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ARTICLE



Making rock art under the Spanish empire: a comparison of hunter gatherer and agrarian contact rock art in North-central Chile

Andrés Troncoso (D), Daniel Pascual and Francisca Moya

Department of Anthropology, University of Chile, Chile

ABSTRACT

The production of rock art was a recurrent practice in pre-Colombian America and continued after the arrival of Europeans in AD 1540 and conquest by the Spanish Empire. Contact rock art associated with this historical moment is known in various regions of the Andes. The main focus of study has been through characterisation, defining relative chronologies and assessing which rock art images are attributable to Indigenous communities. In this work, we explore the contact rock art of north-central Chile through two complementary lines of discussion. On the one hand, we assess how the manufacture of rock art in colonial times articulated with earlier production dynamics. On the other, the co-existence of agrarian and hunter gatherer groups in this region in the 16th century AD allows us to compare how the rock art of these two groups reacted to the imposition of Spanish colonisation. The results enable us to identify similarities and differences in the dynamics of contact rock art in the two groups, related both to Spanish policies and to the historical traditions of native communities. Despite the differences, the new visual productions were incorporated into the ancestral spaces of both the agrarian and hunter gatherer communities.

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Introduction

As a global phenomenon, the study of contact rock art allows us to understand how rock art production was modified by Indigenous communities at the moment of their encounter with expansionist empires (e.g. Frederick 2012; Keyser 1987; Taçon et al. 2012). As Paterson (2012:70) has pointed out, contact rock art fills a gap in our knowledge about the lives of Indigenous people and their history; the bulk of colonial documents was created by white settlers or colonial officials. Studies in Australia, South Africa and North America have shed light on these colonial contact processes, discussing the changes of Indigenous populations after the incorporation of their territories into European empires (e.g. Challis 2012; Frederick 1999; May et al. 2010; O'Connor et al. 2013; Paterson and Wilson 2009; Turpin and Eling 2016).

In South America, these studies have been examined within the framework of colonial rock art, and in recent decades they have gained strong momentum throughout the Andean zones of Peru, Bolivia, Chile and Argentina. In particular, in the Andean region, we find a corpus of studies which has identified and discussed the reactions of different Indigenous agrarian communities to the conquest and annexation of their territory by the Spanish Empire. These works have revealed similar

appropriation of Spanish rock art images by these communities, characterised by the visual triad of mountain scenes, crosses and representations of priests (e.g. Arenas 2011; Gallardo et al. 1999; González 2014; Martínez 2009; Martínez and Arenas 2009; Querejazu 1992).

Nonetheless, understanding the dynamic of this colonial rock art also requires a knowledge of other, less explored aspects. On the one hand, we need to understand how colonial rock art fitted into the traditions of Indigenous groups, and thus how it articulated with previously defined social practices and spaces. On the other, we know that in different regions of the Andes prior to the arrival of the Spanish conquistadors, agrarian and hunter gatherer communities coexisted in the same territory (e.g. Cornejo 2017; Madrid 1977; Troncoso et al. 2016). Thus, we do not know whether the practice of producing rock art responded to Spanish colonisation in the same way in these different communities.

In this work, we address these two aspects on the basis of a study of the rock art of north-central Chile $(29^{\circ}-31^{\circ} \text{ S})$. It is known that agrarian and hunter gatherer groups coexisted in this region up to the 16th century, when they came into contact with the Spanish Empire (Méndez et al. 2009; Troncoso et al. 2016). The two types of communities differed in their rock art production practices,

as they did in their ways of life and use of space. Therefore, while hunter gatherers produced rock paintings in dwelling spaces located mainly in the mountains and ravines of the interior, agrarian groups placed their engravings close to the valley floors where their settlements were concentrated (Troncoso et al. 2016).

Based on an assessment and comparison of how the dynamics of rock art production by agrarian and hunter gatherer groups developed in response to the arrival of the Spanish Empire, we discuss how two groups with diverging lifestyles and rock art traditions, dwelling in the same region, reacted to colonising contact. Comparison of the dynamics of rock art in these two different contexts is related to a broader discussion of the contact between local communities and empires. These dynamics of cultural contact do not occur in isolation from the historical, social and cultural contexts in which they are immersed. On the one hand, they are completely dependent on those realities, linking ways of living, ontologies and the social reproduction strategies deployed by local communities. On the other, they respond to political strategies and logics of domination displayed by empires (Gosden 2008). Both aspects produce complex social and material landscapes that combine local particularities as well as shared characteristics in different regions that have been under colonial processes (Gosden 2008).

Based on the above, colonial encounters transform the ways in which the network of relationships that comprise the fabric of the community's sociopolitical life develops and brings the ontologies of these communities into play (Dietler 2005; Gosden 2008; Stein 2005). How local communities deploy this network of relationships, and how it meshes with that imposed by the imperial agenda in spatial, material and practical terms, combine to shape the political history of this process.

Rock art is not only a material part of these social processes and dynamics, but also a specific practice that expands spatially and in relation to other activities. Through its practical and visual deployment, rock art ties together a number of strands in the life of a community. Because these articulations are always historically structured, moments of cultural contact reorganise the network in which the production and visuality of rock art are entwined. These moments always involve the structuring of a relationship, an exchange to 'emphasize the potential dialogical nature of crossrelationships' (Frederick However, this dialogue is structured on the basis of ontological frameworks, politics and social dynamics that both the colonised and the colonisers deploy over the course of history.

