KEYWORDS: *Rock painting – Colour – Polychrome – Anthropomorph – Dress – Embodiment*

EMBODIMENT AND FASHIONABLE COLOURS IN ROCK PAINTINGS OF THE ATACAMA DESERT, NORTHERN CHILE

Gloria Cabello, Marcela Sepúlveda and Bernardita Brancoli

Abstract. Red, white and black are colours commonly found in rock paintings around the globe. In northern Chile's Atacama Desert, visual representations produced between 2000 BC and 1550 CE also include yellow, orange, violet, blue and green. This polychrome usage is particularly notable in the dress of anthropomorphs and is characterised by extreme attention to detail and the use of an exclusive set of raw materials. These unique aspects enable us to discuss the value and meaning of colour in past societies throughout different periods of the local sequence, beyond its consideration as a stylistic indicator.

INTRODUCTION

The study of anthropomorphous figures in rock art has received little attention compared to that lavished on animal figures, which have been used to construct major stylistic sequences for Palaeolithic portable art and rock art around the world (Leroi Gourhan 1965; Morphy 1989; Guffroy 1999; Aschero 2006; Berenguer 2004; Flett and Letley 2013; Ballester 2018; Gallardo 2018). Human motifs have been analysed as sexualised representations in discussions that focus on the presence of female figures (Power 2004; Bourrillon 2009; Bourrillon et al. 2012). On some occasions, more in-depth investigations have been conducted to identify gendered practices or relations, delving into representations of women and their possible authorship of these art pieces (Goldhahn and Fuglestvedt 2012; Hays-Gilpin 2012; McDonald 2012). When animalistic and human features are combined, in figures at times called therianthropes (Jolly 2002; Parkington 2003; Hollmann 2005; Balazut 2012; Lequellec 2018; Aubert et al. 2019), they have sometimes been interpreted as evidence of shamanic cults (Clottes and Lewis Williams 2001; Leihitu and Permana 2018) or as visual representations of certain myths (Aubert et al. 2019). In other cases, anthropomorphs have been analysed by defining typologies or styles falling into a specific chronological period (Masson 2016; Rodríguez and Angiorama 2019).

Although discussions on the idea of embodiment, subjectivities, colours and clothing exist in the specialised literature (e.g. Turner 1969, 1995, 2012; Csordas 1990; Lock 1993; Butler and Lourties 1998; Hansen 2004; Schildkrout 2004; Reischner and Koo 2004; Van Wolputte 2004; Siracusano 2005; Lesure 2005; Young 2006), archaeological research on this topic is less frequent and relatively recent (e.g. Joyce 2005; Robb and Harris 2013; Harris and Robb 2015). Regarding articles of clothing represented in rock art figures, archaeologists have approached them mainly as markers of specific cultures and/or periods (Gauthier and Gauthier 1994; Sinclaire 1997; Troncoso 2011; Cases and Montt 2013; Cabello and Gallardo 2014; López Campeny and Martel 2014; Rodríguez and Angiorama 2019). In the Atacama Desert of northern Chile, particular elements of dress (clothing and garments), coupled with different ways of representing the human body (anatomy and movement), and ways of doing and seeing, have been instrumental in defining the principal rock art styles identified, particularly in the territory corresponding to Antofagasta region (e.g. Berenguer et al. 1985; Montt 2002, 2004; Gallardo 2018). Their correlation with archaeological artefacts presumed depicted and other contextual elements has enabled these figures to be situated in different periods of local sequences. These associations, in turn, show that painted anthropomorphous figures were represented with the everyday garment that was worn at particular moments in time in the region of study. In this scenario, colour has been addressed only as a secondary concern in the analysis and description of Atacama Desert styles. However, when looking at colour more closely, we observe that rock art figures that have more than a single colour often also involve what could be considered an 'exceptional' dress. The shapes, designs and colours of the garments depicted indicate that they were for particular uses, likely highly symbolic public acts. Therefore, studying them could help define the chronology of the

clothing and garments themselves and enhance our understanding of the role that these rock art paintings played in constructing and representing the human body in the different societies that produced them. By focusing on the use of colour in painted dressed people, we seek to add new information that could stimulate further reflection on these concerns.

This article evaluates the use of colour in anthropomorphous rock paintings, understanding the dress depicted as a 'social skin' that conditions embodiment and whose material and visual properties contain expressive abilities, both individual and collective (Turner 1969, 1995, 2021; Hansen 2004). We propose that form and colour properties are involved in processes related to embodiment and thereby participate in the construction of social relations (Eicher and Roach-Higgins 1992; Young 2006). Through quantitative and qualitative analysis of the painted anthropomorphs, we observe the elements and processes that comprise the polychrome palette of these motifs in the Atacama Desert over time and explore the distinctions in embodiment among the peoples that produced and consumed them.

The colourful body

The framework of 'embodiment' attempts to describe how people experience the world through their bodies (Robb and Harris 2013). By means of their actions, bodies establish relationships with other actors (human and non-human), creating social reality. In this context, the body is simultaneously an active, historical, dynamic and relational agent (Robb and Harris 2013; Harris and Robb 2015). These authors refer to this phenomenon as a *body world*: the complete set of experiences, habits, practices, fields of action and modes of representation through which bodies become beings. This perspective is based on phenomenological theory (e.g. Merleau-Ponty 1948), which conceives the body as a set of possibilities that become materialised under specific historical and cultural circumstances. Based on ideas first articulated by Simone de Beauvoir, Jean-Paul Sartre and Michael Foucault, among others, about bodies understood as *ways of being* or *of existing*, and Bourdieu's concept of *habitus*, Butler and Lourties (1998) emphasise that reality and beliefs are generated by repeated actions — quotidian and ritual — enacted by social actors. These are not actions imposed on a passive body, but the living body in action consciously oriented and directing its forms of interaction with the world (social and natural). The embodied subject, then, has a dual role: he is a product and producer of his own reality (Turner 1995; Butler and Lourties 1998). In this way, acts are constitutive of identity through their performance and repetition.

Through ethnography, Turner (1969, 1995, 2021) observes how in daily body painting, the use of certain colours in specific body parts is linked to vital experiences for infants, children, women and men. Piercing the ear lobes is related to the ability to listen, extending the lips with that of speaking, both fundamental male qualities in the constitution of being a Kayapo man (Turner 1969, 1995, 2021). Ritual-wear, through its materiality, transfers certain 'wild' qualities and powers, re/integrating natural and social relationships through ritual (Turner 2012). In this way, through different treatments of the body, the physical skin becomes 'social skin'; the social structure is re/produced as a whole and 'dressed' individuals play different roles over the course of their lifetimes, as part of collective rules and commitments. Turner (2012) proposes that, because the 'social construction of the subject' is a universal process, the study of body ornaments is one of the best means to understand it.

This offers a good possibility for archaeology to shift from recognising identities through the use of dress items to the way they serve to perpetuate embodied identities (Joyce 2005). That is, moving from the textuality of the body surface to the perceptible effects of using ornaments or dress styles in the experience of a person whose body is shaped by a particular way of dressing. Representations of the body must be viewed not simply as reflections of existing concepts of embodiment, but as part of the material of approach through which such concepts were naturalised (Joyce 2005). The author also notes that representations of the body can be seen as records of stereotyped embodied performances that serve as models for — following Butler — 'embodied gestures of living people' (Joyce 2005: 145). Finally, she proposes that the greater durability of certain figurative representations and the durability of some body practices would have made them more effective in the long-term reproduction of specific forms of embodiment, even over multiple generations (Joyce 2005).

The ornamentation of the body appears with the earliest archaeological records of human culture (Turner 1995). Cloth, clothing and garments, express belonging, difference and distinction, in conditions that are always socially, culturally and historically determined (Reischner and Koo 2004). The dressed body possesses an identity understood by others, having both an individual and collective purpose (Hansen 2004). However, cloth and clothing have spiritual and aesthetic qualities; they provoke feelings and are used on certain occasions at certain places to connect the wearer to the ancestors and the spirits (Mauss 1950; Schneider 2006).

Simultaneously, the arrangement of colours delivers a different perception, and the selection of each colour expresses other sensations. Paint seeks to construct a pictorial fact, to fabricate upon the medium a spectacle that is sufficient *per se* (Merleau-Ponty 1948). On the formal plane, colour helps us distinguish forms; it is a sub-language of the form that facilitates visual discrimination because chromatic codes are more efficient in establishing relations than forms (Costa 2019a, 2009b). Finally, the use of different colours for similar motifs within a given style highlights the details, as

every quality reveals the being of the object as a whole (Merleau-Ponty 1948; Lesure 2005).

We include the concept of fashion, understood as an industry that is part of everyday life, designed for the body and associated with a physical and degradable concept. Thus, clothes and cosmetics are major goods for consumption, production, extraction, importation and other circuits in which a society participates. Fashion changes because it is subject to different influences through trade or domains produced by the territorial expansion of different societies. Fashion is also sensitive to technological innovations and variations, over time, in access to raw materials. We live in socially constructed cultures, in which fashion is transformed into a concept of visual culture and an aesthetic vehicle for fantasy. Sischy and Celant (1997) argue that fashion is a new form of art that incorporates the masses. Furthermore, like art, the perception of fashion is related to the appreciation of its value and what it signifies (Steele 2018).

We would argue that this kind of analysis can also be applied to the dress found in rock art. The existence of painted anthropomorphs distinguishable based on the colours used within the style with which they are associated, with red being the norm, points to the ability of those who painted these figures to introduce difference into the garments — and the difference is a quality that expands and instils vitality into their social worlds (Hansen 2004). The dress and colours of rock paintings (including all kind of body supplements) contextualise the subjects, highlighting them within the visual imagery of a specific time.

Not only clothing but also cloth and its material properties can highlight who we are and deepen our social relations. We construct our appearance or social skin by manipulating certain types of raw materials and colours (Turner 1969, 1995, 2012; Miller 1994; Schildkrout 2004). Obtaining and producing them involves specific technological procedures and, at the same time, social behaviours, which are linked to restrictions, relationships and ceremonies.

In concrete terms, we propose that human bodies were culturally objectified, moving beyond their purely biological existence to be transformed into a type of cultural experience (Lock 1993; Hansen 2004; Van Wolputte 2004; Lesure 2005). Accordingly, 'the dressed person is a *gestalt* that included body, all direct modifications of the body itself and all three-dimensional supplements added to it' (Eicher and Roach-Higgins 1992: 13, see also Alvarado 2000, 2007).

COLOUR IN THE ATACAMA DESERT STYLISTIC SEQUENCE

The colour universe

From the oldest rock paintings in the Atacama Desert (c. 2000 BCE) to those produced in the context of the Spanish contact (c. 1550 CE), most extant examples involve representations in red. Nevertheless, from the earliest times, we also note the use of various colours and shades, which in addition to demonstrating the development of the chromatic palette also reveal a pervasive knowledge of production sequences and *chaînes opératoires* related to obtaining the materials needed (Fiore 2007; Sepúlveda 2016, 2020). Each colour and shade was obtained from different raw materials, very likely extracted from several sources, provisioned directly or indirectly through trade, then processed using different procedures (Sepúlveda 2020). The art of preparing paints of certain colours for rock paintings involves special mineralogical knowledge, including the ability to grind the pigments, mix them with other components to achieve different shades, and select the tools suitable for painting in different formats and substrates (Siracusano 2005). This knowledge had to be present, and those decisions had to be taken before preparing the paints.

