

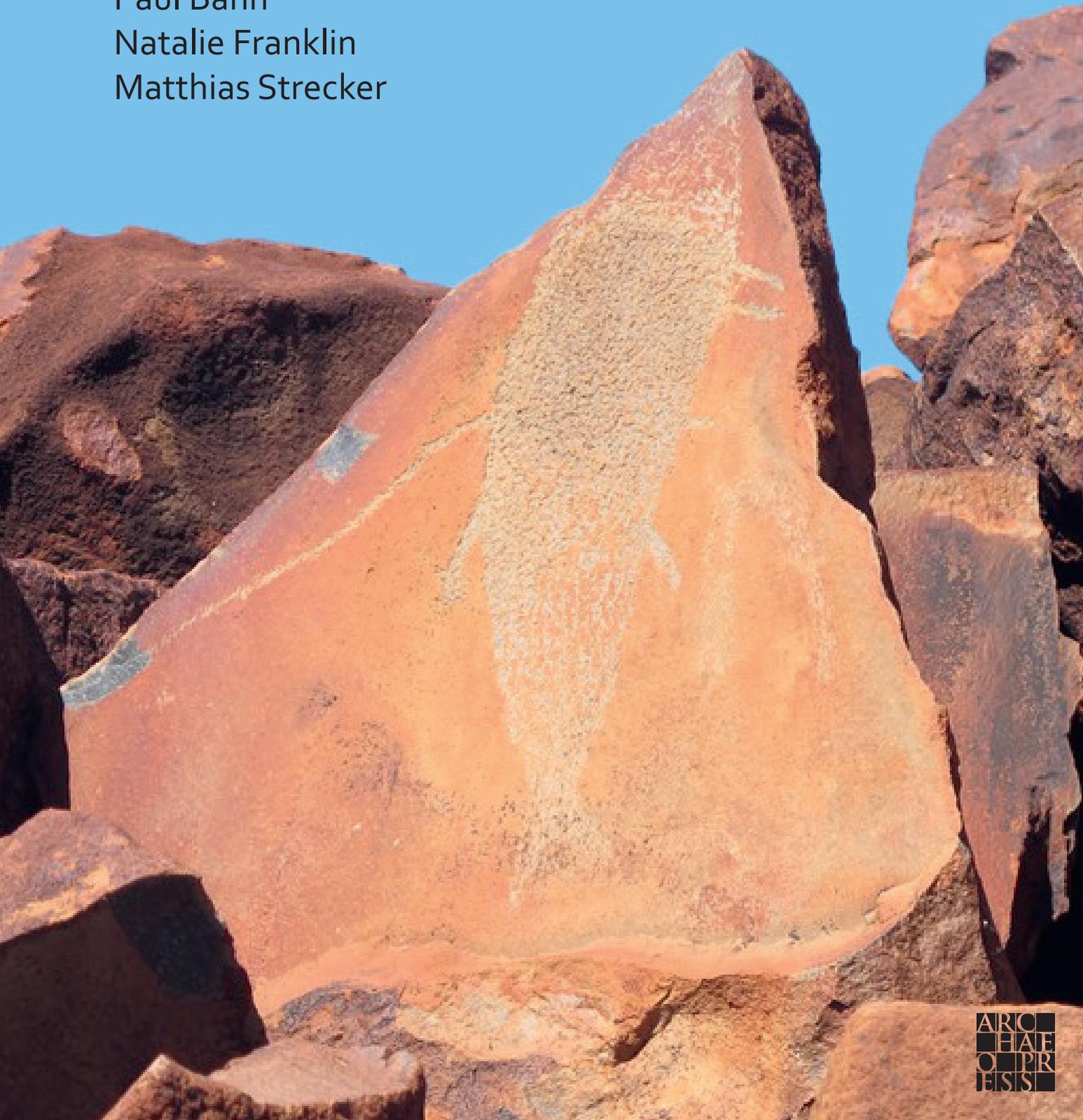
ROCK ART STUDIES: NEWS OF THE WORLD VI

Edited by

Paul Bahn

Natalie Franklin

Matthias Strecker



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Front cover: Engraving of a fish in a high contrast state, Withnell Bay, Burrup Peninsula
(Photo by Natalie Franklin).

Back cover: Yangjeon-dong style petroglyphs

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Dedicated to the memory of
Katja Devlet (1965-2018)



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Rock Art Research in Peru (2015-2019)

Rainer Hostnig and Liz Gonzales Ruiz

Introduction

In this new quinquennium 2015-2019, rock art science in Peru has been enriched with numerous new publications. Moreover, access to these documents, as well as prior research, has been substantially improved due to the internet. Nowadays, authors use various online portals to disseminate their work, which often previously were published only in print. For this research we have used a bibliographic list taken mainly from Hostnig (2020) and Marymor (2020), and following the model of bibliometric methodology of Urbizagástegui-Alvarado (2020), the latter makes a statistical balance based on 1134 scientific documents on Peruvian rock art, dated until 2019. The authors of this article (for this five-year period) have analyzed 160 references on the subject, including books, book chapters, articles in scientific and popular magazines, papers and university theses.

