Figuring the Group

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This article focuses on the social group, asking how approaches to the representation of the group (in forms such as rock-art, images painted on pottery and three-dimensional caches of figurines) can help us understand the nature of collective experience in the past. Current research has concentrated on individuals (and their experiences) in past societies, while group dynamics have been neglected. Attention should be re-directed to the wide range of emotional experiences that we know affected individuals, particularly as part of their interactions with others, during rituals and other collective events in the past. Investigation of figurative representations over a sustained period provides one means of reconstructing the repetitive, stereotyped emotions, local rules, 'non-rational' propensities, moral sentiments, and shared emotions that shaped group life in past societies.

Interest in the corporate group has a long history in archaeology and anthropology. The documentation of variable forms of social organization (such as clans, lineages, sodalities and moieties) has long been an objective for researchers, even when these social formations have proved difficult to recognize in the archaeological record. While past individuals did figure prominently in some processually-oriented research during the 1970s (e.g. Hill & Gunn 1977), more generally, archaeologists in that period tended to emphasize the society as a whole, rather than individuals.

More recently, theoretical trends in archaeology have encouraged the study of social actors. Archaeologists adopting agent-centred approaches (Dobres & Robb 2000; Robb 2004) have investigated the ways individuals (and groups) use organizational and symbolic resources to create meaning, to pursue goals and to compete for positions of power. Agency models bring attention to the capacities of individuals to generate socio-political change (Brumfiel 1992). In a different way, cognitive-processual archaeologists have investigated human engagement with the material world, tracking the emergence of new forms of institutional practice, material symbols and concepts through time (Renfrew & Zubrow 1994; Renfrew 2001; 2004; Malafouris & Renfrew 2008; Morley & Renfrew 2010).

My objective is to ask how, and what, a shift of emphasis from the *individual* back toward thinking about the *group* — particularly the experiences (emotional and psychological) that members of groups share in common — can reveal about the past. I argue that investigating these aspects of group dynamics requires a distinct set of approaches. Whether archaeologists are studying daily routines in an agricultural village or the experiences of city dwellers, rituals and other public events are a basic fact of group life. These direct, face-to-face interactions shape individuals in significant ways, emotionally and psychologically, that have not yet been adequately addressed by archaeologists. Admittedly, their investigation constitutes a substantial challenge.

The social group in the past

For the purposes of this analysis, a social group is defined as an aggregate of two or more (usually more) individuals. By definition, its members are often resident in the same community or region, engaging in ritual and other collective events on an ongoing basis, and their relationship often (but not always) involves face-to-face interaction. While this definition could encompass a single nuclear family or married couple, it generally refers to a larger group of people, such as an extended family, a lineage or a community.

In recent publications, researchers have sought to understand communities as dynamic entities, established and reproduced through time as actors pursue goals in distinct arenas of public life, from politics to

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ritual (Varien 1999; Canuto & Yaeger 2000; Varien & Potter 2008; Bandy & Fox 2010). Contributors have highlighted agency, competition for power and the 'imagined community' (Anderson 1991), as well as the practices that build social cohesion and manage social stress in early villages. In the approach developed below, I also emphasize the creation of shared identities as an ongoing process in which symbolic material culture and visual representations play central roles.

At the same time, while it is crucial to understand the dynamics of power relations, an explicit goal of this analysis is to think beyond power relations. I seek to identify a set of emotional and psychological processes — group dynamics — that *may* include competition for power in the public sphere, but need not involve it exclusively. I investigate group dynamics, looked at from the bottom up, that are generated out of shared, numinous experience, through contact with the transcendent in the presence of others, or through more prosaic but equally significant human propensities to enjoy social contact and the benefits of group life.

Groups often do coalesce around individuals who occupy or are granted positions of authority, as Service (1962) argued years ago, recognizing that leaders may emerge to co-ordinate and manage surplus in regions characterized by ecological diversity. Fried (1967), modifying the argument, observed that leaders capitalize, in conditions of surplus production, on opportunities to exploit others as they pursue political goals. Subsequently, this distinction has become more nuanced; Renfrew's (1974) distinction between 'group-oriented' and 'individualizing' polities was elaborated by Blanton *et al.* (1996) to establish a spectrum of political economic strategies, from corporate to network.

Recent debates about heterarchical forms of societal organization also articulate with the exploration of the social group undertaken here. That is to say, as social groups come together and develop shared forms of experience, modes of interaction and ideas about the collective, they generate organizational resources (Mann 1986). These resources are not just ripe for exploitation by would-be leaders; they can also be drawn upon by the group to materialize a shared presence in the world surrounded by plants, animals and supernatural forces. Likewise, collective agency and organizational capacities can be managed communally with significant implications for socio-political change (Saitta & Keene 1990; McGuire & Saitta 1996; Saitta & McGuire 1998; McIntosh 1999; Saitta 1999; Feinman *et al.* 2000; Mills 2000; Spielmann 2002; DeMarrais 2007). A key aim here is to consider how collective resources take shape and are communicated through figurative representation.

Investigating group dynamics

Early in the twentieth century, Freud pointed out that humans are relational beings, profoundly shaped by their relationships with others. More recently, Bion (1961) observed that groups coalesce around 'basic assumptions', psychological dynamics that structure their interactions. Groups come together to deal with shared concerns, including real or perceived external threats, the wish for social contact, or to seek a leader. Groups also convene to resolve practical matters such as the pooling of resources, risk management, sharing of information or exchange of marriage partners. Additionally, the realm of spirituality involves interest in existential questions that may unite the group in the search for answers, in developing shared values or moral sentiments, and in acknowledging that some aspects of human life lie beyond the grasp of the intellect and require different means for engaging with them.

Extending the analysis beyond power relations focuses attention on a wider range of processes and group dynamics that deserve our attention. While power relations are *part of* this wider arena, there may well be more than power at stake in group interactions. To accomplish this broadening of perspective, archaeologists can pay greater attention to the *ways* that the social group has been depicted in figurative representation. If social ties are sustained and pervasive affective elements in the lives of human beings (past and present), then figurative representation of the group should provide evidence of their emotional qualities, or the particular local *character,* of shared experience.

Inspiration for this line of thought came from articles on related subjects by Cowgill (1993) and Tarlow (2000). Both argue that the investigation of emotions (or 'non-rational propensities' in Cowgill's terms[1]) of the sort that we know to govern humans is essential if archaeologists are to widen their understanding of past human experience. As Cowgill notes, while 'rational actor' models help to explain or predict important aspects of human behaviour, they fail to acknowledge the influence of emotions or moral sentiments.

Tarlow (2000, 728) acknowledges the force of emotions in social life and, in a preliminary exploration, sets out a programme for investigating their significance in the human past. She argues (1) that emotions are cultural as well as biological, (2) that emotions are inseparable from cultural meanings and social understandings (which in turn vary according to context), and (3) that, for archaeologists, social (shared) emotional values will be more accessible

than individual emotions. The objective, then, is not necessarily for archaeologists to develop greater *empathy* with people in the past, but instead to seek tools for the systematic investigation of past forms of social engagement, to acknowledge the emotions that collective phenomena may evoke, and to work toward more nuanced understandings of their implications for the group over time.

Encouragement comes from the anthropologist John Leavitt (2000, 736), who comments on Tarlow's paper by observing that '…while emotions are subjectively experienced and therefore by definition individual, important aspects of them are also likely to be highly stereotypical and, indeed, highly predictable'. For archaeologists, the traces of such experiences are likely to be those that are not only stereotypical and predictable but also those that are repeated and persist through time. As durable expressions of collective sentiments, these elements are also likely to find expression in visual material culture, making them accessible to archaeologists. There is, of course, a disjuncture between one individual's fleeting emotion and the longer-term, repetitive, shared states of mind that I seek to identify. The attempt to document that which is shared, durable and materialized in symbols is, arguably, a more realistic goal, given the limitations of the archaeological record.