In the Atacama Desert, the colour palette employed was prepared from a broad spectrum of minerals. Red was obtained primarily from iron oxides (haematite), occasionally combined with clay. Yellow came from a different iron oxide (goethite) or iron sulphate (jarosite), again, in some cases, combined with clay. The black was created from a base of charcoal, while white was achieved using aluminosilicates or titanium oxides. A particularity of the region is that the green and blue colours are obtained by mixing oxides, chlorides, or copper sulphates, identified as clinoatacamite, bandylite, combined with aluminosilicates and quartz (Sepúlveda 2006, 2009; Sepúlveda and Laval 2010; Sepúlveda et al. 2013, 2014). These different compounds were combined according to recipes that involved different *chaînes opératoires* and the putting into practice of a wide variety of material and immaterial knowledge (Sepúlveda 2016, 2020). As this polychrome palette was available in the region from the Formative period (c. 2000 BCE), the decision to employ one or several colours was then the product of a selection process carried out before executing the image. Knowledge about colour preparation existed, so the painter selected between several options. The polychrome on the rock art panels and the selection of certain colours in the representation and construction of the human body resulted from an

	Monochrome			Bichrome			Polychrome		
	A	Z	G	A	Z	G	A	Z	G
TOTALS	782	914	463	126	62	36	63	2	9
%	80.5	93.4	91.1	12.9	6.3	7	6.4	0.2	1.7

Table 1. *Use of colour in rock art from the Atacama Desert, distinguishing by anthropomorphous (A), zoomorphic (Z) and geometric (G) figures.*

intentional act that we seek to understand here.

It is worth noting that out of 2457 motifs recorded, 971 are anthropomorphs, 978 zoomorphs, and 508 geometric forms. Among them, colour combination was low but generally used in human figures (Table 1), especially the ones that were dressed (see below, Table 2).

For this reason, we focused our attention on anthropomorphous motifs to explore the use of colour in the Atacama Desert paintings. These are distributed among five localities defined by a long tradition of archaeological investigation in the Atacama Desert: Loa Superior (LS), Río Salado (RS), Loa Medio (LM), Salar de Atacama (SA) and Despoblado de Atacama (DA) (Fig. 1) (Berenguer 2004; Cabello 2017; Gallardo 2018).

Throughout different research projects in which we have participated since the end of the 1990s, we have made countless drawings in an analogous way and to scale, recording each figure's original shape. The colour has been recorded separately using the Pantone© system. The figures are then transferred to a digital register to generate a visual catalogue of each investigated site, where we identified a palette of 20 colours (Fig. 2). To avoid having to describe individual colours at length and unify their description in the record, a numerical colour chart was created that included 14 recurring shades of red ranging from burgundy to ochre and yellows. Less frequent were bluish-green and different shades of white and black. In this sample, colour 1805, red, is the most frequently represented in all localities, primarily in DA, LS and RS (Fig. 3). Other colours employed in monochrome figures include white, black, yellow, orange and green, in different frequencies for each locality, considering significant (>10%) presence of white in LS and black use in LM. For bichrome motifs, the most common combination is red with another of the colours indicated (red + 1); these are significantly present (>10%) in SA, RS and LM. Other bichrome combinations (other two colours) are found mainly in RS (black + green and yellow + white) and very occa-

Figure 1. *Rock art localities defined in the Atacama Desert.*

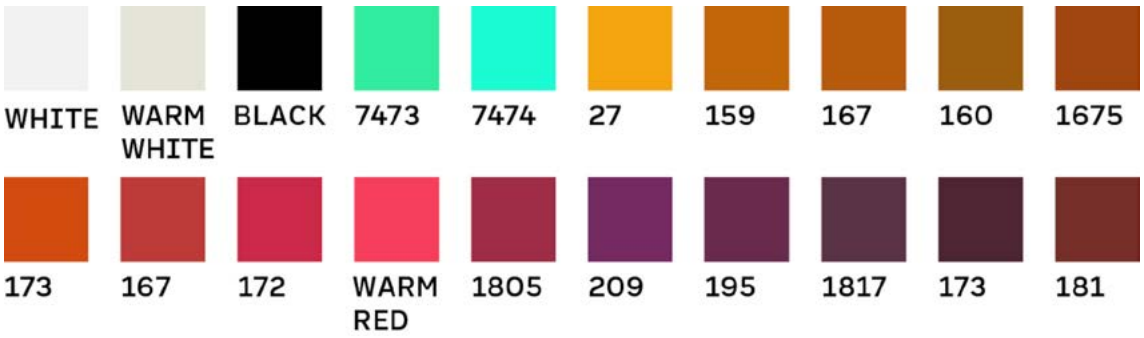

Figure 2. *Colour palette identified in human motifs, based on the Pantone© system.*

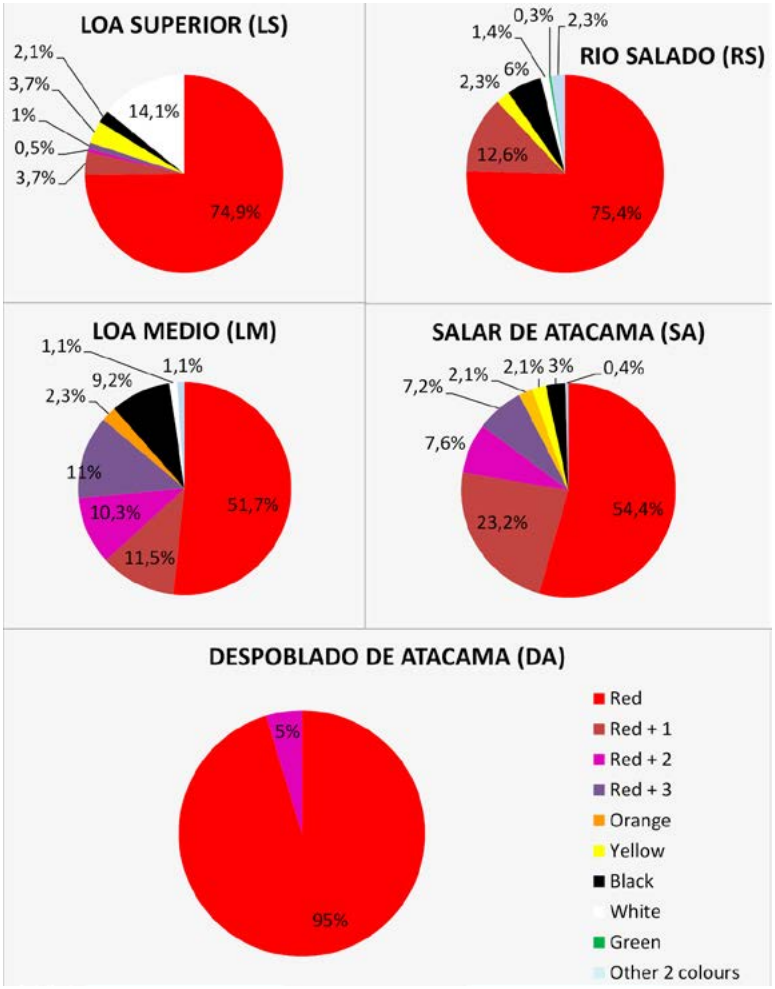

Figure 3. *Colour frequency represented by localities.*

sionally in SA (yellow + green) and LM (black + white). Combinations of three or more colours always include red (red + 2, red + 3) and are significant (>10%) only in LM, although not less important in SA (>7%), and represent the only colour combination used in human motif at DA (>5%), while there are no cases recorded at RS and very few at LS.

Interestingly, the monochrome figures include anthropomorphs represented with body supplements or without it, these ones depicted only with essential body parts (head, trunk and limbs). In contrast, the use of two or more colours occurs almost exclusively in human figures dressed with supplements like body painting, clothing, ornaments or other objects (Table 2).

Colours and styles in the Atacama Desert

Among the numerous monochrome human images, there is often a continuity of design between bodies and their supplements, indicating that embodiment is a construct defined based on visual arrangements, a combination of attributes that culturally determine the subject's expression. Among less frequent polychrome anthropomorphs, however, colour is used to materialise elements of distinction (Bourdieu 2012), as we describe below, following stylistic and chronological definitions proposed for the localities studied herein (Fig. 4) (Gallardo 2009, 2018).

Confluencia style, Early Formative period (2000–500 BCE)

The oldest paintings of the Atacama Desert correspond to the Confluencia style. These manifestations are located in rocky shelters of temporary occupations and on the canyon walls of high ravines (between 3000 and 4000 m asl) of RS and to the east of SA, areas of concentrated foraging resources that hunter-gatherer groups used with a growing pastoral economy (Berenguer 1995; Gallardo et al. 1999a).

The anthropomorph images of the Confluencia style are notable in their anatomy, clothing and movement, with the human figures participating primarily in hunting scenes involving wild camelids (Gallardo et al. 1999; Gallardo 2001; Gallardo and Yacobaccio 2005). The body supplements observed are skirts, headdresses, projectiles and darts, and ropes that tied camelids. In cases of polychromy, the most common colour combination is red/yellow in both localities (Table 3), although body supplements tend to be exclusively red at RS (Fig. 5). The exception to this colour rule is two images found near the El Pescador rockshelter, which bears white lines upon a red body, like body paint (Fig. 5C). The cases at SA are fewer but with more colour variability, adding green or white body supplements in two motifs (Fig. 6).

Locality	Monochrome			Bichrome			Polychrome		
	T	BS	B	T	BS	B	T	BS	B
Loa Superior (LS)	181	80	101	7	7	0	3	1	2
Rio Salado (RS)	298	234	65	52	51	1	0	0	0
Loa Medio (LM)	56	27	27	11	10	1	20	20	0
Salar de Atacama (SA)	146	103	38	56	56	0	35	35	0
Despoblado de Atacama (DA)	101	57	44	0	0	0	5	5	0
Total	**782**	**501**	**275**	**126**	**124**	**2**	**63**	**61**	**2**

Table 2. *Use of colour in anthropomorphous figures, dressed with body supplements (BS) and without it (B) (T= N total).*

Cueva Blanca style, Middle Formative period (500 BCE–400 CE)

Later in the sequence, at the same localities of RS and SA and along the streams surrounding the oasis of Calama (LM) (2000 m asl), the Cueva Blanca style was developed. It is characterised by static dressed human figures and geometric designs in symmetrical compositions, mostly framed, that have been linked to textile structure and iconography (Gallardo et al. 1999a; González 2005; Mege and Gallardo 2015; Sinclaire 1997). These authors have associated these technological and visual innovations with the consolidation of a village pattern around 500 BCE, but they signalled that the production of these images would proliferate beyond this period, occurring until 800 CE.

At RS, the anthropomorphs have a primarily red body, with the face and lower part of the body filled in with green (Table 3). However, because it was not possible to typologically identify the garments (Montt 2004), the image may be a visual solution linked to embodiment (Fig. 7). In these figures, the colours are also alternated on the extensions emanating from the headdress and on different sections of the composition, using parallel or broken lines, as observed on elements of textile compositions (Sinclaire 1997, 2004; Mege and Gallardo 2015).

At SA, we find only monochrome anthropomorphs ascribed to the Cueva Blanca style.