Of the 24 Peruvian departments, those of Puno, Arequipa, Cusco, Ancash, Ica, Lima, Amazonas and La Libertad were privileged in this boom of rock art studies: together they account for nearly 70% of the bibliographical references. Fewer than 10 references were collected from eight other departments, and in the six remaining ones no rock art research seems to have been carried out during this five-year period. No less than 40% of the citations refer to petroglyphs, while 34% relate to rock paintings, and 10% are related to geoglyphs. Sites which have both petroglyphs and rock paintings account for 12% of the references.

In volumes IV and V of “Rock Art Studies: News of the World”, advances in the study of Peruvian rock art were presented, based on a division of the country into four macro-regions: North, Central, South and Amazonia. For this new volume we propose a division according to the three major natural and geographical regions -- i.e. coastal strip and valleys on the western slope of the Cordillera Occidental; Andean highlands; and Amazon region (Eastern Slope and Amazon lowlands) (Figure 1).

The reason for this division stems from the type of contexts which these spaces contain. For example, in the coastal strip up to the valleys on the Western slope of the Andes, open-air sites predominate; they are generally located on dry ravine slopes with rocky

outcrops, like Alto de las Guitarras (Lambayeque), Checta (Lima), Chichictara (Ica), Toro Muerto (Arequipa), Miculla (Tacna), among many others, with petroglyphs being the most common expression for this geographical segment (Figure 2).

In the case of the sierra region, where we find a majority of rock painting sites, but also an important number of locations with petroglyphs, most of the paintings and engravings were produced in rock shelters, on cliff walls and in caves: for example Quelcatani (Puno, Figure 4a), Llamamachay (Cusco), Cuchimachay (Lima), and Singa (Huánuco).

The Amazon area (Eastern slope and lowlands) still has significant potential for research due to the scant development of rock art studies in this part of the country. However, in the last five years, research results from a number of important sites such as La Pitaya, Alva, Tambo Viejo and others in the department of Amazonas have been published (Figure 3 a,b).

Overview of rock art studies according to geography

Coastal strip and valleys of the western Andean slopes

This segment is shared by 11 of the 24 departments of the country; however, rock art research has been concentrated in the southern region (Arequipa and Ica). In Arequipa the Toro Muerto Archaeological Research Project (PIA-TM), located in the province of Castilla and financed by the National Science Centre of Poland, was carried out by a Polish-Peruvian team directed by Janusz Wołoszyn from the University of Warsaw and Liz Gonzales Ruiz from the Federico Villarreal National University.

Daria Rosińska (2016), another Polish archaeologist who also worked in the department of Arequipa, used a landscape archaeology approach in a study of 29 rock art sites along the Majes Valley -- sites generally located in transit areas with different cultural periods.

Between 2015 and 2019 there was a new boom in studies of geoglyphs on the Peruvian coast. The Quilcapampa Archaeological Project in Arequipa, directed by Justin Jennings and Willy Yépez, utilized satellite photos and drone flights to record a series of geoglyphs in the



Figure 1. Map of Peru with the location of sites mentioned in the text.

Quilcapampa zone of the Sihuas Valley in Arequipa (Bikoulis *et al.* 2016). Marko López and Erik Maquera (2016) described the Huayrapuncu geoglyphs in the Majes Valley, showing images of camelids on the hillsides. These geoglyphs are currently being investigated by Darwin Villilli (Villilli & Yáñez 2018). In the same region, since 2017, as part of the evaluation projects of the Zafranal Mining Company and so-called “contract archaeology”, Luis Villegas (2019) has recorded at least 100 geoglyphs between the pampas that connect Majes and Siguas related, like the ones in Huayrapuncu, to the routes that communicate with Toro Muerto.

Another important work to mention in the region of Arequipa is the research by J. Jennings’ team and M. van Hoek on Illomas, an important site with

petroglyphs. Their joint publication highlights not only the importance of this site for its iconographic characteristics, but also the communication that apparently existed between Illomas and other sites in the region (Jennings *et al.* 2019). In the adjacent valley of Chorunga is another important petroglyph site called Chillihuay. It has been recorded since 2018 by a team of archaeologists belonging to the Corral Redondo Archaeological Project, led by María Cecilia Lozada and Danny Zborover (Zborover *et al.* 2020) using new documentation technologies.

In Ica rock art research was concentrated around the Palpa and Nasca desert geoglyphs. Masini *et al.* (2016a, b, c) studied technical and other aspects related to the problem of damage due to vandalism. Between 2016 and 2018, Japanese and Peruvian researchers discovered

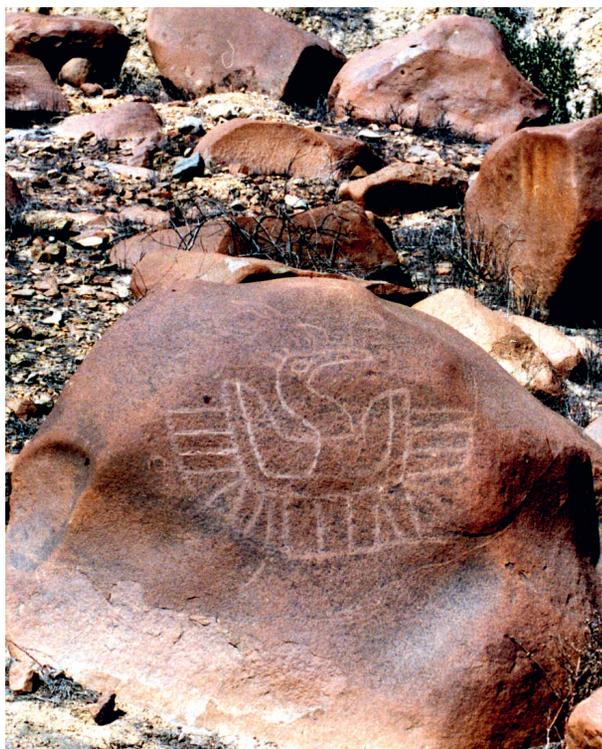


Figure 2. Alto de la Guitarra, located between the coastal strip and the valleys of the western Andean slope (Photo: Cristóbal Campana).

