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IMAGES THAT TRAVEL: AGUADA ROCK ART IN NORTH-CENTRAL CHILE

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Abstract. The presence of two petroglyphs ascribed to Aguada iconography (north-west Argentina) identified in the Province of Choapa, central-northern Chile (31° latitude south), is herein discussed. Through a formal comparison of the motifs of rock art and those recognised in the iconography of north-western Argentina, the homology of the representations is established. Specifically, the analysis allows identifying the presence of the feline motif, the main character of Aguada iconography, related to a particular symbolic system that expanded across the southern Andes about the middle of the first century of our era. With these antecedents, the implications of the presence of this motif in the area of study are discussed.

Introduction

As a social element, rock art is expressed through the materialisation of a series of images which respond to visual conventions associated to a certain orality and a symbolic system that confer meaning to them (Layton 2001; Lewis-Williams 2002; Whitley 2005). Through their spatial distribution, these images occur in regions of particular iconographic repertoires; in turn, their extra-regional distribution evidences contacts between localities and areas, entailing social implications of economic, ideological and political nature. Moreover, in contrast to portable goods, which can circulate materially, the expansion of images in unmovable art, such as rock art, lies in the ideational realm only, as a representation that is stored in the imaginary of groups or individuals and materialised on the stones. It is the ideas of the images that travel wide areas and which are materialised in places distant to where their iconographic repertoires concentrate.

For this reason, rock art constitutes an important indicator to approach issues of extra-regional contacts without depending necessarily on the mobility of people for explanation, since it is the image in itself and the idea of it what circulates through different media and procedures that should be elucidated.

Two specific rock art motifs identified in the southernmost fringe of the semiarid north of Chile, namely in the Province of Choapa (31° lat. S, Figs 1 and 2), are herein presented and discussed. The characteristics of both motifs can be associated to Aguada iconography from north-western Argentina, in particular to the main character of this art corresponding to the feline. These two motifs would represent the only material evidence recognised at present of material elements

associated to Aguada, for which its presence as the materialisation of inter-regional contacts is discussed in relation to the social processes occurring in the area between the sixth and tenth century of our era.

Rock art and content

As semiotic and visual entities (Layton 2001; Llamazares 1989; Sonnesson 1994; Troncoso 2005a), images represented on rocks are constituted of symbolic elements that come into a process of semiosis allowing the conformation of contents and discourses. It is by this process that images are constituted as signs that refer to meanings anchored in the ways of inhabiting the oral traditions and symbolic systems (*sensu* Geertz 1994) of specific communities.

Constitution as signs allows the possibility of establishing a set of meanings and contents from the images. Although the conformation of its practice is varied and involves different actors — artist, index, prototype and recipient in Gell's (1998) proposal — we believe it refers to the basic principles of semiographic systems (Sampson 1985), which do not rely in a direct relation between the contents and the image as in our written language, but base their semantic efficiency in visual redundancy, that is, in the incorporation and reiteration of basic elements of the image, and in their interaction with orality, for which the symbolic systems that sustain them are central to their understanding (Salomon 2001; Solomon 1994, 1998; Groupe U 1993).

Although this formalisation has not been that explicit in rock art studies, it has been recognised by some authors who regard rock art as related to the transmission of information (Barton et al. 1994;

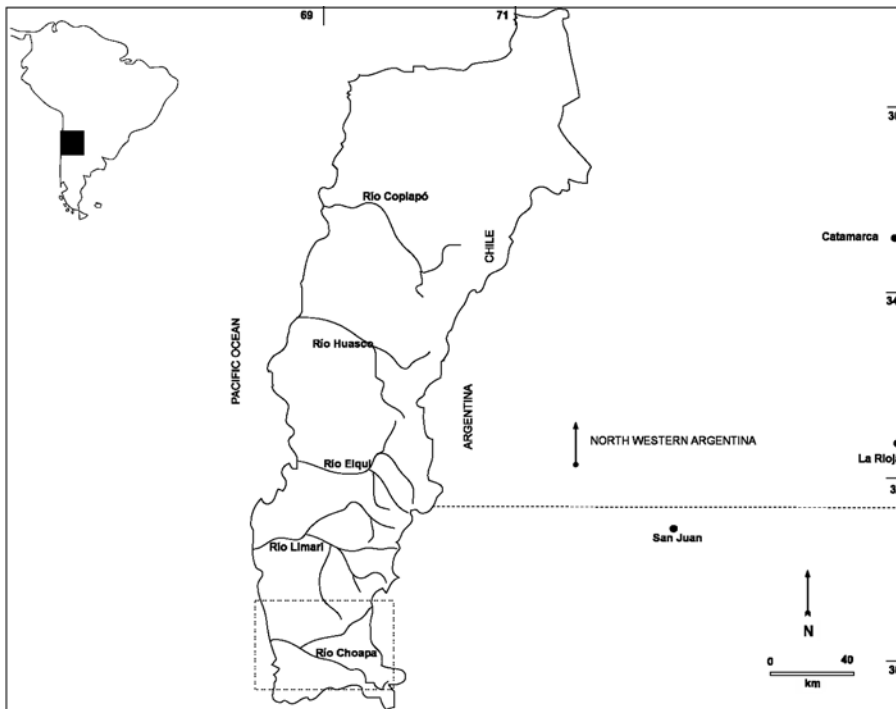


Figure 1. Map of the region and places mentioned in the text.

Gamble 1998; Mithen 1988), which have in one way or another founded most of the interpretative logic of rock art.

However, the studies that focus on the transmission of information have established a unidirectional organisation between contents and rock art, by which the images transmit a knowledge condensed in the image. Opposed to this position we acknowledge rock art as a second-order agent understanding that, although it does not present the autonomy and self-sufficiency of human agency, it acquires agency 'once they become enmeshed in a texture of social relationship' (Gell 1998: 17). Through this property we believe that the relation between rock art and symbolic systems is more likely to be dialogic in nature.

Through this relation, the images articulate with its particular symbolic system from which its creation is possible, but at the same time work as an index, that is, as 'material entities which motivate abductive inferences, cognitive interpretations' (Gell 1998: 27). Thus it is in this relation that the images are a product of specific symbolic systems and at the same time produce and reproduce such a system in its materiality.

Central to this dialectic is the existence of specific indexes that refer to and condense medullar aspects of these symbolic systems. A clear example of this kind of index for the Andean world is the image of the 'Sacrificer' (Núñez 1964), a motif that condenses a series of notions, which are basic to pre-Hispanic ideological systems of the region, such as the cult of human heads, and the ideas of duality and opposition, among others.

As Gell (1998) sustains, the production of these indexes refers and is associated to the presence of prototypes that operate as agents over rock art creators, for which, although there is certain variability in the materialisation of the images, the centralisation of the design and its content act upon the producer to allow its clear manifestation.

Beyond the centrality of the motif and its symbolic system, this clear manifestation of the image lies in the fact that every sign has what Eco (1997) calls a nuclear content, that is, a set of minimum elements that make possible its association and ascription to a specific element recognised in symbolic systems of communities. In the case of rock art, this nuclear content would be expressed in particular visual attributes that

allow the identification and ascription of the motif to a specific type. Hence this nuclear content acts as a semantic determinant which accounts for a particular sense of the sign (Eco 1997), and in this case, of the prototype that originates it. The conformation of prototypes, although pertaining to wider theoretical discussions, should take place through the dialectic relation between the imaginary and material worlds of human communities (Eco 1997; Gell 1998).

If the above is accepted, the presence of certain visual elements in rock art may be conceptualised not only as expressions of specific aspects of a symbolic system, but also as central gears to their reproduction, promoting the production and exhibition of notions belonging to these ideological constructs, which are materialised in an image and the orality associated to it. It is from this consideration that two rock art representations located in the Province of Choapa, in the semiarid north of Chile, are analysed and discussed.

