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## Reviewed Article:

# The Development of the 1st Cultural Exchange of Traditional Knowledge and Experimental Practices of the Peruaçu River Basin

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Located in the North of Minas Gerais the Peruaçu National Park's contains much of the fauna and flora of the second most devastated biome in Brazil, the Cerrado. The Park also incorporates geological formations and one of the most important archaeological sites from

the state: rock paintings made by ancient indigenous groups dated 12,000 BP. Twenty-one years after the creation of this natural conservation unit, nature is no longer in danger. However, the enhancement of traditional communities in the surrounding areas has not accompanied these localised improvements, which has been focused predominantly on nature conservation. The research developed in the region shows that the traditional communities currently resident in the territory manifest traces of prehistoric occupations with lifestyles similarities such as the use of the natural toá in ornamental paintings, the same paint used in rock painting in the National Park, and a continuity of the ceramic production. With the objective of the enhancement of cultural heritage from traditional communities, strengthening the connections among them and valuing ancestral techniques of ceramic production that have been forgotten, the Pequi do Cerrado Institute promoted the 1st Cultural Exchange of Traditional Knowledge and Experimental Practices of the Peruaçu River basin. This exchange was structured in an experimental workshop model with four main actions: analytical framework; practical activities in pottery; visits to the Peruaçu National Park; Institutional feedback. Besides listing the potentials and discussing the difficulties of the potter communities of the Peruaçu River basin in the perpetuation of their traditional knowledge the workshop promoted complementary information which aimed to better understand the past and compared the researchers' experiences with those of ancient times. The main message is that traditional knowledge from existing communities in the Peruaçu region must be urgently incorporated into scientific studies.



The accounts and experiences of the potters' communities during the workshop promoted important complementary information for understanding the past and helps the researcher to understand the experiences of ancient peoples. It is necessary to strengthen these ideals since the communities are still involved in the process of (re)constructing of

## Introduction

The Peruaçu National Park is a nature conservation unit located in the environs of the Peruaçu River basin, in the North of the State of Minas Gerais, and it preserves an area for the Cerrado biome of Brazil. The Cerrado is an area of 2 million square kilometres and is the second largest biome covering the Brazilian territory. However, just 20% of it is preserved. The region of the Peruaçu National Park belongs to this preserved 20%. On it is one of the most important archaeological sites of rock paintings in the state of Minas Gerais. It could be turned into a preservation area because of the sense of continuity that exists in the traditional communities that live there. Nowadays, however, it is not nature that is at risk, but the local communities and their valuable cultural habits and lifestyles which have been almost forgotten (See Figure 1).

The traditional communities nowadays presented in this territory are descendants of the ancient indigenous population. The name of the place refers to ancient times. The name Peruaçu is of Tupi origin, the language used by the

the landscapes within this territory.

indigenous people of this region. It derives from the junction of the native words, "Peru" which means hole and "Açu", which means "big". It is related to the dolines which makes up the geomorphological formation of the landscape.

The history of human presence in this region dates back to the oldest known occupation around 12,000 B.P.<sup>1</sup> which was in the beginning of the geological era of Holocene (Prous, Brito and Lima, 1994; Freitas and Rodet, 2010). Certainly, the early hunter and gatherer<sup>2</sup> communities noticed the natural beauty and possibilities for shelter offered by the canyon formed by Peruaçu River and its numerous caves of varying sizes. The temperate climate and the vegetation in the lower reaches in particular, alongside the rich hydrography of the region provided an abundance of food and medicinal resources, both in terms of flora (e.g. roots, seeds, leaves, wild fruits), and fauna (e.g. fish, mammals, reptiles and birds). This combination of biological sources favoured human occupation: because of the excellence of food variety in addition to the presence of abundant raw material for utensils and weapons, plant fibres, variety of woods, flint, and sandstone.

The outcrops and karst depressions represented in the landscape of the Peruaçu basin and produced in the geological formation of the region were conducive to nomadic occupation. The caves present in these landscapes were of great interest to permanent or more recent seasonal horticultural populations (1st millennium b. 1500). From the earliest days of human occupation to the present day, the river terraces of the Peruaçu and São Francisco Rivers had the necessary constraints for the establishment of larger indigenous settlements, mainly related to populations of gardeners-potters, who already had the necessary technology for the manufacture and use of ceramics. Although horticulture has been documented in the region since 2000 BC (Freitas and Rodet, 2010), the presence of potter communities in the region date back over 3,000 years, as was identified by archaeological excavations in the late 1990's, in the archaeological sites of Terra Brava I and Terra Brava II (IBAMA, 2005).

An overview of these landscapes shows that in the confluences of the great rivers with their tributaries, traces of a litho-ceramic industry were found as open-air sites. At the base of the cliffs and ravines and along the Peruaçu River canyon are caves and shelters, most of them decorated with paintings and rock engravings, which encompass various periods of occupation. According to the research of the last 50 years, it seems that the largest sheltered spaces were intensively used by humans at various times in the regional prehistory, the result of seasonal or perennial occupations and for different purposes. This ranged from the use of space for ritualistic purposes to carving workshops, or from the permanent occupation to the preservation of food. Indigenous communities were not isolated from each other but were articulated in hierarchical or symbiotic social totalities (IBAMA, 2005) (See Figures 2, 3 and 4).

Recently in history, from the sixteenth to the eighteenth centuries AD, the indigenous peoples of the Peruaçu region had contact with Portuguese colonization, possibly indirectly through other indigenous groups that were intermediaries between both communities (IBAMA, 2005).

Particularly at the São Francisco River, the contact with the European colonisers was not a friendly one. According to Diogo de Vasconcelos, one of the pioneers of Minas Gerais' historiography, this region was under the domain of the Caiapós indigenous people, a brave and distrusting people (Vasconcelos, 1974). The Portuguese incursion into the Brazilian countryside followed the model of hereditary captaincies, administrative districts of the colonial period. It began in the 16th century with the colonisation of the coast that - in a short time - allowed the exploration and mapping of the inner territory, the exploitation of its natural resources and the capturing of the indigenous people.