143 new geoglyphs using advanced technology. We will refer to this project later. At the same time (2017-2018), within the framework of registration and conservation activities, the Decentralized Direction of Culture of Ica (Unit of the Peruvian Ministry of Culture), represented by Jonny Isla and in cooperation with Luis Jaime Castillo, carried out -- after the damage caused by Greenpeace in 2014 -- a register with drones, together with archaeologist Sarah Parcak of GlobalXplorer, to register signs of looting, invasion or destruction of the lines. They managed to record 50 new geoglyphs belonging to a period prior to the Nasca culture, opening the debate on the context around the Paracas-Nasca transition (Castillo *et al.* 2019). A small but no less important piece of work was done in Huarmey, where a spiral-shaped geoglyph was recorded (Ayala 2015).

On the central coast (Lima, Ancash) mainly surveys, documentation and iconographic analyses were carried out. The Rio Loco Rock Art Archaeological Project in the Ancash province of Santa, directed by Carmen Pérez for her doctoral thesis at the University of Alcalá, Spain (Pérez 2019), chose a transitional zone from the coast to the mountains and combined archaeological and contextual studies. Her discovery of shelters with rock paintings at 1350 m above sea level adds to the recent recording of sites with paintings in the Andean foothills of Lima and other places in the western Yungas.

Regarding the northern coast (La Libertad, Lambayeque), research was presented at the symposium “Archaeology and Landscape of Formative Rock Art on the Northern Coast of Peru” (Kaulicke *et al.* 2015), held in January 2014 and sponsored by the Ministry of Culture of Peru. For Briceño (2014), petroglyphs located along a road and at the point of division of two river basins in the Virú valley depict divinities which were represented in the monumental architecture in the Andean area, while for Tsurumi and Morales (2015), the petroglyphs of early religious iconography indicate the paths along which travellers passed carrying artifacts and resources between the ceremonial centres of different regions. It is worth noting the efforts made by Abel Jacinto and Julio Días (2019), who are preparing a thesis about the site of Huaca Blanca Chongoyape in the Chancay Valley of Lambayeque. They have also been participating in the documentation of rock art that the 005 Naylamp Operative Unit has carried out with the Cerro Mulato Archaeological Landscape Project. Additionally, Barrau and Castillo (Barrau & Castillo 2017; Castillo & Barrau 2019) conducted an analysis of anthropomorphic figures in the petroglyphs of Quebrada Alto de las Guitarras, and concluded that they represent a chronological and cultural sequence extending from the Late Pre-Ceramic, around 6000 BC, to the Middle Formative, between 1200 and 800 BC.

One of the most prolific researchers of Peruvian rock art during the five-year period we are analyzing here has been the Dutch scholar Maarten van Hoek. In some twenty articles, van Hoek analyzes different technical, iconographic and chronological-cultural aspects of a large number of rock art sites, from Lambayeque in the north to Tacna in the south, highlighting his contributions and knowledge of petroglyphs of the department of Arequipa (van Hoek 2015, 2017, 2018, 2019).

Andean highlands

In the Peruvian highlands, the principal rock art investigations were carried out in the departments of Puno, Cusco, Pasco, Huanuco, Ancash and Cajamarca. Research around Lake Titicaca in Puno, conducted in the previous quinquennium, is presented in a compendium which contains the papers presented at a congress in La Paz in 2012 (Strecker, 2016). We would like to highlight the study by Elizabeth Klarich (2016) on the rock paintings of Quelcatani (Figure 6); the paper presented by Elizabeth Arkush (2016) on Late Intermediate, Late Horizon and Post-Conquest rock art sites in the areas surrounding Lake Umayo; as well as the detailed analysis of rock art expressions of the Cutimbo Chico and Grande *mesetas* by Matthias Strecker (2016). The congress proceedings include an extensive article about representations known as “mantas” (traditional Andean textiles), which are concentrated



Figure 3. Images of rock art found in the Peruvian Amazon. Figure 3a, Ocobamba, Cusco. Figure 3b, Alto Chavini, Satipo, Junín. (Photos: R. Hostnig).

at rock art sites of Carabaya and south of Lake Titicaca (Pizacoma and Collao districts) and ascribed by Hostnig (2016a) to Middle Horizon groups engaged in regional exchange of goods. In another article, the same author makes a detailed iconographic analysis of the Ichucollo petroglyphs in the Chucuito province, previously

studied by Hyslop in the 1970s (Hostnig 2016b). Strecker and Hostnig (2016a, 2016b) deal with the archaic and formative rock engravings found in sites near Lake Titicaca, while Adán Umire (2016) presents the results of his study of rocks and boulders with cupules, located to the north of the lake and attributed

by him chronologically to the Archaic, Formative and Late Intermediate Period.

