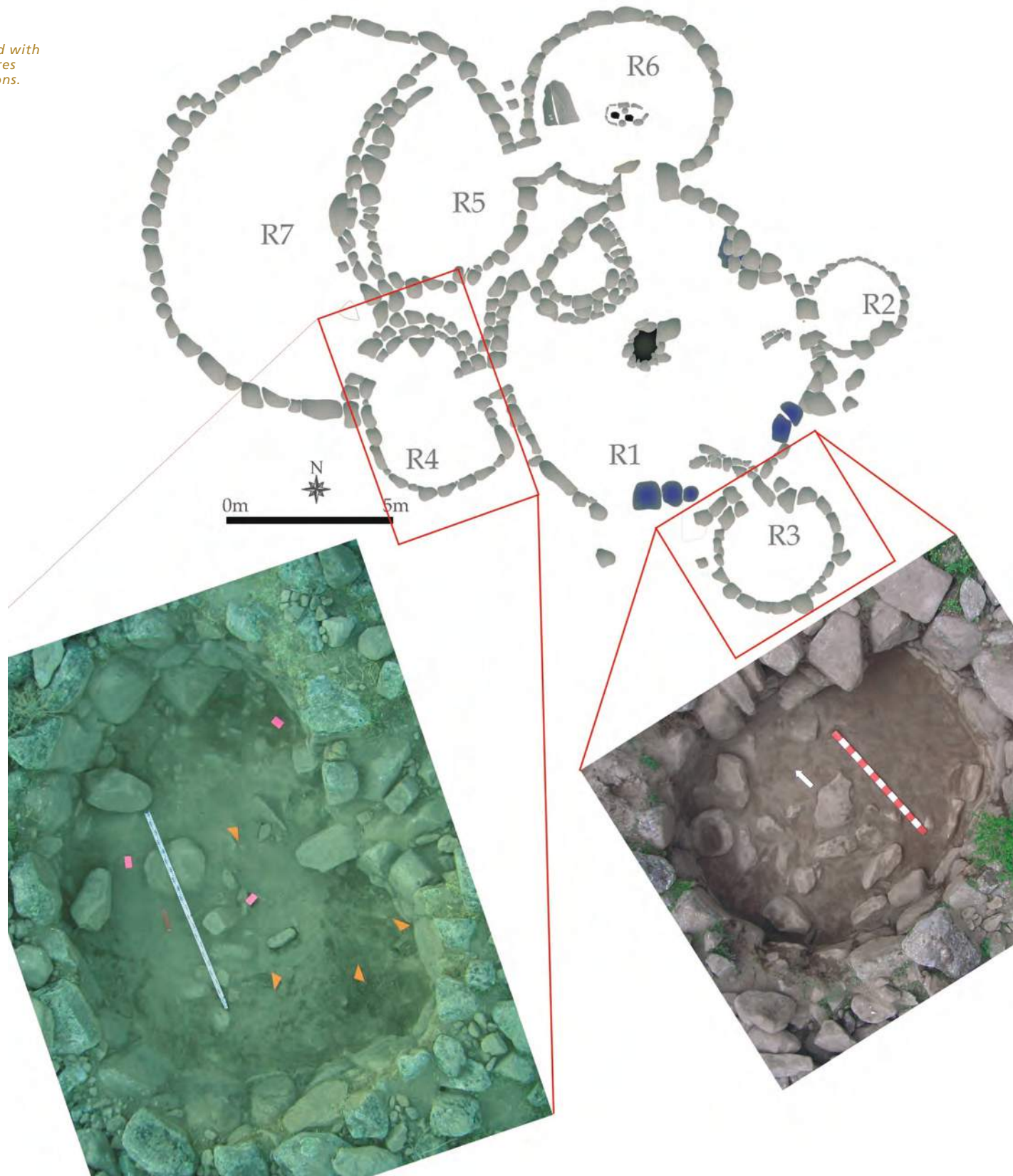
Figure 8. Crop growing structure, North Sector of Tafi Valley. © Julián Salazar

Analysis of architectural features, artefact distribution, soil chemistry and silicon phytoliths identification allow us to define residential compound activity areas from around 800 AD (Gazi and Salazar, 2013; Molar, 2014). The peripheral and small enclosures highlight specific activity areas including food processing, cooking and storage. In R6 and R4 a few cooking vessels were found broken around a central stone hearth with maize (*Zea mays*) silicon phytoliths identified in associated soil samples. Diverse activities were detected in the central unroofed courtyard, R1, including maize grinding, food storage within clear architectural features and ritual deposition of clay animal representations (Figure 10) and foreign pottery fragments, all discarded around a central feature: a burial cist. This highlights the centripetal organization of domestic activities within nodal open courtyard spaces, as well as the symbolic and physical placement of ancestral deceased residence in the centre of the courtyards.