For these reasons, a more comprehensive understanding of rock art and its manufacture requires us to recognise the historical development of visual elements as the very fabric of what is created in the practice of rock art production. This recognition suggests the combined use of micro- and macro-historical perspectives (Challis 2012; Frederick 1999, 2012). Thus by comparing the different expressions which appear in rock art as a result of colonial contact, in the same region but among groups with widely differing ways of life and economic systems, we can observe how they readjust aspects such as landscape, material culture, practices and identities in a process of negotiation with, acceptance of, and resistance to the new scenarios that they experience (Dietler 2005; Gosden 2008; Thomas 1991). Likewise, we can discuss both the historical variability and the common features of these processes.

One of the main difficulties related to this topic is to identify motifs and scenes from colonial times. The most frequent strategy is to identify 'exotic images' such as representations of certain scenes or western material culture (Frederick 1999; Huntley et al. 2018; Paterson 2012; Taçon et. al 2012). This situation produces some bias in understanding the colonial process, as we cannot identify the persistence of traditional rock art motifs after the colonial encounter. However, the presence of clear colonial motifs (such as horse-riding scenes and priests, among others) and their spatial distribution allow us to discuss some aspects of the colonial process and the reaction of Indigenous communities.

The information used here is the result of a systematic regional survey of 400 km² in Choapa, Limarí and Elquí River basins (Troncoso et al. 2016) which are located in the southern Andes in north-central Chile (30° S) (Figure 1). The landscape in the region is characterised by narrow, east-west river valleys at moderate altitude (500 to 2,000 m above sea level [masl]), sharply divided by spurs of the Andes mountains rising to heights between 3,000 and 4,500 masl. The valleys are interconnected by secondary ravines which cut through the mountain spurs, offering natural communication routes (Figure 2).

The rock art traditions of pre-Hispanic hunter gatherer and agrarian groups

Studies in the region have shown the existence of a long tradition of rock art dating back to the beginning of the Late Holocene, reflecting different periods of the region's pre-Hispanic history (Troncoso et al. 2016). Two major iconographic sets have been identified for the mid-16th century, differing in visual, technical and spatial terms.

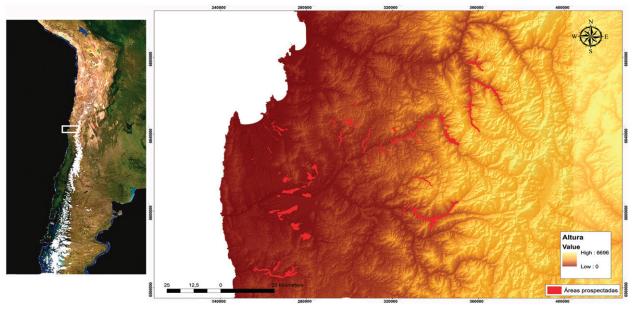


Figure 1. Map of the study area indicating the surveyed localities.

The first assemblage belongs to what we have called the hunter gatherer rock painting tradition. This set results from the inscription practices of these groups who inhabited the ravines and mountainous spurs between the river valleys of the region; their presence shows a certain continuity in the use of space from the beginning of the Late Holocene to the 16th century AD Although previous studies in the area proposed that these populations disappeared around AD 1000 being replaced by the socalled Diaguita agrarian groups (Ampuero 2010), radiocarbon dating of settlements in this and neighbouring regions has demonstrated the continued presence of these mobile groups in spaces not occupied by the agrarian communities (Table 1). These late occupations by hunter gatherer groups maintain some of the characteristics introduced by populations with a similar way of life from around 3,000 BC, such as the use of rock shelters in which paintings were created.

A body of contextual evidence shows that hunter gatherer groups started to create rock paintings at the beginning of the Late Holocene, maintaining the practice until the 16th century AD. This conclusion is supported by the re-use of rock shelters, evidenced by the radiocarbon dates obtained from their stratigraphic contexts (Table 1), by the superimposition of paintings on engravings ascribable to agrarian communities, and by radiocarbon dating of rock paintings containing amorphous carbon in the pigment mixture, which give dates covering this long period of time (Moya et al. 2016; Troncoso et al. 2017) (Table 1).

In spatial terms, the whole development of this hunter gatherer painting tradition (a period of 3,500 years) presents two complementary principles. Firstly, the paintings are produced in association

with dwelling sites, as is shown by the existence of stratigraphic deposits indicating a range of everyday practices carried out in these sites; secondly, they are associated with watercourses, reflecting the direct relation of these spaces with ravines and small (Armstrong et al. 2018; Nash streams Troncoso 2017).

In visual terms, although a series of iconographic patterns have been recognised for this tradition, towards the end of the period we observe a greater presence of complex, linear non-figurative designs, simple anthropomorphs and a few camelids. The colours used are red, black and yellow; the first two were used from the beginnings of the tradition, as is shown by direct dating obtained for some paintings (Moya et al. 2016). Yellow would have been used from a later date as it is sometimes found painted over the engravings of agrarian groups, and it appears more frequently in sites where radiocarbon techniques present later datings (Figure 3).

We have suggested that the pigments were used as animated elements in hunter gatherer ontologies. The impregnation of lithic artefacts, animal bones and human burial sites with pigments reflects their privileged position in these contexts (Armstrong et al. 2018). Their social function would be based on animating the dwelling spaces of these groups with rock paintings; the animation capacity would be directly related to the movement and flow of water, as is suggested by the spatial distribution of the paintings (Nash and Troncoso 2017). In this context, the practice of painting each site was not intensive, and reiterations over time are scarce. To date, we have identified 32 rock art sites in this tradition, of which six are associated with the later part of the period. Although some of these sites suffered re-painting over the course of their history,



Figure 2. Landscapes of the study area.