In Cusco, the Peruvian Ministry of Culture published a book on the rock art of Chumbivilcas (Hostnig 2019a), an archaeologically little-known area. The book is based on fieldwork carried out between 2013 and 2014, but was updated with new sites recorded between 2018 and 2019. The book presents more than 60 new rock art sites in this province, covering a wide range of periods, from the Archaic to the colonial era. One chapter analyses the iconography of the late and colonial petroglyphs of Intiyoq Rumi, the largest petroglyph field found to date in the Peruvian highlands, with more than 60 engraved blocks. Certain anthropomorphic representations of this site evidence the intensive cultural contact between Cusco and Arequipa in pre-Hispanic times. Another chapter offers a detailed analysis of the petroglyphs of Llamamachay (Figure 4b), two twin caves in the Colquemarca district, which were dug, according to the author, by prehistoric mega-fauna (probably a giant ground sloth or *Megatherium*) that coexisted with

Andean man in the late Pleistocene and which left their claw marks on the walls.

After summarizing rock art expressions within the Machupicchu National Archaeological Park, Astete *et al.* (2017) and Bastante and Echevarría (2019) argued that the area was populated before the construction of the citadel and that the Incas continued the rock painting tradition of the people who preceded them, while they also used engraving techniques for ritual purposes.

Ancash in the Cordillera Central is a privileged department in terms of rock art research. In the headwaters of the rivers Fortaleza and Santa, the Archaeological Research Project “Fortaleza Rock Art” PIAARAF was carried out between 2014 and 2018 (Ambrosino & Herrera 2017; Ambrosino 2018, 2019, 2020). It focused on a large complex of rock art sites found in the geological formation known as Fortaleza Ignimbrite between the provinces of Recuay and Bolognesi. Its aim was to create a database of archaeological evidence and to contribute to their chronology and iconographic