As a result of the historical occupation the cultural landscape was also shaped according to these peoples' cultural habits and traditional knowledge. Two of the most important and relevant peoples in the region are the indigenous Xakriabá and the afro-descendants of slaves, called *quilombolas* today (Araújo, 2009; Anaya, 2012; Brugnera, 2020).

From November 20th/22nd, 2019 a Recognition Workshop named *1st Cultural Exchange of Traditional Knowledge and Experimental Practices of the Peruaçu Valley* was developed with the objectives of promoting an exchange of the pottery production knowledge of current local communities, of strengthening the connections between communities and valuing forgotten ancestral techniques of ceramic production. Two *main* communities from the Peruaçu River basin have participated.

The first one, "Oleiras do Candéal", is an ancient community which has passed down its traditional pottery techniques for generations. Their handcrafted production and adornments are made with local, natural resources. In the past, their pots were used to store water for very dry periods, which can last over six months. The second community is a social initiative located at the entrance gate of Peruaçu's National Park and is called "Fabiao I". Their traditional lifestyle has suffered due to social conflicts which has resulted from the creation of the National Park. Currently, in the environmental preservation area of the Peruaçu National Park, a group of women are looking for new job opportunities to support their children's education by producing arts and craft.

The activities were developed under the mediation of the Pequi do Cerrado Institute with institutional support from EXARC (See Figure 5). Representatives of the Handicraft Centre of the municipality of Januária also took part. Chico Mendes Biodiversity Institute – ICMBio also joined as a representative of the conservation units. ICMBio is an autarchy linked to the Ministry of the Environment and is part of the National Environmental System – Sisnama, Brazil. Created on August 28, 2007, by Law 11,516 the Institute is responsible for the National System of Conservation Units – SNUC, and may propose, implement, manage, protect, inspect

and monitor the Conservation Units – UC established in Brazil, as the Peruaçu National Park (ICMBio, 2016).

The proposed cultural exchange of experiences and traditional pottery knowledge in an experimental workshop model benefited both communities.

## Methodology

Based on the PhD thesis of the first author, the importance of the recognition of knowledge generated through time by traditional communities in scientific research involving their culture and territorial management was recognised.

Pierre Lévy (2007), a cultural theorist who specialized in the understanding of the cultural and cognitive implications of digital technologies, introduces a collective intelligence concept in his 1994 book *L'intelligence collective: Pour une anthropologie du cyberspace*. In this context, in the chapter Anthropology of the Collective Intelligence, the author considered intelligence as all human faculties constituted throughout the life of each individual, including their experiences, ability to perceive, remember, learn, imagine, etc. In short, a human being can produce knowledge, which is open to being constantly revised and perfected.

According to Levy, ideas are the most important capital which can only be acquired when people think collectively. Thinking collectively results in the achievement of Technical, Cultural and Social Capital. The Technical Capital gives structural support to the construction of ideas. The Cultural Capital, more abstract, represents knowledge. The Social Capital corresponds to the links and cooperation among people. These three capitals form the Collective Intelligence. According to interpretations of Pierre Lévy, the Technical Capital generates the necessary conditions for the dissemination of the cultural and social capital, including all the ideas invented and, once exposed, belong to the public domain (Lévy, 2007).

This consideration is of high value to the development of the workshops in this paper, since the Social Capital can be understood as the traditional knowledge from local communities.

In this process, the respect for cultural knowledge resulted in the involvement of traditional communities during the developed activities. Communities, as the main actors, were in the central position. A relationship between communities was created, which considered the mutual benefits of knowledge exchange. Learning with the daily experiences *Waldorf*<sup>3</sup> and *Action*<sup>4</sup> pedagogies enable the involvement of the participants in their own intangible legacy (Guttenhofer, Hartkmeyer and Schulze, 2014), in this case from the traditional communities.

In order to promote the workshop's main objective, it was organized in four phases: analytical framework; practical pottery activities; visit to the Peruaçu National Park; institutional feedback.

## Analytical framework

The *first* activity of this topic was the *Cycle of Knowledge* where participants talked about local cultural heritage, highlighting aspects of their culture and the history of their communities. These talks allowed participants to recognise the most relevant historical facts of their communities and territories, contributing to the elaboration of a historical *Timeline* of land occupation. In this activity we presented old records of projects developed in the Candéal community and the firing techniques for the production of Xakriabá ceramic pieces recovered by the school teacher and indigenous person, Nei Leite, present at the event. The videos presented in this event can be seen at these links: <https://www.youtube.com/watch?v=xx-MCCc6LCE> and, [https://www.youtube.com/watch?v=FRIHBx4f\\_A4](https://www.youtube.com/watch?v=FRIHBx4f_A4)

(See Figure 6)

This knowledge sharing and historical relevance enhancement encouraged local communities to carry out a collaborative analysis of their production processes, from ceramic manufacturing to the market. In order to encourage those involved to achieve their potential and identify weaknesses, opportunities and threats, the application of SWOT analysis was proposed. This methodology was developed by Albert Humphrey (2005) during a research project at Stanford University in the 1960s and 1970. For Parra Filho and Santos (2003, p.77) SWOT is "an inductive method that will allow, from observations, to infer general and expected conditions and situations".

It is an important dynamic for those having to observe on their own, which steps needed to be taken to solve certain problems and, how they could establish a starting point for their improvement. For participants in this research, the representation of the results of their evaluations and perceptions in the SWOT matrix was important to verify endogenous and exogenous factors linked to the ceramic production of traditional communities in the Peruaçu River basin alongside its potential, weaknesses, opportunities and threats.

## Practical activities in pottery

Based on the use of experience and community involvement, these activities were conducted with the potters as the main protagonists of the action. They were developed with the maximum involvement of popular knowledge, thus enabling the exchange of processes in ceramic production, such as clay preparation, dough modelling, and the use of paints or natural pigments for artistic decoration of the pieces.