Table 1. Direct Dating of rock painting and settlements associated with rock art belonging to the Hunter Gatherer Rock Art Tradition (all dates were calibrated with the SHCal 13 curve in Oxcal 4.2, see https://c14.arch.ox.ac.uk).

							13C/12C		
Context	Site	Provenance	Material	Lab Code	¹⁴ C years BP	2σ Cal BC – AD	ratio %	bmc	Source
Datings of	Tambo El	U1: 15–20 cm	charcoal	D-AMS 28703	3,604 ± 28	Cal BC 2002 – 1773		63.85 ± 0.22	FONDECYT 1150776
Residential sites	Pangue 2	U1: 15–20 cm	Charred mammalia bone	D-AMS 28706	$3,720 \pm 26$	Cal BC 2191 – 1955		62.93 ± 0.20	FONDECYT 1150776
associated with	Valle El Encanto	PL3: 10-20 c	Mammalia bone	UGAMS 9353	$3,680 \pm 25$	Cal. BC 2127 – 1892	No available		Moya et al. 2016
rock paintings		PL1: 90 cm	Mammalia bone	AA 95189	$2,579 \pm 36$	Cal. BC 799 – 514	-22.6		Moya et al. 2016
		PL3: 70 cm	Charcoal	UGAMS 05013	$2,000 \pm 25$	Cal. 36 BC – AD 129	-22.8		Moya et al. 2016
		MP1: 35 cm	Charcoal	UGAMS 05014	$1,890 \pm 25$	Cal. AD 86 – 248	-23.7		Moya et al. 2016
	Tamaya 1	U1: 40 cm	Mammalia bone	UGAMS 11772	$3,290 \pm 25$	Cal. BC 1608 – 1432	-19.7		Moya et al. 2016
	•	U1: Feature 1	Mammalia bone	UGAMS 9352	$3,200 \pm 25$	Cal. BC 1497 – 1320	-17		Moya et al. 2016
	Melina 1	U2: 35 cm	Mammalia bone	UGAMS 11771	$1,680 \pm 25$	Cal. AD 325 – 537	-22.7		Moya et al. 2016
	San Pedro Viejo	E1D1: 30 cm	Charcoal	15957	$2,375 \pm 95$	Cal. BC 767 – 202	No available		Ampuero and
	de Pichasca								Rivera 1971
		No info	Mammalia bone	UGAMS 22817	$2,150 \pm 25$	Cal. BC 337 – 58 a	-7.5		FONDECYT 1150776
			painting red						
		No info	Corn	Beta 463226	$1,070 \pm 30$	Cal. AD 909 – 1138	-10.3		FONDECYT 1150776
	Piedra Partida	U1: 35–40 cm	Mammalia bone	D-AMS 015079	$1,297 \pm 22$	Cal. AD 681 – 863	-17.9		FONDECYT 1150776
	Alero Cachaco	U1: 40–50 cm	Mammalia bone	D-AMS 015319	$2,809 \pm 25$	Cal. BC 998 – 834	-19.6		FONDECYT 1150776
		U2: 40–50 cm		D-AMS 025364	$4,008 \pm 24$	Cal. BC 2574 – 2348		60.72 ± 0.18	FONDECYT 1150776
	Loma Carnero	U1:35-40 cm	Mammalia bone	UGAMS 30053	$3,520 \pm 25$	Cal. BC 1890 – 1693	-14.01		FONDECYT 1150776
	Alero El Cabrito	U1: 35–40 cm	Mammalia bone	UGAMS 26273	$2,370 \pm 25$	Cal. BC. 506 – 263		74.45 ± 0.22	FONDECYT 1150776
		U1: 20–25 cm	Mammalia bone	UGAMS 26274	$1,910 \pm 25$	Cal. AD 74 – 215		78.80 ± 0.24	FONDECYT 1150776
		U1: 35-40 cm	Charcoal	D-AMS 024225	$2,700 \pm 27$	Cal. BC 896 – 793		71.45 ± 0.24	FONDECYT 1150776
		U1: 15–20 cm	Charcoal	D-AMS 024226	680 ± 25	Cal. AD 1296 – 1392		91.88 ± 0.29	FONDECYT 1150776
Direct datings of	Covacha Pintada	Block 1, Panel	Rock painting: Black	UGAMS 17274	$3,290 \pm 40$	Cal. BC 1623 – 1431			Troncoso et al. 2017
rock paintings		2, Figure 2							
	La Placa 5	Block 1, Panel	Rock painting: Black	UGAMS 17738	$1,890 \pm 30$	Cal AD 80 – 240	-25.0		Troncoso et al. 2017
		1, Figure 1							
	Cabrito Laguna	Block 1	Rock painting: Black	UGAMS 23986	780 ± 95	Cal AC 1047-1410		90.76 ± 1.07	FONDECYT 1150776