Rock art and the archaeological record of the Province of Choapa

The Province of Choapa is located in the southern fringe of the semiarid north of Chile (Figs 1 and 2) and is characterised by a prolific production in rock art, especially petroglyphs, being defined by some authors as the area of the semiarid zone in which this type of archaeological manifestation is most frequent (Castillo 1985).

Spatial distribution of rock art in the Province of Choapa is characterised by a strong presence in the inlands, especially at the heads of the different valleys

that constitute this region (mainly in Illapel, Chalinga and Choapa), and a very scarce record on the coast, where no more than ten decorated blocks have been found (Jackson et al. 2002).

Although the existence of rock art associated with hunter-gatherer populations from the Archaic (possibly Late Archaic, 3000–500 B.C.E.) has been proposed (Jackson et al. 2002), it is clear that a first set of rock art manifestations is associated to the Early Ceramic Period (0–1000 C.E.) (Castillo 1985). Although there are discussions on the motifs that compose the iconography of this period (Cabello 2001; Jackson et al. 2002; Troncoso 2004), consensus exists in the recognition of 'masks' and simple circular motifs in this set.

Chronologically, this first set of rock art would be situated between c. 0 to 900–1000 C.E., being the result of activities of low-scale communities characterised by a hunting-gathering economy complemented by early crops such as quinoa (*Chenopodium quinoa*) and with a pattern of low mobility. The presence of *tembetás* (lip ornaments), pipes for hallucinogens and monochrome pottery with incised decoration allowed an early association of the peoples from the Early Ceramic Period of this area with an Amazonian horizon (Cornely 1956; Iribarren 1950; Niemeyer et al. 1989).

A second assemblage of petroglyphs has been ascribed to the Late Intermediate Period, represented by the Diaguita culture. Among the designs of this set, there are the representations of 'humans' and 'camelids', 'masks' of which the 'eyes' and/or 'mouths' are represented by stepped designs, as occurs in pottery, and schematic designs such as step-frets (Ballereau and Niemeyer 1996; Jackson et al. 2002; Troncoso 1999, 2004).

Chronologically, this second assemblage would be situated between 900–1000 to 1450 C.E., being the result of incipient agricultural communities, characterised by a sedentary settlement pattern and an economy based on the gathering and control of certain crops, such as quinoa and maize (*Zea mays*) (Troncoso 1999). The presence of polychrome pottery with white, black and red where 'felines' are represented, and the recovery of spatulas for the inhalation of hallucinogens have led some authors to propose an association of these populations to an Andean horizon more than Amazonian (Castillo 1992; Latcham 1926; P. González

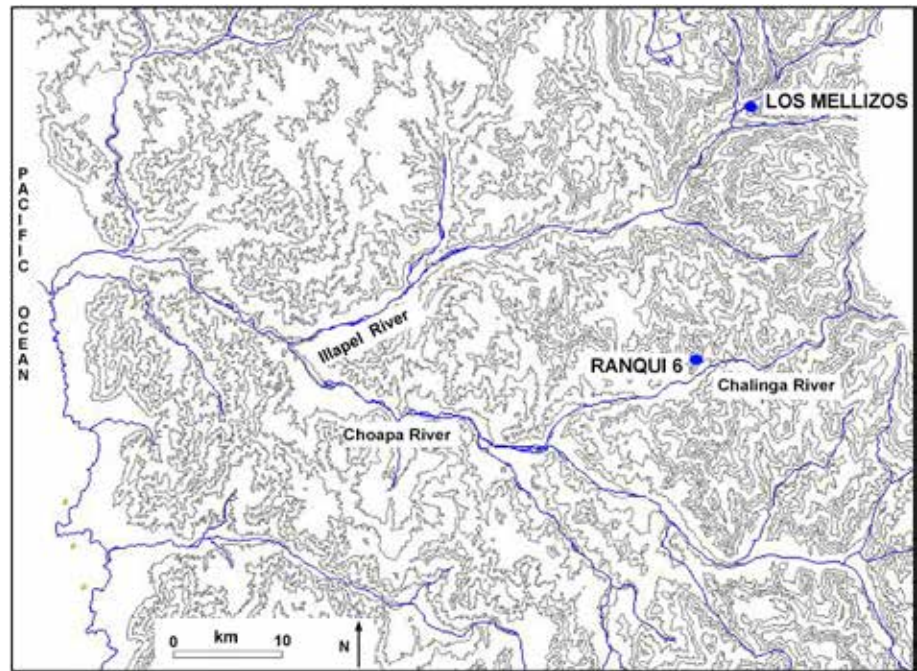


Figure 2. Map of the Choapa region, indicating rock art sites with Aguada petroglyphs.

1998; Troncoso 2005b).

Finally, a third set of rock art has been ascribed to the Late or Inca period. Among the designs there are masks with the four-partition organisational pattern, schematic designs such as squares and ovals internally subdivided that are similar to the Inca design of the clepsydra, as well as some scenes of interaction between humans and camelids that have been interpreted as a product of livestock husbandry (Troncoso 2004; Jackson 2005).

Chronologically, this third period would be situated between 1450 and c. 1540 C.E., being defined by the incorporation of this territory to the bureaucratic system of the Inca State, which brought about a series of transformations to the area, such as the application of a tribute, the introduction of metals, the emergence of domesticated animals such as the lama (*Lama glama*), and cults specific to the Incas, among others.

La Aguada from north-west Argentina and its iconography

Aguada corresponds to one of the most complex cultural developments outside the central Andean area. Although it was early described and identified as an archaeological unit, there have been important discussions on its character and nature (see Milán and Gotta 2001) and currently there is some consensus in understanding it more as an extended ideological horizon that allowed a regional integration than as a specific culture (Kusch and Gordillo 1997; Núñez and Tartusi 2002; Pérez Gollán 2000; Pérez Gollán and Heredia 1990).

Accordingly, the definition of 'Aguada phenomenon' has been proposed, since above the heterogeneity of

ways of life there would be certain homogeneity stemming from the act of sharing a symbolic system (Kusch and Gordillo 1997; Núñez and Tartusi 2002; Pérez Gollán 2000). An assembly of specific images with particular norms that would expand spatially through different materials, constituting Aguada iconography, provides such similarity.

Chronologically situated in the Medium Period (c. 500–1200 C.E.) (A. R. González 1961–64, 1998), the core of this process of regional integration is located in north-western Argentina (NWA from now on), a region from which the Aguada components expand to other areas (Fig. 1). Although there are variations in material complexity in their expansion (A. R. González 1992, 1998; Kusch and Gordillo 1997; Núñez and Tartusi 2002), such as the presence of ceremonial architecture in NWA, there is a series of iconographic resources and material elements similar in the different spaces in which they appear, sharing a symbolic art of religious nature in which the image of the 'feline' is a main element (A. R. González 1992, 1998; Kusch and Gordillo 1997; Kusch and Abal 2005). It is because of this symbolic art that Aguada has been considered as an extended process of integration that involved different local peoples from NWA and surrounding areas such as the central west of Argentina and northern Chile (Núñez and Tartusi 2002; Pérez Gollán and Heredia 1990).

This expansion of Aguada goes as far as the Province of San Juan in Argentina, including the valley of Calingasta, adjacent to our area of study, where radiocarbon dates situate its presence between 670 and 1060 C.E. (Gambier 2000, 2001, 2002). In Chile, Aguada elements have been recognised in the area of San Pedro de Atacama (Llagostera 1995), and the southernmost expressions found in Chilean territory have been those in the valley of Copiapo, 400 km north from the valley of Choapa (Callegari 1997; Cervellino 1992; Iribarren 1971) (Fig. 1). For these two areas within Chilean territory, the element used to identify Aguada presence has been pottery, especially by its iconographic characteristics.

