Peopling Central Brazilian Plateau at the onset of the Holocene: Building territorial histories

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ABSTRACT

In this paper we discuss the occupation process of Central Brazilian Plateau during the end of the Pleistocene and the early Holocene calling attention on two main issues: technology and mobility. We work in two spatial scales, local and regional, in order to indicate some long-term processes during the period between 13,000–7000 BP. Based on site distribution, archaeological remains and chronology we propose four distinct periods that should correspond to different phases of the peopling process of this region. Finally, we discuss hypotheses that might explain these changes and we emphasize the importance of integrating practical and symbolic aspects in order to interpret the archaeological record and construct territorial histories.

1. Introduction

The Brazilian Central Plateau (for now on named BCP) corresponds to a major area of the inner Brazilian territory, which extends over 1,500 km from South to North and about 2,000 km from West to East, and that is predominantly occupied by two Bioma: Cerrado (Tropical Savana) and Caatinga (Dry Deciduous Forest). The central part of this region always had a main role in the discussion of South American human occupations due to the numerous ancient sites and the antiquity of its archaeological inquiring that goes back to the middle XIXth century (Da-Glória et al., 2017).

Here we take some scattered data and also some previous synthesis efforts (Bueno et al., 2013; Dias and Bueno, 2013) to propose a schema of four phases for Central Brazil peopling process for the period 13,000–7000 BP. This proposal is based on the available information on site distribution, published radiocarbon dates and archaeological remains, especially of lithic assemblages, but also in others features from ancient sites, such as rock art and zooarchaeological remains. Since the archaeological record of the BCP gathers most of the available data for all Brazil for this period, the four phases discussed here are similar to those presented by Bueno and collaborators (Bueno et al., 2013; Dias and Bueno, 2013).

In this paper we explore in detail the internal dynamics of each phase, articulating the available categories of remains for each phase in order to focus the discussion on two main topics: technology and territory. From this perspective, we intend to ensemble elements that allow us to discuss the causes of changes and continuities identified between each phase, approaching topics that have not been addressed in previous works. In this sense, for each phase we present data on site's amount, localization and spatial distribution, lithic technology, subsistence, rock art and bioarchaeology, whenever they are available for analysis.

In order to introduce some basic concepts for our discussion, territory, as we understand it here, is an area of living experience, full of resources possibilities that are not naturally given, but culturally understood. A territory is a system of known and meaningful places, experienced by people who live inside of it and to which they are significantly bounded to (Zedeño, 1997). We understand mobility as ways of living in and move through a territory that involves resources management, but also the living experience and attribution of meanings to places. Thus it involves cultural choices that are guided by perceptions of the environment, by the way people perceive and conceive their relation with the environment and not by the environment features themselves.

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which could have involved different rhythms and dynamics and dispersion of human groups since the end of the Pleistocene, case of the BCP, we apply a perspective of a slow process of entry essentials for a discussion on Peopling conceived as a process. In the discussion we seek to incorporate in our discussion the symbolic dimensions and to avoid the prevalence of environmental conditions over cultural choices.

These three concepts - Territory, Mobility and Technology - are essentials for a discussion on Peopling conceived as a process. In the case of the BCP, we apply a perspective of a slow process of entry and dispersion of human groups since the end of the Pleistocene, which could have involved different rhythms and dynamics and included different population flows. By rhythms and dynamics, we mean that there may have been pulses of population growth and spatial dispersion and that the ways of space occupation and movement could have involved areas of varied sizes and configuration. Our hypothesis is that these variations on rhythm and dynamics can leave characteristic marks on the archaeological record, enabling the identification of the different moments and phases of this process, as it has been discussed for other regions of the American and Australian continent (Beaton, 1991; Borrero, 1999; Anderson and Gillan, 2001; Hazelwood and Steele, 2003; Kelly, 2003; Zedeño and Anderson, 2010).

Bringing together the proposals of Borrero (1999), Zedeño (1997) and Zedeño and Anderson (2010), we propose a four phase process for the peopling of the BCP during 13,000-7000 BP. These phases are: 1) the initial peopling (corresponding to the stage called “exploration”, in Borrero, 1999 and Zedeño, 1997, and "exploration and staging", in Zedeño and Anderson, 2010); 2) the consolidation of articulated territories on a wide regional network (“consolidation and settlement”, in Zedeño, 1997; similar to "colonization", in Borrero, 1999; Zedeño and Anderson, 2010); 3) the fragmentation of the regional arrangement (“fission”, in Zedeño, 1997); 4) the formation of new arrangements characterized by a local diversification (“use, change, abandonment”, in Zedeño, 1997).