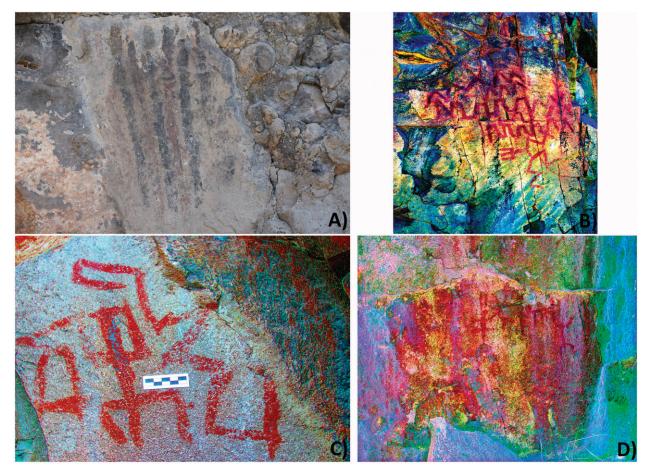


Figure 3. Hunter Gatherer Rock Paintings Tradition: (A) non figurative motif, (B) non figurative motifs (digitally enhanced using D-Stretch filter Ids) (C) non figurative and antropomorphous motifs (digitally enhanced using D-Stretch filter yrd), (D) anthropomorphous and camelids motifs (digitally enhanced using D-Stretch filter crgb).

the fact remains that the number of paintings per site is low considering the number of years that they were in use.

The location of the paintings in dwelling sites implies that the 'audience' included the various members of the hearth group, with production and observation integrated into a series of other social practices used in the camps of these groups (Armstrong et al. 2018) (Figure 4).

In contrast, the second assemblage of rock art being created in the 16th century was that of the petroglyphs created by Diaguita communities (AD 1000-1540). These were sedentary farming communities whose dwelling areas were located on fluvial terraces suitable for agricultural practices. The distribution pattern of these sites is dispersed, indicating little spatial integration between them and a low level of face-to-face interaction between their members. Accordingly, each dwelling site would have been a self-sufficient economic unit, based on the extended family. All these characteristics are consistent with the low levels of social differentiation identified for these groups. Nevertheless, it has been argued that each valley was an independent political unit; this would have been favoured by their relative isolation, which gave them spatial and

productive independence. (González 2004; Troncoso et al. 2016; Troncoso and Pavlovic 2013).

Diaguita rock art is composed exclusively of petroglyphs (Figure 5). Motifs are basically nonfigurative, combining circles, squares and lines. The few figurative motifs are zoomorphs and anthropomorphs The former are represented by four-legged camelids, especially guanaco (Lama guanicoe), a wild species hunted by the Diaguita. Anthropomorphs are simple, with a circle for the head and lines for the rest of the body. Neither the zoomorphs nor the anthropomorphs are arranged in scenes. The other design item in the Diaguita repertoire is the human head, present in highly complex representations of round or rectangular faces, with better technical solutions in terms of the regularity and clean lines of the grooves, and larger in size than the rest of the engravings. These heads recur in different sites across the region and are the most complex and easily recognisable of the corpus (Cabello 2011; Vergara et al. 2016).

In spatial terms, these assemblages of rock art are segregated from dwelling sites. They are located on hillsides and ravines, in association with communications routes to neighbouring valleys (Figure 6). Unlike paintings, petroglyphs were widely and

social aggregation which served the articulation of a community in which there was little spatial integration between settlements (Troncoso 2018). The members of the Diaguita community used the reiterated creation of rock art in spaces segregated from dwelling areas to create public spaces in which this art acted as a resource to facilitate interaction and integration between different members of the social group. The standardised nature of the designs and the absence of superimposition on, or destruction of, earlier designs reflect the importance of this practice and its spaces in Diaguita social life. In this context, the segregation of petroglyphs from domestic spaces is related with the more extended nature of Diaguita socio-political units as compared to those of the hunter gatherers. Indeed, it has been suggested that the basic socio-political unit of Diaguita communities was at a higher level of social organisation than just the family, possibly at valley level; social reproduction spaces would, therefore, have been segregated from domestic spaces in order to help integrate the different members of the social group. At the same time, the production and observation of these petroglyphs were also segregated from everyday experiences, since no stratigraphic deposits or remains of material culture associated with other social practices are recognised at these sites.

The sites were occupied repeatedly by Diaguita groups throughout their history. After these populations were incorporated into the Inca State in AD 1450, they continued to manufacture petroglyphs at the sites, reiterating a social practice profoundly linked to their social reproduction but incorporating elements of Inca design which were harmoniously deployed in these traditional spaces (Troncoso 2018).

In this way, both rock art sets show visual, technical and spatial differences related to distinct cultural traditions. The particular locations of rock paintings and engravings were not related to the geomorphological distribution of rock and/or rockshelters, because both kind of 'canvases' were available in the same space.

Indigenous rock art traditions and the Spanish empire (ca. AD 1530 onwards)

The 'discovery' of the Americas by European empires in the late 15th century led to a series of campaigns for their seizure and conquest. In the case of the Andean world, this meant taking possession of the territory in the name of the Spanish crown. The

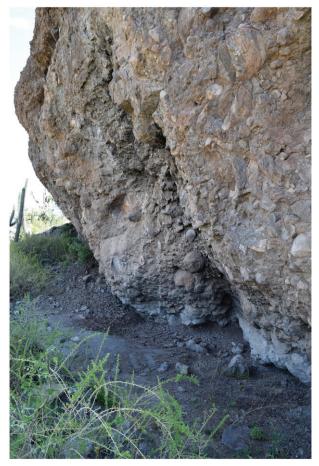


Figure 4. Rockshelter with rock paintings. Alero Cachaco.

repeatedly created in the region. This intensity is also evidenced by the large number of motifs found on each engraved surface, which can vary from 1 to more than 100 per panel. It is estimated that there is a total of some 90 sites in the region, with 2,000 engraved rocks. Despite this highly intense production, superimpositions are scarce (less than 1%) and motifs were not retouched or transformed over time, although a rock may have been engraved at different times, as suggested by weathering differences in motifs on the same panel. The practice of marking rocks was organised, and previously existing petroglyphs were respected.