In the understanding of Aguada as a phenomenon of regional integration, different authors (A. R. González 1992, 1998; Kusch and Abal 2005; Kusch and Gordillo 1997; Núñez and Tartusi 2002; Pérez Gollán 2000; Pérez Gollán and Heredia 1990) have suggested the centrality of symbolic and iconographic systems as the propagators of a particular worldview centred in the trilogy formed by the feline, the sun and hallucinogens, responding to an essential parameter of the cultural developments of the central Andes.

The materialisation of this symbolic system is found in a rich and complex iconography, where the basic figures recognised have been anthropomorphs, 'felines, ophidians, batrachians and saurians, camelids and birds', and a combination between these elements (A. R. González 1998). These motifs appear in pottery, metal objects, basketry and rock art, among others

(op. cit.).

Within this iconographic assemblage there is a reiterative motif represented in profile, characterised by the depiction of a big mouth and an eye (Callegari 2001), which has been interpreted as a feline (A. R. González 1998), regardless of the fact that it is represented as a conjunction between ophidian and feline, with the body of the former and the mouth of the latter (Fig. 3). As A. R. González (op. cit.) contends, 'the final result of the composition process configures an image that incredibly begins as a feline ... if a sequence of many figures is not established and we only start looking at this last variable only, the interpretation of a feline is hard to believe' (A. R. González 1998: 227–228; our translation).

The centrality of this feline-ophidian motif is not given by its iconographic recurrence only, but also because on occasions it seems anthropomorphised, being interpreted as a figure with a feline mask (i.e. A. R. González 1998: 182).

The transmutation of this design in different categories (human/feline/ophidian) accounts for its semantic centrality in the symbolic system, a situation also observed in its reiterative representation as a unique motif in pottery or as a central motif in rock art panels. This centrality is related to the predominance of the feline within this symbolic system.

Despite this variability in the designs, their identification as belonging to the same category lies in a series of basic reiterative elements recognised by several researchers (i.e. Callegari 2001; A. R. González 1998; Kusch 1991), and which we think can be understood as visual referents of the basic nuclear content.

In fact, by dividing this motif into two sections, head and body, it is observed that the former is highly normalised and therefore similar in every representation, whereas the latter presents more variability, possibly because it is by the body that the kind of representation is materialised (ophidian/feline; feline, anthropomorph/feline). This leads us to suggest that the nucleus of the representation, the nuclear content of this motif is in the organisation of its head, although it constitutes a meaningful whole.

The characteristics unique to the cephalic decoration of these motifs are: profile representation, one circular eye, which in most of the examples presents a central dot; a complex formed by mouth, teeth and tongue, where the mouth is open, teeth of the upper and lower jaw, and in the middle a linear figure emulating a straight tongue are represented. Over the jaw there are two angular appendages (Fig. 3).

On the other hand, the body presents variability, depending on whether the image represents an ophidian/feline, a feline or a feline/human. However, the presence of linear appendages simulating lower limbs is recurrent and they vary in characteristics depending on the kind of figure they are representing; also recurrent is the presence of circular and reticular

decorations on the body (Fig. 3).

This segmentation concurs with the recent systematisation of this motif carried out by Kligmann and Díaz (2007). They suggest that these ophidian designs are represented both vertically and horizontally, highlighting the recurrent presence of eyes, mouths and designs within the body. In the occasions in which the ‘ophidian’ is combined with the ‘feline’, the heads are more irregular, with only one eye and other features not always represented, such as teeth and tongues. This situation may be due to that in this ophidian/feline integration there is not a breakdown of the former to integrate the latter.

Aguada rock art in Choapa?

As indicated above, rock art from the Province of Choapa is defined by a wide variability of motifs ascribed to different periods of local pre-History; nevertheless, they tend to be repeated in one or another way in different sites. However, studies carried out in the region have led to the identification of over 1500 engraved rocks, of which two exceptional motifs different to the iconographic repertoire where found, which can be compared to the Aguada motif described above.

The first of the motifs corresponds to the representation of an ‘ophidian’ identified at the site of Los Mellizos (Fig. 2), previously recorded by Ballereau and Niemeyer (1996), who interpret it as a mythological animal and state their possible stylistic kinship relationship with trans-Andean petroglyphs, without presenting further details. The site Los Mellizos is located in the upper basin of the Illapel river and constitutes the main concentration of rock art of this basin, with 160 blocks. Los Mellizos is a special place in the valley, being the site with the highest frequency of engraved blocks in the area; it presents motifs not identified elsewhere; and it is located in a transitional space between the fluvial terraces of the valley and the Andean mountains. The site presents an

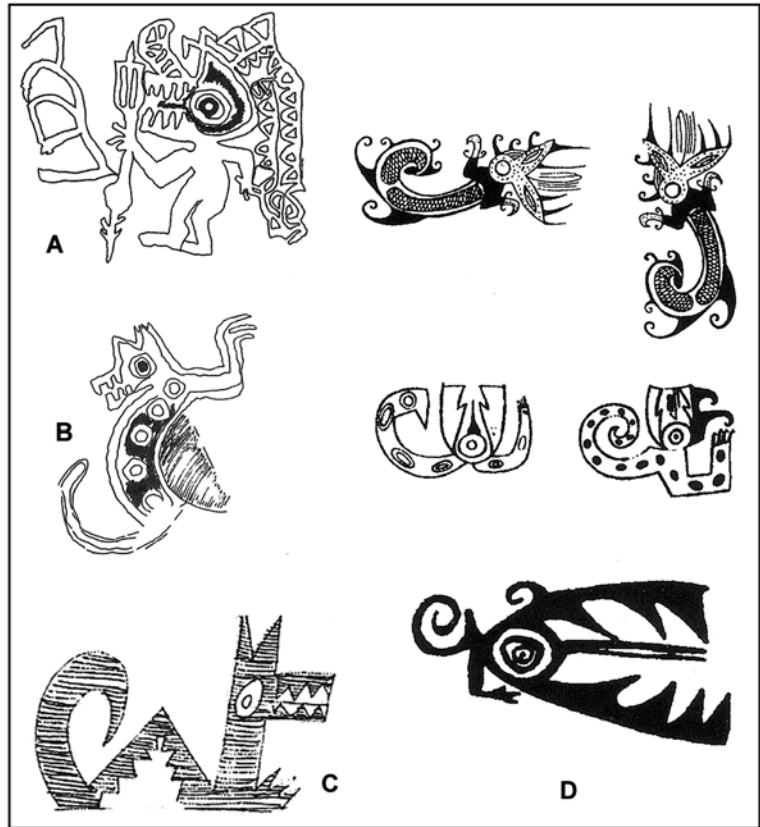


Figure 3. ‘Ophidian/feline’ motif of Aguada ‘culture’ of north-west Argentina. (A & B) extracted from De La Fuente et al. (2005); (C) extracted from Sempé and Baldini (2005); (D) extracted from Callegari (2001).

occupational sequence from the Early Ceramic Period to the Inca Period.

When formally analysed, the motif presents a series of elements distinctive of the Aguada representation described above, which were understood as semantic determinants concentrated in the portion of the head. This ‘ophidian’ is represented in profile, with a circular eye with a central dot, the presence of a complex formed by mouth, teeth and tongue: the mouth open, showing teeth from the upper and lower jaw and the tongue represented by a long line. Above these, two linear appendages are found (Table 1 and Fig. 4).