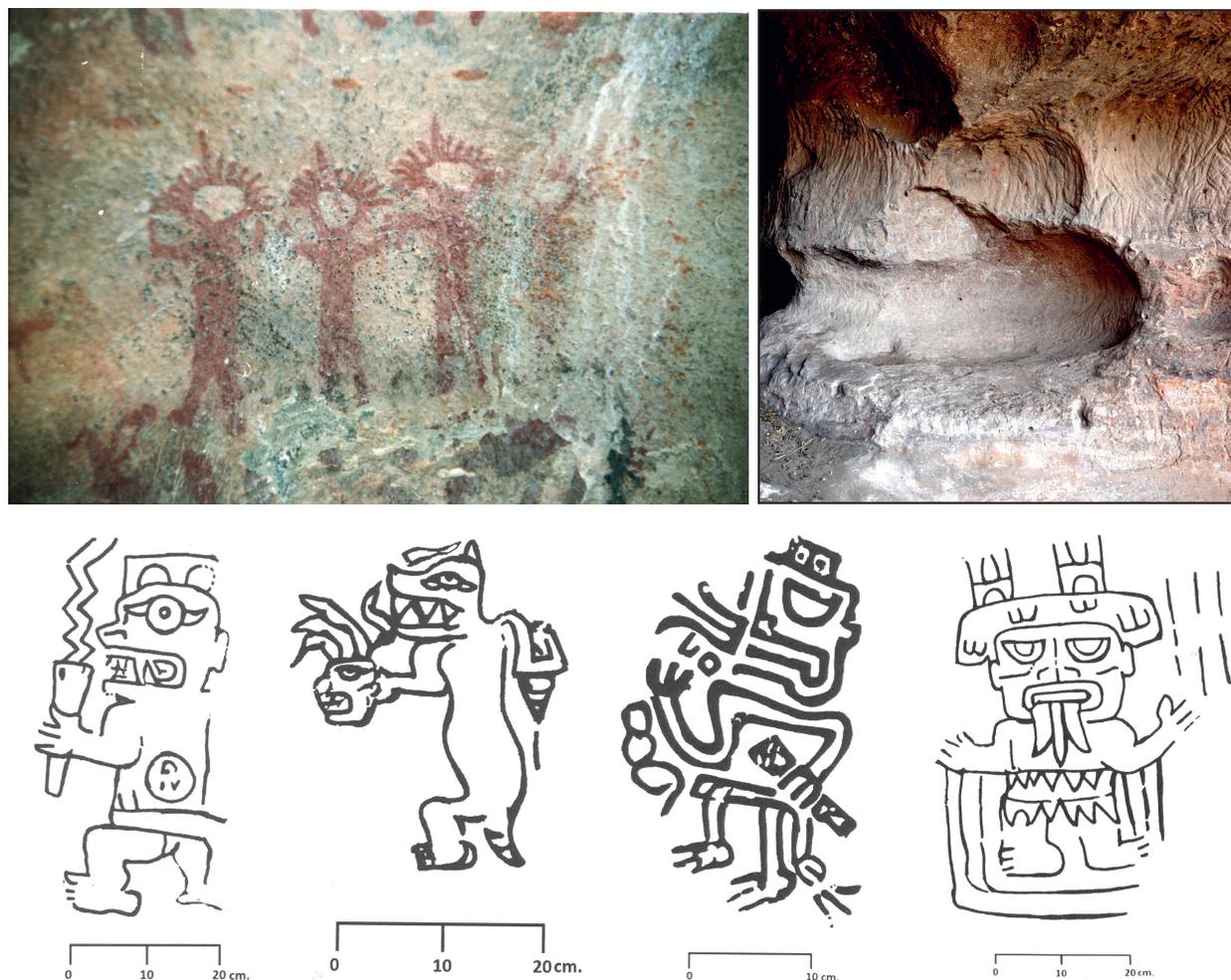


Figure 4. Figure 4a, rock paintings of Quelcatani - Puno. Figure 4b, Llamamachay cave - Cusco (Photos: R. Hostnig). Figures 4c-d-e-f, Formative divinities in rock paintings of Macashca, Ancash (Drawings and interpretation, courtesy of Hannibal Tamara).

characteristics. Moreover, Anival Tamara (2017) analyzed in detail the rock paintings of clear Formative origin of the Macashca site in the Huascarán National Park, Huaraz province, at about 4300 m.a.s.l. (**Figure 4c-d-e-f**). Emerson Gómez (2018) presented a thesis on the polychrome rock paintings -- mostly schematic camelids -- of the upper micro-basin of the Lejiayayo River in the Marcará district of the Carhuaz province, for which he made extensive use of the DStretch programme.

Other highland departments that benefited from research activities were (see map in **figure 1**) Ayacucho (Pérez 2016; Laurente & Huamaní 2015), Junín (Chuco 2015), Pasco (Altamirano 2019) and Cajamarca (Castillo & Barrau 2019). In Lima, a visit to the emblematic rock art site of Cuchimachay at the foot of the Pariacaca glacier by Hostnig (2017) resulted in a review of the article published by Bonavía in 1972. By using the DStretch software, Hostnig discovered numerous human figures, invisible to the human eye, as well as anatomical details of camelids close to giving birth, which went unnoticed by the researchers who preceded him.

Huánuco is another region of the central sierra where new knowledge about the rock art heritage of Peru was generated. In Jonathan Dubois' doctoral thesis (2017) on rock art paintings in the Huamalí province, the separation of pictorial layers in the panels of a dozen sites allows the author to propose stylistic and chronological sequences. Victor Dominguez's book (2018) on the rock art of Huanuco is also worth mentioning, mainly due to the quality of the numerous illustrations which give an idea of the richness and variety of rock art manifestations in that department.

In the northern sierra Alfredo Mires' book (2019) on the rock art of Cajamarca stands out. His inventory, which is the result of several years of research and field visits, gathers data from approximately 450 sites. An additional value of the book are the numerous photographs and hundreds of drawings that accompany the text.

Amazon region (Eastern Slope and Amazon lowlands)

In the Peruvian Amazon, rock art research was concentrated on the Amazon side of the eastern mountain range of the departments of Amazonas and San Martín. In the archaeological complex of Pósis in San Martín, Inge Schjellerup (2019) continued to work on her research project on the Chachapoyas. She recorded a total of 25 rocks with cupules, some associated with long incised lines. According to the researcher, none of the petroglyphs seem to belong to the Chachapoya or Inka culture. She assumes that they may be evidence of a previous tribal population that used the site for ceremonies.

Arturo Ruiz (2015, 2016) published two interesting studies on Chachapoyan rock art sites -- the rock paintings of Mashumachay and the petroglyphs of La Pitaya. In this region, research received a boost in 2019 thanks to the organization of the First International Congress of Amazonian Rock Art that took place in the city of Chachapoyas. Miuler Villar (2019) and Anthony Villar (2019) presented analytical papers on different rock art sites in Chachapoyas, the latter on a rock art site of the Formative period. A richly illustrated book about some rock art sites of Chachapoyas was presented at the event (Castillo 2019).

In his keynote presentation, Arturo Ruiz (2019) offered a synthesis of rock art research done in the Amazonas department, pointing out the essential characteristics of sites and iconography, with a variety of traditions which differ from other Peruvian regions, but show stylistic analogies with sites of the nearby Amazon lowlands. Hostnig (2019b) addressed the distribution of petroglyphs in the Peruvian Amazon. Using maps, he showed major concentrations of sites in Cusco, Junín, San Martín and Loreto, while large areas in the Amazon plains remain unrecorded. He also presented the conclusions of a bibliometric study on the production of documents on Amazonian rock art, which showed a decline from 2017 to date.

New trends and approaches

Four interdisciplinary research projects deserve to be mentioned in this section.

Starting with the south, we have the Toro Muerto Archaeological Research Project (PIA-TM), directed by Janusz Wołoszyn (Warsaw University) and Liz Gonzales Ruiz. The PIA-TM team began its activities in 2017, but initially (from 2015 onwards) they were part of the Toro Muerto Project (PTM) team led by Karolina Juszczyk and Abraham Imbertis, advised by Wołoszyn. Between 2015 and 2016 systematic documentation of the central sector of the site began, and during this first stage approximately 1600 boulders with petroglyphs were recorded (Juszczyk *et al.* 2017).