## Visit to the Peruaçu National Park

The cultural legacy of the region's traditional communities is quite strong and alive. The inheritance from the ancient peoples who inhabited this region, such as the traditional

management of the territory, was handed down from generation to generation and is present in daily activities, in their knowledge, in the improved technique and in the materialization of objects, such as the making of pots. The Peruaçu region has one of the largest open sites that remains from these ancestral peoples and is composed of archaeological sites and caves. Such sites are located within the Peruaçu National Park. That is why in our understanding was important to strengthen connections with the past and bring communities into the National Park for the first time since the creation of the natural conservation unit.

### **Institutional feedback**

At the end, for feedback from the institutions involved, a Collaborative Assessment was applied, where the involved communities highlighted the importance of this initiative, the understanding of the National Park in their territories and the importance of safeguarding their cultural heritage.

## **Discussion and Results**

Like the methodology, the activities developed in the workshop will be presented in this article following the structure: analytical framework; practical activities in pottery; visit to the Peruaçu National Park; institutional feedback.

### **Analytical framework**

The first activity of the event was a circle: the Circle of Knowledge. Its objective was to stimulate a relationship between the communities involved through the exchange of knowledge, problematisation and reflections towards acting.

At that moment each member presented themselves and spoke a few words about their objectives for participating in the event. During this activity, we identified the social attention given to the collective activities; friendships and exchanges of knowledge in search of new ideas were stressed. Leni, from the Fabião 1 community, sought to make new friendships and improve knowledge during the event. Jesuita, from Candéal, commented that her desire was to learn, teach and meet people. Vanuza, from the community of Janelão, wanted to know the art of other potters. Vanuza is an artist from the region, who produces sculptures (See Figure 7).

Each participant could also present aspects of the reality they experience together with the community they belong to. Exchanges of experiences, discussions, construction and the collective extroversion of knowledge were primary factors for this practice. Not only by exploring or strengthening the socio-cultural aspects of each community but also by favouring the collective and singular positions within the guidelines listed.

In the discussions, different situations were highlighted, e.g. the difficulty in obtaining raw material, the recognition of work, the lack of incentive and even the marketability. Table 1 presents the observations of participants from each community.

	Relevant topics
<b>Candeal</b>	<ol style="list-style-type: none"> <li>1. Heritage of ancestors</li> <li>2. Remnants of ovens built by ancestors not found yet</li> <li>3. Difficulty in access to raw material, currently the raw material is in private properties</li> <li>4. The traditional way was doing ceramic at home, then it became to do at the shed where the potters meet weekly.</li> <li>5. In the past the ceramic pots were produced for domestic use by the families who lived there, today the production is traditional, used inside the houses but also to put in the market.</li> <li>6. Access and production of the pigments</li> <li>7. Personalized painting, each woman has her own way to paint</li> <li>8. Transmission of knowledge through generations and today the challenge to pass on to future generations</li> <li>9. Candeal a national reference of Brazilian handicraft</li> </ol>
<b>Fabião 1</b>	<ol style="list-style-type: none"> <li>1. Spontaneous production</li> <li>2. It started as a group due to the need to supplement the income of the local population and the continuity was individual</li> <li>3. Future prospects for community-based tourism</li> <li>4. Individual modelling techniques</li> </ol>
<b>Janelão</b>	<ol style="list-style-type: none"> <li>1. Natural know-how</li> <li>2. Sisters who developed clay handler skills simultaneously</li> <li>3. Memories of childhood guide the trajectory</li> <li>4. Preference for sculptures</li> <li>5. Search for improvement of techniques and themes</li> <li>6. Search for burning techniques appropriate to the kind of part</li> </ol>

TABLE 1: COMMENTS FROM PARTICIPANTS FROM EACH COMMUNITY

Adopted as a constructive framework of dialogue, the Circle of Knowledge has shown as an important practice for the organization of ideas, in addition to providing a unique moment to socialise attitudes and thoughts. The participants realized how exchanging experiences can help them solve specific problems for each community.

Therefore, this initiative raised among the stakeholders the importance of the cultural heritage being addressed in an integrative form.

From the collective discussion space created by the Circle of Knowledge, a brief SWOT analysis was proposed in which the community was able to put on paper Strengths, Weaknesses, Opportunities, and Threats they had been discussing. The SWOT was structured into *internal* and *external* variables related to the ceramic production industry.

In the *internal* variable, Strengths were interpreted as all that kept alive the traditional activities passed on through generations. The Weaknesses were interpreted as the issues that could place the popular knowledge of ceramic production in danger, close to disappearance.

In the *external* variable, Opportunities were interpreted as how the popular ceramic business could be better addressed in future generations; and how to expand the pottery activities. Threats were interpreted as points that could put the sustainable development of the ceramic production in danger in the future.

Based on this understanding, the potters who attended the workshop completed the SWOT on themes introduced by the three communities there. Table 2 shows the result of the SWOT analysis developed by the community.

	help	disrupts
<b>internal</b>	<p>STRENGTH (to survive)</p> <ol style="list-style-type: none"> <li>1. knowledge, know-how</li> <li>2. Union</li> <li>3. Determination</li> <li>4. Perceverance</li> <li>5. Resilience</li> <li>6. Humility</li> <li>7. Fellowship</li> </ol>	<p>WEAKNESSES (danger to keep it alive)</p> <ol style="list-style-type: none"> <li>1. Discouragement and giving up</li> <li>2. Lack of belief</li> <li>3. Lack of appreciation of the community, of cultural identity</li> <li>4. Difficulty in acquiring the primary material</li> <li>5. Financial aspects, financial return and household support</li> <li>6. Logistics, transport for buying and selling</li> <li>7. Geographical and technological accessibility</li> <li>8. Communication (technology)</li> </ol>
<b>external</b>	<p>OPORTUNITY (to expand)</p> <ol style="list-style-type: none"> <li>1. Articulate partnerships (ICMBio, NGOs and associations)</li> <li>2. Attend Training Courses</li> </ol>	<p>THREATS (can put in danger the sustainable development)</p> <ol style="list-style-type: none"> <li>1. scarce access to raw materials, accessibility to land use.</li> </ol>

	<ul style="list-style-type: none"> <li>3. Promote Workshops</li> <li>4. Community-based tourism</li> <li>5. Promote events</li> <li>6. Tourism</li> <li>7. Partnerships with universities and research institutions</li> </ul>	<ul style="list-style-type: none"> <li>2. identify and find a good natural source of the <i>toá</i></li> </ul>
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TABLE 2: SWOT ANALYSIS PERFORMED BY THE COMMUNITY.