In the body there is a third appendage simulating

Aguada iconography	Los Mellizos motif	Ranqui 6 motif
Profile view	X	X
Round eye	X	X
Open mouth	X	X
Teeth	X	X
Straight tongue	X	X
Appendages over mouth	X	X
Inferiors appendages	X	X
Indication of body	X	X
Body decoration	X	X

Table 1. Comparison of Aguada iconography with rock art from Choapa.



Figure 4. Aguada motif in Los Mellizos site, Illapel valley.

an extremity. The internal decoration of the body is by lines, distinguishing three linear horizontal appendages at its inferior 'limb'.

The presence of these characteristics allows us to suggest similarities with the 'ophidian/feline' motif of Aguada iconography, since the way in which the head is represented corresponds to the visual patterns of this image, whereas the body presents a known variability, which not only implies the existence of a set of visual elements that operate as nuclear content for this petroglyph, but also by the existence of a representational structure that belongs to this Aguada motif.

The second motif is a figure corresponding closer to the notion of a 'lizard/feline', found in the site Ranqui 6 (Jackson et al. 2002), which is located in the middle course of the Chalinga river (Fig. 2). Adjacent to this block there an occupation site ascribed to the Late or Inca Period (site Ranqui 5).

Again, when analysed, the motif presents a series of elements familiar from the Aguada representations described previously, which are located mainly at the head. This zoomorph is represented in profile, with the complex formed by mouth, teeth and tongue; the mouth is open, teeth from the upper and lower jaw are present, and so is the tongue. Above the mouth, there

is one linear angulated appendage (Fig. 5).

On the body there are elements similar to those found at Los Mellizos, such as angular 'limbs' (three in this case) and the body decorated with reticulate lines that form rhombuses.

This is how these two motifs adjust to and share a type that allows their identification, not only because of their minor units, but also through the combination of their particular elements that remit to the syntax proposed by Kligman and Díaz (2007).

In this way, these two petroglyphs, although with different bodies — 'ophidian' in the case of Los Mellizos and 'lizard/feline' in the case of Ranqui 6 — share a set of basic elements which equal the 'feline' image of Aguada 'culture' and which are constituted as the nuclear content that allows their identification (Table 1).

Beyond this identification, the studies in Aguada pottery have recognised a wide spatial syntax in the conformation of the motif and its associated elements, with an important degree of regional variation (A. R. González 1998; Kusch 1991; Sempé and Baldini 2005). For the case of rock art, Llamazares (1999–2000) has described the spatial distribution of the 'feline' and other rock art motifs at the site Cueva La Candelaria, but without formulating a standardisation of a spatial syntax.

Unfortunately, it is not possible to approach this issue through the motifs from the Choapa valley, since in the case of Los Mellizos the panel with the 'ophidian' is not associated with other images that would allow this analysis. For Ranqui 5, although the Aguada motif is associated with other images, the latter do not correspond to representations of Aguada iconography and are possibly earlier. Not only do they present more patina but also evidence a different technique; while the Aguada motif is lineal continuous, the others are lineal discontinuous (see also Jackson et al. 2002).

Despite these limitations, the structural use of the syntax in combining the elements of the representation as shown in both cases are enough to account for their association with Aguada and to the producers' knowledge of the syntactic norms for the creation of these images. Although the designs are not identical, they share a same pattern of structural representation.

Discussion and conclusions

The antecedents presented above allow suggesting the presence of two motifs, central to Aguada iconography, in the rock art of the valley of Choapa. Thus, this identification constitutes the first archaeological recognition of Aguada materials and/or iconographic elements in the southern fringe of the Chilean semiarid

region.

The presence of these would show within this sub-area of the Chilean semi-arid region that the Aguada influence is expressed at both its limits — the valley of Copiapó in the north and the valley of Choapa in the south, with a distance of c. 400 km between them. Between these two areas no elements of this cultural tradition have been found, which opens the question on whether they do not exist, or biases in research have not allowed their identification. Possibly the latter is correct, considering the scarce archaeological research conducted in the area, especially in the Andean regions.

An important fact to consider is that until now, only two such motifs have been recognised in rock art of the valley of Choapa, with no records of Aguada iconography in other materials. This is not a minor issue; on the one hand, it ratifies the importance of rock art within archaeological research, since only by the study of this material record has it been possible to identify this particular visual element. On the other hand, it opens windows to new questions related to the local pre-History of the valley of Choapa, in a wider scope to the development of regional pre-History in the semi-arid north (in relation to the absence of evidence in the intermediate region) and to the pre-History of the southern Andes.

Following this thrust, the results allow to conjecture about the spatial distribution of particular motifs of Andean iconography to which a high symbolic value has been attributed, about the reasons of their differential materialisation in diverse mediums along their area of distribution (i.e. only rock art in Choapa), and about the relationships that can be established between the distribution of these images and the expansion of particular meanings and/or contents associated with them.

In this respect and as discussed previously, several authors (i.e. Kusch and Abal 2005; Núñez and Tartusi 2002; Pérez Gollán 2000) have acknowledged the paramount role of iconography in the expansion of contents related to the Aguada symbolic system. In fact, this has been the basis to considering Aguada as a moment of regional integration founded on certain basic ideas that do not necessarily adjust to identical economic and social systems (Núñez and Tartusi 2002; Pérez Gollán 2000; Pérez Gollán and Heredia 1990).

We believe that the presence of Aguada motifs in the area of study can be discussed from such an approach. Despite the absence of other material records associated with Aguada in the valley of Choapa, the representation of the main character of its iconography allows to think of the transmission of particular contents associated with the image.

This proposal is based on the following arguments: (i) the necessary relationship between the ideational and material realms (Gell 1998; Godelier 1980; Groupe U 1993; Layton 2001), where, notwithstanding the possibilities of semantic variability of the

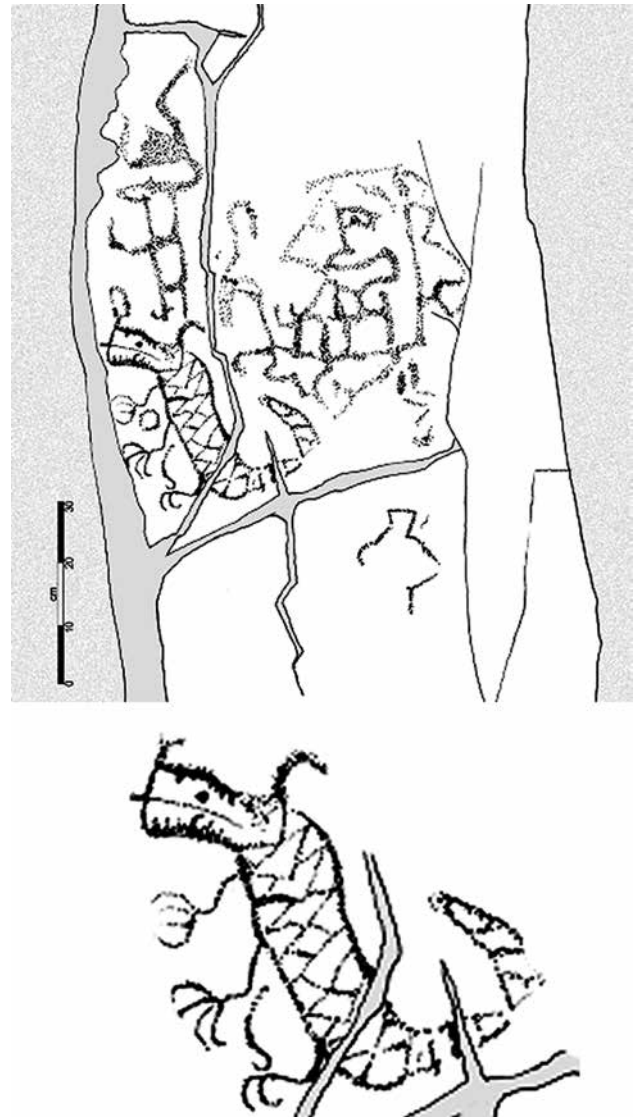


Figure 5. Aguada motif in Ranqui 6 site, Chalinga valley.

representations, we believe that elements of their content may prevail in the process of their materialisation in other regions; (ii) the widely discussed Andean dynamic of flux of images and contents, not only for Aguada but for other pre-Hispanic moments, where the centrality of the visual languages has been acknowledged, evaluating their extra-regional dynamics (P. González and Bray 2008); (iii) in the detailed material reproduction of the Aguada motif which indicates not only the knowledge of the producers of the motif, but also of the syntax of combination of its particular elements, as shown by its aforementioned adjustment to the guidelines defined by Kligman and Díaz (2007); and (iv) in the particularity of the engraved motif, which in both cases is not just any image, but one that has been considered a central representation of Aguada iconography and its symbolic system.