From 2017 onwards the PIA-TM set new objectives for the intervention at the site, such as expanding the research area and using archaeometric methods. The PIA-TM has registered 2584 rocks with images in an area of 10 km², obtaining one of the most complete and complex catalogues. In addition, a series of 3D models (approximately 1000 digital reproductions) have been made. In cooperation with the National Geographic Institute of Peru precise geodetic surveys were carried out, obtaining a high-definition 3D model of the entire study area, calibrating thousands of aerial photos inserted into a geodetic mesh without margins of error.

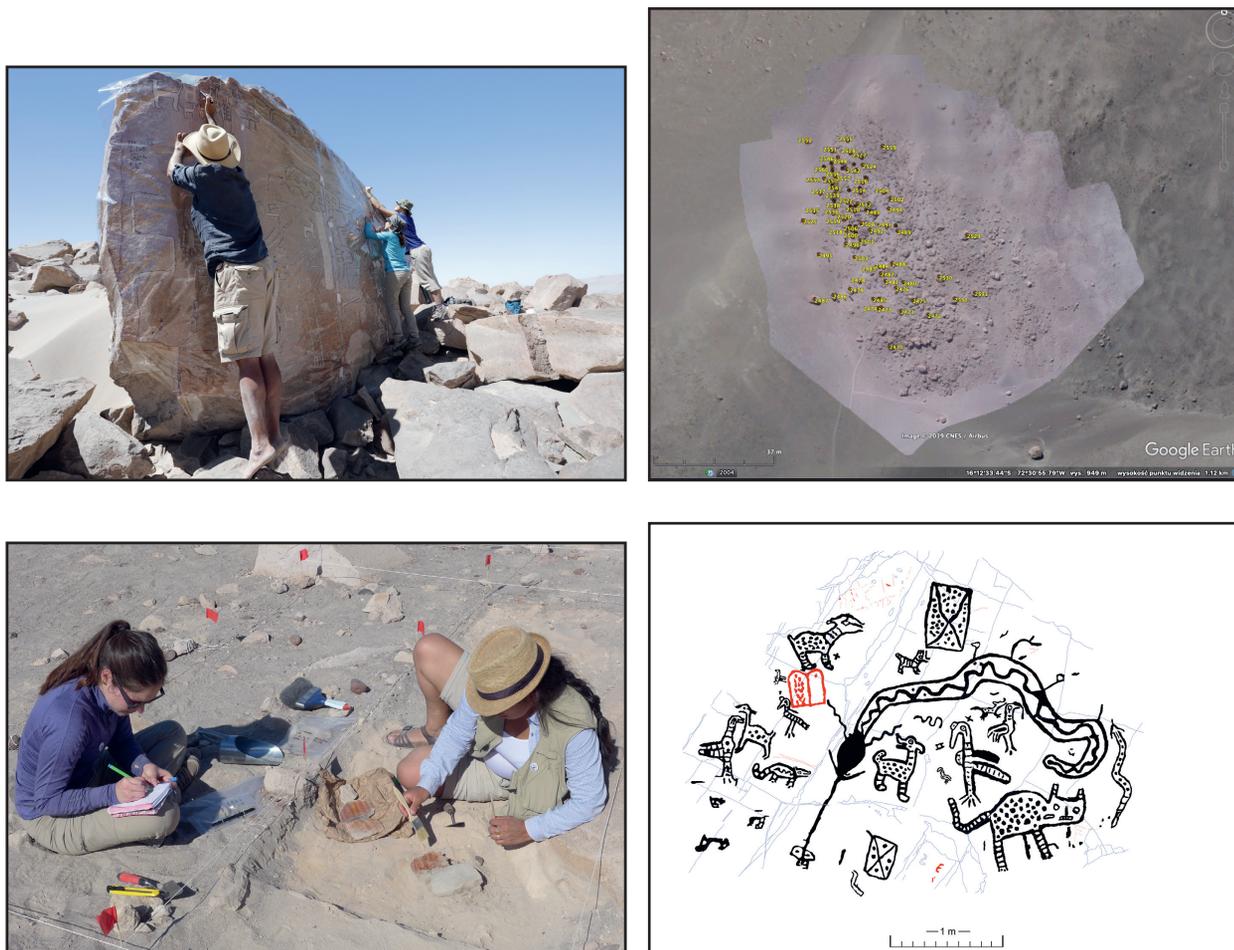


Figure 5. Images which show the different processes of intervention carried out by the Toro Muerto Archaeological Research Project - PIA TM. Figure 5a, tracing process. Figure 5b, aerial photo of Sector “X” in Toro Muerto, inventory process. Figure 5c, excavations. Figure 5d, digitized tracing image of Rock n° TM845 (panel I). (Photos, photo processing and drawings: courtesy Wołoszyn, Gonzales and Jurkiewicz).

Finally, more than twenty rocks were excavated (Figure 5c), permitting the recovery of a quantity of cultural material (offerings) that shows the importance of the site over time, in a series of occupations dating from 100 BC (beginning of the Early Intermediate) until the time of the Inca occupation (AD 1450) (Juszczak *et al.* 2017, 2018; Wołoszyn *et al.* 2019; Gonzales Ruiz *et al.* 2020). This project will be ongoing until 2022, with plans to continue research at the site and in the surrounding area.