One practical route to investigating stereotypical aspects of emotion can be found in Cowgill's (1993, 557) analysis of art from Teotihuacan; he calls for the identification of 'local rules', broadly shared amongst the members of a group:

> Individuals act in the context of, with regard to, and often by means of, local rules (among other things). Local rules are often modified, intentionally or unintentionally, in the course of action. To the extent that action is rational, local rules are part of that in regard to which one is rational. To the extent that action is unthinking, local rules supplement instincts in providing schemata to be followed. To the extent that action is driven by emotions and sentiments, local rules play a role in helping shape socialization processes that affect attitudes toward emotions and preferred modes of their expression. (Cowgill 1993, 559)

Applying the approach to art from Teotihuacan, Cowgill explains its distinctive character, arguing that

> [t]he formality, impersonality, multiplicity, and replication seen in Teotihuacan art may express character traits and world outlooks prevalent in Teotihuacan society. Indeed some of the representations may have helped to *inculcate* such propensities. The properties in question are visible not only on stone monuments, costly murals, and fine ceramics, but in forms, such as figurines and censers, that are ubiquitous in the city and associated with households or with small groups of households co-residing in apartment compounds. This suggests that the propensities were shared to a considerable extent across differences of class, faction, and gender. I do not suggest that all Teotihuacanos *in fact* acted, thought, and felt like the images in their art, but it does seem very possible that much social learning pushed them in that direction, more so than in other Mesoamerican societies. (Cowgill 1993, 568)

The important point is that, although the state was materializing an ideology (through the monuments, murals and pottery), the overarching propensities — recognizable *because* they were widespread and replicated on distinct media — were also being promulgated at the local level, by household groups and by residents of apartment blocks, for other reasons.

Drawing these lines of argument together, I argue that investigating the *representations* of group interaction (an arena often involving ritual, where emotions are likely to be heightened) may help archaeologists to identify the stereotyped, shared emotions discussed by Tarlow and Leavitt. Furthermore, building upon Tarlow's (2000, 729) call for the exploration of the *materiality* of emotional practices, I suggest that figurative representation (defined here as the representation of aspects of the natural world through two-dimensional and three-dimensional media[2]) can provide the basis for further investigation. In making this argument, I stress the complexity of the linkages among and between individuals within groups and the difficulty of achieving a stable and enduring collective purpose. I also acknowledge the difficulty of reconstructing emotions in the past, particularly because individuals respond to events differently, depending upon a range of factors, and because conditions change. However, the reality that archaeologists must, at times, content themselves with imperfect or incomplete understandings should not prevent us from pursuing the goal of characterizing human experience in richer and more nuanced ways.

Rituals and representations

Public gatherings or rituals shape the affective responses of their members; events may afford a sense of '… creative facilitation and enablement' (Bion 1961; Hopper 2003, 18) at the same time reminding individuals of constraints on actions detrimental to the interests of the group. Groups also come together to preserve and strengthen social bonds, working against the possibility of disintegration. Ethnographic evidence reveals the repetitive and performative character of rituals (Connerton 1989), further evidence

that the collective must be worked at and maintained, rather than taken for granted. Groups also coalesce in the face of a threat (for 'fight or flight'); such circumstances encourage designation of a leader, at the same time reinforcing the commitments of individuals to the group itself (Bion 1961).

Geertz (1957) observed long ago that ritual induces not only intellectual, but also emotional, assent to the interests of the group over those of the individual. Figurative representations of collective activities (especially ritual) are vital means for securing assent and perpetuating memory and shared experience through time. Dissanayake (1995, 46) argues further that art and ritual are both

> … *compelling*. They use various effective means to arouse, capture, and hold attention. Both are fashioned with the intent to affect individuals emotionally — to bring their feelings into awareness, to display them. A large part of the compelling nature of rituals and art is that they are deliberately *non ordinary* (emphasis in the original).

In congruence with these authors' views, I argue that seeing figurative representation as non-ordinary helps us to understand its role in forging and recording the experiences of the collective, particularly in its associations with events that evoke emotional responses.

As material practices, both rituals and the making of figurative representations may not only serve as means of asserting power and establishing the social order, but may also help to maintain and foster social ties, to clarify relationships with supernatural beings or forces, and to set out conceptions of the moral order of things, guided by local rules and meanings. Simultaneously active and creative processes (Hodder 1982; Renfrew 2001), they remain grounded in precedent, tradition and institutionalized forms of practice (Wolf 1999; DeMarrais 2004). Averill (1992; see Tarlow 2000, 720) argues, for example, that the emotions that accord with group solidarity will be highly valued in more corporately-structured societies, whereas in groups with more strongly hierarchical structures, emotions associated with individual distinctiveness receive greater emphasis.

At the same time, the interpretation of figurative representations or 'art' from non-Western societies is far from straightforward, as ethnographers have long maintained (Myers 1991; Layton 1991; Steiner 1995; Gell 1998). Gell's (1992; 1998) discussion of the Trobriand Islanders' canoe prow-boards highlights these challenges clearly; he writes that

> … These boards are richly carved and painted, and they are the first thing that the Trobrianders' overseas exchange-partners get to see when the Trobriand flotilla arrives on their shores, before exchange operations get under way. The purpose of these beautiful carvings is to demoralize the opposition … Neither the Trobrianders nor their exchange-partners operate a category of 'art' as such; from their point of view the efficacy of these boards stems from the powerful magical associations they have… (1998, 69)

The study of figurative representations from past societies is not a straightforward process; however, as both Gell and Dissanayake indicate, in different ways, the *visibility* of the objects and their distinctiveness reveals that they were intended to have an impact. If archaeologists are specifically interested in the affective significance of figurative representations, then investigating those elements of content or meaning, contexts of display, and intended audiences that *are* accessible can provide a route to thinking more creatively about the social group (as I elaborate below). To avoid the difficulties associated with the term 'art', I use the phrase 'figurative representation' throughout. For similar reasons, I follow the suggestion of Taçon & Chippindale (1998) that hyphenating the phrase 'rock-art' may help archaeologists to avoid the associations to 'art' evoked by the unhyphenated phrase 'rock art'.

Approaching the evidence

One example of a widespread and early practice of figurative representation is the making of handprints on the walls of caves and rock-shelters. Figure 1 shows the handprint mural of Los Toldos rock-shelter in the Cueva de los Manos in Argentina, estimated to date to 11,000 years BP (Cardich 1987, 110; Bahn 2007, 5). More generally, handprint panels from Upper Palaeolithic sites of France and Spain (Morley 2007) and elsewhere (Bahn 2007) raise questions about whether the act of making the handprints was sometimes as important as the representation left behind. Lewis-Williams (2002, 217–18) notes that two panels at Chauvet Cave consist of multiple prints made by a single person. However, Schaafsma (1980, 119), drawing upon ethnographic evidence, argues that handprints in the American Southwest were added by individuals during visits to existing rock-art panels after prayer '… in order that the supernatural engaged will be able to identify the supplicant'. Thus some handprints may represent episodes of modification, carried out during repeated visits to a ritual location.

An additional interpretive concern involves questions of whether an image represents the *reality* of the social order or presents instead a model or an *ideal*. Rituals and representations can serve to reinforce existing institutional relationships or to guide public sentiment in new directions to facilitate change (Hays-

Gilpin 2000, 92). In this vein, researchers have explored a range of explanations for cave paintings and rock-art, including its role in communicating information or in alliance-building (Gamble 1991; Mithen 1988; 1989), marking the presence of a group in a territory, or asserting ancestral claims to a place. Others have invoked shamanism to explain the designs and shapes on some panels (Whitley 2000; Lewis-Williams 2002; Whitley & Clottes 2005, 175; Borić 2007), although critics (Helvenston & Bahn 2003) question the validity of these models for the Palaeolithic.