Along this line, although Saussurean semiotic theory has regarded the relationship signified/

Code	Source	Age	Date (C.E.)
UCTL 1998	Unit 1 Level 2 (5–10 cm)	1155 ± 90	850 ± 90
UCTL 1999	Unit 7 extension Level 2 (5–10 cm)	1515 ± 150	490 ± 150
UCTL 2000	Unit 1 Level 5 (20–25 cm)	1260 ± 130	745 ± 130
UCTL 2001	Unit 7 extension Level 5 (20–25 cm)	1685 ± 170	320 ± 170

Table 2. Absolute dates by thermoluminescence on pottery from site Los Mellizos.

signifier as arbitrary, notions such as index (Peirce 1993; Eco 1976, 1997) have tempered such a proposal by acknowledging necessary associations between certain images and their contents.

For this reason we believe that the conformation of this motif to a perceived norm, which remits to the patterns that define its materialisation in other regions, accounts for a production which is by no means aleatory, and which in one way or another should imply the transmission of certain contents associated to it and to the symbolic system that sustains it. The extension of these contents is an issue that cannot be significantly addressed but it is clear that the scarcity of its presence, together with the absence of other Aguada indicators in the area, imply the absence of significant processes such as the ones recognised in other regions.

However, its identification in the area of study accounts for its incorporation to some of the mobility circuits of significative images in the southern Andes. The acknowledgment of this circulation would account for trans-Andean contacts of unknown nature, but evidently must have been meaningful within the frame of relations between both slopes of the Andes.

The symbolic value recognised for this motif is repeated in its spatial materialisation. At a regional level, while the rock art of Choapa is characterised by the repetition of designs in different areas, Aguada images are scarce, highlighting and denoting exceptionality in the local rock art landscape. At a local level, at least in the case of Illapel, the motif has been engraved in the most significant rock art site of the valley for the reasons aforementioned. The case of the valley of Chalinga is somewhat more complex, since we deal with an isolated rock for which it is necessary to study in depth the dynamics of the use of space by local populations in order to assess the importance of its location.

At the level of the panel itself, its value lies in the fact that in both Los Mellizos and Ranqui 6, the motif stands out on the rock. In the first case, the image is located in the upper portion of the rock, conferring good visibility; besides, there are no other images associated with it. Although in the remainder of the rock there are other motifs engraved (circles), these are on another face of the rock; they are not included, related, nor interfere in the field of visualisation of the

‘ophidian’ (Fig. 4).

For the case of Ranqui 6, the Aguada motif is also located on the upper portion of the rock, which allows a good appreciation of it. Although this ‘ophidian’ is accompanied by other images, these are less visible — not only because of the technique as previously mentioned, but also because of the patina on them, allowing a better visualisation of the Aguada motif. These features confer a visual priority to the representations as unique or as central images on their respective rocks. In a certain way this reminds us of similar configurations of this figure in Aguada pottery, where these images acquire a relation of centrality in the field of design.

The above is also ratified by the fact that superimpositions are a continuous and common practice in local rock art, but in none of these cases have we found important modifications, which implies an intention of keeping the image in the original state, respecting its visual logic without the establishment of ‘visual competence’ in the panel.

Regarding the chronology of these images, although reliable methods for absolute dating on petroglyphs do not exist at present (Dorn 2001; Whitley 2005), a temporal proposal may be made through other indicators. On the one hand, the existing dates for Aguada in the adjacent valley of Calingasta (Province of San Juan, Argentina) set these occupations between the seventh and tenth century of our era. On the other hand, absolute dates obtained through thermoluminescence from pottery excavated at Los Mellizos frame the occupation of the site between the fifth and eighth century of our era (Table 2).

We are aware that this evidence does not equal direct and completely reliable dating of the petroglyphs discussed; however, we believe that cross-dating is a viable alternative. We can suggest that these motifs would be temporally framed between the fifth and ninth century of our era, representing the final Early Ceramic Period and the beginnings of the Late Intermediate period in the Choapa (transition by the end of the ninth century).

As stated previously, the transition between these two periods goes beyond a simple change of the materialities of local communities; instead it is a time of transformation of the symbolic systems that define them, moving from the Early Ceramic Period, where

the smoking practices, use of *tembetá* and the attributes of pottery indicate a closer relation to the Amazonian logic; toward the Late Intermediate Period where inhalation practices, the representation of the 'feline' and the attributes of pottery suggest a closer relation with the Andean logic.

In this context it is feasible to suggest that the appearance of these Aguada designs would be chronologically framed within this transition, for which the inclusion of the image of the 'feline' in local rock art is quite coherent. Despite its low frequency, it would manifest the first insertion of visual elements associated to this representation in the area of study, which will later expand with the Diaguita culture and the sustenance on an Andean worldview.

This proposition allows us to approach the issue of the maintenance of the image. Despite the occupation of these spaces in the Late Intermediate and Late Periods, these petroglyphs were barely modified, keeping the Aguada representations intact. Beyond any interpretation of the meaning, there is an underlying attempt to keep the image in its original state, which we believe is related to its representation of a feline, main animal of Diaguita and Inca worldview.

In this way, rock art accounts for the incorporation of foreign iconographic elements to the area, which are meaningful at a time of wide-scale regional interaction processes.

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COMMENTS

On the social circulation of images across the Andes

By NATALIA CARDEN

Understanding that rock art is a social element, Andrés Troncoso and Donald Jackson explain the presence of two exceptional motifs in the semiarid north of Chile which, according to their internal structure, they attribute to the Aguada iconography of north-western Argentina. This contribution is valuable in different aspects and constitutes a very interesting study case about the circulation of images on a regional scale. A point which must be distinguished from this work is that its objective is not limited to the morphological analysis of the motifs, but it extends beyond this goal to explore deeply which are the social and ideological implications of the location of these 'rare' elements which occur out of their expected area of distribution.

The two petroglyphs from Choapa are correctly interpreted by the authors as important evidence, in the first place because a wider sphere of movement may be posed for Aguada elements, reaching further south from the valley of Copiapó; and in the second place because rock art has special implications concerning the circulation of information: '[i]t is the ideas of the images that travel wide areas and which are materialised in places distant to where their iconographic repertoires concentrate' (p. 43). While the presence of Aguada portable goods in Chile may indicate exchange and/or mobility, the presence of Aguada images in rock art may be thought as stronger indicators for suggesting the possibility of shared ideas on a wide spatial scale. Furthermore, this new evidence encourages future research in the study area, where the authors expect to find more elements of this kind. If this is accomplished, a very interesting point, which should be explained, is the differential distribution of Aguada imagery on different supports. Given the wide-scale distribution of Aguada portable goods, especially pottery, why is Aguada rock art much more spatially restricted according to its location in the eastern and western valleys of Catamarca, and in northern La Rioja? Could this distribution have responded to the demarcation of the borders of Aguada's sphere of interaction, as some researchers suggest (Gordillo et al. 2000; Callegari 2001)?