In Ica, Masato Sakai (University of Yamagata), in a collaboration of Peruvian and Japanese archaeologists, has been studying the geoglyphs of Nasca (World Heritage Site by UNESCO). Due to the importance of his research he founded the Nasca Institute, which promotes research, and also is concerned about the gradual deterioration and advanced urban growth that have been destroying some geoglyphs (Sakai & Olano 2019). The Archaeological Research Program of the Geoglyphs of the Pampas de Nasca has been directed by

M. Sakai and Jorge Olano since 2016. They have started to employ state-of-the-art technology to redefine the figures of some geoglyphs, discovering west of the Pampa of Nazca approximately 143 new geoglyphs. Making use of satellite photos, remote sensing and drone flights, they managed to define figurative images, such as humans and animals, belonging to the Early Intermediate (100 BC - AD 300 AD) that seem to be related to roads, including some pathways which possibly communicated with the Ceremonial Centre of Cahuachi (Yamagata University 2019). Thanks to these discoveries, between 2018 and 2019, Sakai and the Yamagata University signed an academic agreement with IBM Research (Thomas J. Watson Research Center, USA) to start applying the modern method of artificial intelligence to define the images and analyze them by means of algorithms. This method will enable a quicker understanding of the distribution of the images and associate them with their geographical environment (Yamagata University, 2019). Research is still ongoing, and there are no scientific publications on the subject

yet. However, there is a long history of talks given by Sakai reporting on the findings, as well as a list of publications in local and international newspapers.

From the two rock art research projects carried out in the central highlands (Ancash) it is now possible to download the results of the projects carried out in Alto Fortaleza. The first stage, called the Archaeological Research Project Rock Art of the Alto Fortaleza (PIAARAF), began in 2014, directed by Miguel Aguilar, and in 2016 by Gordon Ambrosino and Alexander Herrera (2017) who used the data to support his doctoral thesis at La Universidad de los Andes. PIAARAF applied both conventional and state-of-the-art recording and dating methodologies, such as the use of parallel transects in the systematic recognition of the study area, excavations in three rock shelters and one necropolis, and the photogrammetric modelling and vectorization of the representations of several sites with petroglyphs, in part belonging to the Formative period (Kiñan Tanka) (Ambrosino, 2019). During the initial survey phase, 299 archaeological sites were registered, of which 192 contain rock art (Ambrosino & Herrera 2017; Ambrosino 2018, 2020). According to Ambrosino and Herrera (2017), rock paintings and petroglyphs in the study area correspond to the Fortaleza pictographic style, characterized by large panels found in association with water sources, burial sites and agricultural fields. Excavations carried out in 2016 at Hatun Machay, Shacsha Machay and Diablo Retrato, between 4050-4255 m.a.s.l., served to define at what time prehispanic communities used rock paintings to build local histories, and controlled water and land resources in a time characterized by conflict and unreliable resources (Ambrosino & Herrera 2017; Ambrosino 2020).

In the Nepeña Valley, also located in the Ancash region, important research was carried out by virtue of the Río Loco Rock Art Research Project, directed by Spanish archaeologist Carmen Pérez Maestro and Alexander Herrera. This study was developed within the framework of Pérez's research for her doctorate at the University of Alcalá (Pérez 2019).

Pérez brings the discipline of archaeology closer to rock art, with theoretical-methodological approaches to landscape archaeology and semiotics. In her record, she covers sites along the route of the River Loco sub-basin, where she presents information about the long cultural influence in this area (from the Archaic period to the Late Intermediate). She analyses six sites with painted art and one with petroglyphs. In addition, she conducted excavations at two of the registered sites: Totocahja and Motumachay (both associated with funerary contexts), and obtained 14C age determinations by using Mini Carbon Dating (MiCaDaS) instruments and

information about pigment composition applying Raman Spectroscopy. She proposes a chronology that allows us to understand the occupation models, the mobility and the interconnectivity between the coastal zone, the mountain range and the regions between watersheds. For the recognition of some graphics, the images are treated with the DStretch programme and for photogrammetric reconstruction, Agisoft Photoscan is used (Pérez 2019).

As can be seen, the use of sophisticated equipment has become more frequent in the last five years, DStretch being the most popular (Tamara 2017; Gómez 2018; Dubois 2017; Hostnig 2017, 2019a; Castillo & Barrau 2016; Astete *et al.* 2017), as well as drones and location equipment for precise geo-referencing, and professional high-pixel cameras to document and catalogue images (Masini *et al.* 2016a; Bikoulis *et al.* 2016; Castillo *et al.* 2019; Gonzales Ruiz *et al.* 2020; Juszczuk *et al.* 2017; Sakai & Olano 2019; Villegas 2019). This has produced a qualitative and quantitative leap in the documentation of rock art sites. Certainly, there is still material to be analyzed, especially in documents produced in the field of contract archaeology, since it is necessary to wait until the reports are presented to the Ministry of Culture.

Finally, as has been observed, the publications reported for much of this article have mostly come from the academic community of archaeologists. We also note that more and more young people -- mainly archaeology students or recently graduated archaeologists -- are entering the study of rock art due to the easy access to new technologies.

Management and Protection of the Rock Art Heritage

As the interest in rock art increases, so does the number of cases of loss and deterioration due to lack of knowledge of its heritage value, institutional neglect and natural factors. In the bibliography on Peruvian rock art (Hostnig 2020) newspaper reports on cases of destruction or vandalism of sites play a prominent role.