Style	Locality	N	Body parts	Body supplements
Confluencia	Río Salado (RS)	13		
		2		
	Salar (SA)	4		
		2		
Cueva Blanca	Río Salado (RS)	8		
		7		
FM Mix	Salar (SA)	31		
		1		
		3		
		12		
		1		
		11		
		3		
Late Intermediate/Late period	Río Salado (RS)	11		
		2		
	Loa Superior (LS)	4		
		5		
		2		
	Loa Medio (LM)	20		
		6		
		2		
		2		
	Salar (SA)	6		
	Despoblado (DA)	5		
Aguada	Río Salado (RS)	7		
		1		

Table 3. *Use of colour in anthropomorphous figures by style, distinguishing body parts and supplements.*

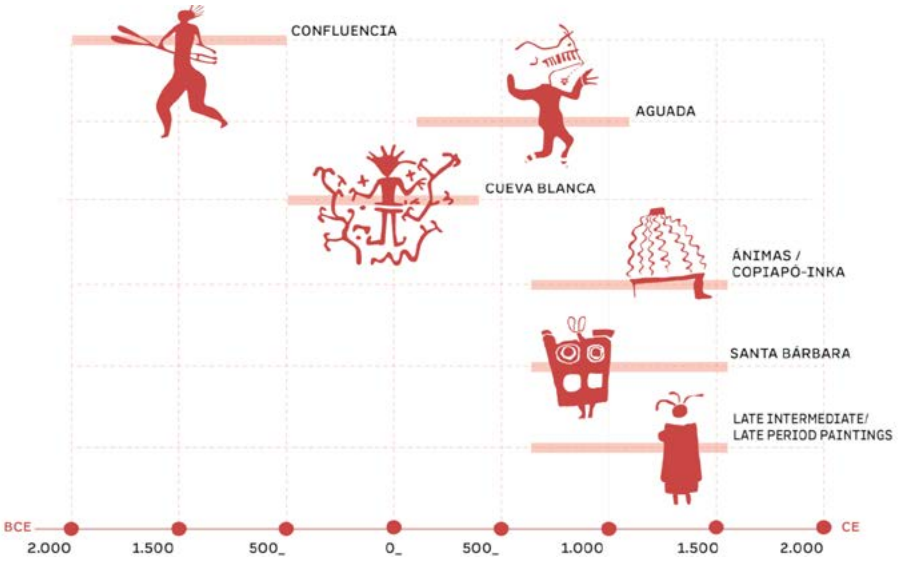

Figure 4 (on right). *Rock painting styles and chronological definitions proposed for the localities studied.*

Figure 5 (below). *Anthropomorphous images of the Confluencia style at RS: (A) Panel from Confluencia site (width 54 cm); (B) Detail of the last panel (right figure length 20.6 cm); (C) El Pescador site (length 13 cm).*

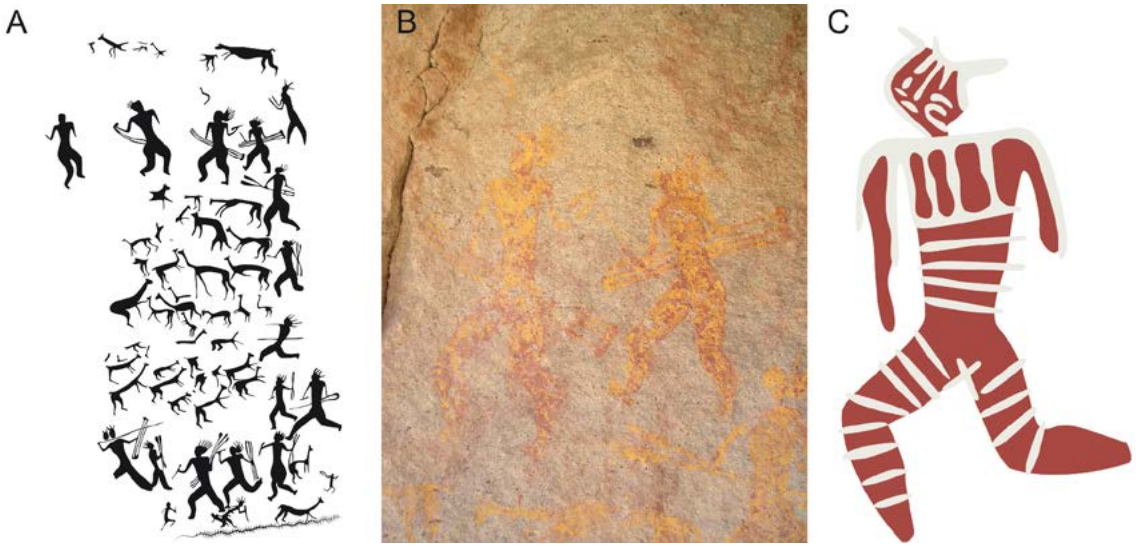

Figure 6. *Anthropomorphous image from Cueva San Lorenzo site (SA) (length 30 cm).*

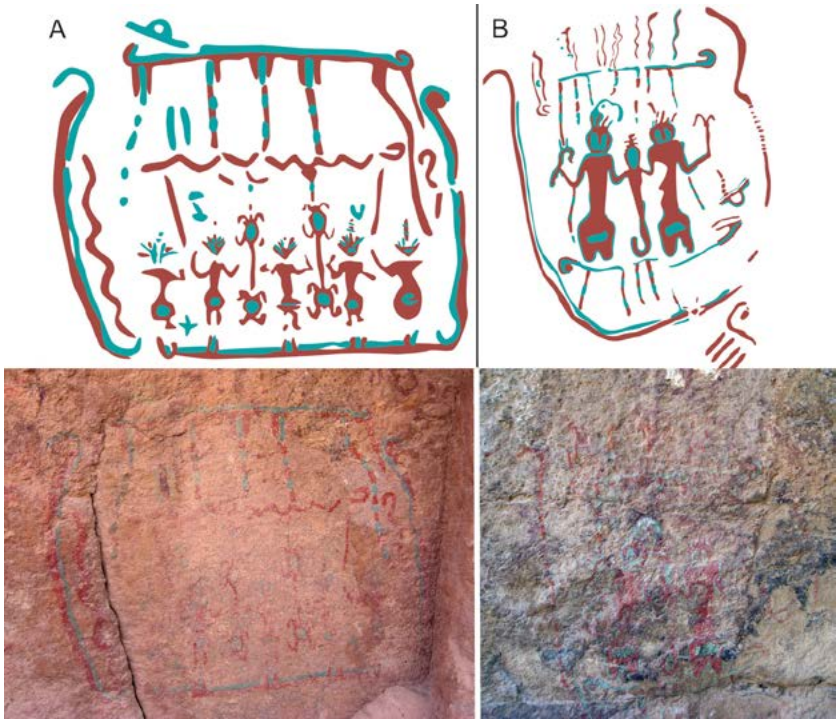

Figure 7. *Anthropomorphous images of the Cueva Blanca, Incahuasi site (RS) (A: length 33 cm; B: length 30 cm).*

Figure 8. *Anthropomorphs from Puritama site (SA) (length 6 cm).*

However, there are abundant motifs that combine attributes from this style (colour alteration, frontal posture) and Confluencia (similar body supplements and an outline of anatomy and mobility) depicted in pairs or groups (symmetric or not) that do not explicitly refer to a scene (Fig. 8). We refer to them preliminarily as the 'FM Mix' variant (Table 3).

They show a preponderance of yellow bodies with parts of their supplements painted in red and green (Fig. 9). Green is used for lines or points around the neck, waist and heads of individuals, evoking beads or stone or metal objects that in the Formative period were an important element of dress: necklaces, pendants, belt decorations, hair and turbans accessories (Latcham 1938: 115–116; Agüero 1993, 1994; Gallardo 1993; Gallardo and Cabello 2015; Latorre 2017; Soto 2019). Therefore, it is particularly relevant that copper ore was an ingredient in the mixtures that yielded the paints with which these ornamental elements were represented. Today, we know that the initial stages of the production sequence, after the ore was extracted, were the same for ornaments made of green and/or blue stones as they were for pigments (Sepúlveda et al. 2013).

In Cueva San Lorenzo, there are two motifs wearing loincloths displaying similarities to textile garments found in cemeteries of the LM, such as Topater 1 (Figure 9A, B; Sinclaire 1997, 2004; Cases and Montt 2013). These are decorated with a rectangular geometric figure with cogged edges, motif that appears on different archaeological objects dating from the earliest to the latest stages of this period (1500 BC–700 CE) (Gallardo and Cabello 2015). Both depictions use colour alternation in linear segments described above as characteristic of this style: one in the extensions of the headdresses, and as body paint in the other. The enormous white headdresses are also comparable to the feathered objects that abound at the Topater 1 site (Fig. 10C–E). This allows us to confirm that these motifs would be contemporary or slightly later than the Cueva Blanca style (Montt 2002, 2004), but a stylistic review of the FM Mix variant is needed.

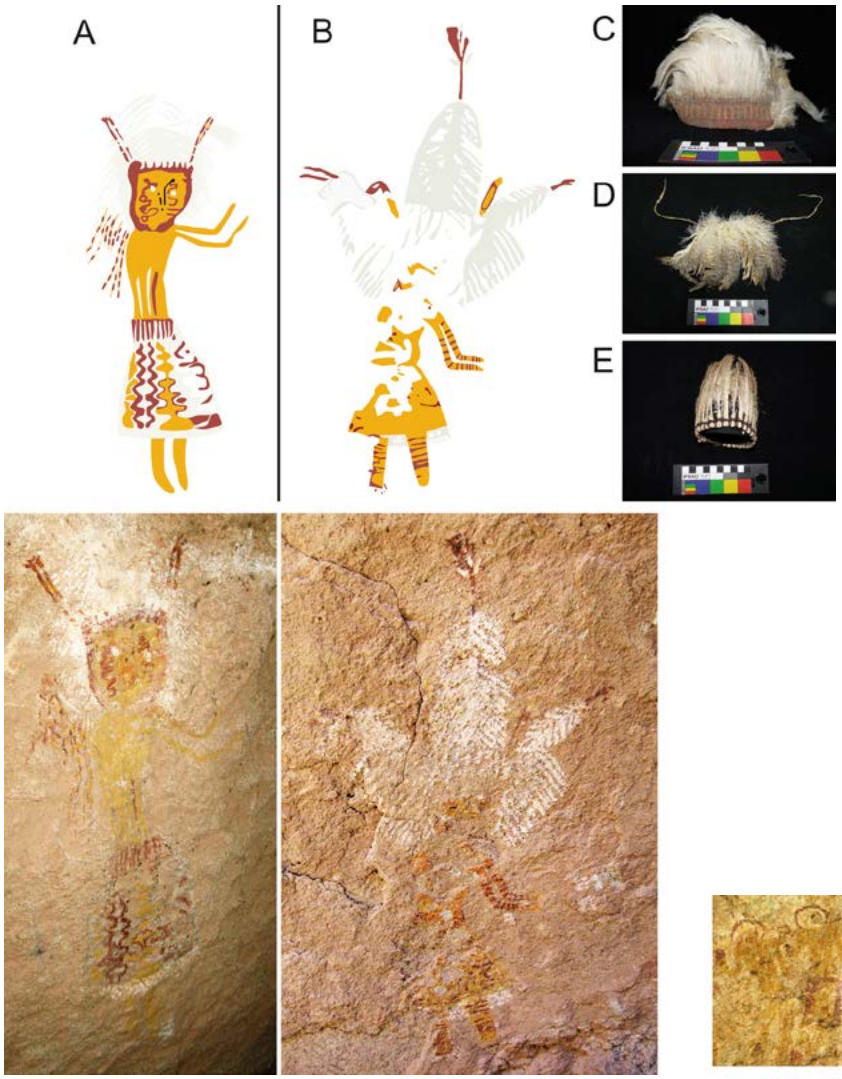

Figure 10. *A-B. Anthropomorphous figures from Cueva San Lorenzo site (SA) (A: length 50 cm B: length 45 cm); C–E: feathered objects from Topater 1 site (LM) (Museo Arqueológico de Calama, photos FONDECYT 1110702).*

Painted anthropomorphs from the Late Intermediate period (800–1400 CE) and Late period (1400–1550 CE)

In rock art dated to periods after 1000 CE, there is often a significant variability in designs that have not been defined as instances of styles in their own right (Sepúlveda 2011). It is also difficult to distinguish the images produced during Regional Developments or Late Intermediate period (800–1400 CE) from those created in the Late or Inka-influenced period (1400–1550 CE). Humanlike beings are represented through clothing, individually, randomly arranged or in intentional assemblages, such as the representations of llama caravans in addition to a great variety of geometric shapes (Berenguer 2004; Cases and Montt 2013; Gallardo 2018). They are displayed in rockshelters and rocky walls, even in the most remote places, and on different objects, reaching an interregional character (Aschero 2000). The distribution is explained by the intense long-distance exchange network between the population groups congregated around agricultural work in large villages at streams and oases, who promoted their local identities and territoriality based on established relationships during the Late Intermediate period (Gallardo 2018).