The methodological approach of this work should also be regarded as positive, since the arguments for the homology between the Choapa motifs and the Aguada motifs from north-western Argentina are not only based on the presence of certain attributes, but especially on the specific ways in which these

attributes are articulated. Although the images may not be identical they share a same structure, and it is this special syntax which points to the knowledge of certain rules — and precisely these rules may have functioned as the key to understanding their symbolic content, which was probably related to a mythical corpus.

Although the objectives and the morphological treatment of the motifs in this work are valuable, there are two interpretations that need to be further discussed. The first one is the attribution of certain features of the images to the 'feline' and the second one is the establishment of equivalence between certain material traits and specific logics or rationalities.

Even though they acknowledge the importance of other animals in Aguada imagery, as well as the combination of different animals in the images they publish (Figs 3, 4 and 5), Troncoso and Jackson are biased towards the feline in their formal interpretation of the Choapa petroglyphs and, consequently, in their conclusions. Although the 'head' of the motif from Los Mellizos is morphologically similar to the nuclear content which the authors attribute to the 'feline' and which they consider central in Aguada iconography, the presence of jaws with sharp teeth and a protruding tongue is not exclusive to felines but may also be associated with other animals, such as saurians and ophidians. With respect to the motif from Ranqui 6 (Fig. 5), further arguments should be provided for its interpretation as a feline, since the claws may also be associated with lizards and the body decoration seems to resemble scales more than feline spots. Furthermore, they state that the images have been maintained a long time because of their representation of felines and the importance of these animals in the Diaguita and Inca worldviews. Even though the feline may have been fundamental in these cosmologies, did it play the same central role in the iconography as it did in Aguada? Is it possible that the motifs could have been reinterpreted as something else along time? Although feline elements may be included in these petroglyphs, the possibility of other animals should be considered in their final discussion in order to approach the complexity of the symbolic system.

Finally, the scarcity of the Aguada images in Choapa has been explained in the context of a transition from the Early Ceramic period to the Late Intermediate period, a shift that can be associated with the beginnings of the Diaguita culture. According to the authors, the changes in the material culture that can be observed in this transition are the product of the transformation of an Amazonian logic into an Andean logic. Does the presence of the Aguada motifs in Choapa point to a change of logic towards Andean concepts? Or in other words, is it possible to define a pure Andean or a pure Amazonian logic? Even though there are material objects which can be identified as Andean or as Amazonian, this fact does

not imply that both categories are homogeneous wholes completely opposite to each other. On the contrary, and concerning one of the examples which the authors expose, which is the feline as a characteristic of the Andean logic, the jaguar is known to have been used as a symbol both in Andean and Amazonian origin myths (see Velandia 2005 for examples). The importance of the feline symbol in religious practices and in the iconography has been well documented in America through Amazonian and Andean examples (González 1974; Saunders 1998). Considering the interaction between both categories and not separating them as opposite packs will certainly enrich the interpretation of the complex social circulation of images across the Andes.

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Images that travel faster than technology

By DÁNAE FIORE

The existence of motifs which are 'foreign' to a local repertoire is always an interesting feature of the archaeological record because it usually leads to the possibility of inter-regional contact. Troncoso and Jackson have found two rock art motifs in the province of Choapa, central-northern Chile, which they attribute to the north-western Argentinean Aguada style using a series of well-grounded criteria. Several theoretical and methodological points of the paper have caught my attention, but due to space restrictions I will focus here on those that I consider the most relevant.

The authors assert that orality and symbolic systems confer meaning to rock art images; although this is certainly the case for many ethnographic situations, it should also be taken into consideration that not all images are meaningful, both by denoting a referent and by connoting a specific meaning attached to such referent. Instead, it should be taken into consideration that some motifs of a rock art repertoire may not have represented an external referent (be it real or ideal), and may not have had a specific meaning (Conkey 1987; Bednarik 2001). This seems not to be the case in the motifs studied by Troncoso and Jackson, since these motifs are clearly representational — denoting some kind of mythical animal (feline/lizard and ophidian), and thus capable of having a connotative meaning. Yet their theoretical framework should be wider in order to include

images that seem non-representational due to their lack of external referent and/or to our inability to identify it when lacking the relevant knowledge of the visual code which underlay its production and display.

Regarding the visibility aspects, Troncoso and Jackson state that in the Los Mellizos and Ranqui 6 sites the motifs stand out on the rocks, because they are placed in the upper portions of the panels and thus have 'good visibility' or allow 'a good appreciation'. I agree with the authors that visibility is a central feature in rock art analysis, and acknowledge that its measurement is unavoidably subjective, but within such unavoidable subjectivity it is still possible to provide some qualitative or quantitative criteria that help in the characterisation of visibility. For example, they could state from how many metres it is possible to see the motifs, from which cardinal point/s these are visible and/or to which cardinal point they face.

I totally agree with the authors that 'extra-regional distribution evidences contacts between localities and areas, entailing social implications of economic, ideological and political nature'. In fact I have argued that economy, politics and ideology are three constitutive aspects of rock art and that in spite of their potentially low visibility they all require proper research in order to fully account for the conditions under which a certain rock art corpus develops in a certain region at a certain time, and how it is reproduced in time-space (Fiore 2007). The authors have mostly focused on the potentially symbolic contents and ideological aspects of the two Aguada motifs, yet what I do not find in the paper is the analysis of the political and economic conditions that may have led to their production. In particular, beyond the mention of the archaeological periods to which the motifs are linked, the paper lacks an analysis of the socio-political and economic contexts within which these motifs were created and displayed. And in spite of the fact that materiality is mentioned throughout the text, it is not centrally addressed in any of its sections. For example, it is mentioned that the two motifs are petroglyphs, but the engraving technique/s used to produce them and the types of bedrock in which they are displayed are neither presented nor discussed. Production techniques of Aguada images in NW Argentina are also not discussed. This would have brought complementary data on the technical sphere involved in the creation of these images and on the economic aspects related to the labour invested in their production.

Interestingly, Troncoso and Jackson hint towards the fact that the introduction of this foreign Aguada iconography is happening in the transition between the Early Ceramic Period, which is Amazonian-oriented, and the Late Intermediate Period, which is Andean-oriented. This seems to provide a very interesting and relevant setting that might be worth exploring further in the future in terms of the changes in the economic, political and ideological factors that

might have provided new conditions for 'importing' these new motifs.

Related to this, I would like to comment on an idea mentioned by the authors, when they state that '[i]t is the ideas of the images that travel wide areas and which are materialised in places distant to where their iconographic repertoires concentrate'. This observation is far from trivial and points to a very interesting topic, which is very relevant to the case under study. The comparison between NW Argentina and central-northern Chile suggests that the feline/lizard and feline/ophidian Aguada motifs were displayed in the first region in a variety of media (pottery, rock art) while so far the data indicate that in the second region they were displayed only through engraved rock art. This is interesting in so far it suggests that what had travelled across the two regions were the designs, not the techniques. In turn, this fits the theoretical premise and the case studies that have shown that designs are, to an extent, easier to copy than techniques. Techniques are often harder to reproduce because (a) they involve a longer teaching-learning process and/or a more detailed process of imitation and (b) they require specific raw materials that may not be available in a certain region. The incorporation of new techniques has indeed happened in numerous cases in pre-History, but at any given time, it is more likely that inter-regional contact through art production and display would firstly occur by incorporating new motifs in the repertoire via already known local techniques (Fiore 2007). This seems to be the case in the Choapa province of central-northern Chile.