Interpretation of the Strengths: The popular knowledge and the cultural identity of traditional communities are highlighted in this section. Their culture had been preserved through generations. A historical continuity of occupation in the territory enhances cultural resilience as a high quality of knowledge, since, until the present day, they have perpetuated their knowledge and preserved their lifestyles with no formal safeguarding by federal and state agencies of heritage management in Brazil, such as Iphan and Iepha-MG. With the lack of formal work opportunities in the region, ceramic production has contributed socially and economically to the survival of traditional communities. Pottery helped the communities to overcome personal and familial difficulties and to retain their beliefs.

The humility cited by the potters themselves was shown in the workshop through the recognition and appreciation of the techniques presented by different participants with respect and interest. In everyday activity, humility is present within each community in the collective work they have. By working through processes, the potters have collaborated with other stakeholders, such as the men from their own community, who extract the clay, concert and maintain their ovens, and transport the products to the points of sale in neighbouring municipalities.

Interpretation of Weakness: The main weakness within communities is related to the main positive aspect, which has been keeping alive the popular culture of potters, the knowledge passed through generations. The potters point out the lack of interest on the part of the younger members of the communities. Young people no longer identify themselves with the local culture or recognize that this heritage is the main cultural identity of their community. Taking the values of the capitalist world as a reference, the migration movement for this people is wide. No doubt this search is linked to financial return.

Interpretation of Opportunities: Although the activities developed by the pottery community is aligned with different environmental, cultural and social institutions and support agencies that work in the National Park, the network of stakeholders is not well defined and aligned, which results in the loss of bottom-up opportunities within this governance network (Brugnera, 2020). This is an existing opportunity that should be better exploited. For example, the partnership with ICMBio was important for the exchange. However, the ideal result is to

create partnerships that build bridges between the present and the future, acting in a long-term process *with* the community and not short-term activities *for* the community. This collaborative and participative thinking will favour the construction of a consistent relationship between stakeholders and achieve results aimed at safeguarding traditional cultural heritage.

In terms of a proposal for a new scenario of opportunities for the tourism market, Community Based Tourism brings the mission to expand the prospects of sustainable tourism, resulting in a source of income for traditional populations. Today, the integration of cultural heritage in the tourism industry is mainly achieved through its materiality, thus shaping the engine of sustainable tourism. For the traditional communities, the emphasis is on the intangible heritage, the popular knowledge as one of the products of its portfolio.

Interpretation threats: Accessibility is the main Threat. The *technological accessibility*, the *geographical accessibility* and, the *raw material accessibility*

The *telecommunication* of these rural communities is flawed, which hampers the dissemination of the Peruaçu ceramics.

In its *geographical* point, access by unpaved roads is difficult. Despite this, their pieces reach the commercial centres of the region and the capital, which are later taken to other Brazilian states to be sold in handicraft and culture fairs.

The *raw material* today is one big challenge for the local community.

The ceramic production is characterised by the domination of the territory and the appropriation of the elements of nature that are essential to its subsistence. These resources are intrinsically related to their lifestyles and ensure their livelihood matrices and trades. However, with the legal changes of the land use and natural resources protection, traditional communities ended up trapped in small parcels of territory (Araújo, 2009; Anaya, 2012; Brugnera, 2020).

### **Practical activities in pottery**

The practical pottery activity took place in the backyard of Ivani's house, in the community of Fabião I. The potters took a seat under a mango tree and produced their ceramics, each with its own technique, one observing the other, asking questions and identifying differences between the ceramic techniques.

The technical specification exceeded the scientific work that usually covers the different techniques existing in ceramic production in the composition of different elements.

Their pottery beliefs include symbolic aspects, such as the appropriate phases of the moon for the ceramic confection process and technical information, and in which layer of the soil is extraction of the raw material more adequate, carrying out traditional management passed down through generations, where they aim to preserve natural sources for the future use of the next generations.

In the workshop, the potters have set out to detail specific activities within the manufacturing process, e.g. the preparation of the paste, the best place to extract the material and the better management of the clay to reach the point of making the ceramics. As follows, the report during the workshop from Vanuza, of the Janelão community, presents how she positions herself in the clay preparation discussion:

*[...] For the preparation of the clay I do a bit different than the Oleiras do Candeal, I take all the material and immerse it in water to then make the separation in a sieve, removing the stones, small branches and clods. After this process, I take all the clay and make the passage in the sieve once again. At the end of this process you can see the sand at the bottom of the bucket. I remove a lot of sand from the clay, there is a great concentration of sand and not much clay that we use in the preparation of the pieces. I just use the fine clay. For me, in this way the clay becomes more resistant and better to work (Vanuza, 2019).*

The other potters realize that refining of the clay in the way Vanuza performs is necessary for the production of more detailed pieces, such as sculptures. Vanuza makes pieces that represent images of her childhood, such as animals from the region, people dancing and objects that were used in everyday life. Thus, the concentration of sand and the treatment of clay depends on the piece to be produced.

The manufacture of the pieces with different techniques differ among communities, either by the sculpture itself or by the pull up<sup>5</sup> technique: starting with a ball of mud, raising the side walls and forming objects with the help of a *coité*, a piece of *cuiá*<sup>6</sup>.

After the modelling is finished, before the firing is carried out, the object is adorned with the *toá*, the technique also used in the rock paintings in the National Park (Lima, 2006). For this a prepared *toá* sent by the native people from Xakriabá indigenous group [community close to the Peruaçu National Park] was used. Currently, the sediment extraction site for pigment production is not accessible as it is in private property.