In the Americas, ethnographic and archaeological evidence clearly document cult activities involving the use of psychoactive plants by shamans (Reichel-Dolmatoff 1975; Wilbert 1987; Saunders 2002), although an uncritical use of the term 'shaman' is problematic (Klein *et al.* 2002). Ekkehart Malotki (2007, 26), writing from a Hopi perspective, lists the roles of ritual specialists: mediation between humans and supernatural realms, healing the sick, influencing weather conditions, control of game, encouragement of fertility and the restoration of lost harmony. Shamans enter trance states, during which they undertake journeys to the supernatural realm. While in the spirit world they are protected by animal spirits and may transform into totem animals; there they gain knowledge and assistance for healing, divination, or success in the hunt (Van Pool 2002). As will be shown below, figurative representations of shamans in rock-art, both in the American Southwest and in northwest Argentina, hint at the concerns of early agriculturalists.

Archaeologists' ability to recover and interpret figurative representations is subject to the vagaries of preservation and recovery that affect most categories of archaeological evidence. Additional problems include dating and loss of contextual information. One positive aspect of studying groups through rock-art is the fact that '…insecurity in time is compensated for by security in place' for rock-art panels in fixed locations (Chippindale & Nash 2004, 7). Further, parietal art and narrative scenes usefully retain information about the relationships among individuals.

Dating is obviously more problematic (Hedges *et al.* 1998), although stylistic variation in rock-art can sometimes be correlated with patterns in portable material culture, and in a few cases absolute dates have been obtained. Nevertheless, demonstrating the contemporaneity of different elements within a rock-art panel can be difficult (Berghaus 2004). The latter problem can be overcome to the extent that the placement, scale and relationships among constituent images in a rock-art panel create a narrative, likely to have been executed all at once. For figurines and other three-dimensional objects (for example the famous Olmec (La Venta Offering 4) group of standing figures and celts), contextual information is crucial.[3]

Figure 1. *Handprints, Cueva de los Manos, Los Toldos, Santa Cruz Province, Argentina.*

Case studies: the American Southwest and northwest Argentina

In the sections that follow, two case studies are presented. Each explores the same threshold — the transition to more sedentary life in hamlets or villages, accompanied by greater reliance on maize cultivation. The aim is to investigate the changes in shared values, local rules and collective activity that accompanied this transition, as well as new forms of engagement with spiritual or ritual spheres.

The first case study examines the Basketmaker II to III transition in the Four Corners region of the American Southwest. The second case study involves Formative Period agro-pastoral groups of northwest Argentina. In each case, I investigate the figurative representations created over an extended period of time (about 1000 years) in order to identify repetitive, stereotypical or conventionalized themes. These patterns, emerging over a sustained period of time, are likely to reflect the local rules and the emotional qualities that characterized group experience.

In each case, questions focus upon the ways groups were depicted. How distinctive were individuals? What was the relationship among the individuals who comprised the group? What activities were shown? Is it possible to identify the emotional valence — impact — of the image? How did representations change through time? What conclusions about local rules or collective experience emerge from the analysis?

Basketmaker groups of the American Southwest

The Basketmaker people were early agriculturalists in the northern American Southwest. Western Basketmakers occupied the Four Corners region while their eastern counterparts lived in the area around Durango, Colorado (see Fig. 2). Details of local chronologies and the extent of their reliance on maize are topics of ongoing debate (Matson 2006; Charles & Cole 2006; Doolittle & Mabry 2006; Hill 2006; Coltrain *et al.* 2007). At the same time, accumulating evidence for diverse local site forms and changing strategies for integration and the forging of social cohesion through ritual suggest varied adaptations as part of a long-term trajectory toward settled village life (Potter & Yoder 2008; Kohler & Varien 2010; Wilshusen & Potter 2010).

Communities and their organization

The Basketmaker II period includes an early phase (1500 BC–AD 50) characterized by hunting, collection of wild foods and slow adoption of maize. An environmental mosaic, the northern Southwest was characterized by uncertain weather conditions (Doolittle & Mabry 2006); recent isotope studies indicate that by 400 BC western Basketmakers were 'heavily reliant' on maize (Coltrain *et al.* 2007). During the later Basketmaker II phase (AD 50–500), pit-house sites became more common, and the shift to dry farming (but not necessarily year-round sedentism) continued. However, Potter & Yoder (2008, 22) describe only minimal, probably seasonal, Basketmaker II occupations in the eastern region (around Durango, Colorado) from AD 200–400. Feinman and colleagues (2000) have argued that isolated agricultural communities shared a desert landscape with more mobile gatherer-hunters, creating an 'adaptive mosaic' during a time when the first signs of cultural differentiation were also appearing (Ciolek-Torrello 1998).

Describing the northern San Juan region, Schachner (2010, 477) observes that before AD 750, large sites were rare. Basketmaker III sites (dating to the AD 600s and early 700s) usually consisted of one or two pit houses associated with a few ephemeral storage features. Later, inhabitants of Basketmaker III sites began to cultivate beans, produce the first pottery and construct great *kivas* (large subterranean pit structures). *Kivas* provide evidence of an increasing frequency and formalization of ritual practices.

Potter & Yoder (2008, 39) similarly characterize the Basketmaker III/Pueblo I transition (during the AD 700s) around Durango as a time of 'social stress and uncertainty'. Investigating Mesa Verde sites (located to the west), Wilshusen & Potter (2010, 170) observe that a threshold for village formation[4] was crossed only at the end of the Basketmaker III period. Aggregation, they contend, depended critically upon a group's capacity to manage social tensions through feasts, ritual performances and other events. It seems clear that the Basketmaker II/III transition involved varied subsistence activities as well as distinct forms of social organization across the region. The associated rock-art is rich and varied and has been widely studied (Cole 1989; 1994; Webster & Hays-Gilpin 1994; Robins 1997; Robins & Hays-Gilpin 2000; Kantner 2004, 63–5; Charles & Cole 2006; Malotki 2007).

Basketmaker II

Basketmaker II rock-art panels are often found at open-air sites in locations used for autumn gatherings that involved '…exchange of marriage partners, trading, gaming … and political maneuvering among shamans' (Robins & Hays-Gilpin 2000, 234). Rock-art was visible and public, placed on alcove walls, cliffs or on boulders near water sources or near habitation, storage or burial sites. Evidence for re-use of some locations is indicated by crowding of images and superimposition, suggesting ongoing modifications (Charles & Cole 2006, 194).

The San Juan Anthropomorphic Style (Fig. 3) depicts

> … large, heroically proportioned, often life-sized, static frontal facing anthropomorphs with spadelike, drooping hands and feet ... Zoomorphic images appear in conjunction with these figures, as do handprints, occasional geometric figures, and masks, yet primary attention is drawn to the body, its clothing, and ornamentation. (Robins & Hays-Gilpin 2000, 234).

Gender is sometimes indicated (Cole 1994, 296). Robins (1997) argues that these highly visible, life-size images occur consistently in areas of high agricultural potential.

The drooping limbs of the anthropomorphs give them a 'floating' quality that has led many to interpret them as shamans (or perhaps as supernatural beings). Whitley (2000) associates shamanic images widely with hunter-gatherer rock-art across California. At the same time, Malotki (2007, 172) observes the continuing importance of shamans to early agriculturalists, especially given their roles in controlling weather conditions. Because anthropomorph representations vary from one region to the next, the rock-art probably played a part in the working out of social relations among local communities and their territories as a consequence of increased investment in maize cultivation (Robins & Hays-Gilpin 2000, 235).

