The Spirits in the Stones: Indigenous Visualities, Ethnography and Rock Art

Os espíritos nas rochas: Visualidades Indígenas, Etnografia e Arte Rupestre

DOI: 10.20396/rhac.v6i2.20740

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Resumo

This article proposes a reinterpretation of rock art images by integrating ethnographic records and art analysis, with a focus on the iconography of non-human entities represented in masks, drawings, and other visual expressions found in Indigenous communities in Brazil. Based on the premise that these visual traditions can broaden the understanding of specific rock art assemblages, the study presents a petroglyph site in Mara Rosa, Goiás (central Brazil), as a case study. By engaging with Indigenous visuality and symbolic repertoires, the paper offers a new tentative interpretation of the carved figures as representations of non-human entities. This approach aligns with a contemporary movement that reconsiders the use of ethnographic sources in the interpretation of archaeological images, contributing to epistemological debates within the fields of art history and visual culture.

Palavras-chave: Ethnography. Rock Art. Archaeology. Petroglyph. Iconography.

Abstract

Este artigo propõe uma releitura de imagens rupestres por meio da integração de registros etnográficos e de análises de arte, com foco na iconografia de entidades não humanas representadas em máscaras, desenhos e outras expressões visuais presentes em comunidades indígenas no Brasil. Partindo da premissa de que essas tradições visuais podem ampliar a compreensão de conjuntos específicos de arte rupestre, o estudo apresenta um sítio de petróglifos em Mara Rosa, Goiás (Brasil central), como estudo de caso. Ao dialogar com a visualidade indígena e seus repertórios simbólicos, o trabalho oferece uma nova interpretação preliminar das figuras gravadas, considerando-as representações de entidades não humanas. Essa abordagem alinha-se a um movimento contemporâneo que reavalia o uso de fontes etnográficas na interpretação de imagens arqueológicas, contribuindo para debates epistemológicos nos campos da história da arte e da cultura visual.

Keywords: Etnografia. Arte Rupestre. Arqueologia. Petróglifo. Iconografia.

Introduction

Rock art scholars have adopted ethnographic knowledge in their studies since the field's inception. Integrating ethnography into rock art study involves applying insights from colonial-era and later ethnographic sources to interpret and clarify the pre-colonial archaeological evidence.[1] This analogical method was frequently employed unrestrictedly, supporting interpretive models grounded in broad categories such as animism, totemism, and shamanism. This often occurred at the expense of scientific standards, leading to evident anachronisms and a general overlook of the temporal, spatial, and sociocultural distances between the studied human groups and the archaeological record.[2]

Indigenous populations, often mistakenly perceived as primitive or relic societies "frozen in time", were once examined through ethnographic lenses, based on the premise that such studies could elucidate aspects of the material record of past societies, which were similarly regarded as primitive. The study of communities such as Aboriginal populations, for instance, was thought to offer Western researchers a means of "time travel," allowing them to observe practices that could, in this reasoning, be analogous to those of Neolithic European societies reflected in the archaeological record.[3] The use of many times wild, ethnographic extrapolations is particularly evident in rock art studies. Since the 19th century, ethnographic accounts have been employed to bridge gaps in the archaeological record and address interpretive limitations faced by archaeologists, establishing a sort of complementary relationship between rock art and Indigenous oral traditions, where each "serves to illustrate the other".[4]

A paradigmatic shift began in the late 1950s, fittingly represented by Leroi-Gourhan, who considered ethnographic comparisons as risky attempts to comprehend the meaning of rock art and explicitly advocated for an approach grounded in “hermetic” referential systems, where comparisons are made exclusively among the expressions within a specific corpus of rock art.[5] From this point forward, approaches that prioritize the specificities of different rock art assemblages and favor configurational analyses over ethnographic comparisons have been the norm. However, change was soon to come. Although ethnographic comparative studies of rock art were once considered outdated and even frowned

[1] KNIGHT JR., Vernon James. **Iconographic method in New World prehistory**. Cambridge University Press, 2012, p. 165.
[2] DOMINGO-SANZ, Inés. Shifting ontologies and the use of ethnographic data in prehistoric rock art research. *In*: ABADÍA, Oscar Moro; PORR, Martin (ed.). **Ontologies of Rock Art:** Images, Relational Approaches, and Indigenous Knowledges. Routledge, 2021, p. 200.
[3] DOMING-SANZ, *op. cit.*, p. 201.
[4] SOLOMON, Anne. Ethnography and method in southern African rock-art research. *In*: CHIPPINDALE, Christopher; TAÃ§ON, Paul S. C. (ed.). **The archaeology of rock-art**. Cambridge: Cambridge University Press, p. 268-284, 1998, p. 270.
[5] LEROI-GOURHAN, André. La fonction des signes dans les sanctuaires paléolithiques. **Bulletin de la société préhistorique de France**, v. 55, n. 5-6, p. 307-321, 1958.

upon, a resurgence has taken place since the mid-1990s. This revival aligns with the "ontological turn," which, in essence, represented renewed academic interest in non-Western categories and concepts.[6]

New and substantial studies now explore the applicability of ethnographic knowledge to the scientific study of rock art,[7] supporting the vision that ethnoarchaeology indeed contributes to developing fresh interpretative approaches.[8] This revival of the ethnographic method can also be attributed to a growing interest in enhancing Indigenous community participation in research.[9] Some studies have also combined Indigenous and community inclusion with an ethnoarchaeological approach to rock art.[10]

Thus, ethnoarchaeology, or ethnographic extrapolation, has reemerged as an analogy-based method and as a distinct approach, aimed above all at formulating alternative questions, testing hypotheses, and offering new perspectives,[11] rather than merely drawing parallels and posing definitive identifications based on similarities. The former tendency in the early twentieth century to use ethnographic comparisons to explain rock art as a monolithic, singularly functional phenomenon is now considered by most to be blatantly inadequate.

Ethnographic insights, informed by a diverse array of anthropological ideas and recent conceptual developments, allow us to reflect on the partiality of the archaeological record, thereby refining our own assumptions.[12] As Vernon James Knight Jr. points out, even after years of debate over whether to use ethnographic sources, “ethnographic knowledge remains a vivid and almost irresistible source for interpreting and analyzing ancient imagery”.[13]

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[6] LATOUR, Bruno. **An inquiry into modes of existence**. Harvard University Press, 2013; DE CASTRO, Eduardo Viveiros. Who is afraid of the ontological wolf?: Some comments on an ongoing anthropological debate. **The Cambridge journal of anthropology**, v. 33, n. 1, p. 2-17, 2015. Available at: https://www.berghahnjournals.com/view/journals/cja/33/1/ca330102.xml. Accessed on: Dec. 10, 2025.

[7] BLUNDELL, Geoffrey; CHIPPINDALE, Christopher; SMITH, Benjamin (ed.). **Seeing and knowing: understanding rock art with and without ethnography**. Routledge, 2016; KEYSER, J. D.; POETSCHAT, G. R.; TAYLOR, M. W. **Talking with the Past**: The ethnography of rock art. Vol. 16. Portland: Oregon Archaeological Society, 2016; WHITLEY, David S. Rock art, shamanism, and the ontological turn. *In*: ABADÍA, PORR, *op. cit.*, 2021, p. 67-90; SMITH, Benjamin; HELSKOG, Knut; MORRIS, David. **Working with rock art:** recording, presenting and understanding rock art using indigenous knowledge. New York: NYU Press, 2012.

[8] DOMINGO, Inés; SMITH, Claire; MAY, Sally K. Etnoarqueología y arte rupestre: potencial, perspectivas y ética. **Complutum**, v. 28, n. 2, p. 285-305, 2017, p. 288.

[9] E.g. SMITH, HELSKOG, MORRIS, *op. cit.*; GUILFOYLE, D. R.; HOGG, E. A. Towards an evaluation-based framework of collaborative archaeology. **Advances in Archaeological Practice**, v. 3, n. 2, p. 107-123, 2015; TUYUKA, Poani Higino Tenório; VALLE, Raoni Bernardo Maranhão. ʉTÃ WORI–um diálogo entre conhecimento Tuyuka e arqueologia rupestre no baixo Rio Negro, Amazonas, Brasil. **Tellus**, year 19, n. 39, p. 17-37, 2019.

[10] DOMINGO, SMITH, MAY, *op. cit.*, 2017, p. 298.

[11] DOMINGO-SANZ, *op. cit.*, 2021. p. 203.

[12] DOMINGO, SMITH, MAY, *op. cit.*, 2017, p. 298.

[13] KNIGHT JR., *op. cit.*, 2012, p. 130.

An analogical approach to rock art presupposes identifying material that shares certain similarities with the rock art examples under study, thus providing viable comparative or interpretive reference points.[14] However, the search for similarities risks overshadowing the sense of otherness and cultural distance that rock art also represents. Therefore, it is imperative to establish clear boundaries, and transparency concerning the origin and nature of the comparative material is essential and non-negotiable. Ideally, the more related to the cultural, locational, material, and environmental context of rock art, the better. Any relevant points that heighten the distance between rock art and ethnographic material should be explicitly laid out, such as evidence of cultural disruption, migrations, geographic distance between sources, etc.

In this way, ethnography can be more than a source of analogy, working as a reminder of the distance between our contemporary perspectives and the world that produced the rock art in question. This reflective component is essential in preventing reductive interpretations.[15] Thus, the use of ethnographic sources, whether closely related to the rock art under study or not, encourages researchers to remain sensitive to the distinctiveness of each cultural context, fostering a more deliberate and restrained interpretive process[16]. Hence, analogy enables the creation of frameworks for critically engaging with both similarity and difference in the study of rock art.