This organised intervention in the sites is also reflected by their spatial layout; all share a common pattern in which the engraved rocks are in line, with their engraved surfaces following a predominant orientation. This creates a spatial architecture related to the movement of both those who produced rock art and those who visited the site to engage with it. The linear orientation of the panels is always in the same direction and is consistent with movement out of the community's everyday spaces (terraces) towards the spaces of neighbouring communities. Archaeological excavations carried out in these rock art sites have shown no evidence of residential occupation. All the activities conducted at the sites for which any material evidence remains



Figure 5. Diaguita rock art: (A–B) non figurative motifs, (C) non figurative and camelids motifs (red arrow), (D) camelids motifs, (E–F) anthropomorphous, (G–H) heads.

Hispanic colonial enterprise not only sought to appropriate resources, territory and Indigenous labour to exploit better the mineral resources of the Andes but also attempted a programme of religious conversion. Authors such as Dussel (1994) have labelled the Spanish conquest a 'first modernity' based on a Catholic ethos that engaged the American other (Indigenous) in a relationship exclusively of domination. Its basic principle was that all Indigenous religion is demonic while European

religion is divine; hence the necessity to eradicate the former (Castro Gómez 2005; Dussel 1994). From this starting point, the representatives of Spanish imperialism saw the Christianisation of Indigenous subjects as a means of achieving their own salvation in the eyes of the Christian God.

Before the end of the 16th century, the Spanish crown issued a series of orders aimed at repressing local ritual traditions and destroying the religious symbols and images involved in the worship of

Figure 6. Placement of Diaguita rock art: (A) map showing the spatial relations among rock art and residental sites, (B) a view of a rock art site (Cuesta Pabellón).

Indigenous peoples. These ordinances, known as 'extirpations of idolatry' (extirpaciones de idolatría) were intended to put a definitive end to native ritual practices. The policy focused primarily on the destruction of various cultural material items, because they were inconsistent with Spanish Christian rituality (Martínez 2009). The rock art sites were not destroyed, perhaps because the Spanish perceived petroglyphs as irrelevant and undecodable writing from ancient times (Martínez 2009).

Although there is no detailed historical documentation of this process for our region, what is certain is that it fell under early occupation by the conquistadors. In 1544 the Spanish built their first city in the region, La Serena, which was quickly destroyed by Indigenous residents but rebuilt in 1549. It was from La Serena that the incorporation and domination of Indigenous communities were coordinated. They were harshly repressed and mobilised as labour for mining efforts. This process of incorporation consisted, in part, of the relocation of entire Indigenous communities to native-people villages, followed by the establishment of the 'encomienda' system at the start of the 17th century. The Aboriginal population of the encomienda were forced into personal servitude to the conquistadors who settled the region (Villalobos 1983).

Although we know little of the reactions of the Indigenous communities in the region, they continued to produce rock art after the arrival of the Spanish. Below we characterise the dynamics of the two rock art traditions existing at the time of contact.

The hunter gatherer rock painting tradition

There is little evidence of rock art production by hunter gatherer groups after contact with the Spaniards conquistadors. As Taçon et al. (2012) say, it is difficult to recognise the presence of pre-contact designs in the post-contact period. However, one clear example has been recognised, which is a riding scene painted in red (site Pangue del Tambo 2). This scene is an explicit representation of a quadruped, looking, in profile, like a horse being ridden by a person. Some features of the rider's head and hands can be recognised, and the human being is carrying a long artefact which is unidentified. A linear appendage hangs down from the body which could be interpreted as a rope or something similar (Figure 7). It is well known that the riding of quadrupeds did not exist in the Andes in pre-Hispanic times, beginning only after the arrival of the Spaniards with horses (Gallardo et al. 1999; Martínez 2009).

The execution of the image combines some of the codes of hunter gatherer rock art with the incorporation of new elements. On the one hand, while some representations of human figures exist in the later period of this tradition, they never show a profile, the people are not shown carrying objects, and neither features of the head nor extremities are shown as occurred in colonial painting - quite the reverse, the anthropomorphs tend to be extremely schematic (Figure 3). Representations of quadrupeds (camelids) are also scarce prior to contact with the Spanish; again, they are highly schematic, in contrast to the images drawn in colonial times and similar to the camelids engraved by agrarian communities (Figure 3). On the other hand, this painting replicates four elements which were traditional in rock art: (i) the colour used is red, the most commonly used colour in



Figure 7. A Riding scene belonged to the Hunter Gatherer Rock Painting Tradition.

this tradition, generally obtained by using haematite (Moya et al. 2016); (ii) the image is painted in a rock shelter with clear evidence of pre-Hispanic occupation by hunter gatherer groups and radiocarbon dated back to the beginning of Late Holocene (Table 1); (iii) the shelter is located in a ravine in an interfluvial zone; (iv) it is placed on a rock formation directly related with a water-fall (Figure 8). Furthermore, on the same rock-face, there is a group of other non-figurative rock art representations in red, black and yellow, as well as schematic anthropomorphs and camelids painted in red. In visual terms, the riding scene has been added to the painted rock-face without obliterating earlier images, but it does not interact with the other designs or form a scene jointly; it is placed by itself on a panel with a different orientation to that of most of the other designs.

The presence of rock paintings at the moment of contact, and in the late period, reflects the maintenance of the site-marking practice used ancestrally. The spatial frequency of this practice also presents low intensity, replicating the practical, spatial and display principles of the hunter gatherer painting tradition, but modifying it and incorporating new visual attributes.