Items of personal adornment, such as the headdresses and ornaments visible on the anthropomorphs in Figure 3, have also been recovered from excavations

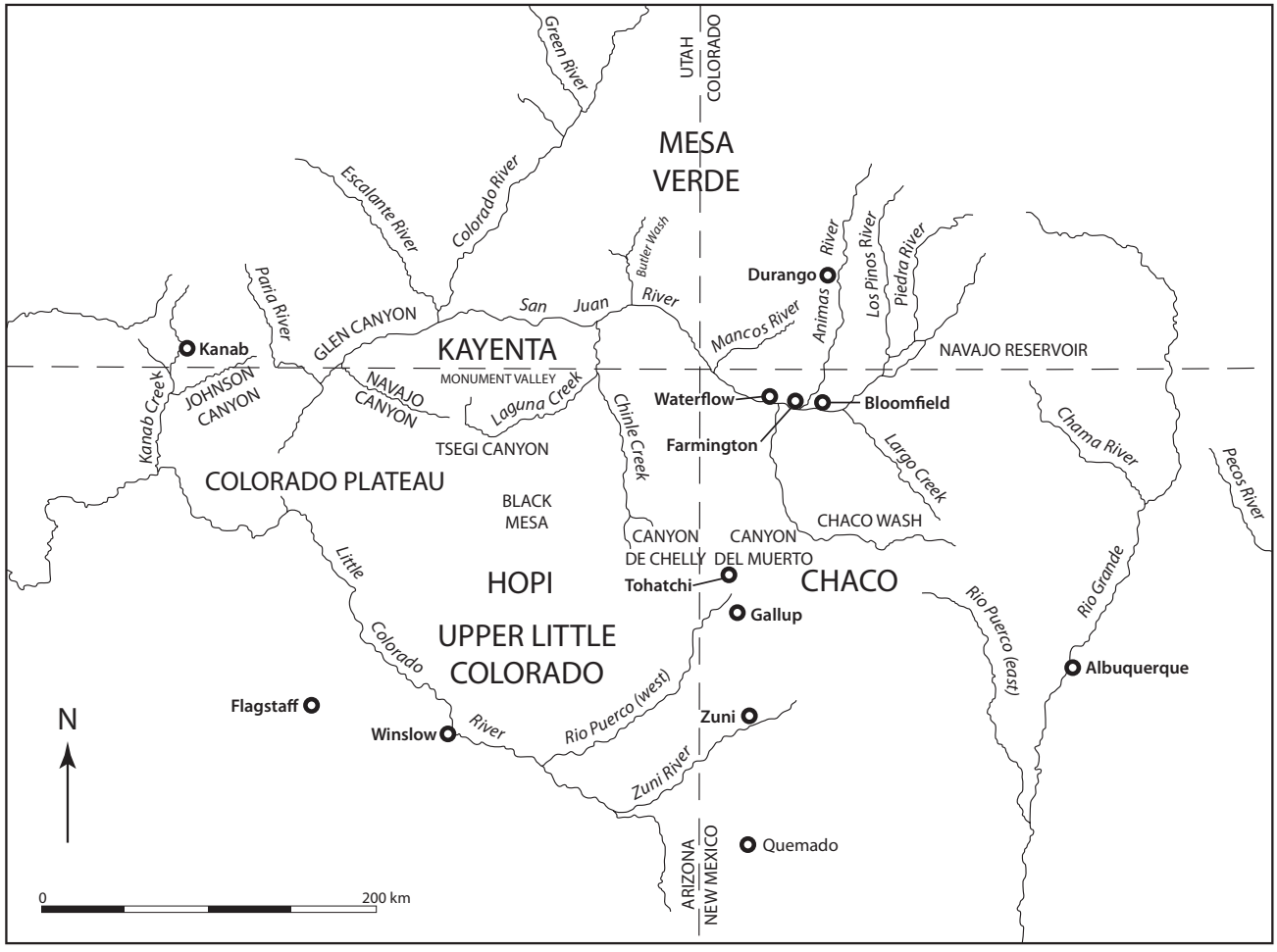

Figure 2. *Map of the Four Corners area of the American Southwest, showing places discussed in the text. (Redrawn and modified from Schaafsma 1980, 108.)*

in caves and rock-shelters (Schaafsma 1980; Cole 1989; 1994). The implication is that, in addition to referencing shamans or the supernatural realm, San Juan Anthropomorphic Style rock-art also references aspects of real life, including headdresses, costumes and ritual adornments. The anthropomorphs are shown ' … in rows, in pairs, or scattered across a cliff surface' (Schaafsma 1980, 109), often accompanied by handprints, and less commonly by small stirrup-shaped objects which may represent pouches used in ritual. Masks also frequently appear in Basketmaker rock-art. Cole (1994, 303) writes that

> … Basketmaker II-Pueblo I rock art styles show figures with mask-like heads and decorated faces and representations of animal-like masks … scalp-like subjects in Basketmaker II style rock art, particularly those with decorated faces, have mask-like qualities.

Basketmaker II groups apparently engaged in a wide range of ritual activities. Comparison of panels from Butler Wash in Utah (Fig. 3), and those of Canyon de Chelly in Arizona further reveals similarities that suggest interaction among groups and ongoing exchange of ideas as well as things. During late Basketmaker II, small clay female figurines appeared as part of the assemblage, while 'lobed circles' appeared in rock-art panels. Lobed circles tend to occur in association with the San Juan Anthropomorphs, possibly having been added to the panels (Robins & Hays-Gilpin 2000, 238). One interpretation is that the lobed circle represents fertility (possibly as a uterus), or alternatively it may represent the floor plan of a pit structure or *kiva* with an entry ladder. Associations to the crossing of symbolic thresholds have been suggested.

Basketmaker III

Schaafsma (1980, 121) highlights further changes associated with Basketmaker III rock-art. The establishment of larger, more permanent occupation sites was

Figure 3. *San Juan Anthropomorphs panel from Butler Wash, Utah. The central figure is about 5 feet tall. (Photograph courtesy of Robert Mark and Evelyn Billo, Rupestrian CyberServices.)*

Figure 4. *Basketmaker III bowl, La Plata Black-on-White, showing a group of 14 figures holding hands in a circle, possibly as part of a dance. The diameter is 19.1 cm. (Source: Tohatchi Flats, Navajo reservation, undisclosed location. Photograph courtesy of Claire Halley.)*

Figure 5. *Example of Chinle Representational Style, from a ceremonial cave in the Canyon del Muerto. Figures are about 12 cm tall. (Photograph courtesy of Polly Schaafsma.)*

Figure 6. *A Basketmaker III panel that shows a procession of individuals holding hands, deer, and possibly a* kiva. *Dimensions of the panel are approximately 91 × 335 cm. (Location: Carrizo-Encierro Canyon, Rio Arriba County, New Mexico. Recorded by Harry and Sally Hadlock. Used with the kind permission of the curator of the Hadlock Collection, Salmon Ruins Museum and Research Library, Bloomfield, New Mexico.)*

accompanied by construction of *kivas*. The nature and scale of ritual activity was transformed, and the introduction of pottery provided an additional medium for figurative representation, perhaps used for display during feasts. Unlike rock-art panels fixed in place on canyon walls, motifs painted on serving bowls would have been visible during the presentation and serving of food. Figure 4 shows a bowl decorated with a circle of figures holding hands, fourteen ordinary individuals united in a dance.

The rock-art of Basketmaker III also reduced in its size. Large anthropomorphs were replaced by smaller ordinary figures, some with triangular bodies, shown in rows or holding hands (Fig. 5). More petroglyphs (and fewer paintings) were produced; stick figures were shown walking, running, hunting or sitting in groups, engaging in 'seemingly ordinary activities' (Schaafsma 1980, 122). Often smaller and poorly executed, these figures tend to be active rather than passive. At this time, too, the earliest representations of flute players appear — some seated, some in pairs — indirect references to dance, a collective and unifying practice with positive emotional associations.

The contrast with the remote, immobile San Juan Anthropomorphs is striking, as is the ordinariness of the activities depicted. However, ritual seems to have retained its central importance. Schaafsma writes,

> Grant (1978) has suggested that this change from early Basketmaker work may reflect a degree of secularization in the rock art, with a concern for daily affairs becoming more evident. On the other hand, the importance of the bird, which undoubtedly has ritual significance, in the art of this period and in particular in the Chinle Style, cannot be overemphasized. Some of these bird representations may be related to shamanic practices of the period and the properties of magic flight… (1980, 133).

It may therefore be the case that managing and coordinating both the activities of daily life as well as ritual practice was a heightened concern for larger co-resident groups. Figurative representations reflect these changing concerns, as well as the emergence of new forms of ritual.