The presence of storage facilities in front of the burial chambers is remarkable (Figure 11). The characteristics, scale and control of food storage are all key aspects in understanding social organization and social agents' capacities to make decisions in regards to the consumption and distribution of the products. Understanding these key factors is a paramount aspect of early village societies. Communitarian sharing of storage or household hoarding of surplus define a different kind of access to material resources and even some neo-evolutionist social types have been proposed resulting from the analysis of this characteristic (Bird and Bliege, 2009; Flannery, 2002). Food storage facilities in this case are within dwelling structures, in what is clearly a household controlled space.

Micro-history of house and building cluster life history also provides evidence of the complex and enduring occupation of several centuries. On one hand, this fact illustrates that the village landscape exists as a multi

Figure 9. LB1 U14
Residential Compound with
some details of features
detected on excavations.
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temporal construction, and on the other hand, that these social structures and habits were embodied and reproduced in material settings over the long-term. The duration of these trends also has to be considered: this house has a long history that begins at least around 1800 BP and finishes around 1200 BP, when the house was abandoned. The compound was intentionally closed off around AD 800, with doors to the two rooms blocked and hearths being covered by huge rocks. Although the complex phasing made it difficult to understand these micro-scale changes, we were nonetheless able to reconstruct the long-term development of the building cluster.

Ancestors' Materiality and Kinship Relations

This house also demonstrates the close relations between dwellers and their ancestors in quotidian life. There was an oval feature located in the central portion of this open patio. It was an underground bell shaped stone walled chamber, with a false dome closure protruding 30 centimetres above the occupational floor. This structure, called 'Cista 1', was identified as a cist, a typical tomb type in the first millennium contexts of the Tafí Valley.

Upon first glance, the cist is seen as one single feature, interpreted as an individual reference made to a one household ancestor worshiped for different reasons (power, wealth or relations accumulated in his/her life). This interpretation is usually made in similar cases. Nevertheless, the excavation of this burial showed that it was the result of complex depositional processes. Just after the cist closure was removed, about 30 cm below the patio occupational floor, a little figurine was detected. It was an anthropomorphic stone statuette whose face is interpreted to be a crying woman. A flaking negative in the lower portion of this artefact suggests that it was intentionally broken or 'killed' before the deposition. Next to the Level II base (80 cm below the occupational floor) we found human bone remains, in very poor conservational condition (having been affected by the high acidic soils), associated with a grey pottery bowl. Two cranial fragments and twelve teeth from the east portion of the cist were the only identifiable



Figure 10. Clay figurines representing animals, possibly Andean domestic Camelids: Llamas. All of them were found in U14 patio occupational floor. They were fragmented in their neck and limb zones, maybe purposely broken before their deposition. © Julián Salazar

fragments. Studies of the roots of the teeth and wear traces allowed this person to be identified as an adult. Hundreds of unidentified little bone specimens were recovered from the central area of the burial. Within this sediment, maize (*Zea mays*) and cucurbit (*Cucurbita* sp.) silicon phytoliths were identified, and could be interpreted as the person's diet remains or as part of the burial offerings. The ceramic bowl, disposed of horizontally, is a fine pottery vessel without decoration, which could be typologically dated to c. AD 500 – AD 900. Below this level, a thin layer of burnt clay covered all the structure. After its removal we detected

a compacter stratum, Level III, where the vestiges of another burial were present. It was composed of an adult's bone remains, in very poor conservational condition, associated with three coarse fabric vessels. The human remains consist of fragments from both a cranium and a jawbone in the west margin of the cist base, along with hundreds of unidentified bone little pieces. The skeletal vestiges were accompanied by a cup (made in ordinary red clay with a rough surface finishing, with a lip handle vertically attached and a modelled anthropomorphic face decoration applied on the opposite side), a jar (technologically similar, with a uniform surface finishing, without decorations and a thick soot layer on the outer face) and numerous fragments of vessels with similar characteristics. None of the pottery presents complex decoration nor does it correspond to what is known as 'fine' craft for this period. Charred wood was recovered from this level and dated to 1799 ± 37 BP, Cal. AD 130 – 260, making it the earliest date for LB1–U14.