At RS and SA, the bichrome cases display elements of dress or form compositions that recall Formative styles, e.g. the segmented skirt now with borders and figures with striped tunics carrying darts and dart throwers (Fig. 11). These also use a similar colour combination (Table 3), but in opposite proportions to previous styles: red bodies with some body parts (like the head) and body supplements rendered in yellow or white.

Bichrome examples are less common at LM, the more frequent combination being black, white and red (Table 3). There is a wide variety of tunics, structured alternating fields of colour, a typical mode of representation for anthropomorphs of the Late

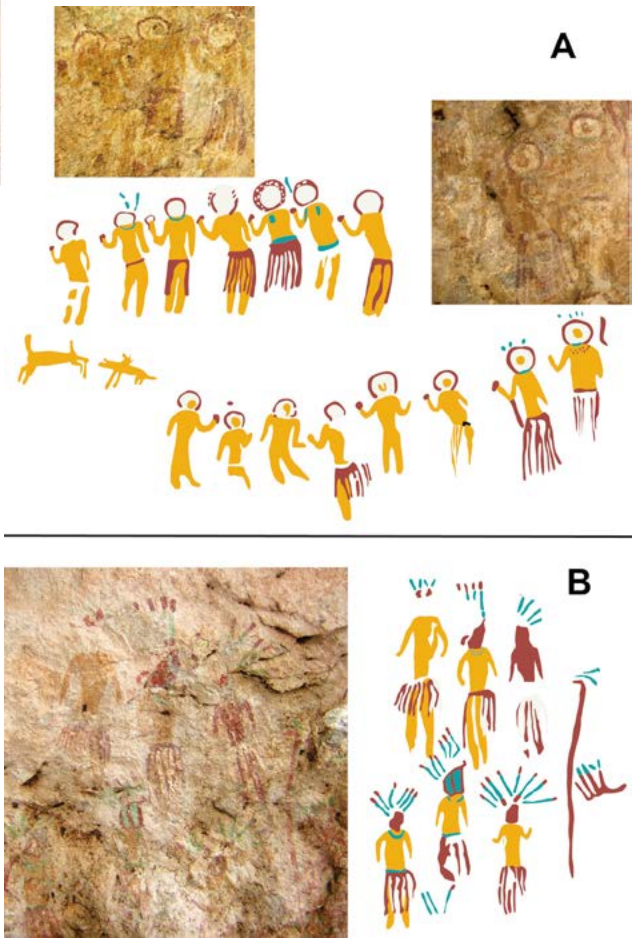

Figure 9. *Anthropomorphs painted from Cueva Peine site (SA) (A: length 30 cm; B: length 47 cm).*

Figure 11. *Anthropomorphs of periods after 1000 CE, El Suri site (RS) (length 18 cm).*

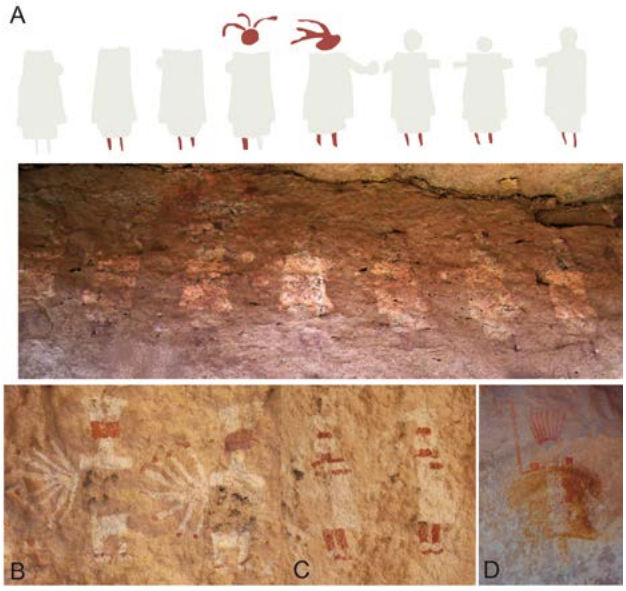

Figure 12. *Anthropomorphs from LM: (A) Ojos de Opache site (length 15 cm); (B, C) San Salvador-1 site (B: length 15 cm; C: length 16 cm); (D) Ojos de Opache site (without measures).*

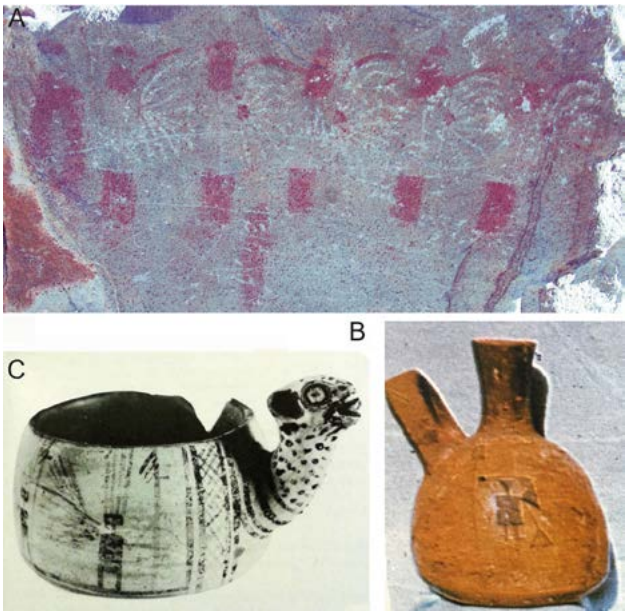

Figure 13. *(A) Anthropomorphs painted from Quebrada La Chinchilla (DA) (lenght 11 cm); (B and C) similar motifs on Inka vessels; (B) Fernández Baca 2000: Pl. IV, (C) Lumbreras 1974: Fig. 231.*

period in the area (Cases and Montt 2013). Other parts of the body (head, legs) and supplements (headdresses, wrist and ankle cuffs) are depicted primarily with lines or points, also alternating colours (Fig. 12A–C). Usually, the figures are replicated, forming symmetrical compositions of two to eight motifs.

We draw particular attention to those with a sheaf of white rays alongside one side of the clothing, ending in a red point (Pimentel and Montt 2008) (Fig. 12B). Similar graphic attributes and use of colour are exceptionally found in the far south of the desert (DA locality), where many anthropomorphs were created exclusively in red. Some of these motifs were initially associated with the Sacrificador figure of the Aguada culture of northwest Argentina (500–950 CE) (NWA) (Iribarren 1976; Cervellino 1992; Llagostera 1995; Niemeyer et al. 1997; Cervellino and Sills 2001). However, the variability of the dress has led to its identification with at least two distinct rock art production systems, linked to minor groups belonging to 'Ánimas-La Puerta' (600–1300 CE) and 'Copiapó-Inka' (1300–1550 CE) cultures (Cabello 2017). The first one is defined as a society with an agricultural-pastoral and maritime economy, and the second one as the local population annexed to the *Tawantinsuyu*; both groups lived principally in villages further south, in the Copiapó valley (Fig. 1).

The exceptional example is a panel with figures in red and white, along with a black that is now almost imperceptible, owing to its poor state of conservation. On one side of these figures, we also find a semi-circular figure with curved rays extending outward, in alternating white and red (Fig. 13A). Based on this 'accessory', painted anthropomorphs from NWA have been called '*emplumados*' (ornamented with feathers) (Fernández Distel 1976; Aschero 2000; Fernández 2000; Hernández Llosas 2001; Nielsen 2007). These figures have been dated to the Late Formative (c. 0 CE, see Hernández Llosas et al. 1998, 1999; Hernández Llosas 2001) or linked to the Regional Developments period (c. 1000–1450 CE, see Nielsen 2007; Rodríguez and Angiorama 2019). Nevertheless, its presence in Inka ceramics (e.g. Tchopik 1946; Fernández Baca 1971; Lumbreras 1974) and on paintings in the LM and DA allow us to propose that the expanded circulation of this way of representing the body, and its extension into what is now Chile, could have occurred during this period (Cabello 2017) (Fig. 13B–C).

Similar is the case of two humanlike figures from the Santa Barbara rockshelters (LS), which have tunics in the form of an axe or shield, which was characteristic of NWA during the pre-Inka period, but spread over all northern Chile during Inka times, around 1400 CE (Berenguer 1999, 2004, 2009; Aschero 2000; Nielsen 2007; Pimentel et al. 2007; Montt and Pimentel 2009; Troncoso 2011; Podestá et al. 2013) (Fig. 14A left and 14B). Both display a four-part design known in NWA

as 'alternation of contrasting colours in quadrants' linked to the Inka checkerboard pattern typically found on tunics and Inka *tocapus*, square motifs with geometric decorations inside (López Campeny and Martel 2014: 34, 39). In these cases, red and yellow, with the latter colour also used for body parts (Table 3).

The other four humanlike figures at this site combined red, yellow, green and/or black for depicted body parts and supplements (Fig. 14A, C). They display tunics in an inverted semi-trapezoidal shape that is characteristic of the Tarapacá region and identified by their interior designs as garments from the regional developments or Late Intermediate period (800–1400 CE) (Berenguer 1999: 45–46, 2004b: 95). Unlike 'tye-dyed tunics', where numerous diamond shapes can be observed (e.g. Agüero 2015: Figs 11 and 12), or leather chest guards where contiguous diamond shapes are combined with other geometric figures (Gallardo 2018: Fig. 19), the alternation of colour in the paintings brings to light that there is a circular or quadrangular element that is replicated only four times (2×2), in a double symmetrical reflection. This four-part design is comparable to that found on Inka tunics worn by high-ranking officials or persons taking part in major Inka activities, especially those of the Inka leader who conquered the lands in the study (Poma de Ayala 1615–16: 98, 149, 157, 194, 250, 252, 256, 277, 281, 344, 352, see also Berenguer 2009) (Fig. 15). Some authors call this the 'concentric squares' design and link it to the Inka creation myth (see Martínez 2018: 452).

We thus propose a late date for these representations, returning to the initial proposal of Berenguer and colleagues (Berenguer et al. 1985) and confirming that it would be a different type of tunic (Cases and Montt 2013). This is supported by shapes found on the same panels, including lines of triangles and diamonds commonly found on Inka pottery, and a decorated camelid such as those found on textiles of that period (D'Harcourt 1962: Pl. 31; Bray 2003, 2008) (Fig. 14A). The polychrome scheme also brings to light the presence of circular and rectangular figures found in the upper section of the tunics, around shoulder height. These kinds of appliques have not been recorded on archaeological garments but are also represented on other painted or engraved anthropomorphs from the Late or Inka-influenced period (1400–1550 CE) (e.g. Troncoso 2011: Fig. 2D; Gallardo 2018: Fig. 22;) (see Fig. 12C).