After painting, the piece goes to the kiln. In the firing process one of the main secrets of the technique is in the preparation of the kiln. With the potters from Fabião I clarified many unknowns about the procedure of the execution. The Oleiras do Candeal, Nilda and Magna, clarified that it is necessary to have a well-structured kiln, which holds the heat and keeps the pieces in the same thermal pattern in the bottom and top parts. For this reason, they cover

the pieces in the kiln with small old pieces of ceramic, these pieces help with insulation and ensure that the pieces do not crack or break.

All discussions about the procedures were accompanied by practical activities marking the experience of ceramic production processes. Below we present the records of some activities (See Figures 8 and 9).

### **Visit to the Peruaçu National Park, in the people's trail**

Among the production of objects is the manufacture of pots. In the past, many pots were made by the local communities of the dry backlands for water storage. The dryness of this region, which experienced long periods of drought, resulted in a lack of access to drinking water for the local population. Therefore, during the rainy season, local communities used ceramic pots to store it (Lima, 2006). In this community Nilda Muniz explained the pull up<sup>7</sup> technique: starting with a ball of clay, she raises the side walls and gives form to objects with the help of a *coité*, a piece of *cuia*, a regional object that is used in the production of pots. After finishing and painting, the ceramics goes into the oven. Their decoration, aesthetics and technological knowledge have improved through the generations. Lima (2006) reports great similarity between the rock paintings found in the park and the shapes made by the potters. The use of the same raw material, the *toá*, strongly reaffirms this approximation.

According to Ribeiro (2006) and Moeri and Salvador (2017), the colour palette used in the rock paintings of the Peruaçu River basin follows the material composition presented in the Figure 10.

The rock paintings are the main traces and testimonies of the relationship and cultural identity of the peoples who had lived and people who now live in the Peruaçu River Basin. Consequently, during the *Exchange* the first visit of potters to the rock paintings of the Peruaçu National Park after the implementation of the Conservation Unit was proposed. Jesuíta was the first community member to report the similarity of traditional paintings to the ancient rock paintings which still exist on the archaeological sites. The words of Jesuíta seeing such paintings for the first time strengthens the theory of these linkages between the existing communities and the ancient indigenous group:

*"Oh my God! our paintings, just like what we do ... That was our people, you see ... Look, Grandma's painting, there. She use make like that one ... just like she made in the atelier wall" (Pequi do Cerrado, 2019).<sup>8</sup>*

A total of 85% of the participants from local communities did not personally know the Peruaçu National Park. Reports like that of Jesuíta from *the Oleiras do Candéal* community reaffirm the theory of Lima (2006) that relates the current communities to the ancient indigenous groups.

For Andréia Souza, who was responsible for conducting the group, the moment was very important for the self-identification of the participants as parts of the territory, the current culture being part of its essence, the importance of their relationship with nature, the transformation of landscapes and the communities' link to a remote past. For Souza, the experience of conducting groups in the park is marked by a very clear rule: driver, and the following people learning what he presents. However, the local communities deconstructed this linear pattern. Such a paradigm break was very impressive both in terms of intellectuality and effectiveness.

Traditional knowledge must be urgently incorporated into scientific studies. The accounts and experiences with the potters' communities during the workshop promoted complementary information to the understanding of the past and helps the researcher to understand the experiences of people from ancient times (See Figures 11 and 12).

### **Institutional feedback**

The collaborative evaluation is an instrument that allows the inclusion of the feedback of the institutions that organised the event. At the end of the workshop, the traditional communities were able to present their perceptions about the activities developed and point out their suggestions anonymously. This evaluation aimed to give feedback to the organizing institutions by suggesting adjustments to improve future initiatives.

In the Table 3 presented below we verified that 98% of the participants had their expectations achieved in the event and all the themes proposed for activities and dynamics were satisfactory.

The practical and community involvement activities encouraged locals to be involved in the workshop, presenting their lifestyles and engaging in the activities. 100% of the participants felt involved in the exchange activities promoted. The involvement was reflected in the exchange of knowledge between pottery communities and a [re] approach between them. The communities involved affirmed the need for more events like this and agree that popular knowledge is of paramount importance for the survival of these peoples.

When asked in the anonymous form if enhancing popular knowledge is important, they all agreed. This answer shows that initiatives like these are of great relevance to promote and stimulate collaborative work within the themes of cultural heritage from traditional communities and nature. 100% of the participants who filled out the questionnaires understood that actions to value popular knowledge and nature are important to safeguard the cultural identity of the traditional peoples of the region of the Peruaçu River basin.

	Yes	No	Partly
An exchange of knowledge between communities is important for you?	100%	0	0

Did the event happen as you expected?	93%	0	7%
Did you feel involved with the activities?	100%	0	0
Is it important for you to enhance the traditional culture and its links with nature?	100%	0	0
Was it important for you to visit the Peruaçu National Park?	100%	0	0
<b>Average satisfaction between the participants</b>	<b>98%</b>	<b>0</b>	<b>2%</b>

TABLE 3: QUESTIONS AND ANSWERS FROM THE SURVEY.

Regarding the visit to the Peruaçu National Park, it clarifies how important it is to preserve the nature there and to integrate management with the local communities. It is also important to search for a historical timeline of landscape occupation, but to also understand the current situation where communities are inserted through different disciplines of the academy, such as geology, geography, archaeology, sociology, anthropology, architecture, among many others.

All the participants, especially the Oleiras do Candéal community, marked as relevant the visit to the Peruaçu National Park. Comments of gratitude were left in the questionnaire. The visit to the park awakened a feeling of belonging to the territory, since popular knowledge is intrinsically related to the past populations that occupied the region.

In the collaborative evaluation, comments were made that will be considered for the next events to be developed by the Pequi do Cerrado Institute. Among the comments were: the request to repeat the event, including hosting it in other communities; the request for more events focusing on firing of ceramics; elaborating on the diagnosis of the ceramic production of the communities in the territory and bringing in specialists to collaborate in the resolution of local problems; seeking resources for food production.