Basketmaker III rock-art panels (Fig. 6) also depict groups, often in processions; these panels began to appear around AD 600. Many are interpreted as narratives, a shift seen by Robins & Hays-Gilpin (2000, 241) as the replacement of 'autocentric and static' anthropomorphs with stories, myths and potentially greater referencing of cosmological spheres. The nar-

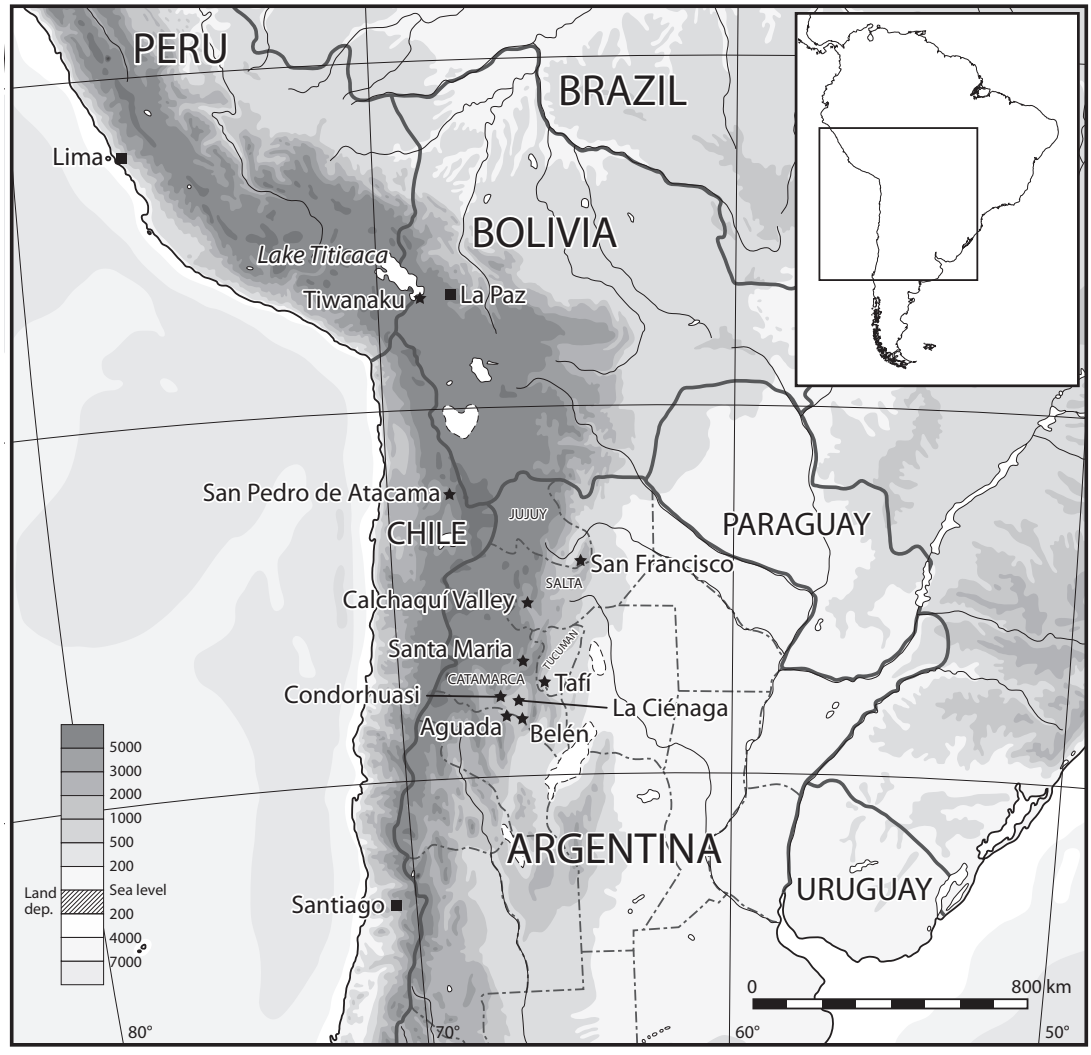

Figure 7. *Map of southern South America, showing locations mentioned in the text. (Drawn by Dora Kemp using information from Rossi 2003, 44 and Collins Atlas.)*

ratives generally involve processions of males, often with phallic images signalling potency. Processions may represent intercommunity rituals; one example at Butler Wash shows a procession emerging from a lobed circle with a ladder, probably a pit-house structure. Another late Basketmaker III/early Pueblo I panel in southeastern Utah shows approximately 150 individuals walking in four distinct lines toward a large circle with two lobed circles beneath it (Wilshusen & Potter 2010, 171).

More generally, themes in Basketmaker III iconography and rock-art stress 'unity and convergence' (Robins & Hays-Gilpin 2000, 247), while the archaeological record also reveals evidence for social stress and conflict. Figurative representations of processions and depictions of *kivas* may have been records of actual events, intended to reinforce new local rules emphasizing solidarity and social cohesion as the scale of interaction expanded.

Summary

A varied set of themes and emotional valences emerge from the analysis of the Basketmaker figurative representations during this period of transition. The rock-art, as a public and visible medium, exhibits greater 'stylistic unity' across the region than do the decorative details and motifs on Basketmaker II perishable objects (baskets and twined bags) that were locally more varied (Webster & Hays-Gilpin 1994, 319). During Basketmaker II, the San Juan Anthropomorphic Style seems to have established — among disparate and distant groups of people — a shared framework for rituals, perhaps those performed by shamans. The anthropomorphs appear

remote and distant, expressing little in the way of emotion, although their visibility and frequency in the landscape would have been reminders of collective identity across the region (Charles & Cole 2006, 203). Local expressions of difference also remained significant, in the rock-art as well as in other forms of material culture.

Basketmaker III rock-art, in contrast, was adapted, perhaps to meet more pressing social needs. Rock-art of this period represents more ordinary individuals engaging in activities that might be interpreted as events intended to forge social ties and to promote social cohesion. As communities grew larger, the need to manage social tensions through ritual would have increased. The emphasis on figurative representations of ordinary people participating in processions may have provided records (or at least reminders) of ritual events. Memories of collective sentiments of solidarity expressed during these gatherings may have helped to reduce the potential for conflict. However, Schaafsma and others also observe the frequency of birds and other ritual objects such as masks in Basketmaker III rock-art, suggesting that local variations continued to be elaborated on these wider collective themes. Finally, increased elaboration of clothing and adornments, such as the decorated woven fibre sandals recovered from caves (Webster & Hays-Gilpin 1994), also indicate that individual identities were being asserted in material and symbolic form during Basketmaker III. As the scale and frequency of collective events expanded, it seems unsurprising that individual identities were also being highlighted through visual means within local groups.

Figure 8. *A zoomorphic pipe fragment, San Francisco culture, now in the Museo Arqueológico R.P. Gustavo Le Paige. (Drawn from a photograph in Museo Chileno de Arte Precolombino, 1994, 54 by F. Maldonado.)*

Figure 9. *Zoomorphic stone mortar (height = 25.4 cm), Early Period, Museo de La Plata, Argentina. (Drawn from a photograph in Museo Chileno de Arte Precolombino, 1994, 56 by F. Maldonado.)*

Agro-pastoral groups of northwest Argentina

The *valliserrana* region of northwest Argentina encompasses a series of narrow, longitudinal valleys that lie in the eastern slopes of the Andes, linking the Bolivian *altiplano* with lower, more humid forested areas of Argentina (Fig. 7). Moist winds from the Atlantic are blocked by steep mountains across much of the region; scarce rainfall creates a semi-arid environment not unlike that of the American Southwest. Mountainous topography and altitudinal differences fostered patchy distribution of resources, encouraging circulation of resources by llama caravans from an early date.