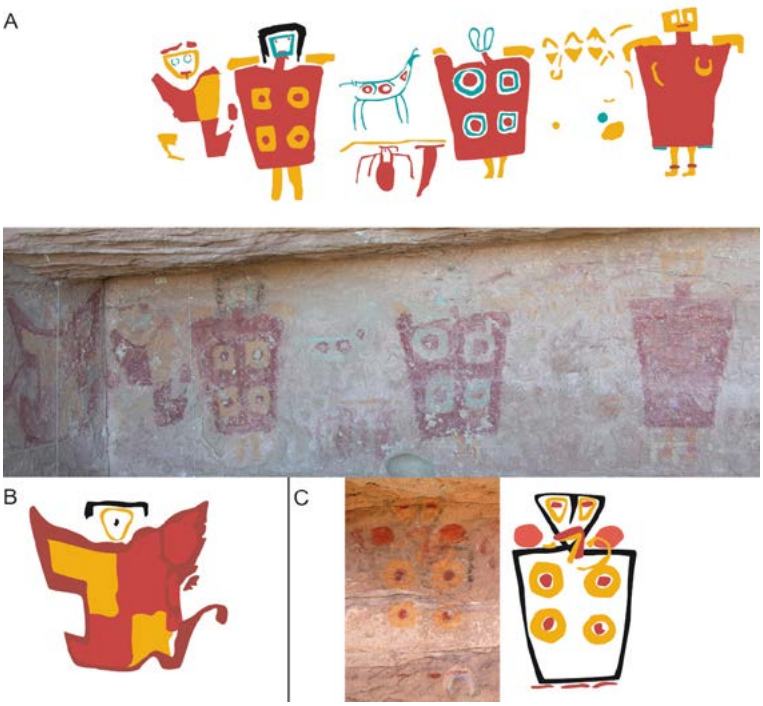

Figure 14. *Anthropomorphous images from Santa Bárbara site (LS) (A: length 74 cm; B: length 52 cm; C: length 40 cm).*

Figure 15. *Inka tunics: (A) El otabo capitan Apo Camac Inga (the eighth captain, conqueror of Chile); (B) Setienbre Coia Raimi (September queen/moon fest) (Poma de Ayala 1615–16: left 157[159], right 252[254]).*

Foreign Aguada style (500–1550 CE)

Lastly, we wish to draw attention to the Incahuasi Inka site of RS, where the bodies of figures are depicted in white, and the red colour is used for details of the face (eyes and jaw), headdresses, plumes, garment decorations, ankle cuffs and claws (Fig. 16). What is unusual about this combination in the context of regional rock art is that it seems to be linked to the Aguada style of NWA, owing to its visual features and ceramic evidence that indicates that the site was in use from

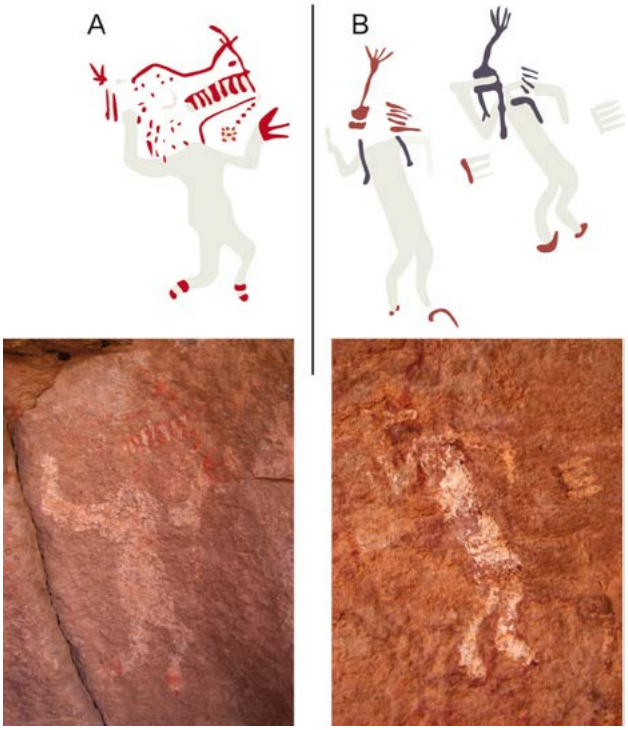

Figure 16. *Anthropomorphous figures from Incahuasi Inka site (RS) (A: length 25 cm B: length 35 cm).*

100 and 700 CE (Sinclaire 2004; Gallardo et al. 2021).

While anthropomorphous expressions of this style from the Middle period in Argentina (500–950 CE) are varied (Baldini and Sempé 2011), it is interesting to note the coincidence in the use of red colour that Nazar and colleagues (Nazar et al. 2014: 44, 47–49) attribute to blood flowing over the bodies and for supplements of the figures that express the 'magical-religious power' of the rituals conducted at La Tunita. Nevertheless, we cannot rule out the possibility that the Aguada style includes rock art expressions up to 1350 cal. CE in NWA (Lorandi 1966; Callegari 2001; Callegari et al. 2009), as they could have spread to Chile in this period or even further into the late period, as has occurred with another trans-Andean iconography (*vid. supra*). Aguada iconography is also identified in petroglyphs from the southern semi-arid region in Chile, sharing elements like a profile representation, one circular eye, big jaw and body variability (sometimes with decorations) (Troncoso and Jackson 2009). These authors situated the introduction of this foreign iconography in the transition between the Early Ceramic Period and the Late Intermediate Period (c. 800 CE). Nevertheless, they also recognised that the feline's image does not gain importance until the Late Intermediate (1000–1400 CE) and Late (1400–1550 CE) periods when Diaguita and Inka-Diaguita populations inhabited that area.

Revisiting the local archaeological rock art sequence focusing on the use of colour permitted the identification of new iconographic elements, whose diagnostic elements link them to specific periods as part of a single style. Thus, they provide information to complement and/or aid discussions of previous stylistic affiliations and bring us closer to understanding what the use of colour might signify.

Fashion colours

In the Atacama Desert, red, yellow, green, black and white constitute the universe of colour. We know that the quintessential rock art image is, by definition, red. It is the light from the spectrum that satisfies the existence of the form and content of this human intervention. However, on the margins of this material hegemony, other images are also installed, images that demand other colours, other realities. These are not the norm, but rather the exception.

Given the colour palettes and their distinctions in the groupings analysed, what immediately becomes significant is the pictorial contribution to literality, to the precision of that which is designated. We encounter a procedure that is not satisfied with the use of red colour in all of its varieties but requires establishing or channelling the process of recognition. The power of colour appears in all styles and across all times because new 'visual stories' are always needed to direct the relationship between the work, the producer and the spectator.

In the earliest periods (Confluencia and Cueva Blanca styles and FM Mix variant), these colours are used to express elements of the dress. They are found in body paint, feathers, rattles, necklaces and other artefacts we do not recognise. They even appear in wild camelid wool (Fig. 6). In the Cueva Blanca style, the alternation of colours also dialogues with the symmetrical structure of the textile image, in a specular relationship that can also be extended to artificially introduced colour, as the woven iconography extends to the rock art palette. The use of green in the FM Mix variant points to the importance of introducing copper as a lapidary and melted metal into the lives of the populations 1500 BC–700 CE. At the same time, these elements had to improve the visual body, real and represented, providing colour, brightness and distinction. All these items refer to prestige objects (Gallardo and Cabello 2015; Harris and Robb 2015) or valuable objects premised on uniqueness or beauty (Turner 2012).

In the Late Intermediate and Inka periods, colours allude to dyed wool fibres used to produce colour designs on tunics. They require further study to isolate their forms and colours. However, it is notable that the painted anthropomorphs share a colour palette with some painted *chullpas* (funerary towers) along the Lauca River in the Bolivian Altiplano, where, added to the most used colours (red, black and white), we find the exceptional use of green on external decorations. These decorations also allude to the textile universe when one compares their designs to Inka tunics placed in an inverted position (Gisbert 1994). For the Late period, though, the red-white-black triad was fashionable. Its preferential use for the LM anthropomorphs and its exceptional presence in DA are consistent with the

representations of figures painted in Cusco and NWA, and these allude to the tricolour weaved *unkus* (Berenguer 2013; López Campeny and Martel 2014; Hosting 2017). In addition to preferring forms and designs, the Inka state promoted ceramics with specific colours (Pärssinen and Siiriäinen 1997), particularly tri-chromatic decorations on imperial and local (Arica and Diaguita) vessels that circulated across the territory under study (Uribe and Cabello 2005; Uribe et al. 2007). The standardised use of red-black-white on different media could indicate that these colours constituted the Inka *self*, independent of its direct relationship to the imperial or the local. Their performance and repetition make them constitutive acts of identity (Turner 1995; Butler and Lourties 1998).

This reinforces the idea that the human body serves as a source of metaphorical expression that is crucial in the material sphere of goods produced by the Inka state, as has been proposed for polychrome ceramics and clothing, through which a new way of seeing and understanding the world is embodied (Bray 2008).

Figure 17. *Anthropomorphous figures from the Toconao site (SA) (length 75 cm).*

Thus, the minor universe of rock art colour appears in direct relation to the embodiment it constitutes, materialised in dress, whether garments or body paint. From a temporal perspective, one could say that the anthropomorphous representation evolves or transits from an *embodiment* that requires including the forms of human anatomy and movements of the human body towards another in which the tunic replaces the body. It disappears in weaving, which during the Inka period is the political and symbolic domain *par excellence* (Murra 2002). Probably, this new social and cultural context of woven textiles in the Andes is related to the singularity of rock paintings of the Quebrada Seca style, in which images like camelids are executed in black (Fig. 17) (Vilches and Uribe 1999; Gallardo 2018). This is doubly exceptional, as this iconography belongs to the expressive field of petroglyphs, and there are no other compositions on rock whose colour is black.

In the Incahuasi site (RS), the form and colour of the NWA Aguada-style images are signs of their distinctiveness, manifestly expressing their discontinuity with local expressions (Fig. 16). Their relative importance is revealed precisely in their 'rarity.' They create a new reality, convening a dialogue among figures and persons that reformulates the visual imaginary. The body is white, but not the head, which consists of a fine red outline encircling an unmodified area of the rock panel. Red is then introduced upon the white to signify claws, ankle cuffs on both feet, and an artefact at the end of the posterior arm. On the rock surface is a white semi-circle in the position of the eye, and teeth are also present in the combination of red and white lines. The back of the skull is also dotted with tiny red lines. There is a white 'rattle' with red ornamentation between the arm and chin, one surface of colour intervened by another as it follows the same scheme as the body of the subject itself. The many decisions that gave rise to this work refer to the particular qualities of the visually animated subject. These characteristics appropriate colour to signify something that does not belong to the ordinary world, something that we also know inhabits a domain that is not the same as that of the creator; the rock is not simply a medium; it is its place.

These distinctive considerations could perhaps be extended to all those interventions we conventionally call rock art. However, our research has unquestionably found several works that, for their small number, we must acknowledge their discontinuity and difference. They are present in each locality and based on their style, one would say they have been there through it all, from the Formative to the Inka period. In the representations considered in this study, colour is not used to evoke everyday dress, such as the woollen mantles and leather sandals popular among Andean native people. Nor does colour allude to the arrangements associated with hairstyles and hair, whose solutions were distinct in each period. The central impetus of colour application in rock art is best expressed in grand headdresses, face paint, masks, decorated tunics, skirts, necklaces, ankle cuffs, darts and throwers, which refer not to humans but to significant non-human personages. The colours are used to denote some parts of the dress: clothing or body paint. While some of these objects have served as a reference to situate styles chronologically, we should not forget that they were discovered in funerary contexts or contexts with evidence of ritual consumption or collective celebrations (Hayden 2009; Gallardo and Cabello 2015; among others).

EPILOGUE

The palette awakens a political economy, as the colour substance must be produced at the mine, which involves prospecting, extraction and crushing. This

is an activity that is governed by certain relations of social production, since each period in rock art history has its economic context and that context gives rise to conditions that must also have affected circulation and consumption (Sepúlveda et al. 2019). Nevertheless, colour consumption is a more complex cultural dimension and practice.