Considering the results obtained by the collaborative evaluation, the development of this initiative is a relevant instrument for reflection and dialogue with stakeholders, making the activities and dynamics developed in the workshop as important frameworks for strengthening the cultural identity of traditional communities. This initiative is also useful for improving the understanding of the construction of the territory from the Peruaçu River basin; and, developing the joint activities of nature and culture preservation.

## Conclusion

As for the final considerations for this paper, we understand that more initiatives like the Exchange is needed to enhance the collaborative growth of cultural heritage and the natural resources of the territory from the Peruaçu river basin, including the Peruaçu National Park.

Summing up, traditional knowledge of these communities must be urgently incorporated into scientific studies in the different fields, as archaeology, architecture, geology, geography, and

sociology. The accounts and experiences of the potters' communities during the workshop promoted important complementary information for understanding the past and helps the researcher to understand the experiences of ancient peoples. It is necessary to strengthen these ideals since the communities are still involved in the process of (re)constructing of the landscapes within this territory. Nowadays, communities from Peruaçu are showing themselves to be important for the development and maintenance of all the traditional activities developed by generations (past, present and future).

Considering the results obtained by the collaborative evaluation, the development of this initiative was a relevant instrument for reflection and dialogue with stakeholders, marking the activities and dynamics developed in the workshop as important frameworks for strengthening the cultural identity of the traditional potters' communities which had participated.

For the future, in a tentative effort to grant the requests of local communities, more events focusing on the pottery process will be provided, trying to form a network of researchers who have an interest in the ceramic production of the communities from Peruaçu River basin. In a collaborative process there must be a search for the enhancement of traditional communities, its knowledge and lifestyles. It is important to make traditional knowledge count and offset scientific contributions with the results of research that is developed in the Peruvian Valley.

## Notes

This workshop was produced as a result of the cultural activities carried out by the Pequi do Cerrado Institute with the institutional support of EXARC and ICMBio. This article is linked to the scientific research developed in Ana Carolina Brugnera's doctoral thesis: "Towards Creative Communities", and documents both the aims of the thesis, the popular knowledge from rural communities and its relationship with the Cultural Landscapes built around the Peruaçu National Park. The thesis is in progress and is developed through the Graduate Program in Architecture and Urbanism at Mackenzie Presbyterian University, São Paulo, Brazil, supervised by Prof. Dr. Abilio Guerra, with support from Capes, CNPq and the Pequi do Cerrado Institute. In addition to these institutions, the development is also carried out in partnership with the German university RWTH Aachen, where the researcher is a doctoral student supervised by Prof. Dr. Ing. Carola Silvia Neugebauer.

- 1 B.P. (Before the Present) is the number of years before the present.
- 2 Nomadic population groups specializing in hunting of diverse fauna and collecting fruits, leaves and roots. They were the first inhabitants of the Americas, having lived at least 40,000 years ago until about 2000 years before the present.
- 3 Developed by Rudolf Steiner (1997)
- 4 In English could be "To Do Pedagogy", was developed by Peter Guttenhofer based on the Waldorf pedagogy.

- 5 In Portuguese: técnica do levante
- 6 Regional object that is used in the production of pottering
- 7 In Portuguese: técnica do levante
- 8 The original trascription of Jesuita ´s commentary was in Portuguese being: Oía meu Deus, nossas pinturas, igualzinho o que fazemos..." Isso foi nosso povo, veja bem ... gente, a pintura de Vovó, oia aquela lá... igualzinha a que tem na parede do Galpão"

🔖 **Keywords** [heritage](#)  
[ceramics](#)  
[workshop](#)  
[education](#)  
[environment](#)  
[rock art](#)

🔖 **Country** [Brazil](#)