The disposition of these materials provides evidence for an intentional disturbing of the earliest burial event, before the depositing the final burial. Bone remains were disposed of next to the structure's wall and the ceramic jar was found between the jaw and the cranium.

Archaeological traces registered in the burial structure of household compound LB1–U14 allow the proposal that the burial was generated by many events of digging, opening, depositing, firing, closing and burying, forming a material palimpsest. Although palimpsests are common archaeological contexts, they are typically viewed as a handicap, an unfortunate consequence of having to rely on a material record that is incomplete. Contrarily, we highlight the informative capacity of this particular mixture (Bailey, 2007; Lucas, 2005; Olivier, 2000). It shows that the ancestors' corpses were not socially dead: they were continuously taken out from their tombs, showed, worshiped, fed and buried again. But even more, this archaeological bundle indicates that they were part of daily activities. The material configuration of the burial feature generated a permanent interaction with the living. It was located in the centre of the house, a place of necessary passage, the locus where vital practices were carried out, such as maize grinding and food storage. Major parts

of quotidian life took place there. Gillespie (2001) states that the construction of social persons derives from acting within a social context as part of an experience and daily practices. This includes relations between people, both death and alive, and groups and material objects. The 'mortuary palimpsest' analysed in LB1–U14 is precisely the materialization of a particular practice that creates and strengthens kinship relations through the interaction with materiality referencing ancestors' memory. These practices related to death have a long duration, lasting from the first centuries AD up to c. AD 850.

This particular interaction between living and dead people is not limited to the presence of burial features within houses but is also materialized in several monolithic references of the corpses of ancestors called *huanca*s. Monolithic stone sculptures, which mix animal, anthropomorphic, phallic and abstract features, appeared in several important places of the Tafi Valley, as ceremonial mounds, house clusters and crop-growing structures. These can be interpreted as a variation of the Andean huanca myth, according to which, after death some people were turned into stone, maintaining all their living capabilities. These rocks, when considered to be the ancestor, were believed to have fertility power and therefore were located near fields. They were also used as material marks of territoriality and ownership of land and therefore associated with residence places or critical resource locations (Duviols, 1979; García Azcárate, 2000).

The mediation of ancestors and their materiality in the negotiation of land, resources and decision-making is a key aspect to understanding early village social reproduction strategies in the Tafi Valley. The construction of kin groups with high internal competitive identity is a possible explanation for the formation of a complex society with a lack of political centralization, a process that was characteristic of the first millennium in this study area.

Tafi Valley Early Village Landscapes on a Regional Scale

The general characteristics of spatial distribution of dwellings, internal organization of activities and house clusters and the importance of ancestors' materiality in



Figure 11. A view within LB1-U14 patio. At first sight, opened burial chamber. Behind, storage structure. At the back, main wall and R1-R6 doorway. © Julián Salazar

the Tafi Valley support the argument that a patterned archaeological landscape was the result of a situational construction, shaped by household decision making and spontaneous settlement growth, rather than a planned communitarian dynamic. Almost all the inhabitable terraces in the northern Tafi Valley, as well as those of other regional valleys, are covered by spatially segregated residential clusters. This seemingly dichotomous statement emphasizes that on one hand, there was the need to share labour and social relationships with the development of social codes in creating homes and villages, and on the other hand people needed to create individual space, separate from others.

So far this paper has examined a long-term perspective of the household in the first millennium of the Christian Era, with the aim of addressing the articulation between the material settings of daily life and the social and economic structure at a wider settlement and on a regional level. Nevertheless, when we think of early village societies we have to think of some kind of communities, which are collectives broader than the aggregation of households. We could think of communities, as according to Yaeger and Canuto (2000), as an ever emergent social institution that generates and is generated by supra-household interactions that are structured and synchronized by a set of places within a particular span of time. In these terms several north-western Argentinian early village communities seem to have been fluid and heterogeneous collectives where decisions were not taken as result of centralized organizations but from negotiation of a small community of practices organized around quotidian space and ancestor worship, that is to say, some kind of group analogous to what we call households.