Under the premise that rock art served functions distinct from those of contemporary Western art, and therefore could not be classified as "art", archaeologists have engaged in a series of conceptual and terminological maneuvers to redefine such material, employing terms like “visual record,” “parietal compositions,” and “rock record.” However, there seems to exist little hesitation in using labels such as “Egyptian art,” even though objects from, for instance, the Seventh Dynasty were clearly multifunctional and not produced with intentions comparable to those behind Claude Monet’s Impressionist paintings. This suggests a persistent bias in the classification of visual culture, particularly when it concerns Indigenous, non-Western, and “pre-colonial” forms of expression that are perceived as unrelated to the European artistic canon and, therefore, not deemed worthy of inclusion in the broader narrative of human art history. Although these traditions may not conform to the formal or institutional frameworks of the beaux-arts, they nonetheless articulate core dimensions of human creativity and expression deserving of equal critical and historical consideration.

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[14] WALDERHAUG, Eva. Rock art without ethnography?: A history of attitude to rock art and landscape at Frøysjøen, western Norway. *In*: BLUNDELL, Geoffrey; CHIPPINDALE, Christophe; SMITH, Benjamin (ed.). Seeing and Knowing: Understanding Rock Art with and without Ethnography. Routledge, 2016, p. 215-239.

[15] *Ibidem*.

[16] *Ibid*.

Reclaiming rock art as art not only disrupts this legacy but opens interpretive space for recognizing it as a vehicle of visual thought and world-making. For similar reasons, Livio Dobrez critiques the dominance of the reconstruction paradigm in archaeology, which often treats rock art primarily and solely as evidence for archaeological and historical contexts rather than engaging with it as *images*.[17] He then advocates for an approach that foregrounds perceptual and formal analysis, allowing rock art to be interpreted in its own terms through visual structure, composition, and iconography.[18] From this point of view, iconographic methods become vital not for their appeal to aestheticism but because they enable close reading of symbolic patterns and visual logic that are otherwise flattened by purely contextual approaches. Together, archaeoethnography and the tools of art studies and iconography make a solid case for repositioning rock art within a broader art-historical and visual-analytical framework that also values the agency, intentionality, and semiotic richness of image-making across time and cultures beyond the West.

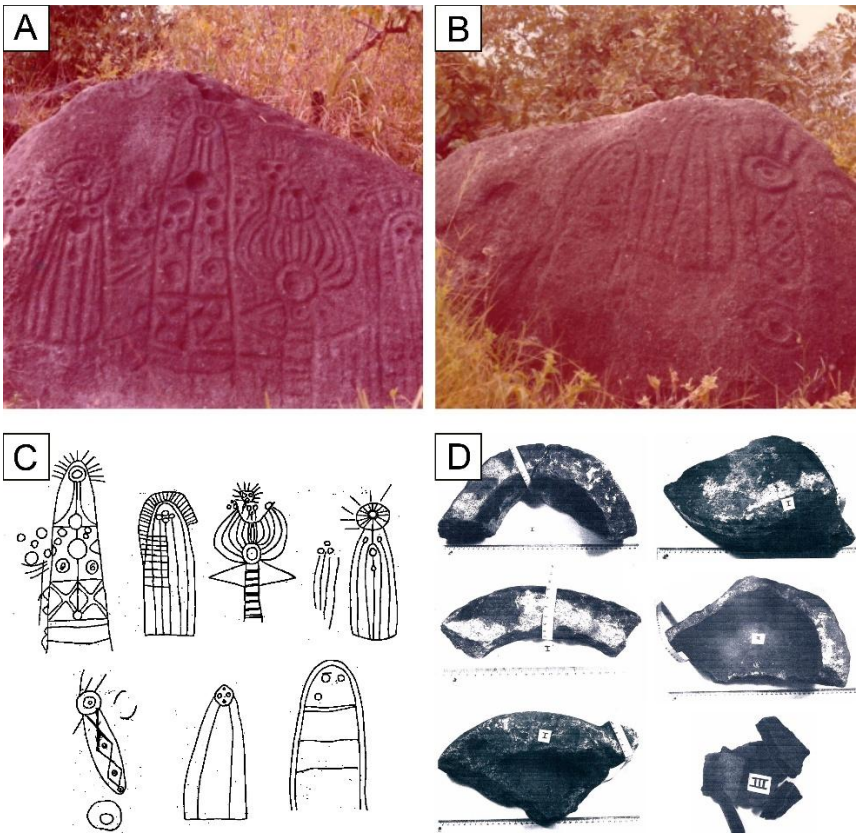

Figure 1: (A, B) Photographic documentation of the engraved boulders, taken in 1984 as part of the application for the site's designation by the now-defunct National Pro-Memory Foundation; (C) Field drawings made in 1971 by Acary Oliveira and Vivaldo da Silva; (D) Lithic and ceramic materials collected from the surface. Central Archive of Iphan, Rio de Janeiro, CPROD. No. 01458.000682/2010-25.

[17] DOBREZ, Livio. Theoretical approaches to rock art studies. **Rock Art Research**: The Journal of the Australian Rock Art Research Association (AURA), v. 33, n. 2, p. 143-166, 2016.
[18] *Ibid*.

The Mara Rosa Petroglyphs

In 1971, alerted by a local about possible archaeological sites in *Mara Rosa*, Goiás, a team from the Federal University of Goiás (UFG), led by Oliveira, Garcia, Breda, and da Silva, conducted a preliminary survey at Lajes Farm. There, they encountered rock art and documented the site through drawings, photographs, measurements, and the collection of lithic and ceramic artifacts [Figure 1], which were later sent to the university's Anthropological Museum. This survey contributed to a process to recognize the site as a federally designated cultural heritage site. The initially registered "*Lajes* Farm site" was later renamed "The *Mara Rosa* Petroglyphs site" in the now-defunct National Register of Archaeological Sites (CNSA) (replaced by the *Sistema Integrado de Conhecimento e Gestão*, SIGC), and protected under Law No. 3,924/1961, which governs archaeological heritage in Brazil.

The broader *Mara Rosa* region remained unstudied until 2017, when Peña et al. identified lithic-ceramic sites dated to 690 ± 30 AD, through environmental licensing projects.[19] In 2022, under Peña's supervision, Pereira revisited the area, conducting new surveys and systematic documentation of the rock art, which he subsequently analyzed from an archaeoastronomical perspective. That is, he proposed astronomical interpretations of the Mara Rosa rock art, arguing, for instance, that the petroglyphs correspond to constellations and other celestial phenomena.

Figure 2:
Location of the Mara Rosa petroglyph site. Author.

[19] PEÑA, A. P.; SANTOS, L. M. S. L.; COSTA, W. P. da; CAETANO, A. R. Relatório do projeto de salvamento arqueológico e educação patrimonial na área do empreendimento "*Projeto Posse – Mina de Ouro*" no município de Mara Rosa, Estado de Goiás. Projeto de contrato EcoArqueologia Brasil LIDA, 2020.

The Mara Rosa site is situated near the district Amarolândia, approximately 16 km from the urban area of Mara Rosa, along the GO-347 highway, 238 km distant from Brazil's capital city, Brasília [Figure 2]. It is easily accessible, requiring only a fence crossing and a short walk across flat terrain. Although situated on private property, the site's area cannot be modified by the landowner due to the presence of archaeological remains and thus retains its native vegetation. Nonetheless, cattle grazing in the surrounding areas has led to a significant infestation of dangerous ticks in the vegetation near the petroglyphs. The site is, in reality, an archaeological complex comprising 15 large rock-art-bearing boulders identified to date, spread across an area of 135,094.6 m².

Geologically, the site is situated at the boundary between metasediments and orthogneisses, both metamorphic rocks, with preliminary field identification indicating that the boulders are granitoid-gneiss rocks of significant hardness. These boulders feature deeply incised petroglyphs with a distinctive visual style, unlike those of any other known archaeological site in Brazil. The largest and most iconic rock-art-bearing boulder is located at the center of the area [Figure 3].

The petroglyphs primarily consist of highly stylized anthropomorphic figures with exaggerated proportions, often more than one meter in length, a feature rarely observed in Brazilian rock art, particularly among petroglyphs. The engraved boulders are not densely covered; instead, significant areas of blank surface remain, with each rock generally supporting a single figure or a small group of them. In addition to these semi-anthropomorphic motifs, other elements, such as concentric circles and clusters of cupules, are scattered across the rock surfaces without a straightforward visual or spatial integration.

The most prominent and well-known example is Boulder 01, as catalogued by Pereira,[20] which contains the largest known figures: four vertically arranged "individuals", each rendered with distinct features, measuring 3.20 meters in length by 2.70 meters in height [Figure 1]. Pereira notes that the engravings predominantly face west.[21] He argues this favours an archaeoastronomical explanation for the Mara Rosa rock art. While a west orientation is broadly accurate, it is imprecise and lacks the mathematical exactness one would expect in cases of intentional astronomical alignment.

This suggests that the engravers were not *systematically* concerned with exact solar or celestial positioning, although the general westward direction toward sunset remains notable. Pereira hypothesizes that Boulder 01, which weighs several tons, may have been repositioned to achieve a deliberate alignment, mentioning its unusually flat surface and an alleged mismatch with the bedrock

[20] PEREIRA, Marciel Mendes de Avelar. Sítio petróglifos de Mara Rosa-Goiás, Brasil: uma análise das representações rupestres na paisagem. Undergraduate Thesis (Bachelor in Archaeology) – Escola de Formação de Professores e Humanidades, Pontifícia Universidade Católica de Goiás, Goiânia, 2022.

[21] *Ibid.*, p. 132-34.

behind it. The hypothesis still requires substantiation through geomorphological analysis. Further, he attempts to associate the petroglyphs with phenomena such as solstices and equinoxes. However, this is weakly supported, as natural geological processes much more easily explain the boulder orientations than by intentional placement to coincide with constellations. His argument that the varying depths of the cupules correspond to the brightness of stars[22] is especially concerning, as it relies on circular reasoning. The assumption of intentionality is used to justify the astronomical hypothesis, which in turn is used to affirm intentionality. The selective use of data further compromises this line of reasoning: only specific sky configurations that appear to match the cupules are emphasized, without sufficient empirical testing, reinforcing a confirmation bias.

Figure 3. Boulder 01, which contains the site's largest petroglyphs, features four semi-anthropomorphic figures. Author.