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## | Gallery Image

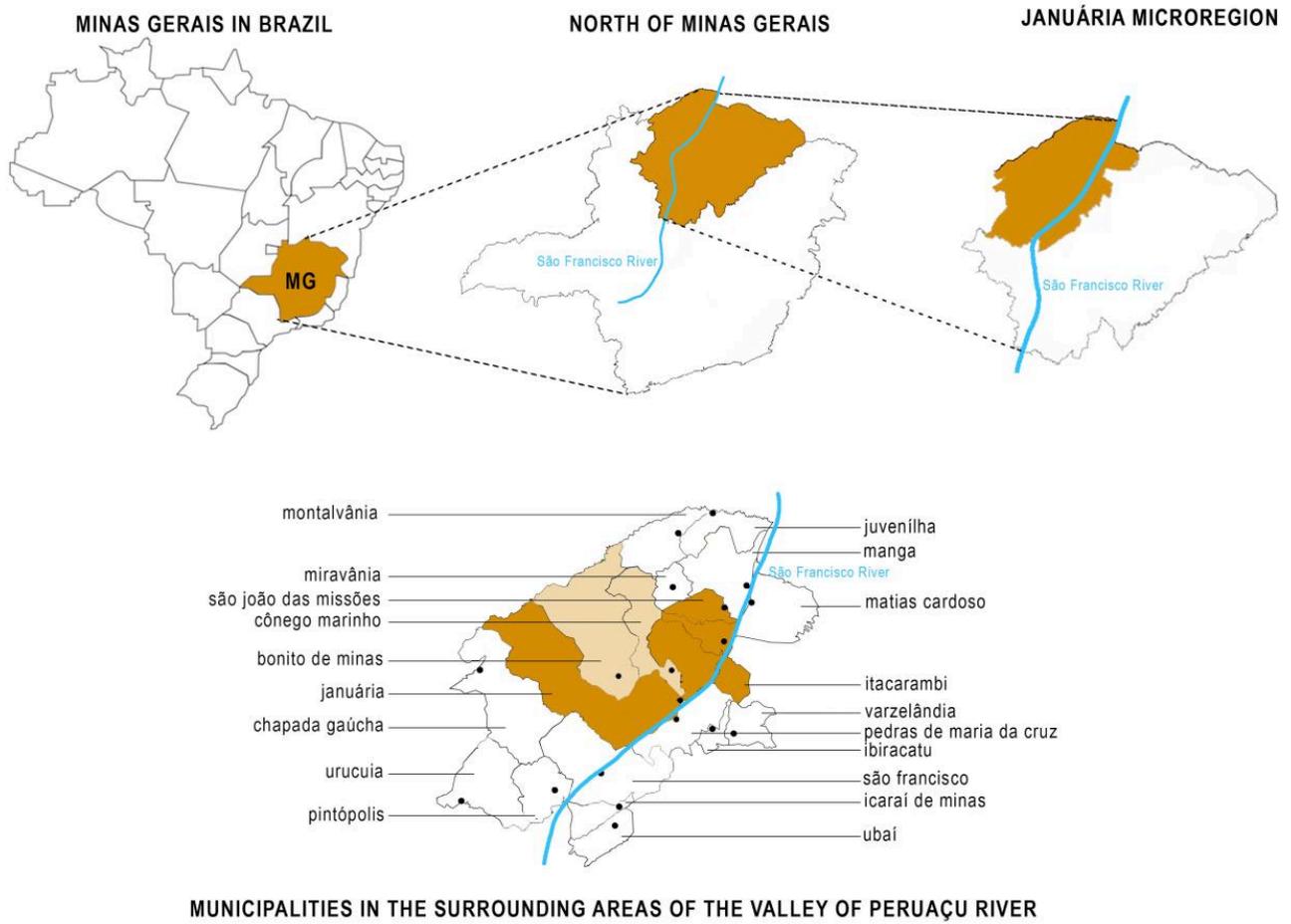


FIG 1. LOCATION. DRAWING BY ANA CAROLINA BRUGNERA

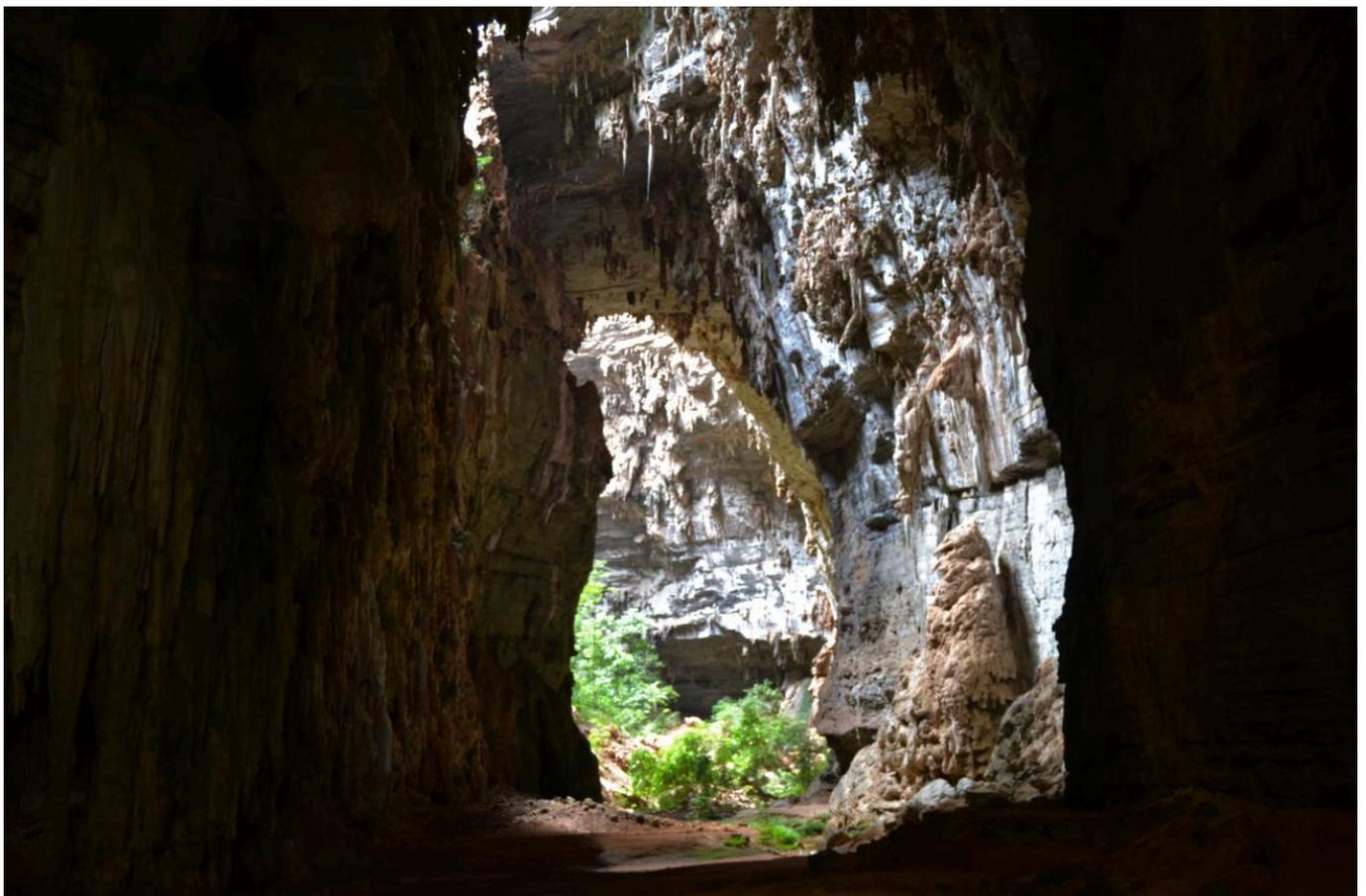


FIG 2. INSIDE THE CAVES PROVIDED BY THE PERUAÇU RIVER AT THE NATIONAL PARK.



FIG 3. JANELÃO - HERE WE CAN SEE THE SIZE OF THIS GEOLOGICAL FORMATION, COMPARED WITH THE TREES AND THE HUMAN SCALE AT THE RIGHT-DOWN POSITION. SOURCE: BRUGNERA, A.C., 2017.