The use of colour in rock art belongs to a field of social and symbolic practices whose management differs substantially from other forms of visual expression. The first difference is that rock art, being an integral part of the environment where the individuals live, establishes a constant dialogue with it, whose effectiveness is based on the use of red pigment varieties. This mineral substance is the quintessential material and provides the link that materialises the subject in a given landscape. However, at one extreme of the dominant rock art colour series, we also find the use of other mineral substances, which provide colours that offer other values and amplify the cultural connection between the people and their geography, reintegrating natural and social relationships through ritual (Turner 2012). In turn, understood through enchantment technology (Gell 1992), the production of mineral paintings gives agency to art through achieving specific aesthetic effects. The artist's choice and use of a broad chromatic palette thus denotes a particular intention towards the viewer, a specific connection with the place, and gives agency to art in its ability to produce effects that require particular sensory responses (Gell 1998).

The interaction between colour and medium, as constituted in mineral materials and environments, creates its actors through its expression. The form codifies social information, retains it, and puts it into play in relation to the spectator's prior knowledge (Munn 1973). The images are red because they belong to a particular world. They are beings that possess their qualities and conduct, many of which are insinuated or simply ignored. These qualities are unnecessary, as the human actors know them; they form part of the knowledge required to read the images. However, when looking at the simultaneous use of other colours, these appear to materialise things with a certain literalness; the wool and feathers are white, and stone necklaces are green. This redundancy suggests deployment of information, probably necessary owing to the differences in the relative competence of their interpreters. In these cases, rock art colour choice appears as an explicit act of instruction, a constitutive act. This was indeed a singular part of the cultural experience of the subjects, the visual interventions, and the places, granting to art its own agency (Gell 1998). Finally, our question was not just why polychromy was used and situated at specific places, but how these colours were used there (see Boivin 2010).

The second difference between rock art and other forms of expression is that the colour of the rock art constructs a body for humans and non-humans. Its function is to animate corporality, to provide a way of incorporating culture in a sense signified by *embodiment*. Using colour, a place is created in the world for the actors who intervene in the practice or experience of rock art. It unfolds the interactions between individuals and things, in a world whose 'lexicon' in action is provided by the coloured mineral substances.

Lastly, the colour of the rock art beings endows or invests them with a unique quality, as do body paint, the skirt, the tunic, as well as jewellery, headdresses, weapons and other artefacts. The dressed subject, and in particular the colour that gives rise to it, is a singular cultural production process, different from everyday life and somewhat comparable to *haute couture* or high fashion. This French expression is used for garments created as one-of-a-kind, tailor-made and hand-stitched with meticulous attention to detail, elevating fashion to the realm of art (see, e.g. Steele 2018). The use of high-quality raw materials and the work of highly skilled craftspeople ensure its perfection. It is also made in limited editions, reserved only for an elite. All of this differentiates it from all other garments, from ready to wear (*prêt à porter*), a more democratic form of fashion, with repeated and reproduced *en masse* patterns, as this kind of clothing is industrially produced, widespread, and intended for everyday use. Both concepts, *haute couture* and *prêt a porter*, developed simultaneously in the 20th century with the rise of the modern fashion industry.

In a figurative way, this distinction applies to the painted anthropomorphs of the Atacama Desert, as the dress depicted does not belong to the ordinary world but symbolic social situations. As with representations of skirts in the Formative period, we know they allude to ancient garments whose use extends back to the previous period (Early Archaic) or the tunics which allude to Inka *tocapus*, which held profound cosmological meaning for the rulers and administrators, allowing them political and ritual agency in the territory they governed (e.g. Carbonell 2020; Standen et al. 2004). Because of this, images created with more than one colour are exceptional in their cultural positioning, as the colours allow the images to materialise their distinctiveness, incarnating embodiments with dress, body shapes and supplements that are anything but *prêt à porter*.

Acknowledgements

This study was enabled by ANID-FONDECYT grants 3190479 and 1190263, and FONDAP grant 15110006. We extend our special gratitude to Francisco Gallardo for his inspiration and unfailing support; for inviting us to work on his projects (FONDECYT 1950101, 1980200, 1070083, 1110702) and let us have the material produced in them. We also wish to thank Carolina Agüero for her details on archaeological garments and Mauricio Uribe for his ceramics tips. We are grateful to Museo Arqueológico de Calama, Joan Donaghey for this translation and Estefanía Vidal for its final revision. Finally, we would like to thank the five anonymous *RAR* reviewers for their constructive suggestions, which helped improve this document tremendously.

Dr Gloria Cabello
Centro de Estudios Interculturales e Indígenas (CIIR) and Instituto de Estética, Pontificia Universidad Católica de Chile
Santiago
Chile
glcabello@gmail.com

Dr Marcela Sepúlveda
Escuela de Antropología, Pontificia Universidad Católica de Chile
Santiago
Chile
UMR8096 (CNRS-Paris 1)
Paris
France
msepulver@uc.cl

Bernardita Brancoli
Facultad de Diseño, Universidad del Desarrollo
Santiago
Chile
mb.brancoli@udd.cl

REFERENCES

Agüero, C. 1993. Análisis técnico de tres turbantes. In J. Berenguer (ed.), *Identidad y prestigio en Los Andes*, pp. 73–4. Museo Chileno de Arte Precolombino, Santiago.

Agüero, C. 1994. Clasificación de turbantes del Período Formativo Temprano. *Boletín del Comité Nacional de Conservación Textil* 2: 61–70.

Agüero, C. 2015. *Vestuario y sociedad andina. Desarrollo del complejo Pica-Tarapacá*. Quilqa Ediciones, San Pedro de Atacama.

Alvarado, M. 2000. Indian fashion. La imagen dislocada del 'indio chileno'. *Estudios Atacameños. Arqueología y Antropología Surandinas* 20: 137–151.

Alvarado, M. 2007. Vestidura, investidura y despojo del nativo fueguino. Dispositivos y procedimientos visuales en la fotografía de Tierra del Fuego (1880–1930). In M. Alvarado, C. Odone, F. Maturana and D. Fiore (eds), *Fueguinos. Fotografías siglos XIX y XX. Imágenes e imaginarios del fin del mundo*, pp. 21–36. Pehuén, Santiago.

Aschero, C. 2000. Figuras humanas, camélidos y espacios en la interacción circumpuneña. In M. M. Podestá and M. de Hoyos (eds), *Arte en las rocas. Arte rupestre, menhires y piedras de colores en Argentina*, pp. 15–44. SAA and INAPL, Buenos Aires.

Aschero, C. 2006. De cazadores y pastores. El arte rupestre de la modalidad Río Punilla en Antofagasta de la Sierra y la cuestión de la complejidad en la Puna meridional argentina. In D. Fiore and M. Podestá (eds), *Tramas en la Piedra. Producción y Usos del Arte Rupestre*, pp. 103–140. Sociedad Argentina de Antropología, AINA and WAC, Buenos Aires.

Aubert, M., R. Lebe, A. A. Oktaviana, M. Tang, B. Burhan, Hamrullah, A. Jusdi, Abdullah, B. Hakim, J.-X. Zhao, M. Geria, P. H. Sulistyarto, R. Sardi and A. Brumm 2019. Earliest hunting scene in prehistoric art. *Nature* 576: 442–445.

Balazut, A. 2012. L'animal, figure anamorphosique de l'homme. In J. Clottes (ed.), *L'art pléistocène dans le monde / Pleistocene art of the world / Arte pleistoceno en el mundo.* Actes du Congrès IFRAO, Tarascon-sur-Ariège, septembre 2010 – Symposium 'Art pléistocène en Europe', pp. 33–43. No. spécial de *Préhistoire, Art et Sociétés, Bulletin de la Société Préhistorique Ariège-Pyrénées*, LXV–LXVI, 2010–2011.

Baldini, M. I. and M. C. Sempé 2011. Iconos del ritual mortuorio como indicadores de cambios y resignificaciones. *CUADERNOS FHyCS-UNJu* 40: 61–78.

Ballester, B. 2018. El Médano rock art style: Izcuña paintings and the marine hunter-gatherers of the Atacama Desert. *Antiquity* 92(361): 132–148.

Berenguer, J. 1999. El evanescente lenguaje del arte rupestre en los andes atacameños. In J. Berenguer and F. Gallardo (eds.), *Arte rupestre en los andes de Capricornio*, pp. 9–56. Museo Chileno de Arte Precolombino, Santiago.

Berenguer, J. 2004. *Tráfico de caravanas, interacción interregional y cambio cultural en la prehistoria tardía del desierto de Atacama*. Ediciones Sirawi, Santiago.

Berenguer, J. 2009. Caravaneros y guerreros en el arte rupestre de Santa Bárbara, Alto Loa. In M. Sepúlveda, L. Briones and J. Chacama (eds), *Crónicas sobre la piedra, arte rupestre de las Américas*, pp. 193–203. Universidad de Tarapacá, Arica.

Berenguer, J. 2013. Unkus ajedrezados en el arte rupestre del sur del Tawantinsuyu: ¿La estrecha camiseta de la nueva servidumbre? In M. E. Albeck, M. Ruiz and M. B. Cremonte (eds), *Las tierras altas del area centro sur Andina entre el 1000 y el 1600 d.C.*, pp. 311–352. C.R.E.A. FHyCs – UNJu, Jujuy.

Berenguer, J., V. Castro, C. Aldunate, C. Sinclaire and L. Cornejo. 1985. Secuencia del arte rupestre en el Alto Loa: una hipótesis de trabajo. In C. Aldunate, J. Berenguer and V. Castro (eds.), *Estudios de Arte Rupestre*, pp. 87–108. Museo Chileno de Arte Precolombino, Santiago.

Boivin, N. 2010. *Material cultures, material minds*. Cambridge University Press, Cambridge.

Bourdieu, P. 2012. *La distinción. Criterio y bases sociales del gusto*. Penguin Random House, Barcelona.

Bourrillon, R. 2009. Les figures sexuées segmentées et isolées: pérennité et ruptures. In D. Seglie, M. Otte, L. Oosterbeek and L. Remacle (eds), *Prehistoric art: signs, symbols, myth, ideology*, pp. 21–28. BAR International Series 2028, Archaeopress, Oxford.

Bourrillon, R., C. Fritz and G. Sauvet 2012. La thématique féminine au cours du Paléolithique supérieur européen: permanences et variations formelles. *Bulletin de la Société Préhistorique Francaise* 109(1): 85–103.

Bray, T. 2003. Inka pottery as culinary equipment: food, feasting, and gender in imperial state design. *Latin American Antiquity* 14(1): 3–28.

Bray, T. 2008. Exploring Inca state religion through material metaphor. In Lars Fogelin (ed.), *Religion, archaeology, and the material world*, pp. 118–138. Southern Illinois University Center for Archaeological Investigations, Carbondale.

Butler, J. and M. Lourties 1998. Actos performativos y constitución del género: un ensayo sobre fenomenología y teoría feminista. *Debate Feminista* 18: 296–314.

Cabello, G. 2017. Marcando yacimientos: pinturas rupestres y minería en la región de Atacama, Chile (660–1300 d.C.). Unpubl. PhD thesis, Facultad de Filosofía y Letras, Universidad Nacional de Buenos Aires; http://hdl.handle.net/10533/232994.

Cabello, G. and F. Gallardo 2014. Iconos claves del Formativo en Tarapacá (Chile): el arte rupestre de Tamentica y su distribución regional. *Chungara, Revista de Antropología Chilena* 46(1): 11–24.

Callegari, A. 2001. Los grabados del Rincón del Toro, el

paisaje y su relación con el sistema iconográfico Aguada. *Boletín del Museo Chileno de Arte Precolombino* 8: 21–33.