Moreover, the suggestion that these features could be used to date the site to 9,000 years BP with software such as Stellarium seems unconvincing. While such a timeframe is *plausible*, given evidence of human occupation in Goiás as early as 10,740 ± 75 BP,[23] it does not mean it is true, as the archaeological evidence remains tenuous. As previously noted, the dating of stone tools and ceramic fragments from the Mara Rosa region to 690 ± 30 AD provides a more plausible provisional chronology. However, no direct association can be established between these artifacts and the rock art. Yet, these are the only dates from

[22] *Ibid.*, p. 143.

[23] NOGUEIRA, Ricardo Augusto Silva. Arqueologia da paisagem, Serranópolis na interpretação dos espaços sociais. **Revista Habitus** - Revista do Instituto Goiano de Pré-História e Antropologia, v. 13, n. 1, p. 89-112, 2015.

the region so far. If confirmed, this dating would situate the creation of the Mara Rosa petroglyphs in the period immediately preceding European contact.

Pereira's analysis largely overlooks this possibility, as well as particular aspects of the rock art, such as randomness in cupule distribution, leading to a failure to consider alternative interpretations, including their potential connection to stone-tool production.[24] The astronomical hypothesis also implicitly assumes that past groups had the means to measure and conceptualize stellar magnitudes, a claim for which no supporting evidence is provided. Despite these challenges, Pereira's preliminary study represents the first and still most comprehensive documentation of these petroglyphs. Further, it relies heavily on ethnographic analogies to substantiate its claims in archaeoastronomy. The validity and applicability of these parallels are central to this study's overall argument.

An Iconography for the Mara Rosa Petroglyphs

The petroglyphs pose significant visibility challenges owing to the dark coloration of the rock, the presence of a natural patina, moss and lichen, and the positioning of most rock art-bearing boulders in deep shade beneath dense local vegetation. Petroglyphs, in particular, can be observed in more detail under diagonal sunlight, preferably at dawn or dusk. Pereira[25] addressed this issue by using artificial lighting at night, which significantly enhanced the visibility of the petroglyphs and enabled the creation of highly detailed technical drawings. This technique was also tested by the author in collaboration with archaeologist Danilo Curado and proved highly effective in enhancing the visibility of the engravings at this site [Figure 4-A].

Low-cost photogrammetry was also particularly effective in improving the visibility of petroglyphs. Using the mobile application Kiri Engine, 200 photographs of the main panel were captured from multiple vantage points, generating a digital model that can be stripped of its color layers [Figure 4-B, C]. This process significantly enhances the visualization of the engravings by eliminating visual noise from the rock's natural color variations, moss, and lichen, thereby allowing a detailed examination of the petroglyphs' relief and texture. Due to time constraints, this technique was applied exclusively to Boulder 01, leaving opportunities for future studies to extend this method to other boulders and their petroglyphs.

[24] Luciana Ribeiro, personal communication, 2024.
[25] PEREIRA, *op. cit.*, 2022.

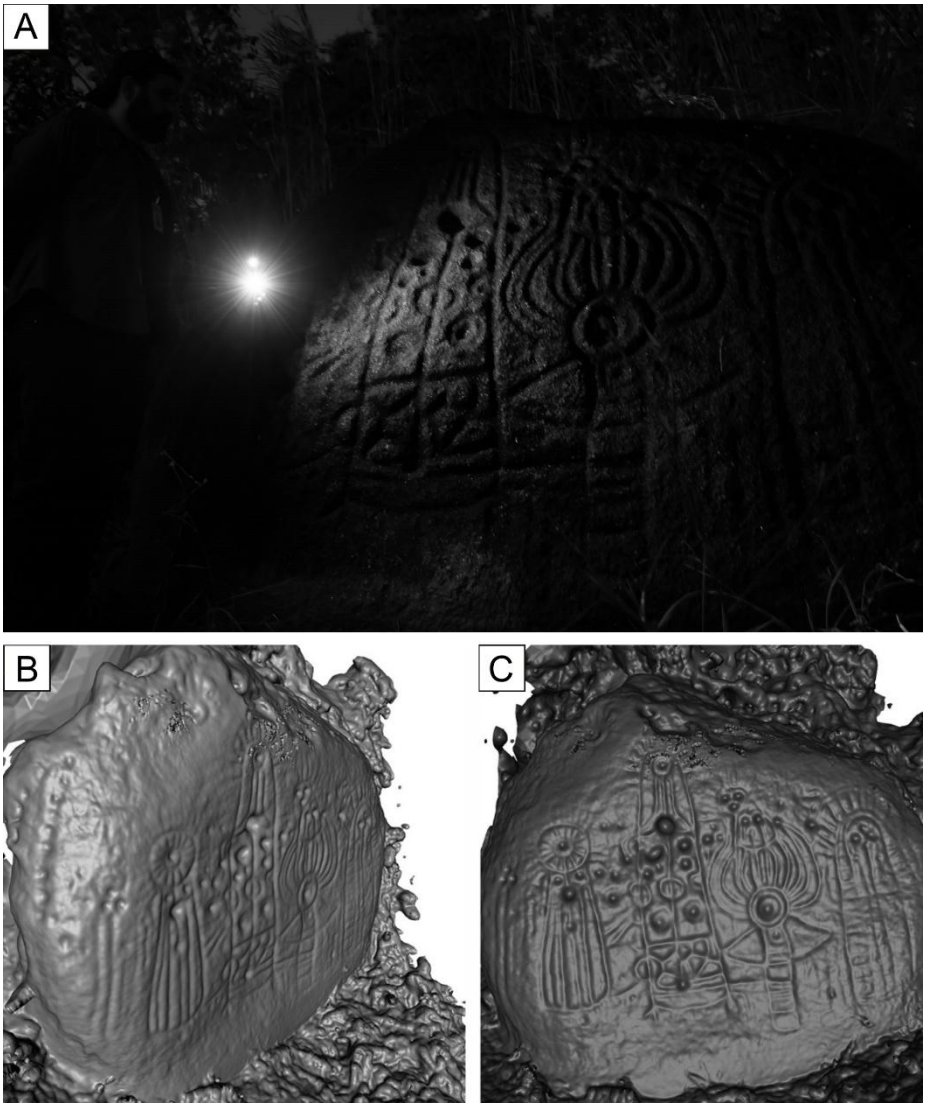

Figure 4: (A) Petroglyphs on Boulder 01 illuminated at night with an angled flashlight, enhancing the depth effect; (B, C) Digital 3D model of Boulder 01 and its monumental petroglyph ensemble, providing detailed views of the carvings' form and depth from multiple angles. Created by the Author using the mobile application Kiri Engine.

As a starting point for any iconographic study program, it is essential to understand the principles governing the formal properties of a given corpus of images. At its core, iconography focuses on identifying the themes of images.[26] Here, the term theme is synonymous with referent, meaning what the image refers to and which is intended to be represented or depicted. How this referent is portrayed, including the formal and technical conventions employed, is referred to as *style*. Therefore, the analysis of these petroglyphs seeks to identify their referents and, by necessity, involves studying their style.

[26] KNIGHT JR., *op. cit.*, 2012, p. 173.

Determining and discussing style implicates identifying the consistency of forms,[27] or how fixed, permanent, or even recurrent certain forms are within an image corpus.[28] The study of style examines the formal conventions used in representation, focusing on the methods and techniques employed to depict a subject.[29] A first step in style analysis, as in iconographic studies, should be the compilation of an image corpus.[30] Ideally, it should be done in "Beazley fashion",[31] with the creation of a database as extensive as possible. For the Mara Rosa site, the available image repertoire is limited, as it is a unique example in the Brazilian archaeological record. While there are numerous sites with petroglyphs in various regions of Brazil, some even superficially similar, such as those in the Amazon rainforest, the Mara Rosa petroglyphs stand out as a unique rock art style.

Knight[32] establishes 12 categories of stylistic attributes to be explored in any analysis. The methodological framework built upon these becomes a critical foundation for any subsequent engagement with ethnographic analogies, ensuring that comparisons are grounded in formal analysis rather than superficial resemblance.

Genre and Media

The genre category refers to distinct classes of artifacts or spatial contexts that provide a framework for representational practices. It enables the exploration of stylistic conventions characteristic of specific formats or functions, highlighting how the intended use and physical nature of the medium shape visual strategies. In this study, the genre under consideration is rock art, an inherently site-specific and materially embedded form of expression. Media, in turn, denote the material substrate from which an image is produced and through which it is made visible. In the case of petroglyphs, the medium is not applied but subtracted: images emerge through the deliberate removal of the rock surface. This subtractive process implicates the rock itself not only as a support but also as an integral part of the visual

[27] SCHAPIRO, M. Style. *In*: KROEBER, A. L. (ed.). Anthropology today: An encyclopedic inventory. Chicago: University of Chicago Press, 1953, p. 287.
[28] BOAS, Franz. Decorative designs on Alaskan needlecases: A study in the history of conventional designs, based on materials in the U. S. National Museum. *In*: JONAITIS, A. (ed.). A wealth of thought: Franz Boas on Native American art. Seattle: University of Washington Press, 1995. p. 248–278. Reprint of the original edition published in: PROCEEDINGS of the U.S. National Museum, v. 34, p. 321-344, 1908.
[29] KNIGHT JR., *op. cit.*, 2012, p. 30.
[30] *Ibid.*, p. 32.
[31] In reference to Sir John Beazley (1885–1970, a British archaeologist and art historian known for attributing Attic vases to individual artists through stylistic analysis. His legacy is preserved in the Beazley Archive at the University of Oxford, a major resource for the study of ancient Greek pottery.
[32] KNIGHT JR., *op. cit.*, 2012, p. 32.

language, where its texture, hardness, and color influence both the affordances and the constraints of representation.