Numerous economic activities are affecting these sites and their surrounding landscapes, with urban growth, agriculture and mining being the main factors for the deterioration or disappearance of the sites. In 2017 the Ministry of Culture withdrew the status of National Cultural Heritage from the Yarabamba petroglyphs in Arequipa (Viceministerial Resolution No. 165-2017-VMPCIC-MC) so that the Cerro Verde mining company could build a tailings deposit there (Permit Directorial Resolution No. 091-2013-DGPA-VMPCIC/MC). This resulted in the transfer and storage of 20 petroglyphs in a (closed) environment called "Yarabamba Tambo Cultural Deposit".

Another palpable case is Toro Muerto, where -- in spite of being included in the List of Cultural Heritage of the Nation and having a clear delimitation of its land -- the site is still exposed to the above-mentioned impacts. In 2016 a confrontation with farmers took place at this site, when legal experts from the Ministry of Culture, along with police, had to remove them by force from the area that they had invaded, destroying part of the southern sector of the site. In the same way, a series of other sites are known to be gradually affected.

Another risk to the integrity of the sites lies in the fact that not only the Ministry of Foreign Trade and Tourism but also the Chamber of Commerce, the Regional Governments, the Municipalities, as well as sub-national and private entities (ODEBRECHT LATINVEST, 2016; MINCETUR) are promoting rock art sites for tourism purposes, and most of these are not controlled and managed by the competent authorities within the cultural sector. In the framework of this five-year period, very few sites with rock art were granted protection or properly managed. Lack of control and increasing acts of vandalism continue to be major factors affecting the conservation of sites. There have, however, been notable exceptions: the Ministry of Culture finally passed a resolution in order to protect the Miculla-Pachía archaeological complex against invaders, and the Congress of the Republic declared the petroglyphs of Checta and Pusharo, as well as the rock and rock art forest of Huayllay, as cultural heritage sites.

The Rio Loco as well as the Toro Muerto PIA projects are planning an educational campaign on rock art with workshops in local schools around the site.

There is still a need for a greater push from rock art specialists and the public to bring about adequate cultural policies to protect this cultural heritage.

Final Balance

In the last five years nine academic meetings on rock art were held, five in Peru, two in South America (Chile and Argentina) and two in Europe (Cáceres and Valcamonica). The first was the 6th National Symposium on Rock Art in Tacna at the end of 2015, which brought together Peruvian and foreign researchers. In September 2019 the 1st International Congress of Amazonian Rock Art was held in Chachapoyas. The Peruvian Association of Rock Art (APAR) organized two events in 2017 in the city of Cusco, one of which dealt with rock art and ethnography. An increasing number of presentations about Peruvian rock art in academic events at the international level can be noted.

The scientific journals that have contributed most to the dissemination of rock art studies of Peru and

with the largest number of articles published on the subject in the period 2015-2019 were the SIARB Boletín (14 articles), the online Rock Art Bulletin TRACCE (12), Rupestreweb (8), APAR Boletín (7), Arqueología y Sociedad of the San Marcos University (7), Boletín de Lima (6), and the Hauycaypata (4) and Tambo journals (4).

In memoriam

Over the last five years, several outstanding researchers and defenders of rock art and geoglyphs of Peru left us forever.

Eduardo Herrán (1953-2015) was a former officer of the Peruvian Air Force, and a professional photographer and researcher. He created the Institute of Archaeological Research and, due to his inexhaustible efforts, he achieved the declaration of the Nasca Lines and Geoglyphs as Cultural Heritage of Humanity in 1994. He spent 35 years protecting these sites through aerial survey, discovering more than 360 geoglyphs, a great contribution to the Peruvian archaeology of his time.

Augusto Cardich (1923-2017) was a Peruvian-Argentinian agricultural engineer and archaeologist, who will be remembered not only for the discovery of the "Early Lauricocha Man" in the puna of Huanuco (human remains considered among the oldest in Peru), but also for his proposal of a stylistic sequence of rock art paintings in this area.

Klaus Koschmieder (1959-2017) was a prolific scientific researcher whose sudden passing represents a great loss to Peruvian archaeology. Not only was his prospection and excavation work in the province of Luya in the department of Amazonas memorable, but also the attention he paid in his research to rock art associated with the Chachapoya burials.

Erik Maquera (1981-2018) was a true pioneer in archaeological documentation, developing the use of drones for survey and recognition. He generated the first proposals for the recording of geoglyphs, registering those of Huayrapunco in the Majes Valley, while his aerial photogrammetry was critical for documenting the rock art of the upper Fortaleza Valley for the PIAARAF project.

Cristobal Campana (1938-2020) was a renowned Peruvian researcher, as well as an educator and university professor. His multifaceted studies mainly focused on the iconography of the Andean world, as well as archaeology and history. His long relationship with rock art is evident in his work on Alto de las Guitarras, where he conducted investigations and promoted the defence of this outstanding rock art site.

Santiago Rivas (1971-2020), whose passing was another enormous loss for archaeology and rock art in the Peruvian Amazon, carried out an important study -- among others -- on the sacralized landscape of the Chayahuitas in Yurimaguas, a network that articulated ceremonial sites with large engraved rocks as outstanding features. This Amazon ceremonial complex turned out to be one of the most important rock art reserves of the Peruvian Amazon.

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