As mobile forager-pastoralists began to settle along the rivers and tributaries of this region, they produced a rich and varied assemblage of figurative representations that ranged from anthropomorphic pipes and snuff tablets to zoomorphic mortars, elegant stone sculptures, and modelled and painted pottery (Figs. 8, 9 & 10). This material, executed with a high

Figure 10. *'Supplicant' stone sculpture (height = 30 cm), Alamito culture, Early Period, Museo de La Plata, Argentina. (Drawn from a photograph in Museo Chileno de Arte Precolombino, 1994, 62 by F. Maldonado.)*

degree of skill, is not well known outside the region, despite an increasing number of excellent publications in Argentina (González 1974; 1998; 2004; González & Pérez 1990; Berberían & Nielsen 2001). Likewise, archaeologists currently have less detailed knowledge of the transition to village life than is available for the American Southwest.

Communities and their organization

The south Andean setting is variable across different elevations and, as in the American Southwest, much of the region receives limited rainfall. Early farmers were dependent upon rivers, formed from glacial melt, for maize cultivation. Population densities (and the potential for aggregation) were generally low across the region, although larger towns emerged toward the end of the pre-Hispanic sequence. Regional polities grew to encompass populations of up to 8000–10,000 individuals during the Late Period (AD 950–1460).

The focus of this analysis is the Formative, which consists of an Early Period (*c.* 200 BC–AD 650) and a Middle Period (*c.* AD 650–950). Early Period inhabitants of northwest Argentina were culturally heterogeneous (Nuñez-Reguiero 1993), as documented by the varied material culture associated with Condorhuasi (200 BC–AD 500), La Ciénaga (200 BC–AD 600) and Tafí cultures (100 BC–AD 900), among others (see Fig. 7). Associated with these cultural groups is an assemblage of crafted objects (particularly pottery and stone sculptures) that are obviously the work of skilled artisans (Tartusi & Núñez-Reguiero 2001). The inhabitants of northwest Argentina were drawn, from early times, into an interaction sphere involving the circulation of goods by llama caravans (Nuñez 1991; Nielsen 1997–8; Albeck 2002; Lazzari 2005). Contact with areas including San Pedro de Atacama in Chile and the *altiplano* region of Bolivia fostered cult activity and the use of psychoactive plants. This interaction also introduced symbols, iconography and ideas from distant regions while offering some potential for management (though probably not outright control) of exchange routes (Tarragó 1989).

As discussed above, archaeologists have interpreted the San Juan Anthropomorphs of Basketmaker II as references to shamans, because of the 'floating' or otherworldly character of the representations. Interpretations of some of the Early and Middle Period figurative representations of northwest Argentina similarly invoke shamanic influences. The recovery of mortars, snuff trays and pipes from the archaeological record (used in the preparation and inhalation of psychoactive plants) provides further support. Saunders (2002) has argued that the brilliance of visual hallucinations equated with spiritual enlightenment for

Figure 11. *Rock-art from Inca Cueva, Jujuy province, showing a dancing scene, estimated date: first millennium* BC. *(Drawing after a photograph by Carlos Aschero: Podestá* et al. *2005, 61.)*

shamans. Plants with mind-altering properties (many of them also toxic) in the south Andes[5] include *cébil* (the toasted and powdered seeds of *A. colubrina*[6]) and possibly *Nicotiana* sp. The former, from a leguminous tree found in the forests adjacent to the *valliserrana*, was circulated for use in ritual or alliance-building activities (Torres 1999; Schultes 1990; Pérez-Gollán 2000).

Rock-art from northwest Argentina is increasingly being studied systematically, encompassing efforts to refine chronology as well as to identify stylistic relationships (Gudemos 1992–4; Boschín & Llamazares 1996; Boschín *et al.* 1999; Llamazares & Martínez-Sarasola 2004; Podestá *et al.* 2005). Painted and pecked panels in northwest Argentina emphasize anthropomorphs and birds, as well as frequent depictions of Andean camelids. Subsequently, Middle Period rock-art and iconography expanded to encompass fantastic images of felines, individuals wearing masks or transforming into felines, and supernatural beings.

Early Period

One early figurative representation of a group (Fig. 11) is visible in rock-art from the northernmost province of Jujuy; its date is estimated as first millennium BC. Executed in brilliant red pigment, the rock-art represents eight elongated figures with elaborate hair or headdresses, separated by rows of faint black dots (shown as grey shading). The image probably depicts dancers, as some individuals have their arms intertwined, and they may be wearing headdresses. The image suggests a unified group, with no single figure standing out from the others.

An Early Period rock-art panel from Catamarca

Figure 12. *Rock-art from Potrerito 2, Corral Blanco, Catamarca province, showing large lined faces,* c. *500* BC–AD *500. (Drawing after a photograph by María Mercedes Podestá: Podestá* et al. *2005, 71.)*

Figure 14. *Rock-art from Real Grande 3, Antofagasta de la Sierra, Catamarca,* c. *500* BC–AD *500. (Drawing after a digital reconstruction by Sánchez Proaño: Podestá* et al. *2005, 67.)*

Figure 13. *A menhir in the Museo Arqueológico de Cachi (Salta Province). (Author's photograph.)*

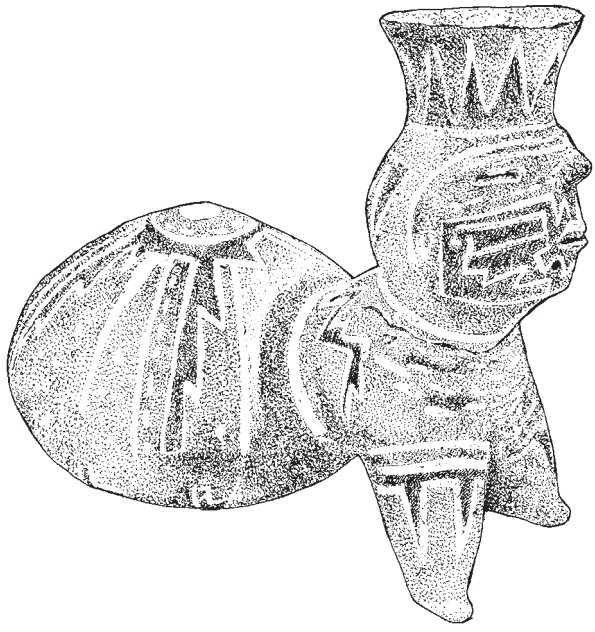

Figure 15. *Condorhuasi vessel depicting a crawling (part-feline?) figure.*

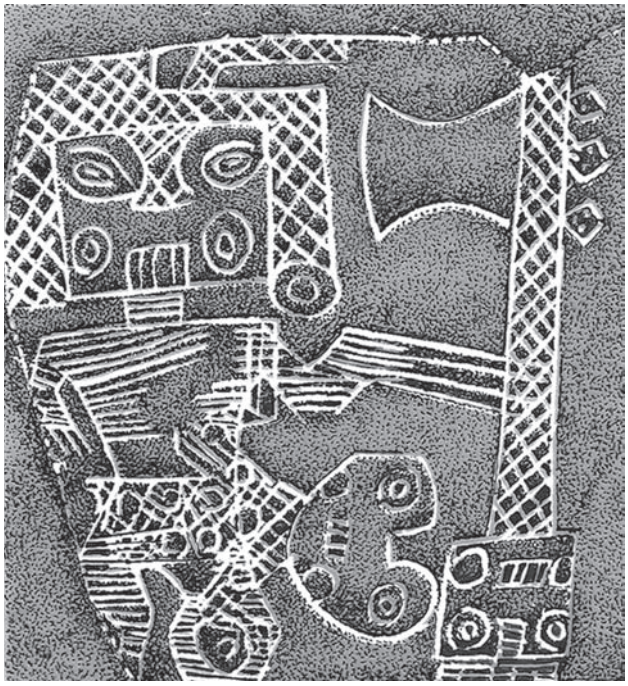

Figure 16. *The Sacrificer, image from an incised vessel (Hualfín Grey Incised). (Redrawn from González 1998, 173.)*

Figure 17. *Figure with Two Sceptres (red and black on cream) on an Aguada vessel. (Redrawn from González 1998, 170.)*

(Fig. 12), dated on stylistic grounds, contains an array of faces, stick figures, figures with upraised arms, camelids, lizards, birds, plants, outlined crosses and footprints/pawprints arranged in close proximity. Three faces are proportionally much larger than the surrounding images; they are lined, possibly representing face painting, as found on figurines from the Middle Period. The lined faces are also reminiscent of sculpted stones, or menhirs, placed in house compounds in Tafí villages (Fig. 13).