Due to the inherent qualities of rock art, rock itself, and the act of carving, the petroglyphs neither exist as purely two-dimensional forms nor as fully three-dimensional structures. Instead, they occupy an intermediate space between the two sides of the dimensionality spectrum. From a distance, the petroglyphs resemble flat drawings on the rock surface. However, upon closer examination, the concavities and grooves reveal a subtle relief, a microlandscape in itself, not unlike the effect produced by *intaglio*. As the sun moves across the sky, light strikes the petroglyphs at different angles, highlighting different areas. This shifting illumination creates an effect of transformation, as if the petroglyphs themselves are shifting, moving, or even dancing. The material's affordances,[33] as demonstrated, lead to specific effects that can be intertwined with deliberate human decoration as follows.

Decorative Effects

The petroglyphs at the Mara Rosa site exhibit a coherent visual corpus, or regional style, marked by very distinct decorative effects that extend beyond mere technical execution and reflect broader aesthetic strategies and, likely, cultural values. While the current corpus is limited to a single site, constraining broader stylistic comparisons, the available imagery already reveals patterns suggestive of what Shore terms foundational schemas,[34] and what Sackett[35] refers to as deep style: persistent, culturally embedded aesthetic conventions recognizable across media and time.

Within this assemblage, decorative effects emerge through the repetition and variation of geometric motifs, particularly those involving intersecting lines, angular forms, and circular depressions, also known as cupules, often arranged in isolated or concentric patterns. These formal strategies serve as key visual markers of style. For instance, the petroglyphs on Boulders 01, 03, and 06 display an interplay between rectilinear and curvilinear elements, with vertical segmentation, radiating lines, and nested circles functioning not only as embellishments but also as culturally legible design choices.

The use of concentric circles and cupules may be critical as structural visual anchors within the compositions, employed to focus attention or convey symbolic meaning. Their repetition across

[33] As explored by Carl Knappett, in: KNAPPETT, Carl. Thinking through material culture: An interdisciplinary perspective. University of Pennsylvania Press, 2010.
[34] SHORE, Bradd. Culture in mind: Cognition, culture, and the problem of meaning. Oxford University Press, 1998.
[35] SACKETT, James R. Style and ethnicity in archaeology: the case for isochrestism. *In*: CONKEY, Margaret W.; HASTORF, Christine A. (ed.). The uses of style in archaeology. Cambridge: Cambridge University Press, 1990. p. 32–43 *apud* KNIGHT JR., *op. cit.*, 2012.

multiple boulders suggests they serve as core stylistic devices within the site's visual language. Similarly, intersecting lines, often at oblique or perpendicular angles, create layered and dynamic compositions, contributing to a decorative logic based on complexity and, usually, symmetry.

Despite the stylistic richness evident in the images, identifying broader aesthetic trends, such as an increase in elaboration or simplification over time,[36] would require a significantly larger corpus and more data. As it stands, the Mara Rosa petroglyphs offer only a localized glimpse into a potentially broader visual tradition, and caution must be exercised when extrapolating broader chronological or regional conclusions.

Material and technical factors also contribute to the observed decorative effects. Across the corpus, the petroglyphs exhibit deep, well-defined grooves with smoothed and aged edges, indicating a production process involving abrasive polishing with sand and water, followed by intense natural erosion. These materially embedded effects, while not technically predetermined, contribute directly to the visual impact and stylistic coherence of the figurative imagery. The consistent depth and finish of the carvings across boulders suggest a shared technical repertoire, which, while procedural in nature, is deliberately manipulated to achieve recognizable stylistic outcomes.

Layout and Use of Positive and Negative Space

Layout refers to the arrangement of elements within the design field or image space.[37] Layout schemas reflect not only aesthetic choices but also broader cultural logics, through which visual traditions become structured and intelligible. The panels at Mara Rosa feature irregular rocky surfaces, many of which are not entirely flat, resulting in an often distorted image space. Nonetheless, there is a discernible spatial logic in the placement of motifs. Figures are found in groups on Boulders 01, 02, 03, and 06, typically arranged in assemblies of two to four semi-anthropomorphic forms, standing vertically. These figures are not overlapping, but are placed side-by-side in tight formation, particularly evident in Boulders 01, 03, and 06 [Figure 5]. This vertical orientation suggests single-axis symmetry, vaguely reminiscent of the human body, and possibly reflecting hierarchical arrangements.

In contrast, individual figures appear on Boulder 05 and on Boulders 04, 13, and 14, where space is used more loosely. In many instances, cupules and concentric circles occupy residual spaces in the composition, frequently near the "faces" or above the "heads" of the anthropomorphic figures. These

[36] KNIGHT JR., *op. cit.*, 2012, p. 38
[37] *Ibid.*, p. 43.

motifs may serve as secondary elements, either decorative or not, and their placement suggests a non-centralized, additive composition rather than a rigid layout. Boulders 07 through 12 and 15, by contrast, feature only a series of cupules, often arranged with no obvious order, suggesting a non-oriented layout in these cases. Boulder 16, known only from a 1971 photograph by Acary Oliveira and currently unlocated, cannot be evaluated in this regard.

Despite the variation, specific conventional layout structures described by Knight are evident. Vertical symmetry and banded repetition structure the more complex compositions (e.g., Boulder 01), in which anthropomorphic forms and geometric motifs are tightly grouped within the boulder's bounded surface. The composition in Boulder 01 also suggests an intentional use of space to maximize visual impact, approaching image-field saturation, while still retaining visual clarity and motif separation. The use of available space across the corpus ranges from isolated, heraldic-style placements, where one or two elements are set apart on the rock face, to dense visual clusters, as in Boulder 01 [Figure 6].

Importantly, the surface was not treated as a canvas to be exhaustively filled; instead, images appear strategically positioned, emphasizing visibility and perhaps aligning with the site's symbolic orientations within its landscape. The overall layout conforms to bilateral symmetry, and the compositional logic remains patterned, responsive to both the morphology of the boulders and underlying conventions. The layout, or the cultural strategy of visual communication, at play at Mara Rosa orders the relationships among figures, motifs, and space in recognizable ways.

Furthermore, at Mara Rosa, the balance between carved (negative) and uncarved (positive) space reflects a deliberate compositional strategy. Unlike traditions driven by *horror vacui*, the impulse to fill all space, the rock art in question shows a sense of restraint. Large portions of rock surfaces are left uncarved, particularly on Boulders 04, 05, 13, and 14, where single or paired figures stand out against empty backgrounds, and even on more densely decorated panels, such as Boulder 01, the carvings maintain visual clarity, using negative space to frame figures rather than crowd them. Overall, the compositions clearly favor a balanced use of space, where both carved and uncarved areas contribute to the visual and symbolic organization of the imagery. This controlled spatial logic reinforces the stylistic coherence of this particular rock art corpus.

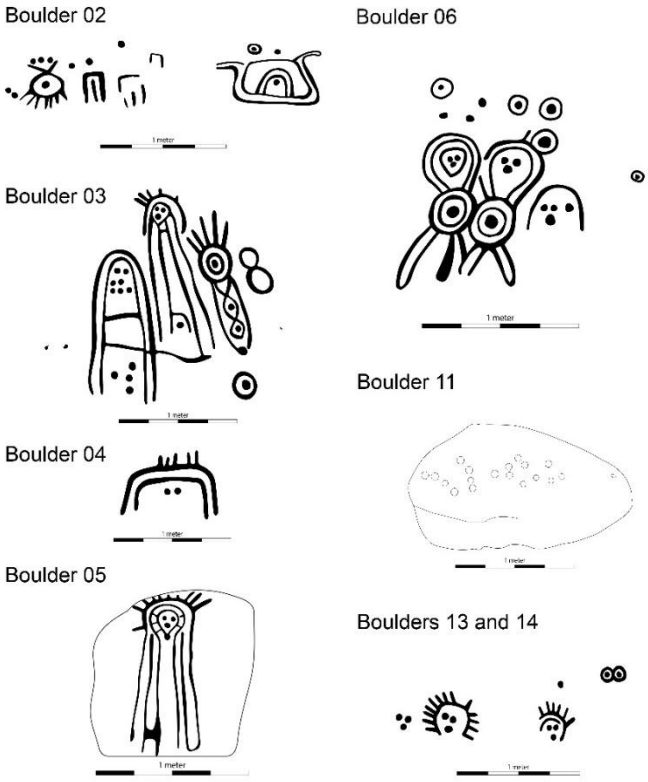

Figure 5:
Digital tracings of petroglyphs from Boulders 02, 03, 04, 05, 06, 11, 13, and 14.
Author after Pereira (2022).

Scale, Dimensionality, Relative Size, Indicators of Depth in Two-Dimensional Representation, and Conventions of Perspective and Proportion

In Knight's method, scale refers to the size of the image and its relationship to function, helping illuminate how visual forms engage with viewers and social space. One of the most striking aspects of the petroglyphs at Mara Rosa is their monumentality, an exception in Brazilian rock art. While large-scale rock art is not unprecedented in the country, the oversized figures engraved on Boulder 01 are especially noteworthy. Their sheer scale suggests a deliberate effort to ensure visibility, likely related to the site's original setting and purpose. Before the 20th century, the northwest portion of Goiás was still essentially part of the Amazonian rainforest southeast.[38] This area has only recently transformed into the open *Cerrado* grasslands (the Brazilian savanna) due to agricultural expansion.[39] In this earlier forested context, the use of life-sized or even larger-than-life figures may have been a practical solution to ensure prominence in low-visibility, more forested conditions, reinforcing the idea that scale here is functionally and contextually motivated.

[38] DOMINGUES, Mariana Soares; BERMANN, Célio. O arco de desflorestamento na Amazônia: da pecuária à soja. Ambiente & sociedade, v. 15, p. 1-22, 2012.
[39] *Ibid*.

Figure 6:
Digital tracing of the petroglyphs on Boulder 01. Author.