Callegari, A., L. Wisnieski, G. Spengler, G. Rodríguez and S. Aumont 2009. Nuevas manifestaciones del arte rupestre del Oeste Riojano. Su relación con el paisaje y con otras expresiones del arte Aguada. In M. Sepúlveda, L. Briones and J. Chacama (eds), *Crónicas sobre la piedra, arte rupestre de las Américas,* pp. 381–402. Universidad de Tarapacá, Arica.

Cases, B. and I. Montt 2013. Las túnicas rupestres pintadas de la cuenca media y alta del Loa vistas desde Quillagua (norte de Chile). *Chungara, Revista de Antropología Chilena* 45(2): 249–275.

Carbonell, B. 2020. Los tocapus de Llullaillaco. In L. Bjerregaard and A. Peters (eds), *Pre-Columbian Textile Conference VIII / Jornadas de Textiles PreColombinos VIII*, pp. 157–174, Zea Books, Lincoln.

Cervellino, M. 1992. La imagen del sacrificador en el arte rupestre de la región de Atacama – Chile. *Contribución Arqueológica Boletín Museo Regional de Atacama* 4: 161–174.

Cervellino, M. and N. Sills 2001. El arte rupestre de los sitios Finca de Chañaral y Quebrada de Las Pinturas, Región de Atacama. In J. Berenguer, L. Cornejo, F. Gallardo and C. Sinclaire (eds), *Segundas Jornadas de Arte y Arqueología*, pp. 134–151. Museo Chileno de Arte Precolombino, Santiago.

Clottes, J. and D. Lewis Williams 2001. *Les chamanes de la préhistoire*. La Maison des Roches Éditeur, Paris.

Costa, J. 2019a. *Esquematismo. La Eficacia de la simplicidad. Teoría informacional del esquema*. Experimenta, Madrid.

Costa, J. 2019b. *La forma de las ideas Cómo piensa la mente. Estrategias de la imaginación creativa*. Experimenta, Madrid.

Csordas, T. 1990. Embodiment as a Paradigm for Anthropology. *Ethos* 18(1): 5–47.

D'Harcourt, R. 1962. *Textiles of ancient Peru and their techniques*. University of Washington Press, Seattle.

Eicher, J. B. and M. E. Roach-Higgins 1992. Definition and classification of dress: implications for analysis of gender roles. In R. Barnes and J. B. Eicher (eds), *Dress and gender: making and meaning*, pp. 8–28. Berg, Oxford.

Fernández, J. 2000. Algunas expresiones estilísticas del arte rupestre de los Andes de Jujuy. In M. M. Podestá and M. de Hoyos (eds), *Arte en las rocas. Arte rupestre, menhires y piedras de colores en Argentina*, pp. 45–61. SAA and INAPL, Buenos Aires.

Fernández Baca, J. 1971. *Motivos de ornamentación de la cerámica Inca-Cuzco*. Vols I and II. Librería Studium Editorial, Lima.

Fernández Distel, A. 1976. Relaciones entre la estación rupestre de Angosto de Hornaditas (Jujuy, Argentina) y la alfarería arqueológica del área inmediata. *Bollettino del Centro Camuno di Studi Preistorici* 8–9: 167–178.

Fiore, D. 2007. The economic side of rock art. Concepts on the production of visual images. *Rock Art Research* 24(2): 149–160.

Flett, A. and P. Letley. 2013. Style and stylistic change in the rock art of the southeastern mountains of Southern Africa. *South African Archaeological Bulletin* 68(197): 3–14.

Gallardo, F. 1993. La sustancia privilegiada: turbantes, poder y simbolismo en el Formativo del norte de Chile. In J. Berenguer (ed.), *Identidad y prestigio en Los Andes*, pp. 9–15. Museo Chileno de Arte Precolombino, Santiago.

Gallardo, F. 2001. Arte rupestre y emplazamiento durante el Formativo Temprano en la cuenca del río Salado (Desierto de Atacama, norte de Chile). *Boletín del Museo Chileno de Arte Precolombino* 8: 81–95.

Gallardo, F. 2009. Social interaction and rock art styles in the Atacama Desert (northern Chile). *Antiquity* 83: 619–633.

Gallardo, F. 2018. Estilos de arte rupestre e interacción social en el desierto de Atacama (norte de Chile). *Mundo de Antes* 12(1): 13–78.

Gallardo, F. and G. Cabello 2015. Emblems, leadership, social interaction and early social complexity: the ancient Formative Period (1500 BC–AD 100) in the desert of northern Chile. *Cambridge Archaeological Journal* 25(3): 615–634.

Gallardo, F. and H. Yacobaccio 2005. Wild or domesticated? Camelids in Early Formative rock art of the Atacama Desert (northern Chile). *Latin American Antiquity* 16(2): 115–130.

Gallardo, F., C. Sinclaire and C. Silva 1999. Arte rupestre, emplazamiento y paisaje en la cordillera del Desierto de Atacama. In J. Berenguer and F. Gallardo (eds), *Arte rupestre en los Andes de Capricornio*, pp. 57–96. Museo Chileno de Arte Precolombino, Santiago.

Gallardo, F., B. Ballester, G. Cabello, C. Sinclaire, I. Correa, G. Pimentel and E. Vidal 2021. From northwest Argentina to the Atacama Desert: circulation, goods, and value (900 BC–AD 400). In P. B. Clarkson and C. M. Santoro (eds), *Caravans in global perspective: contexts and boundaries*. Routledge, in press.

Gauthier, C. and Y. Gauthier 1994. Vêtements, attributs et décors dans l'art rupestre du Messak (Libye). *Actes de la 4ème réunion annuelle de l'Association des Amis de l'Art Rupestre Saharien*, pp. 41–47. Arles.

Gell, A. 1992. The technology of enchantment and the enchantment of technology. In J. Coote and A. Sheldon (eds), *Anthropology, art and aesthetics*, pp. 40–67. Clarendon Press, Oxford.

Gell, A. 1998. *Art and agency. An anthropological theory*. Oxford Press, Oxford.

Gisbert, T. 1994. El señorío de los carangas y los chullpares del Río Lauca. *Revista Andina* 12(2): 427–481.

Goldham, J. and I. Fulgestvedt 2012. Engendering north European rock art: bodies and cosmologies in Stone and Bronze Age imagery. In J. McDonald and P. Veth (eds), *A companion to rock art,* pp. 237–260. Wiley-Blackwell, New York and London.

Guffroy, J. 1999. *El arte rupestre del antiguo Perú*. IFEA-IRD, Lima.

Hansen, K. T. 2004. The world in dress: anthropological perspectives on clothing, fashion, and culture. *Annual Review of Anthropology* 33(1): 369–392.

Harris, O. and J. Robb 2015. The body in history: constructing a deep-time cultural history. Article posted on academia.edu 25 April 2015.

Hayden, B. 2009. Funerals as feasts: why are they so important? *Cambridge Archaeological Journal* 19(1): 29–52.

Hays-Gilpin, K. 2012. Engendering rock art. In J. McDonald and P. Veth (eds), *A companion to rock art*, pp. 199–213. Wiley- Blackwell, New York and London.

Hernández Llosas, M. I. 2001. Tres momentos, tres contextos, un lugar. Variaciones temporales y contextuales en el arte rupestre de la Quebrada de Humahuaca, Jujuy, Argentina. *Boletín del Museo Chileno de Arte Precolombino* 8: 59–82.

Hernández Llosas, M. I., A. Watchman and J. Southon 1998. Fechado absoluto y análisis de pigmentos para las pinturas rupestres de Pintoscayoc (Departamento de Humahuaca, Jujuy). *Estudios sociales del NOA* 2(1): 31–60.

Hernández Llosas, M. I., A. Watchman and J. Southon 1999. Pigment analysis and absolute dating of rock paintings, Jujuy, Argentina. In M. Strecker and P. Bahn (eds), *Dating and the earliest known rock art*, pp. 67–74. Oxford Books,

Oxford.

Hollmann, J. 2005. Using behavioural postures and morphology to identify hunter-gatherer rock paintings of therianthropes in the Western and Eastern Cape Provinces, South Africa. *South African Archaeological Bulletin* 60(182): 84–95.

Hosting, R. 2017. Personajes de rango y emblemas de poder en pinturas rupestres incaicas del Valle Sagrado, Cusco, Perú. *TRACCE Online Rock Art Bulletin* 42; http://www.rupestre.net/tracce/?p=12371.

Iribarren, J. 1976. Arte rupestre en la Quebrada de las Pinturas (III Región). In H. Niemeyer (ed.), *Homenaje al Dr. Gustavo Le Paige,* S.J., pp. 115–126. Universidad del Norte, Antofagasta.

Jolly, P. 2002. Therianthropes in San rock art. *South African Archaeological Bulletin* 57(176): 85–103.

Joyce, R. 2005. Archaeology of the body. *Annual Review of Anthropology* 34: 139–158

Latcham, R. 1938. *Arqueología de la Región Atacameña.* Prensas de la Universidad de Chile, Santiago.

Latorre, E. 2017. Los metales de los túmulos formativos (500 cal. a.C.–700 cal d.C.): una primera aproximación. In F. Gallardo, B. Ballester and N. Fuenzalida (eds), *Monumentos funerarios de la costa del desierto de Atacama: contribuciones sobre el intercambio de bienes e información entre cazadores-recolectores marinos (norte de Chile)*, pp. 169–181. Serie Monográfica de la SCHA 7 and CIIR, Santiago.

Leihitu, I. and R. C. E. Permana 2018. Looking for a trace of shamanism, in the rock art of Maros-Pangkep, south Sulawesi, Indonesia. *Kapata Arkeologi* 14(1): 15–26.

Le Quellec, J.-L. 2018. The rock art of sub-Saharan Africa. In B. David and I. J. McNiven, *The Oxford handbook of the archaeology and anthropology of rock art;* doi:10.1093/oxfordhb/9780190607357.013.25.

Leroi Gourhan, A. 1965. *Prehistoire de l'art occidental.* Éditions Mazenod, France.

Lesure, R. 2005. Linking theory and evidence in archaeology of human agency: iconography, style, and theories of embodiment. *Journal of Archaeological Method and Theory* 12(3): 237–255.

Llagostera, A. 1995. El componente cultural aguada en San Pedro de Atacama. *Boletín del Museo Chileno de Arte Precolombino* 6: 9–34.

Lock, M. 1993. Cultivating the body: anthropology and epistemologies of bodily practice and knowledge. *Annual Review of Anthropology* 22(1): 133–155.

López Campeny, S. and A. Martel 2014. La vestimenta del poder: comparando los registros textil y rupestre en el noroeste de Argentina (siglos XIII a XV). *Relaciones de la Sociedad Argentina de Antropología* 39(1): 21–55.

Lorandi, A. M. 1966. El arte rupestre del N.O. argentino. *Dédalo, Revista de Arte e Arqueología* 2(4): 15–172.

Lumbreras, L. G. 1974. *The peoples and cultures of ancient Peru*. Smithsonian Institution Press, Washington, D.C.

McDonald, J. 2012. Pictures of women: the social context of Australian rock art production. In J. McDonald and P. Veth (eds), *A companion to rock art*, pp. 214–236. Wiley-Blackwell, New York and London.

Martínez, J. L. 2018. Los sistemas andinos de comunicación durante los períodos incaico y colonial: el caso de los queros. In M. A. Muñoz (ed.), *Interpretando huellas: arqueología, etnohistoria y etnografía de los Andes y sus tierras bajas*, pp. 447–467. INIAM-UMSS, Cochabamba.

Masson, J. 2016. Les figures 'en trou de serrure' et 'l'anthropomorphe aux bras en zigzag' de la vallée des Merveilles (Tende, Alpes-Maritimes, France). *International Newsletter On Rock Art;* https://hal.archives-ouvertes.fr/hal-02062573.