Similar situations can be found in other areas. In the *Suni* oasis, Tebenquiche features a particular pattern where household cells were built clearly spaced between themselves and each one was associated with a single hydraulic irrigation network which was fed by the main water course. This landscape was interpreted as a fragmented communitarian setting where decision making was managed on a household level (Haber, 2007; Quesada, 2006). Aldea Piedra Negra, in Laguna Blanca presents an interesting case of negotiation where peasant households had control of their productive infrastructure, especially of their irrigation channels and networks, but in this case the general supply of water had to be negotiated and shared at the supra-household level (Delfino et al., 2012).

In the high valleys of Keshua, Morro Relincho (Bolsón Valley), household labour was not enough to carry out several tasks and therefore several work sharing groups were formed,



Figure 12. Huancas of Tafi Valley. Monolithic stone sculptures representing and believed to be the household ancestors' corpses themselves. © Julián Salazar

but there was no hierarchy or managing elite (Quesada and Korstanje, 2010). In the Cajón Valley, several conflicts were solved generating larger and more integrated clusters, as at Cardonal or Yutopian, household and kinship remained the main features for negotiating social relations (Scattolin, 2006; Scattolin et al., 2007).

On the contrary, in some southern valleys such as Ambato and Hualfin, communitarian spheres seem to be stronger, which allowed communities to develop the capacity to invest many more resources on ceremonial centres. Centralized ritual life could have replaced ancestor household veneration as the main aspect of social negotiation, thus allowing the development of hierarchies and supra-household labour hoarding (Figueroa, 2013; Gordillo, 2004, 2007; Laguens, 2006, 2014; Pérez Gollán, 1992).

These different cases demonstrate the diversity of experiences and trajectories developed by north-western Argentina early villagers, building strong communitarian collectives with a certain degree of power hoarding in some cases and maintaining autonomic households in several others. In our case study, public interaction and integration networks were crystallized in symmetric frameworks that encouraged some independency of the fragmentary collectives organized around kinship.

Final Thoughts

The comparative analysis of settlement patterns has allowed us to propose that village landscapes in the Tafí Valley and other environments of north-western Argentina are characterized by continuity and fragmentation, in opposition to demarcated and centripetal patterns which were developed in other cultural areas of the world (Drennan and Peterson, 2008; Hodder and Cessford, 2004; Kuen Lee, 2007).

As Drennan and Peterson (2008, p. 284) have pointed out 'The changes [of the Neolithic Demographic Transition] also unfolded in different ways, producing complex hierarchical social organizations of persistently different flavours. These different flavours are detectable in the interaction structures of the earliest sedentary occupations, whether highly dispersed or compactly nucleated'. As this paper has demonstrated, some north-western Argentinian early village landscapes lacked real compactly organized villages and rather were articulated by different house compounds with different degrees of clusterness. Nevertheless, even in the more clustered cases, houses never shared walls. Residential

clusters were characterized by an unplanned growing pattern, in which each residential unit was built and occupied independently, as spatially isolated compounds and during their occupation lifespan they had different trajectories. It appears that they normally tried to maintain a clear distance from other residences, yet were spatially close enough to maintain social relationships while living on the same alluvial terrace.

This particular spatial and social structure was not the natural outcome of adaptation strategies. As was stated by Bandy and Fox (2010), the first sedentary villagers were confronted with a wide range of entirely novel social economic and ecological challenges. The varying institutions and habits of thought and action that came into being around the world, and which were the medium and the artefact of becoming villagers, could be understood as different historical responses to similar cross-cultural conditions. Early villager social structures constitute varying, improvised and generative ways of solving the problems of living together for long periods, new contexts brought by the adoption of productive strategies and sedentism. Tafí early village settlement systems show us that these problems were faced with the development of social and material institutions that kept communities together by keeping people, their houses and their fields spaced.

The constitution of this kind of communities was allowed and reinforced by the material context of daily practice that always highlighted kinship identity, especially with the worship of household ancestors. The collectives born in this particular setting were not exclusively ideological or affective, but were economic cells that had the objective condition to take decisions in a pretty autonomous fashion. The accumulation of power, especially the hoarding of extra domestic labour, was relatively precluded by a socially negotiated system. This negotiation did not only include human beings and human relations but also a large list of material beings whose properties mediated social relations. The material revolution of Neolithic could be explained in the mediation role of 'new' technologies for handling the stresses born in these novel contexts.

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