The relationship between scale and social meaning is further emphasized when considering relative size within the compositions. On Boulders 01, 03, and 06 [Figure 5], semi-anthropomorphic motifs exhibit varying heights, suggesting an internal hierarchical logic between these figures. This convention, seen widely in ancient art traditions, from Eastern Mediterranean iconography[40] to Moche ceramics,[41] often marks differentiated status or importance. The presence of much smaller figures, particularly the recurring "floating faces" with concentric features and minimal detail, underscores this point. These smaller motifs, found also on Boulders 13 and 14 [Figure 5], tend to occupy peripheral or interstitial positions, sometimes squeezed between larger figures, as seen with the floating head between Figures 2 and 3, from left to right, on Boulder 01 [Figure 6]. Their scale and placement reinforce their symbolic or narrative subordination.

Importantly, these size differences do not function as depth cues in the Western sense. As Knight[42] reminds us, what is often perceived as universal, such as linear perspective or diminishing size with distance, is in fact culturally and historically specific, largely codified during the Renaissance. At Mara Rosa, the apparent absence of depth conventions such as overlap, shading, or foreshortening suggests that relative size is used more conceptually to indicate status, identity, or symbolic sequence rather than to simulate spatial recession. Nevertheless, some elements may imply temporal or narrative layering. The small motifs on the fringes of Boulders 01 and 06 [Figures 5 and

[40] See CROWLEY, Janice L. Images of power in the Bronze Age Aegean. Laffineur and Niemeier, v. 1995, p. 475-491, 1995.
[41] KNIGHT JR., *op. cit.*, 2012, p. 43.
[42] *Ibid.*, p.47.

6] could be interpreted within a synchronic narrative framework, where multiple actions or agents are depicted simultaneously. This parallels some ancient Greek ceramic decoration, where episodic events unfold within a single visual field.[43] For a closer example of this visual storytelling strategy, a Xinguan image [Figure 7] shows fish spirits descending in the form of *Yakui* masks, unfolding a sequential myth in a simultaneous visual register. All actions depicted, sequential in the spoken story, are represented simultaneously: everything, all at once, everywhere. Such a visual strategy suggests that chronology, identity, and action could be compressed spatially in the petroglyphs, rather than unfolding sequentially.

Figure 7.
Representation of the legendary Pulu-Pulu being carried by five men. Top left: four fish spirits descending in the form of the *Yakui* mask. 44 x 32 cm. Colored pencil on Canson paper. Artist: Aruta, 1998, in Neto (2016).

The dimensionality of the engravings also plays a crucial role in both style and technique. As mentioned above regarding Genre and Media, petroglyphs occupy a space between flat imagery and sculptural form, with deep, polished grooves that give the impression of a third dimension. This tactile enhancement creates shadows and physical texture, distinguishing petroglyphs from other media, such as painted ceramics or body decoration, which may also conform to three-dimensional surfaces but do not achieve the same visual effect of carved depth. As Knight notes, styles shift across media, in part

[43] RASMUSSEN, Tom; SPIVEY, Nigel Jonathan (ed.). Looking at Greek vases. Cambridge University Press, 1991.

because dimensional strategies are deeply embedded in the technical constraints and visual possibilities of each medium.

Finally, regarding proportion and perspective, the Mara Rosa style reflects what Knight describes as a system that does not aim for optical naturalism but instead emphasizes salient or symbolic features. Proportions are often skewed: heads and torsos may be enlarged while other parts are abbreviated or entirely absent. These distortions are not errors, but intentional emphases that reinforce identities and cultural meanings, rather than relying on visual realism. Such conventions align with broader traditions of conceptual representation, where accuracy in contour or proportion gives way to visual legibility, symbolic clarity, or ritual salience.

Level of Elaboration and Aesthetic Quality

Determining the level of elaboration within a given style typically involves the comparative analysis of images across a sequential or chronological framework, enabling us to trace changes in visual complexity over time. However, such an approach is not currently possible for the Mara Rosa petroglyphs, as no broader stylistic corpus or temporal sequence is available beyond the material at the site itself. Due to the ensemble's uniqueness and the lack of similar sites, it remains speculative to determine whether the imagery at Mara Rosa represents, for instance, a stage of increasing elaboration or simplification within a longer tradition.

Similarly, applying notions of "aesthetic quality" to the analysis of this corpus raises significant concerns. As Knight acknowledges, judgments of aesthetic value are inherently subjective and culturally contingent.[44] The invocation of such criteria, particularly when analyzing symbolic and archaeological imagery from non-Western or Indigenous contexts, risks importing Western aesthetic biases that may obscure rather than clarify the visual strategies at play. While some observers may interpret the Mara Rosa engravings as rudimentary, others might view them as expressions of considerable artistic skill and labor, even artistic virtuosity, especially given the effort involved in carving deeply into hard rock surfaces at monumental scales.

[44] KNIGHT JR., *op. cit.*, 2012, p. 4.

Given these complexities, it is more productive to understand the Mara Rosa petroglyphs on their own terms, as visual expressions embedded within a particular material, cultural, and environmental context, rather than evaluate them through external, highly alien aesthetic frameworks. The engravings demonstrate consistency in technique and spatial organization. While they may not display high elaboration in the form of intricate detail or dense ornamentation in a baroque fashion, they nonetheless embody a clear and deliberate stylistic coherence and wealth, shaped by the constraints and possibilities of the medium itself.

The Ethnographic Analogies

Even though ethnographic data can offer valuable insights, it cannot be used uncritically and/or unrestrictedly. The use of ethnographic analogy has shifted from simplistic projections of later beliefs onto earlier images to more nuanced understandings that respect the possibility of disjunction, cultural transformation, and the incomplete nature of both ethnographic and archaeological records.

In the case of the Mara Rosa petroglyphs, no direct ethnographic continuity can be confidently demonstrated between the rock art makers and any single historically documented or contemporary Indigenous group. In the face of this, selected ethnographic data is retrieved from groups that are geographically close to the site in central-west Brazil, particularly within the Macro-Jê and Xingu cultural spheres. As such, rather than asserting a direct line of descent, the present approach cautiously explores broader tendencies observed across traditional societies.

Considering the iconographic analysis, drawings and masks were chosen as the media to serve as the basis for the ethnographic analogies. Following Knight's methodology, this study utilizes materials such as South-Amazonian and Central-Brazilian drawings and masks, or non-human beings, which are part of transformational epistemologies,[45] not as definitive explanations, but as heuristic tools to develop iconographic models that may resonate with the internal logic of the visual language observed at Mara Rosa. These analogies are framed not as reconstructions of lost belief systems, but as analytical approximations that do not assume historical continuity.

To mitigate the risks of presentism and overly speculative projections, this study adheres to Knight's recommendation that iconographic interpretation be grounded first and foremost in a configurational analysis of the images themselves, as performed in the previous section. With formal

[45] E.g. BARCELOS NETO, Aristóteles. O despertar das máscaras grandes do Alto Xingu: Iconografia e transformação. **Revista de Antropologia Social dos Alunos do PPGAS-UFSCar**, v. 2, n. 2, p. 43-66, 2010.

patterning, spatial logic, and stylistic conventions identified, ethnographic materials will be used to suggest cognate cultural models, where appropriate. Ultimately, the ethnographic material used in this analysis is not intended to explain the petroglyphs in a definitive sense, but rather to provide conceptual scaffolding, a way of thinking with, rather than thinking about, the forms.

The region now known as the state of Goiás was, during the pre-colonial period, inhabited predominantly by Indigenous groups of the Macro-Jê linguistic family.[46] The violent expansion of colonial frontiers had a devastating impact on these populations through slavery, biological warfare, and genocide, resulting in the displacement of groups such as the *Xacriabá* and *Avá-Canoeiro*, and the extermination of others, including the *Goyá*, *Crixá*, *Southern Kayapó*, and *Akroá*.[47] The area lies in proximity to the modern *Xingu* Indigenous Territory, which has become one of the largest Indigenous reserves in the world and a sanctuary for numerous groups displaced by settler expansion and monocultures.

Among the surviving and resisting groups, the *Xacriabá* maintain a significant and dynamic relationship with the archaeological record. They refer to material remains, ceramics, lithics, pipes, and rock art as *presentes dos antigos* ("gifts from the ancients"). These objects are not inert relics but active elements in the production of memory, identity, and contemporary cultural practices, inspiring material expressions such as body painting and ceramic decoration. This relationship is vividly portrayed in the documentary *Presentes dos Antigos*,[48] which follows the *Xacriabás'* search for ancestral connection through rock art and the performance of the *Toré* ritual.

The *Toré*, practiced by the *Xacriabá* and other Central and Northeastern groups, including the *Fulni-ô*, *Xukuru-Kariri*, *Kariri-Xocó*, and *Pankararu*,[49] is a collective ritual dance that centers on the use of elaborately constructed masks known as *Praiá* [Figure 8-A, D, E]. These masks, composed of *croá* fibers, feathers, and a vertical circular diadem attached to an occipital disk, materialize the presence of the *Encantados*, supernatural beings who are not considered dead but instead transformed or transcended

[46] CHAIM, Marivone Matos. **Aldeamentos indígenas**: Goiás, 1749-1811. São Paulo: Nobel; Brasília: Pró-Memória, Instituto Nacional do Livro, 1983; JOLKESKY, Marcelo Pinho de Valhery. **Estudo arqueo-ecolinguístico das terras tropicais sul-americanas**. PhD Dissertation (PhD in Linguistics), Universidade de Brasília, Brasília, 2016.

[47] DE OLIVEIRA, Janaína; BARBOSA, Jordana Cristina Alves. Compartilhar imaginários: o jornalismo compartilhado como construtor de espaços democráticos e criativos. **Entropia**, v. 3, n. 5, p. 65-84, 2019.

[48] PRESENTES DOS ANTIGOS. Direction: José dos Reis Xacriabá; Ranison Xacriabá. Production: Beto Magalhães. [n.i.]: Oficina de Documentário Xacriabá 2008–2009, 2009. Filme/documentário. Film/Documentary. Available at: https://www.youtube.com/watch?v=dTUdzUrCOOA. Accessed on: January 20, 2025.