Another painting executed in bright red pigment, also from Catamarca province (the Real Grande 3 site) represents a procession or a confrontation (Fig. 14). Two lines of figures, most of whom hold stick-like objects in outstretched arms, advance in single file toward one another. Larger figures stand at the front, perhaps leading the two groups of followers. On the left side, three individuals hold ropes attached to a transparent camelid, which is disproportionately large, shown possibly floating in the air. Behind this group are three smaller camelids and a further nine camelids occupy the foreground. In the bottom right, a larger camelid and a stick figure face one another, separated by a looped object, perhaps a rope. These last two figures are executed in light brown, in contrast to the bright red pigment colour of the rest of the panel.

Elements that support the interpretation of a procession (rather than a confrontation) include the fact that some individuals on the right side may be dancing or seated, rather than walking or marching. The large llama figure on the right also hints at mystery or an otherworldly quality, due to its anomalous size, the tethering ropes and its transparency. These aspects may reference the supernatural realm, possibly as part of a fertility ritual focusing on the productivity of camelids.

Overall, the Early Period rock-art recorded to date does not conform to a readily identifiable artistic canon or style, but appears to have been locally variable. Narratives as well as collections of individual figurative representations are present, and local rules probably encompassed awareness of people in relation to the natural world, as well as engaging with supernatural realms. Figurative representation in pottery manufacture appeared during this period as well; a Condorhuasi vessel depicting a bulbous crawling figure, possibly part-feline (Fig. 15), hints at the early stages of a feline cult that developed widely in the Middle Period.

Middle Period: Aguada

During the Middle Period, AD 650–900, Aguada material culture became surprisingly widespread, emerging as a coherent tradition (despite local variation) across the region (Raffino *et al.* 1979–82). Pottery, bronze plaques (and probably textiles) in the Aguada style also show evidence of at least indirect contact with the Tiwanaku polity located on the shores of Lake Titicaca (Kolata & Ponce Sanginés 1992; Janusek 2003).

Figure 18. *'El Diablo' petroglyph, northern Calchaquí Valley (La Aguada). (Drawing by A. Mercado, D. Salvatierra, and R. Moya. Photograph by the author.)*

Aguada figurative representations frequently represent supernatural or fantastic beings, including 'the Sacrificer' (Fig. 16) and 'the Figure with Two Sceptres' (Fig. 17), a clear reference to Tiwanaku's staff god. At the same time, pockets exist where Aguada material culture was almost entirely absent; Jujuy and Salta, the two most northerly provinces in Argentina, reveal scant traces of Aguada material culture.

Aguada iconography emphasizes prominent individuals, often accompanied by ancillary figures or felines, who are usually males in elaborate costumes wielding weapons or other emblems of authority. A petroglyph in the Calchaquí Valley, Salta Province (Fig. 18), is evidence of a rare occurrence of Aguada iconography in this northern zone. The panel shows a central figure (approximately 1.7 m tall), possibly a human wearing a jaguar skin and mask, approaching a smaller figure, perhaps a child. Whether the figure is menacing or helping the child is not clear. Nevertheless, the depiction of a focal individual, rather than a group, is common in Aguada figurative representations. The content suggests an esoteric cult, linked to the jaguar, a large predator animal, and to the activity of shamans. The large size and public location of this image, on a rock face, suggests that it was meant to be widely seen.

The emotional impact of Aguada images is forceful, expressing themes of violence, frequently through representations of figures holding weapons or by allusions (real or mythical) to sacrifice. In this case, local rules shifted to acknowledge a collective existence dominated by otherworldly beings who could be engaged with as part of cult activities. At the same time, secular and ordinary aspects of daily life appear infrequently in Aguada figurative representations.

Figure 19. *Aguada bronze plaque showing a central personage flanked by two animals. There are holes for suspension in the headdress of the central figure. An axe hangs from the figure's arm, and his costume is decorated with geometric designs. (This plaque was received as a donation (c. 1892) by the Museum of Archaeology & Anthropology in Cambridge (Z-2540); unfortunately its provenience is not known. It measures 12.3 × 10.9 cm. Photograph by Gwil Owen, used with permission.)*

Figure 20. *Aguada bronze plaque showing three figures wearing elaborate tunics. Two figures had heads protruding above the main plaque, now missing. The central figure is shown upside down. (This plaque was donated (c. 1895) to the Museum of Archaeology & Anthropology in Cambridge (Z-2541); it may have been found with the plaque shown in Figure 12. The plaque measures 10.5 × 9.0 cm. Photograph by Gwil Owen, used with permission.)*

Figure 21. *Cave-painting 'Dance of the Suris'. The original is crudely executed in white pigment on a dark background. Scale not known. (Redrawn from an image in González 1998, 179; see also Gudemos 1992–4, fig. 11.)*

Bronze plaques made by Aguada metallurgists also display figurative representations. The plaque shown in Figure 19 represents a central personage holding an axe, flanked by felines, wearing an elaborate tunic. A second plaque (Fig. 20) shows three figures in tunics. The two figures who are standing upright wear identical tunics, while the central figure (shown upside down) wears a different emblem. The 'inverted figure' in other Andean contexts has been linked to defeat or death; such an interpretation fits with other evidence for Aguada images of violence. The plaques were probably worn by those in positions of ritual authority; however, their small size limited visibility to those in the vicinity of the wearer.

Representations on Aguada pottery usually feature single individuals wearing elaborate costumes, some accompanied by felines, or part-feline part-human beings, or supernatural beings wearing feline masks. Overall, the emotional impact of the iconography is powerful, marking out and separating prominent individuals, drawing attention to them, perhaps as a means to set out their authority and to unify their followers. The representations may also have been intended to foster a relationship between a group and a focal individual. In either case, emotional sentiments include fear and the threat of violence.

In contrast, some representations (albeit more rarely) show Aguada groups engaged in activities emphasizing fertility, such as dance. One panel, the 'Dance of the Suris', is a well-known panel crudely painted in white from the Cueva de la Salamanca in Catamarca (Gudemos 1992–4) (Fig. 21). This painting depicts a line of male dancers, penises erect, with bent knees suggesting movement or dance. Above them, tied to a circular object, is a disproportionately large feline with open jaws (not unlike the large transparent llama discussed above). Below the dancers are additional figures, one larger than the others holding a stick, and a flock of rheas (large, flightless birds) surrounding the mother bird. A severed feline head lies upside down at the bottom of the image, and at the side, a pair of figures sits at a drum. The remaining elements evoke themes of procreation and fertility, while dancing has positive emotional associations.

The presence of the Tiwanaku polity (along the llama caravan routes near Lake Titicaca) was a stimulus for exchange (Browman 1984; Pollard 1984). As a ceremonial centre integrating a far-flung region (Kolata 2003), Tiwanaku llama caravan routes extended as far south as Aguada territory, after passing through the oasis of San Pedro de Atacama in Chile (Nuñez 1991; Llagostera 1995; Tarragó 1999). Hence some caravaneers eventually reached the 'ultra periphery' where Aguada ritual specialists exercised widespread influence, if not political control (Berenguer 2000; Lazzari 2005; Peréz-Gollán 2000; Tarragó 2006).

Recent interpretations of Aguada socio-political dynamics emphasize unequal access to these net-

works. Examining distributions of pottery styles and prestige goods across the region, Tarragó (2006) argues that Tiwanaku elites had contact with high-ranking individuals in San Pedro de Atacama, Chile, who in turn worked to control flows of resources (salt and mineral ores) from the surrounding *puna*. A similar network linked San Pedro de Atacama traders with inhabitants of the valleys of Argentina (Yacobaccio *et al.* 2002). According to Tarragó, access to the caravan routes (along which moved everyday goods such as salt as well as mineral ores, *cébil*, fine textiles and bronze plaques) was unequal, limiting the regional influence of local leaders, whose authority probably lay primarily in coordinating access to cult paraphernalia and the conduct of ritual.