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Advantages of a broader perspective

By ROBERT G. BEDNARIK

Andrés Troncoso and Donald Jackson's exploration into semantics is laudable, but I would question the utility of Umberto Eco's construct of the 'nuclear content' of signs in rock art research. The authors define this as

a set of minimum elements that make possible [the sign's] association and ascription to a specific element recognised in symbolic systems of communities. In the case of rock art, this nuclear content would be expressed in particular visual attributes that allow the identification and ascription of the motif to a specific type.

Perhaps this is so, but we also need to be sceptical of archaeologists' claims to be able to determine the

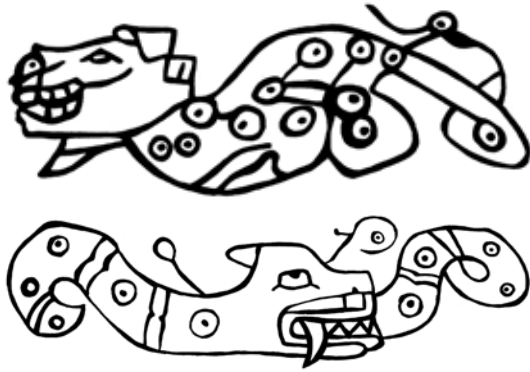


Figure 1. Two 'ophidian/feline' petroglyph motifs from Alto de la Guitarra, defined as 'snake or dragon' by Núñez Jimenez (1986), whose recordings these images are.

CCDs (crucial common denominators; Bednarik 1994) of phenomenon categories, because in those cases when we can test their taxonomies they tend to fail (e.g. Macintosh 1977). Taxonomies of pre-Historic archaeology, be they of artefacts (usually invented), cultures (usually based on invented artefacts), peoples (usually based on invented cultures), intentions, practices or whatever else are inevitably etic constructs or, in Searle's (1995) terminology, 'institutional facts' rather than realistic reflections of the hominin past. Nobody seriously believes that there was ever a people, a tribe, a language group, a nation, or any identifiable, adequately homogenous group that could be collectively defined as 'the Aurignacians' — yet archaeologists speak of Aurignacians (or Mousterians, Basketmakers, beaker folk etc.) as if they were a reality. Such coherent, homogenous entities are simply fantasies of archaeologists, who sometimes need to be reminded that they merely create myths about the past (for a comprehensive review of Pleistocene archaeology, see my second Toronto semiotics lecture series on its epistemology, at <http://www.chass.utoronto.ca/epc/srb/cyber/cyber.html>). In the same sense it would be careless to assume that anyone could correctly deduce the CCD of signs (or of petroglyph motifs, or in fact of any exogram; cf. Donald 1991, 1993, 2001) used by pre-Historic groups, and thus determine a valid, emic taxonomy of motif types. The decision of the archaeologist of what are diagnostic traits is as invalid as her/his belief to know what a motif depicts (Macintosh 1977).

Troncoso and Jackson's proposal concerning two northern Chilean instances of a specific motif type they attribute to the 'Aguada phenomenon', a graphic convention of nearby NW Argentina, can either be reviewed within its local archaeological setting, or it can be examined in a larger or pandemic context. To illustrate the issue I am canvassing here I shall eschew the local micro-context and instead test the authors' proposition within its pan-continental, and even global, macro-context. I will show that recourse to the greater picture not only provides a much



Figure 2. Nanaimo River, Vancouver Island, Canada.

broader perspective; it helps prevent the paralysing parochialism archaeology tends to develop at the best of times.

Troncoso and Jackson identify the Aguada characteristics of their motifs from Los Mellizos and Ranqui 6 on the basis of nine graphic variables (their Table 1). I could quibble about the lack of many of these in the 'ophidian/feline' motifs of Aguada phenomena as depicted in their Figure 3, but that would be petty and detract from the main thrust of my argument. Besides, the authors concede the considerable 'variability' in this sample. I will accept, for the sake of the argument, that there are adequate iconographic diagnostics to justify the author's key proposition. However, I then have to accept the same significance for other images with the same characteristics. For instance Andean rock art of considerably greater distance from the purported heartland of the Aguada phenomena, in fact some 1500 km to its north, includes petroglyphs that possess most or all of the nine diagnostic features (Fig. 1). These are also combinations of snake and feline (or other carnivore) features, shown in profile, with body decoration, appendages, prominent teeth and the tongue often out. They are at least as similar to the examples in the authors' Figure 3 as are the two Chilean specimens.

So perhaps there is more to the Andean connection than Troncoso and Jackson suspected; perhaps the 'Aguada people' migrated from Peru? Or vice versa? These are the kinds of scenarios archaeologists like to invent to explain the travels of memes like those they see in *Glockenbecher* (beakers), or of genes like those they attribute to 'modern humans' leaving Africa. In other words, these diagnostics become fetishes: they represent something else — people or cultures usually. It is no surprise then that archaeology gets it wrong most of the time.

In this case the plot begins to thicken, as they say, when we jump another 9000 km north, ignoring all the relevant material on the way (which is plentiful), and consider some examples from British Columbia (Figs 2 to 5). Again we have the carnivores with non-mammalian, rather ophidian bodies but often showing appendages, with open mouths, prominent round eyes (sometimes carefully elaborated), prominent teeth, a tongue hanging out, sometimes even appendages above the mouth, and with decorated bodies shown in profile view. In other words, these Canadian



Figure 3. Kulleet Bay, 'ophidian/carnivorous mammal' image wrapped around large boulder.



Figure 4. Large petroglyph of creature with mammalian head and non-mammalian body, Sproat Lake, northern Vancouver Island.

petroglyphs are perfect further candidates for 'Aguada status'. How are we to account for this 'diffusion'?

The Canadian examples diverge in one small detail, however: rather than presenting feline character, they seem to be somewhat more canine — but still just as ferocious looking as the various South American exhibits. This may be a useful clue: why canine here?

Now let us go all the way and consider the global picture. There are creatures in the arts of numerous traditions around the world that share these cha-

racteristics: the head is mammalian and usually implies a carnivore. The body is snake-like but there are often appendages suggestive of limbs. These may end in prominent claws. Some versions of this creature have small wings, which in the New World seem to be lacking. In darkest central Europe, where people believed in the existence of this animal until quite recent centuries, it was called, for example, *Lindwurm*, and the ergot-caused visions reinforcing its existence resembled those induced by South American harmaline and ibogane (Troncoso and Jackson mention the use of 'pipes for hallucinogens'). In China it appeared as a dragon, and in Australia as the mighty Rainbow Serpent (Fig. 6). I have considered the universality of this mythical creature in *Semiotica* (Bednarik 1994). The iconic imagery produced by alkaloids is not conjured up at will, but is probably 'hard-wired' (Turner 1964; Naranjo 1973; Flattery and Schwartz 1985). It is dominated by animal images, especially those of felines, snakes and raptors. The combination of these constitutes of course the full-scale dragon, which combines the



Figure 5. Petroglyph Park, Nanaimo, Vancouver Island. (All Canadian images recorded in 1983.)



Figure 6. Chinese-Australian dragon/serpent; a cartoon symbolising the growing enmeshment of the economies of China and Australia. The image combines the Chinese dragon with the Australian Rainbow Serpent. From *The Weekend Australian*, 7 November 2009, p. 14 in Focus.

serpent's body with a feline head and the wings and talons of an eagle. If these images are hard-wired, how would people who have no idea of a snake or a cat interpret internal images of animals that do not occur in their environment? Why, simple: they substitute a wolf's head or an eel's or pisciform body.

I went a little further and looked for an explanation for the recurrent animal imagery in these involuntary visions. Large cats, snakes and raptors were the principal dangers for our pre-human and early human ancestors, and indeed, Seyfarth et al. (1980) have demonstrated that the 'language' of the vervet monkey is limited to three warning calls, indicating

respectively the danger from a leopard, a snake or an eagle. All of this can of course be pure coincidence; or alternatively there may be residual primeval response circuits in the human cerebellum that are affected by harmaline or a variety of other triggers.