[49] ARRUTI, José Mauricio. A produção da alteridade: o toré como código das conversões missionárias e indígenas. *In*: CONGRESSO LUSO-AFRO-BRASILEIRO, 8, 2004, Coimbra. **Anais...** Coimbra: 2004; HORACIO, Heiberle Hirsgberg. Aspectos da religiosidade do povo indígena Xakriabá. **Revista Mundaú**, n. 4, p. 30-51, 2018; DOS SANTOS ALBUQUERQUE, Marcos Alexandre. O praiá Pankararu: objeto-fetiche modernista. **PROA**: Revista de Antropologia e Arte, v. 5, 2014.

into immortal and protective entities.[50] The *Praiá* mask, as is the case with other Indigenous masks, does not merely represent the being it depicts; it is the spirit,[51] enabling its agency within the human realm. Pessis identified formal parallels between the masked figures of the *Toré* and what she assumes are painted shamanic figures at the *Serra da Capivara* National Park.[52]

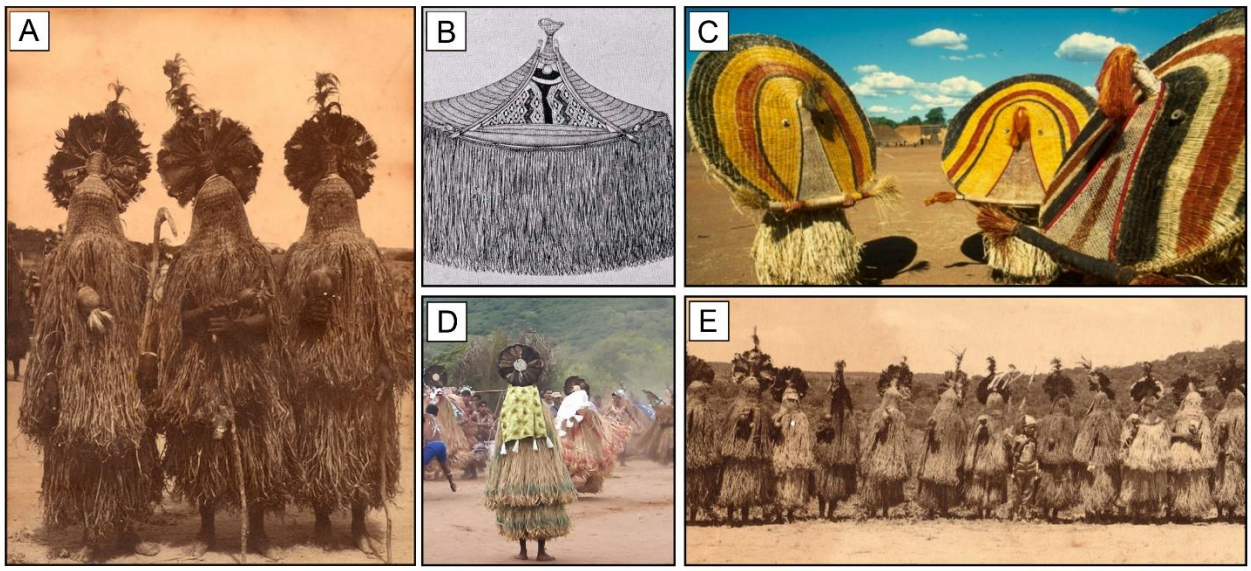

Figure 8:
(A) *Pankararu* Indigenous people lined up for the *Toré* ritual, wearing ceremonial *Praiá* attire. Photo by Carlos Estevão de Oliveira, 1937. Visual Anthropology Laboratory, Federal University of Pernambuco, Pernambuco State Museum; (B) *Auetö* mask, called naturua (Krause, 1960); (C) *Apapaatai Wauja* masks, photo by Aristóteles Barcelos Neto; (D, E) *Pankararu* people during the *Toré* ritual, wearing *Praiá* attire: (D) photo by Cláudia Mura (2012); (E) photo by Carlos Estevão de Oliveira (1937).

As with the *Apapaatai* masks [Figure 8-C] of Xingu societies,[53] the *Praiá* operates within a visual taxonomy wherein identity is encoded through specific formal features. Slight differences in silhouette, ornamentation, and balance convey distinctions between supernatural agents.[54] While each group employs distinct stylistic conventions and technical knowledge, they share a rigorous attention to detail and a commitment to formal legibility. The conical shape and decorated occipital disk of the

[50] PINTO, Estevâo. As máscaras-de-dansa dos Pancararu de Tacaratu (remanescentes indígenas dos sertões de Pernambuco). **Journal de la Société des Américanistes**, v. 41, n. 2, p. 295-304, 1952; LOPES, Rita de Cássia Domingues. Cultura material e identidade: As máscaras indígenas dos povos Ticuna e Pankararu. **Margens**, v. 14, n. 23, 2020.
[51] ARRUTI, *op. cit.*, 2004; LOPES, *op. cit.*, 2020.
[52] PESSIS, Anne-Marie. **Imagens da pré-história:** Parque Nacional Serra da Capivara. São Raimundo Nonato: FUNDHAM, 2003, p. 90-91.
[53] BARCELOS NETO, *op. cit.*, 2010.
[54] *Idem*. **Apapaatai:** rituais de máscaras no Alto Xingu. Tese (Doutorado em Antropologia Social) – Faculdade de Filosofia, Letras e Ciências Humanas, Universidade de São Paulo, São Paulo, 2004.

Praiá, so reminiscent of the circular "faces" of Mara Rosa petroglyphs, for example, are not just aesthetic traits, but necessary components for the effective embodiment of a spirit-being.

The ritual attire reinforces transformation. The complete ensemble includes a conical mask (*tunã*), a skirt of vegetal fiber, a feathered disk (*enduape*), and additional feather ornaments. Often, cloth elements drape the figure's back, featuring printed or embroidered patterns.[55] Likewise, Xinguan masks are constructed from elemental geometric forms, circles, cones, ovals, and rectangles, intended to abstract and depersonalize the human form [Figure 8-B, C], facilitating spiritual becoming. Here, geometric stylization is not a simplification but a condition of presence: abstraction enables the emergence of the other-than-human. Such comparisons draw attention to a shared visual logic for making spirits legible, a logic that transcends medium.

In this context, visual identity is contextual, marked by morphology and detail. The question is not merely what a being is, but how it becomes identifiable within a specific visual grammar. In many Xinguan societies, mask design is guided by visionary experience: shamans encounter spirits and translate these visions into visual form.[56] The result is a highly codified visual grammar in which each compositional choice functions as an index of spirit identity.[57] Crucially, spirit-being is not restricted to the mask alone. A single spirit may manifest as a drawing, a ceramic artifact, a body design, or even a song. Hence, spirit presence can be articulated through different expressive modes, depending on context and intent.

Two-dimensional drawings, particularly those collected in anthropological fieldwork, have become key resources for analyzing this expanded visual system [Figure 9]. These images reflect the same logic seen in masks: geometric abstraction, formal clarity, and symbolic patterning. Importantly, they are not illustrations of belief but extensions of spiritual knowledge, accessible primarily through shamanic mediation.[58] Visual access to this repertoire is highly controlled, regulated by gender, status, and ritual capacity.[59] These drawings often encode complex relationships among humans, spirits, and animals, and, more often than not, challenge the fixed ontological distinctions of Western thought.

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[55] PINTO, *op. cit.*, 1952.
[56] BARCELOS NETO, *op. cit.*, 2010, p. 53.
[57] *Idem*. Tobacco visions: shamanic drawings of the Wauja Indians. **Boletim do Museu Paraense Emílio Goeldi. Ciências Humanas**, v. 13, n. 3, p. 501-517, 2018, p. 514.
[58] GRUBER, Jussara Gomes. A arte gráfica Ticuna. **Grafismo indígena:** estudos de antropologia estética, v. 2, p. 249-265, 1992; KOPENAWA, Davi; ALBERT, Bruce. **A queda do céu**: palavras de um xamã yanomami. Editora Companhia das letras, 2019.
[59] GOLDSTEIN, Ilana Seltzer. Imagens, objetos e seus olhares: uma introdução às artes indígenas. *In:* MACHADO, André Roberto de A.; MACEDO, Valéria (ed.). **Povos Indígenas entre Olhares.** São Paulo: Editora Unifest, 2022.