Rock engravings of Diaguita agrarian communities

The case of the petroglyphs manufactured by Diaguita communities follows to some extent the general lines of the case of rock paintings, but replicating other spatial, technical and visual principles. We know that most sites with pre-Hispanic petroglyphs were not destroyed because there are no signs of erasures on panels or destruction of the rocks. Nonetheless, despite the permanence of the sites, there was a notable decrease in the intensity of rock art production during this time. Marked rocks from Spanish colonial times amount to less than 1% of the total list in the regional record. The same occurred in other parts of the Andes (Arenas 2011; Martínez 2009; Querejazu 1992).

Even with the practice in decline, engraving activities continued to occur in previously used spaces, especially in the most intensely marked sites. Furthermore, new inscriptions were added to previously engraved rocks or rocks free of inscriptions. The pattern of organisation and the orientation were respected and maintained at these sites. In the case of rocks previously used for records, new motifs were not superimposed on earlier representations, and these were not destroyed.

This spatial continuity is echoed in technical terms. The method of creating petroglyphs with stone instruments continues, without any signs of engravings made using metal instruments. Nevertheless, the grooves of the petroglyphs are less regular.

The biggest change occurs in the visual field. The assemblages of visuals identified in this region show



Figure 8. A view of site Pangue del Tambo 2.



Figure 9. Colonial rock art: Riding scenes.

the same images noted in other parts of the colonial Andes. The first theme includes riding scenes: humans either seated or standing on four-legged animals. In these scenes, the anthropomorphic representations are very simple, replicating pre-contact visual patterns. The representation of four-legged animals adheres to the visual conventions for camelids (Figure 9). In a few cases, there are scenes of humans lassoing animals, but the quadrupeds appear with hybrid traits of horse and camelid. This visual play of camelid-horses has been recognised in other regions of the Andes (Arenas 2011; Gallardo 2011; Gallardo et al. 1999; Martínez 2009).

The second theme is that of crosses and calvaries, which replicate traditional technical parameters. The crosses resemble those of the previous era but are formatted differently as double crosses (Figure 10). The calvaries, named after the site of Christ's crucifixion, understood as crosses standing on either rectangular or triangular bases, are completely new in the region. Despite the greater distance from Indigenous visuals, these representations conform to the placement patterns described above. It has been proposed that crosses and riding scenes may be the earliest expressions of colonial rock art from the second half of the 16th century (Arenas 2011; Gallardo 2011).

Finally, there are anthropomorphic representations in frontal perspective and, on occasion, full-length

images of people wearing caps (Figure 11). These representations are interesting for several reasons. Some anthropomorphic representations Western clothing and have been interpreted elsewhere as being images of Christian priests (Arenas 2011; Martínez and Arenas 2009). Others not only wear caps but also have Indigenous visual patterns on their bodies - a concept that also seems affirmed by a scene showing interaction between these types of humans and camelids (Figure 11). As before, these images are engraved in previously occupied sites. However, this spatial placement is not found in other regions, and Martínez (2009) has proposed that the anthropomorphic figures in caps are generally segregated at pre-Hispanic rock art sites. This placement pattern may be due to a later production date for the humans with caps, which Arenas (2011) asserts to be from the 17th century. In our case, the presence of caps in anthropomorphic motifs similar to those of pre-Hispanic times may suggest the continuing retention of traditional local visual codes up until this era.

Discussion: comparing hunter gatherer and agrarian contact rock art

The existence of two traditions of rock art manufacture in the 16th century in the central north of Chile allows us to compare and assess the different reactions of hunter gatherer and agrarian groups to



Figure 10. Colonial rock art: (A-B) Crosses, (C-D) Calvarios.



Figure 11. Colonial rock art: Anthropomorphs with caps.

contact with the Spanish conquistadors. If, as we have indicated, these dynamics of colonial contact did not occur outside the historical, social and cultural dynamics of these human groups, comparison

may allow us to assess shared and unshared aspects of this dynamic in two groups which inhabited the same space, but had completely different ways of life and material traditions.

When we compare the dynamics of the rock art of these two groups, we see a set of common elements. First, there is a reduction in the landscapemarking activity of both the hunter gatherer and the agrarian groups. However, some differences appear between the groups. In the case of the agrarian communities the reduction in activity is drastic, given the high intensity of engraving manufacture prior to contact. The low intensity of the practice among hunter gatherer groups prior to contact means that this reduction is less dramatic; nevertheless, the nature of their contact with the Spanish Empire led to the need to maintain and reactivate a traditional space, but incorporating a new type of image: a riding scene.

Independently of this response, the decline in the practice of rock art production is also related to the Spanish policies of destroying the ritual activities of local communities and installing systems of Indian villages that inhibited both the mobility of Indigenous populations and the deployment of practices such as the production of rock art.

Although both rock traditions follow different techniques, visual and spatial principles, in both cases we find that the representation of quadruped-riding scenes occupies a central place. In the case of the hunter gatherers, this is the only clear evidence we have of contact rock art, but in the agrarian groups, it becomes a recurrent theme. There is nothing surprising in this. As Martínez states (Martínez 2009; Martínez and Arenas 2009), this prevalence appears to be a general theme of colonial Andean rock art. The recurrence of this theme must be directly related to the observation and recognition by Indigenous communities of a practice (riding) and a being (human-horse) which were completely absent from their worlds.