FIG 4. OVERLAPPED ROCK ART, USING DIFFERENT TECHNIQUES AND COLOURS MADE THROUGH TIME, AT BOTTOM LEFT WE CAN ALSO FIND ENGRAVINGS THAT OVERLAP THE PAINTINGS. SOURCE: ROCHA, L.B.F., 2017.



FIG 5. BANNER ADVERTISING THE EVENT. SOURCE: BRUGNERA, ANA CAROLINA. 2019



FIG 6. PRESENTATION OF THE VIDEO OF THE TECHNIQUES FOR THE PRODUCTION OF XACRIABÁ CERAMIC PIECES.  
SOURCE: PEQUI DO CERRADO INSTITUTE, 2019.



FIG 7. POTTERY COMMUNITY INVOLVED. PEQUI DO CERRADO INSTITUTE, 2019.



FIG 8. CANDEAL'S TRADITIONAL POTTER. NILDA MAKING PIECES AND EMÍLIA IN THE ATELIER. SOURCE: BRUGNERA, A.C., 2016.



FIG 9. TECHNIQUES FOR BURNING THE CERAMIC BRING PRESENTED BY THE CANDEAL COMMUNITY DURING THE WORKSHOP. KURUSHIMA, M., 2019.

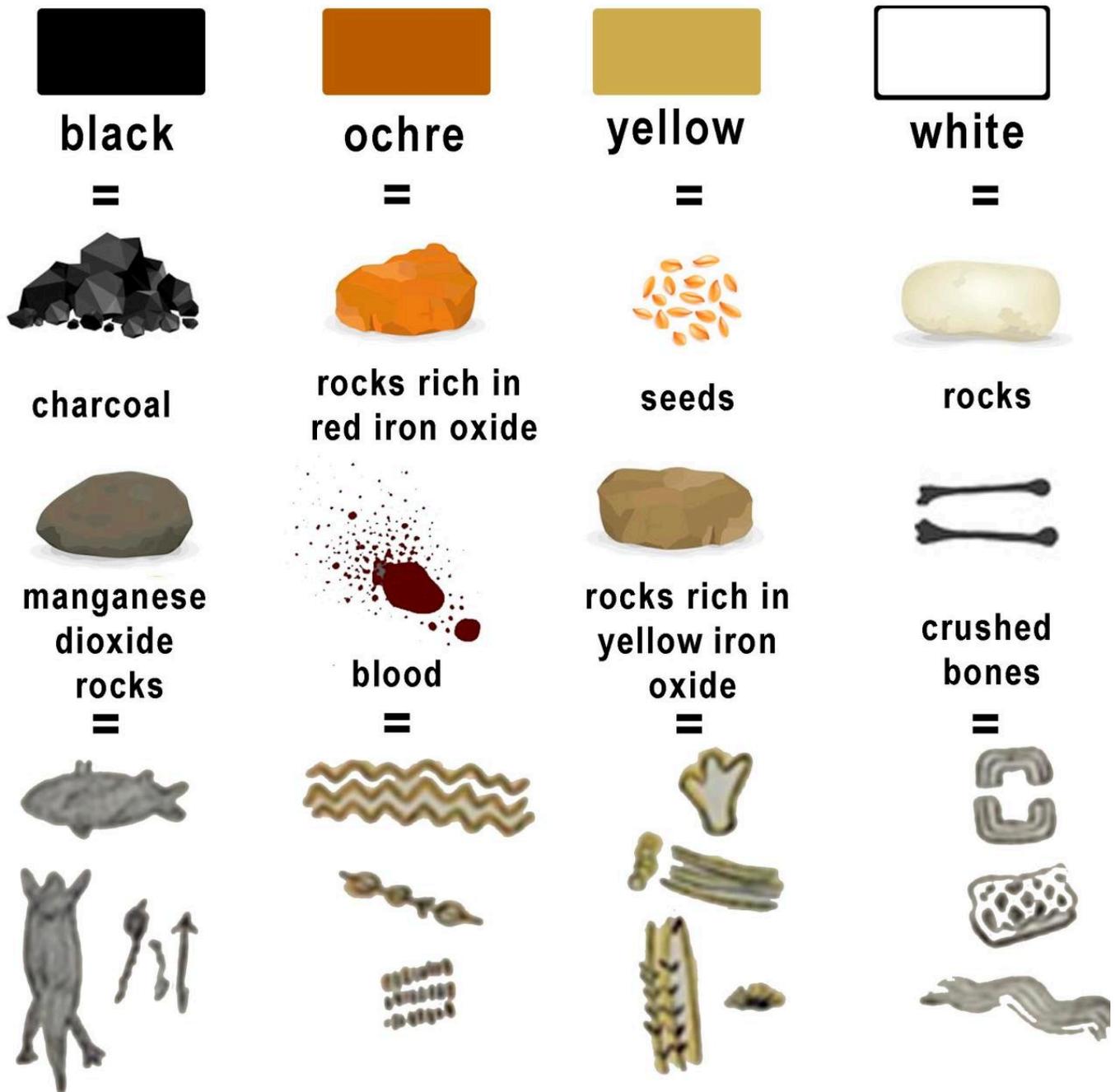


FIG 10. PALETTE OF COLOURS IDENTIFIED IN ROCK PAINTINGS. SOURCE: ADAPTED AND TRANSLATED FROM MOERI AND SALVADOR, 2017, P.51



FIG 11. THE COMMUNITY OF CANDEAL VISITING THE PERUAÇU NATIONAL PARK, ON THE JANELÃO TRAIL. SOURCE: SOUZA, A., 2019.



FIG 12. ONE OF THE ARCHAEOLOGICAL SITES OF ROCK PAINTINGS AT THE PERUAÇU NATIONAL PARK VISITED BY THE OLEIRAS DO CANDEAL COMMUNITY DURING THE WORKSHOP. SOURCE: ROCHA, L.B..F., 2017.