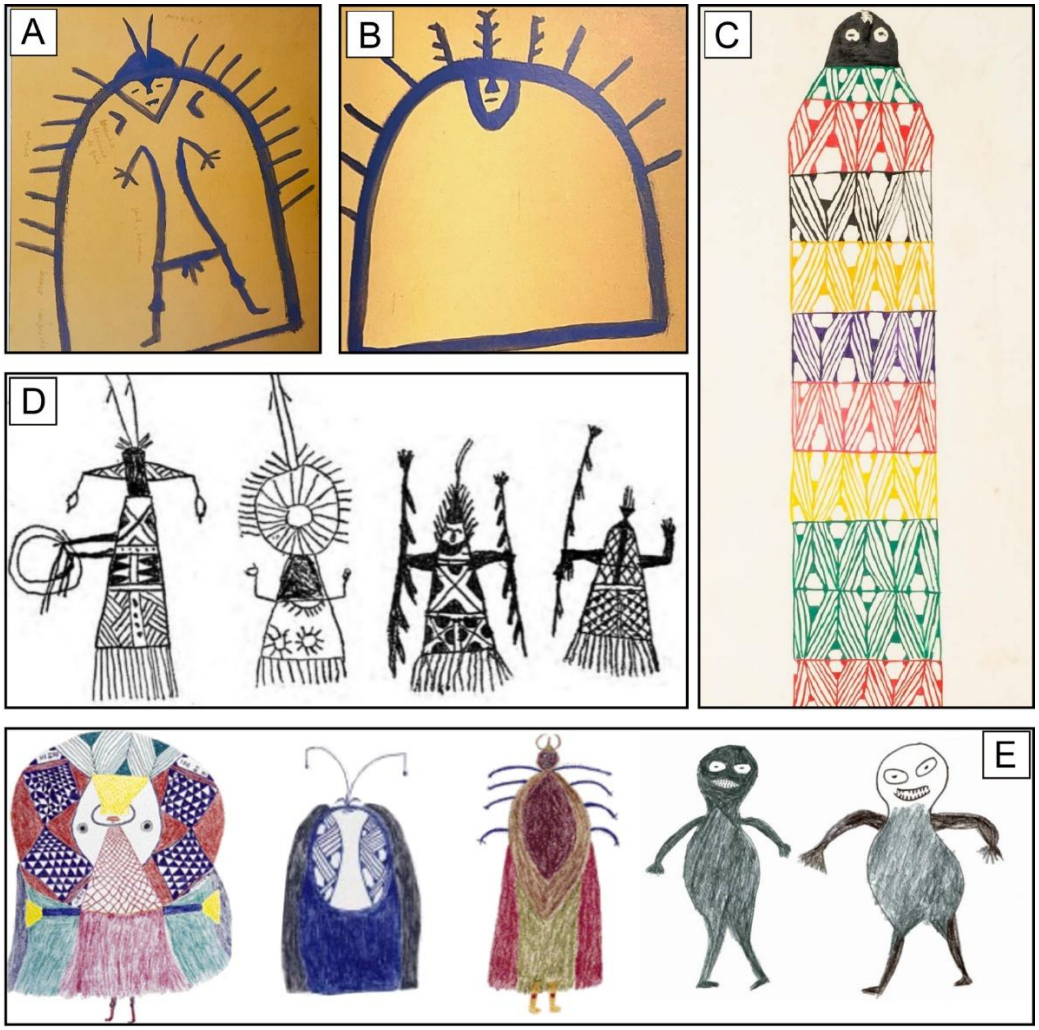

Figure 9:
(A, B) *Mehinaku* masks: Male and female *Awazahpu*, by Hirakumã Mehináku, gouache on paper, 1965, M.H. Fenelon Costa Collection; (C) *Walamá-kumã*, supernatural anaconda, drawing by Itsautaku Wauja, watercolor pen on paper, 50 x 70 cm, 1980, MAE-USP, Vera Penteado Coelho Collection (WD80-114). Photo by Ader Gotardo (2014), in Barcelos Neto (2020); (D) *Kobeua* ritual dance masks, drawn by *Kobeua* individuals and collected by Koch-Grünberg; (E) *Wauja* spirits, left to right: *Apapaatai Atujuá* (of cyclones and celestial jaguars), *apapaatai meixulu kumã* (insect-monster), *apapaatai yuwa kumã* (spider-monster), and a pair of anthropomorphic and cannibal monster pots (*yerupoho kunai kumã*), drawings by Kamo, Ajoukumã, and Itsataku, respectively — collection of Aristóteles Barcelos Neto (2000).

As Viveiros de Castro argues, the term "spirit" in Indigenous cosmologies encompasses a diverse, internally differentiated set of beings that firmly resist monolithic definitions.[60] Nonetheless, visual conventions allow for consistent identification. For example, drawings made by the *Mehináku* people, a Xinguan Indigenous Nation, depict *Awazahú* spirits (Figure 9-A, B), distinguishing male and female forms

[60] DE CASTRO, Eduardo Viveiros. A floresta de cristal: notas sobre a ontologia dos espíritos amazônicos. **Cadernos de Campo** (São Paulo-1991), v. 15, n. 14-15, p. 319-338, 2006, p. 324.

through specific traits: lines for teeth, feathered outlines, and crest shapes.[61] The same logic recur in other drawings and media. *Walamá-kumã*, a Wauja anaconda spirit-being with animal and non-human attributes, appears in richly patterned, geometricized form [Figure 9-C]. Masks from the *Kobeua* people [Figures 9-D and 10] display a wide range of conical morphologies, often misunderstood by early ethnographers such as Koch-Grünberg,[62] who referred to them generically as "demons."

Barcelos Neto's archive of Wauja spirit drawings includes cyclone-jaguars, spider-monsters, anthropomorphic and anthropophagic pots, and other hybrid beings [Figure 9-E], many of which "command" animals, nature forces, and elements, or begin as objects that transform into animated entities.[63] What emerges from this cross-media comparison is a coherent, albeit virtually infinitely complex, system of visual conventions for articulating spiritual identity. Though varying in detail, these systems are all marked by abstraction, repetition, formal balance, and symbolic differentiation.

Across masks, drawings, and other media such as ceramics and body art, Indigenous artists construct a synesthetic aesthetic, wherein visual, sonic, and tactile cues collectively engender non-human presence.[64] The question now posed by this study is whether a comparable visual logic operates in the rock art of Mara Rosa. Could the petroglyphs' geometric abstraction, vertical alignment, monumental scale, and recurring configurations be interpreted as elements in a visual system aimed at fostering the presence of other-than-human agents? While no direct continuity is presumed, the following analysis investigates how these features may resonate with broader Indigenous strategies of spiritual visualization. What becomes clear from these examples is that across media, there exists a coherent visual system through which non-human or spirit identity is rendered legible. While these conventions vary among Indigenous groups, they often share core principles: an emphasis on formal abstraction, the transformation of the human figure, and a relational understanding of identity that emerges through composition, material, and context. This synesthetic logic, in which visual motifs circulate across different media and sensory registers, constitutes a kind of Indigenous visual epistemology.[65]

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[61] COSTA, Maria Heloisa Fénelon. **O mundos dos mehináku e suas representações visuais**. Brasília: Editora Universidade de Brasília, 1988.
[62] KOCH-GRÜNBERG, Theodor. **Anfänge der Kunst im Urwald**. Oosterhout N.B: Anthropological publication, 1969; COSTA, *op. cit.*, 1988, p. 93.
[63] BARCELOS NETO, Aristóteles. Monstros amazônicos: imagens Waurá da (sobre) natureza. **Ciência hoje**, v. 27, n. 162, p. 48-53, 2000.
[64] GOLDSTEIN, *op. cit.*, 2022.
[65] *Ibid*.

In such systems, the spirit is not confined to a single representational form but emerges through a network of aesthetic, material, and performative cues. Within the framework proposed by Knight,[66] such ethnographic insights are not deployed as interpretive starting points, but rather as comparative models introduced after a configurational analysis of the archaeological material. They serve not to identify specific motifs or to claim cultural continuity, but to explore structural correspondences, to ask whether specific visual logics, particularly those related to the representation of other-than-human beings, might help us make sense of formal patterns in archaeological imagery.

With this in mind, we ask ourselves once more if the Mara Rosa petroglyphs can be understood as participating in broader Indigenous/non-Western strategies for depicting, visualizing, and kindling spiritual or ontological alterity? While the author does not presume direct descent or continuity, the present analysis draws upon configurational evidence from the petroglyphs to evaluate whether themes of visual embodiment, as seen in ethnographically documented Indigenous art forms, might illuminate aspects of their inner design logic. In line with Knight's method, this is not an attempt to identify the meaning of individual figures, or to "translate them," but rather to test whether a model derived from Indigenous visual conventions, particularly those surrounding spirit representation and embodiment, can help us better understand the structural grammar of the Mara Rosa compositions.

Across Boulders at Mara Rosa, the visual grammar is marked by segmentation, verticality, radial head elements, and compositional symmetry, and can be extended beyond Boulder 01 to several other engraved surfaces. Notably, the figures on Boulders 01, 03, 05, and 06 visually *converge* strikingly with contemporary drawings of spirit masks, such as those of the *Mehináku* [Figure 9-A, B], as well as with actual masks, such as the *Praiá* attire [Figure 8-A, D, E].

One particularly striking feature in the Mara Rosa corpus is the presence of smaller, floating, circular motifs, often placed between or beside the larger figures, as seen on Boulders 01, 02, 06, and 13/14. Under the proposed interpretive framework, these can be understood not as arbitrary decorations but as subordinate figures or participant beings, *broadly analogous* to "floating" spirit entities or faces in Xinguan drawings [Figure 7].

Finally, the proposed model invites a spatial reading of the boulders themselves. If the figures do indeed represent other-than-human agents, their positioning within the landscape may reflect more than convenience or randomness. Boulder 01, with its monumental and complex composition, is placed at a particularly prominent location and faces an open, possibly performative area. Its scale and density of figures suggest a focal role within a ritual itinerary or axis. Smaller boulders with minimal or singular

[66] KNIGHT JR., *op. cit.*, 2012.

figures may function as spatial markers, boundary stones, or satellites, each inscribing presence into different parts of the landscape. In this view, the site becomes legible as a distributed visual system responding not only to rock surface morphology but also to culturally meaningful orientations, access routes, or perhaps ceremonial stations.

This interpretive step does not conclude the analysis of the Mara Rosa petroglyphs; instead, it marks a methodological shift or departure from describing formal configurations to addressing meaning. Ethnographic homologies must not supplant configurational evidence but serve to enrich it, supporting the construction of iconographic models that are analytically rigorous, grounded, and culturally sensitive.[67] In the case of Mara Rosa, the recurring visual motifs, monumental scale, and deliberate abstraction suggest that these petroglyphs, albeit unique amongst rock art, participate in a longstanding non-Western visual tradition, one deeply invested in making spirit presence both visible and specific through form and cross-cultural visual strategies.

Conclusion

The position of the Mara Rosa petroglyphs within the broader corpus of Indigenous and pre-colonial Brazilian rock art remains uncertain. Among the ten well-established major rock art traditions,[68] or cultural horizons, none exhibit visual or contextual characteristics that correspond to those observed at Mara Rosa. While a single site may not suffice to warrant the definition of a new rock art tradition, the stylistic and spatial particularities of the petroglyphs suggest they are, indeed, the product of a distinct cultural group. This expression appears to have been geographically localized to central Brazil and temporally situated within a yet-to-be-determined period.

This study has not attempted to decode the Mara Rosa petroglyphs as fixed symbols, nor to tie them narrowly to any single Indigenous tradition. Instead, it has approached these carvings as dynamic agents within a broader Indigenous visual logic, one in which images are not merely representations, but participants in processes of transformation, communication, and embodiment. Through Knight's configurational method and a critically grounded use of ethnographic analogy, I have argued that these figures operate within a regime where form is not symbolic of being; it is being.