However, it must be noted that, in contrast with the situation in South Africa (Challis 2012), the colonial process as it occurred in our region did not lead to the formation of new dynamics of mobility, economics and identity in the Indigenous groups through the use of horses. Quite the reverse, in that the resettlement of these communities in Indian villages, exploitation of their labour in the mines and their decimation meant that the horse was never incorporated into their practices and social life. The representations of these riding scenes are rather forms of incorporating these new practices and beings depicted in rock art images into their own narratives.

As before, this process again produces important differences between the two groups. In the case of the Diaguita groups, the quadrupeds are reformulations of camelids to a representation known in other spaces of the Andes as a camelid-horse (Martínez

2009). The humans who ride them follow the traditional, highly schematic, patterns of human representation. In contrast, the hunter gatherers break their visual tradition when they incorporate these figures, since both the quadruped and the human diverge from their traditional representation patterns. This may be due to either or both of the following basic aspects: firstly, images of camelids and humans are rare in hunter gatherer art before contact, so greater flexibility existed for incorporating new possibilities like a riding scene; secondly, and linked with the above, the two groups related to camelids in different ways before contact. Diaguita populations had domesticated animals and their remains are frequently found in their archaeological contexts, while the opposite is the case with the hunter gatherers. This certainly implies differences between the two groups in their articulations with and attitudes to quadrupeds.

Finally, in both cases, the new visual references and marking practices are incorporated following earlier technical procedures, replicating a tradition of manufacture but at the same time within spaces occupied and marked prior to contact with the Spanish Empire. Thus, we see that the intention of local communities to revive their ties with the past continues, beginning with the resumption of a traditional practice in an ancestral space where the identity and social reproduction of their peoples were based in times past. This articulation leads to a double practice: first, re-using previously marked sites; and second, maintaining the structure of the practices carried out in such spaces. Through this system, both communities put into practice a traditional method of community-building: the maintenance of space where present specific and are expressed.

The inclusion of new visualities associated with the Spanish Empire may be understood as the incorporation of new rock art images into these spaces. However, its extent and visual variability are greater among the agrarian groups than the hunter gatherers. With respect to the former, we agree with Arenas (2011) that the imposition of new elements on local sites - specifically crosses - is not an outcome of the extirpation of idolatry because the art was manufactured by local populations and showed continuing respect for and coherence with other compositions on the panels. The riding scenes also illustrate this continuity. Furthermore, we believe the crosses to be expressive of a somewhat similar system. Although they have been considered to be clear indicators of the conversion of the local communities to Christianity (Arenas 2011; Martínez 2009; Martínez and Arenas 2009), we believe that a more nuanced interpretation is appropriate in the

study region, given that crosses had been present since Inka times. As in the treatment of horse-camelids, these new Christian crosses relate to and are articulated with the ancient tradition of double crosses, although altered by the elimination of contours. The double crosses are important in local Inka contexts because they refer back to a highly used visual principle (figure inscriptions) and are also a motif replicated on various media throughout the Inca Empire, which was called Tawantinsuyu (Fernández Baca 1971; Gonzalez 2008). For González (1998, 2008), these double crosses also allude to a fundamental principle of Inka ontology, namely quadripartition, a spatial and symbolic organisation introduced into this region by the Tawantinsuyu. Thus, by incorporating this Christian symbol, rock art plays with double meanings through a dual reference to Christian precepts and values associated with double crosses already present in earlier periods. Examples include that in Figure 10(b), in which a pre-Hispanic double cross is remarked during the colonial era but with the changes only occurring in the interior section in the manner of a Christian cross. This articulation with previous forms is reaffirmed by the finding that the Christian crosses are not overwritten on local elements. A similar dynamic can be seen with the caps, which are incorporated into the visual representational systems of Indigenous communities themselves.

In contrast, the lower level of incorporation of visual elements from the Spanish Empire by hunter gatherer groups may, on the one hand, be associated with the fact that these communities lived and moved about in marginal spaces which held little interest for the Spanish; on other hand the lesser assimilation of Hispanic visual references may reflect the traditionally less important role of rock art production. In this context, the almost total absence of Christian images among these groups is striking; it may be that these representations were incorporated later by farming communities as a result of their interaction with the Spanish, while this did not occur in the hunter gatherers. This absence of crosses and calvaries among the rock art of the hunter gatherers reaffirms the impact of their observation of mounted beings (human-horse) on Indigenous communities, regardless of their economic system.

The revival of ancestral spaces by hunter gatherer and agrarian groups, therefore, incorporates new imageries that are understood within the same logic of practices and dynamics present in earlier times. More than mere incorporation of Spanish and colonial discourse, these images are above all the fruit of the inclusion of previous ontological frameworks articulated through earlier visuals and practices.

Reiterating the traditions of manufacture in ancestral spaces activates a series of associations and relations which are important for the constitution of these communities and define the logic of the practice of rock art. The different techniques used by hunter gatherers (painting) and agrarian communities (engraving) reproduce their individual technical relationships with rock which - as we have discussed in other works - are related to the different values and ontological capacities of the rocks and the act of manufacture. Thus in the case of paintings the pigment is the central material and the rock is merely a receptive surface animated by the painting; in the case of engravings the stone assumes a more important position as the images are born of the rock itself as the surface material is selectively removed (Armstrong et al. 2018).

However, while the Indigenous communities replicate their traditions in the production of rock art images, the Spanish crown constructs a colonial dynamic that does not permit rock art to be used as a practice or a materiality which could mediate between the empire and Indigenous communities. The modification of Indigenous settlement systems and mobility leads to a decline in the practice and its capacity to mediate. In a certain sense, the production of rock art now becomes a clear act of resistance developing behind the backs and out of sight of Spanish censors.