Irrespective of the validity of my speculations in 1994, it does appear that the creatures Troncoso and Jackson focus their attention on are a global phenomenon: welcome to the rest of the world! This need to step back and look at the greater picture has parallels in other experiences with rock art. For instance in Australia, some archaeologists believe in the existence of a style they call Panaramitee. They claim it occurs widely across the continent and is of the Pleistocene (without any credible evidence). I demonstrated, in a blind test, that their 'Panaramitee style' is a universal phenomenon occurring in all continents except Antarctica (Bednarik 1994). Neither this nor any other counterargument has affected their unwavering belief, nor will the new dating evidence that shows that their 'style' is neither of the Pleistocene nor a coherent single tradition (Smith et al. 2009; Bednarik 2010). There are many such false but strongly held beliefs in archaeology, and a holistic perspective can sometimes facilitate their refutation — but not for the believers.

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REPLY

About an ophidian/feline and its interpretation

By ANDRÉS TRONCOSO and DONALD JACKSON

We would like to start by thanking the editor for promoting this discussion and also the commentators for their interesting evaluations. As each commenter has dealt with different issues, we will give our answers in the same order in which the comments were received.

Natalia Carden addressed various central issues. First, the differences observed in the distribution of the material culture articles and the Aguada rock art. This matter seems to us to be extremely relevant. Although a number of investigations have been carried out in the last few decades in this area, they have not brought to light any evidence of material culture objects associated with the Aguada culture. Therefore, the only material referents are the two petroglyphs discussed here. This is not a minor issue, as it implies a difference in speed and differential transmission capacity between the ideas, technology and material culture (as D. Fiore rightly states). This suggests differentiated roles for the various types of Aguada materiality. We could hypothesise that this difference is a result of the articulation between the meanings of the images and the objects used by the different populations included in this process.

Secondly, Carden rightly questions and discusses the assignation of these designs to the feline idea, an issue that was also discussed by the authors during the process of writing up the text. Concerning this, we think that there are two evaluations that should be carried out — the first related to its assignation as a feline. Before carrying out an exhaustive study we referred

to the bibliographical referents from north-west Argentina that address this issue. They have established from detailed iconographic studies that suggest that this type of design deals with the basic rudiments of feline-like representations (González, A. 1961–64, 1998; Kligman and Díaz 2007). The recognition that visually, aspects more common to other animals have been inserted does not seem to us to be contradictory, as this is the essence of the Aguada visual system (González, A. 1961–64, 1998; Kusch 1991, Pérez Gollán 2000).

On the other hand, regarding the possible interpretation as a feline by the local communities, it is true that it is difficult to assign it to such a semantic grouping. In particular, the complexity of the codification of the feline could imply that it was not interpreted by these communities in association with this animal. This could mean that we can discuss the possibility that it was re-assigned semantically by the local communities of Choapa, but we did not think it was possible to address this matter based on the current data. Furthermore, the main issue is that, independent of their meaning, these images have a high symbolic capital in their local context, not merely because of their location in the Los Mellizos site and their scarcity, but also due to the fact that they were not altered in later times, which is a key aspect of the biography of these petroglyphs.

Finally, Carden quite rightly discusses our notion of that which is Amazonian and that which is Andean. Without wanting to fall into essentialism and reductionism, we use these concepts as heuristic tools for the interpretation of the archaeological register, in search of the horizons of rationality that frame our proposals (Criado 2000). Based on this, not only are interrelations established as Carden quite rightly states, but also other variations. However, this does not deny or lessen the importance of the heuristic capital of these approaches; rather than seeing them as essentialisations, we consider them to be models to contrast with the archaeological register.

Dánae Fiore focuses her comments on more theoretical and interpretive aspects of the production of rock art. Her first point questions the theoretical framework in relation to the search for meaning in the images, highlighting the fact that this situation is not recurrent in all the visual representations. In fact, we agree with her, which is why in other papers (Troncoso 2005c, 2008), we have understood rock art to be a semasiographic system in which the issues of meaning lie in the integration of the visual collections with the orality of the communities, thus defending a formal approach from semiotics more founded on syntax than semantics (Troncoso 2005c). But in this case, the presence of significant referents that allow us to access the contents would require an adjustment of the theoretical approach that would open up such a discussion space. In this way, these proposals should be aware of articulation and seek to complement the previous semiotic proposals.

As Fiore quite rightly states, the movement of these images towards the eastern and western slopes of the Andes brings into question two other issues. The first is the relation between technique and motif in this transference and the second is the political and economic contexts associated with the incorporation of these images. Regarding the first issue, in the light of the absence of published research specifically related to the production techniques of Aguada rock art in north-west Argentina, comparison is difficult, even impossible; only generalities can be achieved. However, our analyses of the studied petroglyphs, based on macroscopic observations of the grooves and microscopic observations of the impact negatives, show that these petroglyphs refer to local techniques of engraving production. In this context, the images transfer from one area to another but not the techniques, which is coherent with the expectations proposed by Fiore.

Regarding her second point, the relationship within the political and economic contexts, the small quantity of the sample, together with the fact that the research into rock art is so incipient, meant that we were not able to address this issue in a clear and profound manner. In fact, the final objective of the project within which this investigation is framed is the systematisation of rock art into stylistic groups that would allow for its historical-cultural ordering. We think that without a clear temporal control of all the rock art from the region, it is not possible to integrate these proposals with the socio-political and economic aspects of this type of archaeological register.

Finally, Bednarik's comments are focused on the validity of iconographic comparisons in archaeology; he discussed the merits of our proposal with examples from different parts of the world. He questions the comparative method used and the dangers of opting for what he calls an 'emic perspective' of analysis, based on the reoccurrence of some attributes of the Aguada representations studied of zoomorphic designs from various continents. Our comments regarding this are threefold: first, concerning the possibility of emic taxonomy, this is furthest from our intentions. We doubt that it is possible methodologically to access that which is 'emic' in a systematic way and our research was not intended to yield a taxonomy of this type. On the other hand, we understand it to be a tool for visual analysis, based on the inherent attributes of the image. Consequently, it is an instrumental classification aimed at the systematisation of motifs based on their formal intrinsic attributes, not based on the mind of their creator.

Secondly, although it is possible that some of the designs presented by Bednarik could bear some similarity with the Aguada representations, the truth is that a systematic, rigid application of our proposal has led us to identify some significant differences. Whereas each of the figures has some of the characteristics, they do not comply with all the criteria. In Figure 1, for example, the 'round eye, open mouth, straight

tongue and appendices over mouth' criteria were not met. Neither were the criteria of 'open mouth and appendices over mouth' complied with in Figure 2.

Moreover, we think that the extensive use of any comparative method without a contextual control and a systematisation in the comparison is itself weak, as was shown by the application of historical-cultural archaeology in its time. On the other hand, as part of our epistemological concept of archaeology we refer to Wylie's proposals (2002) of cables and tacking, which strengthens the archaeological affirmations based on the use of differential sources of evidence and reasoning. In the same way, rather than identifying designs that could show some similarity with the Aguada ones, what confirms our proposal is not merely the systematisation of the comparison but also the criteria of the method application, based on small spatial scales (neighbouring areas), therefore the possibility of a cultural homogeneity between these images is more likely. Above all, the reason why there are representations with certain similarities in such different places is an issue that is more akin to cognitive archaeology, cultural anthropology and approaches from neuro-cognition. However, these are objectives that go beyond the authors' aims and which we will therefore not address.

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RAR 27-957

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