[67] *Ibid*., p. 96.

[68] E.g. the Northeastern tradition, the "Scrubland" tradition, the *Itacoatiara*, São Francisco, Plateau, Geometric, Litoranean, *Pisadas*, Amazonian, etc. For more on Brazilian Rock Art Traditions, see: GASPAR, Madu. A arte rupestre no Brasil. Editora Schwarcz/Companhia das Letras, 2003.

As a tentative iconographic analysis, the petroglyphs from Mara Rosa display a visual language that resonates strongly with the graphic traditions of Indigenous peoples from Central Brazil, where the site is located. A close comparison between these ancient rock carvings and twentieth-century drawings produced by groups such as the Mehinakú and Waujá reveals notable stylistic and iconographic trends. These parallels suggest a symbolic vocabulary. Many petroglyphs feature somewhat abstract, anthropomorphic figures with elongated or pillar-like bodies, crowned by radiating lines that resemble headdresses or halos. This formal structure reappears in Indigenous drawings where similar figures are rendered with trapezoidal torsos, segmented interiors, and radiant heads. In both cases, these forms appear less concerned with realistic human proportions and more with conveying hierarchical or spiritual significance.

Another recurring visual strategy is the deployment of internal patterning and surface segmentation. Both the petroglyphs and the Indigenous drawings and masks make extensive use of geometric motifs, such as grids, chevrons, parallel lines, and dot clouds, to fill in the bodies of figures or delineate their garments. These patterns function not only as decorative devices but also as carriers of symbolic meaning, possibly indicating specific spiritual/non-human identity, lost to time. The repetition and variation of these patterns suggest a codified system of visual communication, intelligible within a shared cultural framework. That is to say: people in that culture, familiar with its conventions, would have known what these figures represented.

In all three media, certain characters exhibit exaggerated eyes, ambiguous or zoomorphic shapes, and highly stylized silhouettes. These beings often stand apart from the more conventional anthropomorphic forms, suggesting their status as other-than-human. While separated by a significant temporal distance, both the rock art and the contemporary drawings articulate a worldview in which aesthetics, cosmology, and ritual life are deeply entangled. This is not to say that the Mara Rosa petroglyphs depict, in any straightforward way, for instance, masks or shaman-like masked individuals as has been done elsewhere[69]. Instead, their formal qualities, monumentality, geometric abstraction, partial anthropomorphism, and their integration with the rock surface align with a widespread Indigenous visual grammar used to mediate other-than-human presence. Here, Knight's observation[70] becomes particularly salient: in many ancient societies, the regalia of supernaturals and elite humans mirror one another, creating a performative exchange between representation and embodiment. Ritual actors

[69] E.g. PESSIS, *op. cit.*, 2003.
[70] KNIGHT JR., *op. cit.*, 2012, p. 63.

become spirits, and spirits are carved in somewhat human form. This mutual permeability blurs distinctions between individual, non-human, image, object, and performance.

In such contexts, the material world does not merely stand for meaning; it enacts it. This ontological entanglement is central to many Indigenous art forms. Some artisans view carving as a dialogue with the medium, not as imposition. Western artists such as Michelangelo likely approached a block of marble with a preconceived vision of the sculpture he intended to create, executing his work through a combination of planning, creativity, technical proficiency, and masterful skill. Among the Aivilik People, however, the sculptor "does not create an image of a seal; rather, he helps it step forward"[71]. Such accounts reflect a relational aesthetics, not one of forcing something onto the medium, but one in which intention precipitates transformation, and form emerges from an encounter. The conceptual artwork "An Oak Tree" by Michael Craig-Martin (1973) captures this principle with unsettling clarity:

> **Q**: To begin with, could you describe this work?
> **A**: Yes, of course. What I've done is change a glass of water into a full-grown oak tree without altering the accidents of the glass of water.
> **Q**: The accidents?
> **A**: Yes. The colour, feel, weight, size…
> **Q**: Do you mean that the glass of water is a symbol of an oak tree?
> **A**: No. It's not a symbol. I've changed the physical substance of the glass of water into that of an oak tree.
> (…)
> **Q**: Does this happen every time you fill a glass with water?
> **A**: No, of course not. Only when I intend to change it into an oak tree.
> **Q**:Then the intention causes the change?
> **A**: I would say it precipitates the change.[72]

As in Catholic transubstantiation or animist transformation, intention is not metaphorical; it is ontological. It does not simply represent an attitude or a desire, but actually stands for the process of being. Within Indigenous cosmologies, a mask is not merely a representation of a spirit. It is one. One does not create a mask; instead, as with Aivilik ivory sculptures, one enables its becoming through intention and labor, a process mediated not by logical constraints but by wishing, exchange, and revelation. Likewise, stylized depictions, such as petroglyphs, may not merely represent spirit beings but bring them into visibility, or "help them step forward". Stylization is not abstraction solely for aesthetic effect, but a strategy of differentiation, marking the ontological gap between human and other-than-human through geometricization, repetition, and the modulation of form. Since petroglyphs are not

[71] CARPENTER, Edmund. **Eskimo realities**. New York: Holt, Rinehart & Winston, 1973, p. 34.
[72] Excerpt from the art installation "An Oak Tree" by Michael Craig-Martin (1973).

constrained by the architectural demands of mask-making, namely, the need to fit into a human body, they allow for greater formal freedom in their design.

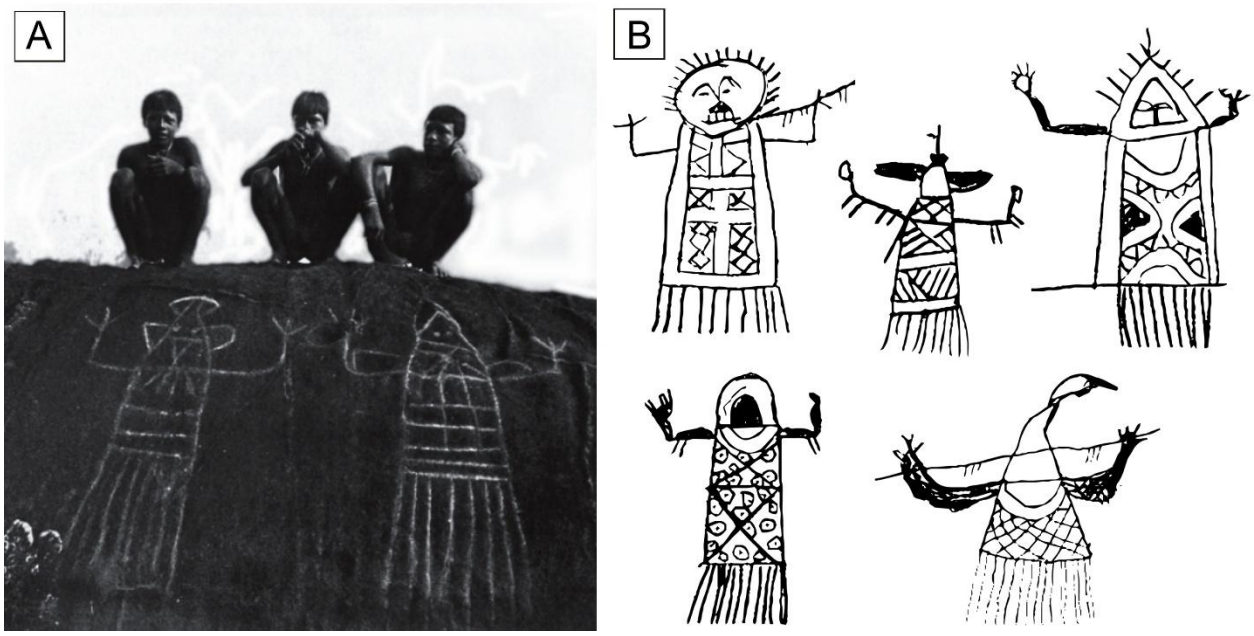

Figure 10:
(A) Kobeua men seated atop a boulder with rock art, photographed by Koch-Grünberg during his 1906 expedition along the Rio Negro. (KOCH-GRÜNBERG, *op. cit.*, 2010, p. 71) (B) Different Kobeua ritual dance masks, pencil drawings by Koch-Grünberg. (KOCH-GRÜNBERG, *op. cit.*, 2010, p. 75).

This ethnographic analytical approach is not without precedent. Rohr's "mask engravings" in the Santa Catarina archipelago[73] and Koch-Grünberg's early 20th-century observations of petroglyphs in the Rio Negro basin[74] [Figure 10] both gesture toward a logic that ties image-making to spirit embodiment. While Koch-Grünberg's framing was coloured by colonial ideology, describing these images as "demonic", his intuition that they represent beings, not things, remains relevant. The Mara Rosa figures, then, may not be depictions of spirits; they may be spirits. Spirit is here employed as an umbrella term for multiple other-than-human beings. They may function, such as the *Praiá* and *Apapaatai* masks, as vessels through which the intangible acquires form. This interpretive model neither claims direct descent nor insists on a singular meaning. Instead, it proposes that by attending to formal pattern, compositional logic, and cultural homology, we can begin to glimpse how these carvings operated within the world of their makers, not as static representations, but as presences.

[73] ROHR, João Alfredo. **Petroglifos da Ilha de Santa Catarina e ilhas adjacentes**. Vol. 19. Instituto Anchietano de Pesquisas, 1969.
[74] KOCH-GRÜNBERG, Theodor. **Petróglifos sul-americanos**. Museu Paraense Emílio Goeldi, 2010.

By foregrounding the relational ontology embedded in these forms, this analysis challenges Western separations of matter and meaning, of symbol and referent. The petroglyphs may hardly be messages left for us to decode; they may simply *be*, still inhabiting the surfaces they were carved into. As I worked on this project, I pinned field sketches of the petroglyphs to my office wall. One afternoon, a fellow archaeologist paused in front of them, tilted their head, and said: "Funny. It's as if they throb in and out of reality." And perhaps, in a sense, they do.