Mauss, M. 1950. Les techniques du corps. In M. Mauss (ed.), *Sociologie et anthropologie*, pp. 363–386. Presses universitaires de France, Paris.

Merleau-Ponty, M. 1948. *Causeries*. Editions du Seuil, Paris.

Mege, P. and F. Gallardo 2015. Arqueosemiótica y pinturas rupestres en el Desierto de Atacama (norte de Chile). *Chungara Revista de Antropología Chilena* 47(4): 589–602.

Miller, D. 1994. Style and ontology. In B. Friedman (ed.), *Consumption and identity*, pp. 71–96. Harwood Academic Publisher, Amsterdam.

Montt, I. 2002. Faldellines del Período Formativo en el Norte Grande: un ensayo acerca de la historia de su construcción visual. *Estudios Atacameños. Arqueología y Antropología Surandinas* 23: 7–22.

Montt, I. 2004. Elementos de atuendo e imagen rupestre en la subregión de río Salado, Norte Grande de Chile. *Chungara, Revista de Antropología Chilena* 36(2): 651–61.

Montt, I. and G. Pimentel 2009. Grabados antropomorfos tardíos. El caso de las personificaciones de hachas en San Pedro de Atacama (norte de Chile). In M. Sepúlveda, L. Briones and J. Chacama (eds), C*rónicas sobre la piedra, arte rupestre de las Américas*, pp. 221–234. Universidad de Tarapacá, Arica.

Morphy, H. 1989. Introduction. In H. Morphy (ed.), *Animals into art*, pp. 1–17. Unwin Hyman Ltd, UK.

Munn, N. 1973. *Walbiri iconography. Graphic representation and cultural symbolism in a central Australian society*. Cornell University Press, Ithaca and London.

Murra, J. 2002. La función del tejido en varios contextos sociales y políticos. In J. Murra (ed.), *El Mundo Andino. Población, medio ambiente y economía*, pp. 153–170. Instituto de Estudios Peruanos, Lima.

Nazar, D., G. de la Fuente and L. Gheco 2014. Entre cebiles, cuevas y pinturas. Una mirada a la estética antropomorfa del arte rupestre de La Tunita, Catamarca, Argentina. *Boletín del Museo Chileno de Arte Precolombino* 19(1): 37–51.

Nielsen, A. 2007. Armas significantes: tramas culturales, guerra y cambio social en el sur andino prehispánico. *Boletín del Museo Chileno de Arte Precolombino* 12(1): 9–41.

Niemeyer, H., M. Cervellino and G. Castillo (eds) 1997. *Culturas prehistóricas de Copiapó*. Museo Regional de Atacama, Copiapó.

Núñez, L., I. Cartajena, J. P. Loo, S. Ramos, T. Cruz, T. Cruz and V. Ramírez 1997. Registro e investigación del arte rupestre en la Cuenca de Atacama (informe preliminar). *Estudios Atacameños. Arqueología y Antropología Surandinas* 14: 307–325.

Parkington, J. 2003. Eland and therianthropes in southern African rock art: when is a person an animal? *African Archaeological Review* 20(3): 135–147.

Pärssinen, M. and A. Siiriäinen 1997. Inka-style ceramics and their chronological relationship to the Inka expansion in the southern Lake Titicaca area (Bolivia). *Latin American Antiquity* 8: 255–271.

Pimentel, G. and I. Montt 2008. Tarapacá en Atacama. Arte rupestre y relaciones intersocietales entre el 900 y 1450 DC. *Boletín del Museo Chileno de Arte Precolombino* 13: 35–50.

Pimentel, G., I. Montt, J. Blanco and A. Reyes 2007. Infraestructura y prácticas de movilidad en una ruta que conectó el altiplano boliviano con San Pedro de Atacama (II región, Chile). In A. Nielsen, M. C. Rivolta, V. Seldes, M. M. Vázquez and P. Mercolli (eds), *Producción y circulación prehispánicas de bienes en el Sur Andino*, pp. 351–382. Editorial Brujas, Córdoba.

Podestá, M. M., D. Rolandi, M. Santoni, A. Re, M. P. Falchi, M. A. Torres and G. Romero 2013. Poder y prestigio en los Andes centro-sur. Una visión a través de las pinturas de escutiformes en Guachipas (noroeste Argentino). *Boletín del Museo Chileno de Arte Precolombino* 18(2): 63–88.

Poma de Ayala, F. G. 1615–16. *Primer nueva crónica y buen gobierno*. National Library of Denmark and Copenhagen University Library; http://www.kb.dk/permalink/2006/Poma de Ayala/info/en/frontpage.htm.

Power, C. 2004. Women in prehistoric rock art. In G. Berghaus (ed.), *New perspectives on prehistoric art*, pp. 75–103. Praeger, Westport, Connecticut and London.

Reischner, E. and K. Koo 2004. The body beautiful: symbolism and agency in the social world. *Annual Review of Anthropology* 33: 297–317.

Robb, J. and O. Harris 2013. *The body in history*. Cambridge University Press, Cambridge.

Rodríguez, S. and C. Angiorama 2019. Los contornos de la figura humana en el arte rupestre del Período de Desarrollos Regionales (900–1430 D.C.) en el sur de Pozuelos (Puna de Jujuy, Argentina). *Cuadernos de la Facultad de Humanidades y Cs. Sociales | UNJu* 56: 251–288.

Schildkrout, E. 2004. Inscribing the body. *Annual Review of Anthropology* 33: 319–344.

Schneider, J. 2006. Cloth and clothing. In C. Tilley, W. Keane, S. Küchler, M. Rowlands and P. Spyer (eds), *Handbook of material culture*, pp. 203–220. Sage, London.

Sepúlveda, M. 2006. Art rupestre et iconographie dans le bassin de la riviere Salado (nord du Chili), à la periode Intermédiaire Tardive (850–1450 apr. J.-C.). Unpubl. PhD thesis, UFR 03: Histoire de l'Art et Archéologie, Université Paris 1- Panthéon Sorbonne, France.

Sepúlveda, M. 2009. Aspectos tecnológicos en la pintura. Reflexiones elaboradas a partir de análisis físico- químicos aplicados al estudio de las pinturas de la localidad del río Salado (II región, norte de Chile). In M. Sepúlveda, L. Briones and J. Chacama (eds), *Crónicas sobre la piedra. Arte rupestre de las América,* pp. 119–128. Ediciones Universidad de Tarapacá, Arica.

Sepúlveda, M. 2011. Arte rupestre y complejidad social durante el período Intermedio Tardío, en la localidad del río Salado (norte de Chile). *Chungara, Revista de Antropología Chilena* 43(1): 53–72.

Sepúlveda, M. 2016. Methodological approach to the materiality of rock art paintings based on their physicochemical characterisation. Proposal and reflections from their study in Chile. In R. Bednarik, D. Fiore, M. Basile, G. Kumar and Tang H. (eds.), *Paleoart and materiality. The scientific study of rock art,* pp. 59–72. Archaeopress, England, Oxford.

Sepúlveda, M. 2020. Making visible the invisible. A microarchaeology approach and an archaeology of color perspective for rock art paintings from the southern cone of South America. *Quaternary International*; https://doi.org/10.1016/j.quaint.2020.05.031.

Sepúlveda, M., V. Figueroa and S. Pagés- Camagna 2013. Copper pigment making in the Atacama Desert (northern Chile). *Latin American Antiquity* 24(4): 467–482.

Sepúlveda, M., V. Figueroa and J. Carcamo 2014. Pigmentos y pinturas de minerales de cobre en la región de Tarapacá, norte de Chile: nuevos datos para una tecnología pigmentaria prehispánica. *Estudios Atacameños. Arqueología y Antropología Surandinas* 48: 23–37.

Sepúlveda, M., F. Gallardo, B. Ballester, G. Cabello and E. Vidal 2019. El Condor mine: prehispanic production and consumption of hematite pigments in the Atacama Desert, northern Chile. *Journal of Anthropological Archaeology* 53: 325–341.

Sepúlveda, M. and E. Laval 2010. Uso de minerales de cobre en la pintura rupestre de la localidad del río Salado (II región, norte de Chile). *Actas del XVIII Congreso Nacional de Arqueología Chilena*, Tomo II: 1111–1124. Valdivia.

Sinclaire, C. 1997. Pinturas rupestres y textiles formativos en la región atacameña. *Estudios Atacameños. Arqueología y Antropología Surandinas* 14: 327–338.

Sinclaire, C. 2004. Prehistoria del periodo Formativo en la cuenca alta del río Salado (Región del Loa superior). *Chungara, Revista de Antropología Chilena* 36(special number 2): 619–639.

Siracusano, G. 2005. *El poder de los colores. De lo material a lo simbólico en las prácticas culturales andinas. Siglos XVI–XVIII*. Fondo de Cultura Económica, Buenos Aires.

Sischy, I. and G. Celant 1997. *Art/fashion*. Power House Books, New York.

Soto, C. 2019. 'Objetos perforados', asociaciones simbólicas y redes de circulación: reflexiones sobre las formas de intercambio en el periodo Formativo (1500 AC–500 DC) del desierto de Atacama, norte de Chile. *Chungara, Revista de Antropología Chilena* 51(4): 573–593.

Standen, V., C. Santoro and B. Arriaza 2004. Síntesis y propuestas para el período Arcaico en la costa del extremo norte de Chile. *Chungara, Revista de Antropología Chilena* 36(special number 1): 201–212.

Steele, V. 2018. *Fashion theory. Hacia una teoría cultural de la moda*. Ampersand, Buenos Aires.

Tchopik, M. 1946. *Some notes on the archaeology of the Department of Puno*. Papers of the Peabody Museum of America Archaeology and Ethnology 27(3), Cambridge.

Troncoso, A. and D. Jackson 2009. Images that travel: Aguada rock art in north-central Chile. *Rock Art Research* 26(2): 43–60.

Troncoso, A. 2011. Personajes fuera de lugar: antropomorfos tardíos en el arte rupestre del norte semiárido de Chile. *Intersecciones en Antropología* 12: 221–230.

Turner, T. S. 1969. Tchikrin. A central Brazilian tribe and its symbolic language of bodily adornments. *Natural History* 78(8): 50–59, 70.

Turner, T. S. 1995. Social body and embodied subject. Bodiliness, subjectivity, and sociality among the Kayapo. *Cultural Anthropology* 10(2): 143–170.

Turner, T. S. 2012. The social skin. *HAU: Journal of Ethnographic Theory* 2(2): 486–504.

Uribe, M. and G. Cabello 2005. Cerámica En El Camino: implicancias tipológicas y conductuales para la comprensión de la vialidad y la expansión del Tawantinsuyo en el Río Loa (Norte Grande de Chile). *Revista Española de Antropología Americana* 35: 75–98.

Uribe, M., L. Sanhueza and F. Bahamondes 2007. La cerámica prehispánica tardía de Tarapacá, sus valles interiores y costa desértica, norte de Chile (ca. 900–1.450 d.C.): una propuesta tipológica y cronológica. *Chungara, Revista de Antropología Chilena* 39(2): 143–170.

Van Wolputte, S. 2004. Hang on to your self: of bodies, embodiment and selves. *Annual Review of Anthropology* 33(1): 251–269.

Vilches, F. and M. Uribe 1999. Grabados y pinturas del arte rupestre Tardío de Caspana. *Estudios Atacameños. Arqueología y Antropología Surandinas* 18: 73–87.

Young, D. 2006. The colours of things. In C. Tilley, W. Keane, S. Küchler, M. Rowlands and P. Spyer (eds), *Handbook of material culture*, pp. 173–185. Sage Publications, London.

RAR 39-1375