Being a global phenomenon, the comparison of colonial encounter and contact rock art in other areas with our own case study is useful to recognise differences and similarities, to get a better understanding of local/global dynamics of colonial processes. As we have shown, horse-riding scenes were recurrent in hunter gatherer and agrarian rock art in north-central Chile. The same situation occurs in areas of North America, South Africa and Australia, the horse being the most frequently depicted introduced animal (Challis 2012; Paterson 2012). The centrality of horse-riding scenes is probably related to the impact of this animal in the practices and social lives of post-contact Indigenous groups (Challis 2012) as well as to the exotic nature of riding activity for local communities.

Also, an aspect which has been less discussed is the hands-on-hips human motif. Ouzman (2003) and Patterson (2012) have recognised this posture in the colonial rock art of South Africa and Australia as a distinctive feature to depict western people. According to these authors, such feature denotes a possessive-aggressive and powerful corporal attitude. Our study case shows a similar situation, as we also identified this posture, but only in the representations of priests or people wearing a hat. On the contrary, the earliest colonial

anthropomorphic motifs maintain the pre-contact posture where hands-on-hips are absent. This change in the body-posture can be related to the advance of colonial imposition in our area and a more continuous interaction between native communities and Western people. However, as Patterson (2012:80–81) has highlighted, the recurrence of this posture shows the power-communicative nature of western bodies, as well as cross-cultural perceptions of each other.

Finally, two other aspects can be framed. On the one hand, we see the strong emphasis on religious iconography in our study case and in the Andes more broadly (crosses, calvaries, priests), and the scarce heterogeneity of colonial imagery in rock art. This aspect shows differences to other places, such as Australia, where colonial imagery is wider and includes boats, guns, hats, among others (e.g. Paterson 2012; Taçon et al. 2012). Such a situation suggests a particular historical-colonial dynamic in the Andes related to the aims and strategies deployed by the Spanish Crown, the social and ontological characteristics of the Indigenous communities, as well as the impact of Western religious and ideological discourses on the local groups.

On the other hand, the landscape can be considered as a main variable in understanding the role of rock art under colonial situations. As we have discussed, both hunter gatherer and agrarian communities of north-central Chile reused previous rock art sites to depict images in colonial times. By doing so, they transformed such spaces of memory, linking ancient practices and images with the new times. Also, these sites were located far away from the main Spanish settlements in the region. Although this situation has been recognised in other areas (e.g. Martínez 2009; Turpin and Eling 2016), the opposite situation was possible and colonial rock art has been found in new places and near European facilities (Paterson 2012; Taçon et al. 2012). Certainly, understanding the complex spatial weave between colonial/pre-colonial rock art, the associarchaeological record, European settlements will allow us to improve our comprehension of the social and political processes that occurred under cultural and political colonial contexts.

Conclusions

As Frederick suggests (Frederick 1999, 2012), understanding the dynamics acquired by rock art in contact situations requires an understanding of the micro- and macro-history of those processes. Any comparison should consider not only the history of rock art images but also the fabric of practices

surrounding rock art and its manufacture. This is because the production of rock art is a social and spatial practice that expresses itself jointly with other fields according to the ontologies and historical dynamics of the communities creating it.

In the cases studied here, local communities attempted to preserve a practice that was central to their social reproduction, and they did so by deploying new visual referents. However, the dynamics of each of these manifestations differ in how they related to the Spanish Empire, as a product of their own manufacturing histories and traditions. Also, the situations identified in our territories show some similarities and differences to other colonial contexts, suggesting the existence of some cross-cultural parallelisms as well as local histories.

The changes in visual discourses show the amount of permeability deployed in this setting. This change is not a simple incorporation of motifs; rather, these changes are negotiated within local discourses and rock art images. This negotiation can be observed in the way in which previous motifs are not only incorporated into the panels but are also related to new political contexts. These changes can be observed within the recurring use of ancestral spaces to reaffirm the importance of those spaces within the practice of rock art manufacture. They express the necessity felt by local populations to anchor these new experiences using the ancestral memories upon which both the local community and its identity were constructed, while continuously reorganising and reconceiving the ontological frameworks they install. The discursive possibilities in this context differ from those produced by expansionist empires.

As Sahlins (1985) has stated, it is in the construction of these local histories that we can begin to reveal the complexities of the processes of cultural contact. Whereas local communities act within the frameworks of their traditional practices to address the new situation, empires establish their own strategies of social reproduction and domination that may or may not engage with the traditional practices of local communities. This process, as Dietler (2005) explains, generates multiple pathways that give each type of cultural and colonial contact a particular regional and historical dynamic. Here, above and beyond the visuality of rock art, a series of other factors are involved in weaving the woof of history.

Finally, despite the difficulties and limitations for recognising non-exotic colonial Indigenous representations (Huntley et al. 2018), the identification of images such as horse-riding scenes, priests, guns or boats, among others, offer windows that partially shows the reactions of the native communities to

colonial contact. The understanding of the spatial dynamics of these depictions will improve the comprehension of such processes. Additionally, we need to expand the exploration of new methods for the identification of colonial representations in rock art. To accomplish this, technological changes in rock art might be a good field to explore (Huntley et al. 2018; Paterson 2012). All of this will be necessary to shed light on the other voices engaged in colonial encounters with expansionist empires.

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ORCID

Andrés Troncoso (b) http://orcid.org/0000-0002-2844-619X

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