The overarching impression emerging from the study of Middle Period evidence is that rock-art was variable in its content; it was also the most public and visible of the figurative representations. In contrast, Aguada iconography on plaques and pottery (and probably also on textiles) was more tightly constrained in its themes and emotional valences, emphasizing fantastic, elaborately attired individuals, and expressing themes of power, violence and sacrifice.

Summary

Overall, the examination of figurative representations from both Early and Middle Periods in Argentina suggests a trajectory of change in social conditions and integration of the group that contrasts with the pattern observed for the Basketmaker groups. In Argentina, figurative representation of the collective expressed the local group's relationship with a distant, potentially threatening figure, possibly a supernatural being or a shaman. Rock-art referenced a range of collective activities that probably involved the use of psychoactive plants. The change from Early to Middle Period involved increased emphasis on a feline cult, as well as upon representations showing part-feline part-human transformations.

The influence of Tiwanaku iconography is visible in Aguada figurative representations; focal beings such as 'the Sacrificer' evoked emotional qualities such as fear and the threat of violence. Despite drawing upon the widely disseminated iconographic themes and symbols of the Tiwanaku state, Aguada villagers lacked overarching political integration, with leadership remaining local in character. More research is needed to confirm the nature of Aguada leadership, the scale of settlement, and the nature of ritual. Nevertheless, local rules and emotional sentiments expressed in the figurative representations of Early and Middle Period northwest Argentina contrast in significant ways with those discussed above for Basketmaker groups.

Discussion

In undertaking this comparison, I have highlighted the details of two sequences of figurative representation to demonstrate the ways that changing forms of figurative representation may reveal local rules and the emotional dynamics of collective experience during the transition to settled, village life. The Basketmaker sequence revealed a shift from emphasizing individual anthropomorphs (interpreted as shamans in flight) toward the depiction of ordinary individuals engaged in processions, rituals or activities of daily life. In these representations, the emphasis shifted from immobile anthropomorphs toward active individuals, or from emphasis on the *subject* to emphasis on the *activity*.

Wider themes in Basketmaker rock-art include unity and solidarity, particularly in Basketmaker III, as well as signalling of the group's presence in a territory, expressed by local variants on shared themes. While the earlier representations of anthropomorphs evoked qualities of mystery, hinting at 'otherworldly' experiences, later rock-art represented ordinary activities and individuals. Local rules interpreted from the rock-art panels include a greater stress on the collective, on solidarity and on social cohesion. These local rules also seem to emphasize inclusive, participatory values.

Figurative representation of the group in northwest Argentina was more variable throughout the sequence. Early Period rock-art panels exhibit less coherence in terms of identifiable styles or themes, although through careful recording, Podestá and colleagues (2005) have documented themes ranging from collective events — dances and processions — to panels with arrays of individual images — plants, animals, and human faces — displayed at different scales. Local rules inferred from these images involve engagements with the natural world, as well as indicating human transformation through wearing of masks or pelts, probably as part of shamanic activity involving the use of psychoactive plants.

The Middle Period Aguada representations suggest that group activities increasingly referenced the supernatural in the form of otherworldly, fantastic beings. Themes included violence, the possibility of sacrifice (whether real or implied), and overall participation in a symbolic system emanating from distant Tiwanaku, but to which Aguada people made their own contributions. Interestingly, the ties to the northern polity were symbolic or ritual linkages, as Aguada territory was too distant from Tiwanaku to have experienced political interference.

The figurative representation of the group in Argentina points toward a different dynamic — one in which each member of the group experienced a

connection (through the group itself) to a wider realm of supernatural beings. Representations were less explicitly oriented toward the fostering of solidarity within the group itself. The repetition of themes of violence, associated with the potentially fearsome qualities of supernaturals or shamans, seems also to imply that ritual and cult activity were hierarchically ordered. Yet these themes did not translate directly into explicit forms of political power. Evidence suggests that some individuals achieved positions of prominence as ritual specialists, but that as a whole, the Aguada region lacked regional hierarchies; villages remained autonomous.

Conclusion

My aim has been to draw attention to the figurative representation of the group as a means to investigate the impacts — emotional and psychological — of collective experiences in past societies. I have argued, in agreement with Cowgill (1993) and Tarlow (2000), that archaeologists should devote more attention to identifying the wide range of emotional experiences that we know affected individuals, particularly as part of their interactions with others, as part of ritual and social life within communities. While such a goal is desirable, the task is difficult. Investigation of figurative representations over a sustained period is one way to identify repetitive, stereotyped emotions, local rules, 'non-rational' propensities, moral sentiments and the shared emotions that shaped group life.

I have also argued that figurative representation is an active process; creation of rock-art, pottery motifs, figurines, or textiles offered to groups a means of consolidating their experience, sustaining memory, and — in some cases — forging new directions. Tracking change over time offers archaeologists the possibility of identifying shifting concerns of the collective in distinct spheres of life, including the spiritual and the religious, as well as in more ordinary endeavours of daily life. While the approach described here of course has its limitations, nevertheless there exists potential for amplification of the approach. Studying figurative representations of the group in other regions of the world, during other transitions (such as the shift to urban life) would be fascinating. In future research, more detailed studies could also focus upon refining chronologies, on more systematic documentation of regional variation, and on estimating overall quantities of different types of representation across a given region. Finally, comparative studies of figurative traditions, such as I have attempted here, could also facilitate greater understanding of the dynamics of past social groups in a wide range of contexts across the globe.

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Notes

1. Non-rational propensities are — importantly — not irrational; they are instead ways of acting that may not be entirely explained by reference to self-interest. They may be universal (shared by all humans as a consequence of our biological makeup) or conditioned by social learning, and hence local in nature (Cowgill 1993, 558–9; see also Varien 1999, 27).
2. Figurative representation, as I use the phrase in this article, includes representations of plants, animals, and human beings, as well as supernatural beings and shamans. While some might argue that supernatural beings are not 'aspects of the natural world', I include them in the definition as they may indeed have been seen that way by those who created the figurative representations.
3. An early Andean example is a cache of 13 or 14 unfired, incomplete clay figurines, discovered between the floors of a small summit room of the platform mound, Huaca de los Idolos, at the site of Aspero. This cache, one of the earliest examples of figurative representation for coastal Peru (Feldman 1991; Burger 2007, 243–4), is thought to represent a dedicatory ritual that accompanied rebuilding activity undertaken around 3055 cal. BC. It is not difficult to imagine this deposit being disturbed before discovery, so that the individual figurines would be bagged, recorded, and studied separately as single artefacts.
4. The definition of village is crucial here; in this case, a village is at least 10 households who do not share kinship bonds and therefore rely on other mechanisms for forging and maintaining social cohesion. The first attempts at village formation were short-lived, lasting only a few generations. For a broader discussion of these issues see Bandy & Fox (2010).
5. The use of psychoactive plants in South America is widely documented (e.g. Furst 1990; Reichel-Dolmatoff 1975; Schultes 1987; Ripinsky-Naxon 1989). Jones (2009, 176) has argued that New World populations, during

the long period of migration into the Americas, had acquired an 'ecological intelligence' to adapt to a limited range of edible plants available in northern latitudes. Experimentation with dicot plant families in the New World (including manioc, sweet potato, and potato, all of which have toxic relatives) fostered extensive knowledge about plants that included their use as toxins for hunting, awareness of medicinal properties, and use as mind-altering substances.

6. Schultes (1990) notes that there remains some uncertainty about whether *A. colubrina* is the narcotic snuff referred to as *vilca* or *huilca* in southern Peru and Bolivia and as *cébil* in northwest Argentina, although many other researchers accept this attribution.

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