We still do not know for real when this process begun, as the first archaeological signal certainly do not correspond with the first moment of occupation (Dillehay, 2013; Borrero, 2016). Our discussion does not start with the oldest remains of human occupation that current published data indicates as distant and isolated from one another (Boeda et al., 2013; Vialou et al., 2017). However, we do discuss the scenario around which there is a certain consensus in terms of accepted radiocarbon dates and, specially, that comprise a group of sites with recurrent attributes that allow us to design an occupation scenario (Bueno et al., 2013).

2. Geographical setting and paleoenvironmental data

The Brazilian Central Plateau can be generally defined as a Tropical Savannah. It is characterized by three different climatic regimes: (a) sub-tropical without seasonality; (b) semi-arid, with strong seasonality and long dry phases; and (c) tropical with a dry and a moist season (Ledru, 1993; Salgado-Labornia et al., 1997). Regarding the vegetation cover, we have two main formations. In the northern area of the BCP region predominates the caatinga (xeric shrubland and thorn forest), whereas in the central and southern part prevails the Cerrado - a tropical savannah with gallery forest (Oliveira-Filho and Ratter, 2003). In addition to these larger regional variations, the Central Plateau also diversifies, in terms of vegetation cover, according to altitude, topography, soil and climate at smaller scales. The later creates niches of high biodiversity that attract both humans and other animals.

The main river that connects these principal vegetation formations is the São Francisco River, a perennial and rich source of aquatic resources, with a high diversity of fish species. This river is 2700 km long, and has more than 168 tributaries. The most important of them are all in Minas Gerais and southern Bahia states. Besides the Rio Grande (Bahia state), the tributaries located at the Polígono das Secas are intermittent, becoming dry in periods of lower rainfall and producing large and intense water flows during the rainy season.

The available paleoenvironmental data for the BCP mainly comes from pollen cores and lake sediments’ analyses from several locations in Maranhão, Bahia, Goiás and Minas Gerais states (Ledru, 1993; Salgado-Labornia et al., 1997; Ledru et al., 1998; De Oliveira et al., 1999; Auler and Smart, 2001; Barberi, 2001; Pessenda et al., 2004; Ledru et al., 2006). One of the features identified by almost all these studies is the movement of the Inter-Tropical Convergence Zone (ITCZ) as being a main contributor to variations in the duration and intensity of episodes of drier climate in Central and Northwestern Brazil (Behling, 1998, 2002; Ledru et al., 1998; De Oliveira et al., 1999; Markgraf et al., 2000). According to Ledru et al. (1998), the contemporary location and seasonal movements of the ITCZ, combined with the seasonal migration of polar air masses towards the Equator, produces north-south gradients in average winter temperatures and the duration of the dry season.

During the late Pleistocene, besides these dynamics, two major continent-wide factors also influenced climatic conditions in the region: the ice sheet expansion in the Northern Hemisphere and the Andean Highlands, and a lowered sea-level (Suguio, 1999). These global factors are major causes of contrast between Pleistocene glacial and Holocene interglacial paleoenvironmental dynamics. From the early Holocene onwards, there is no longer any global or continental paleoenvironmental event identified on the studied records (Behling and Hooghiemstra, 2001; Ledru and Mourguiart, 2001). Changes are regionalised and diverse, and factors such as latitude, altitude, geology, geomorphology, soil type, vegetation cover and, more recently, human action, are fundamental drivers of paleoenvironmental processes in each area (Barberi, 2001).

In the Northeast region the paleoenvironmental data provide evidence of cyclic variation between wet and dry climatic conditions during the late Pleistocene and early Holocene, causing expansion and contraction of savannah and forest formations. These variations present different patterns in the northern and eastern areas of this region. While there is a general trend toward wetter conditions between 15,000 and 10,000-9000 BP for the northern sector (Pessenda et al., 2004; Ledru et al., 2006), there is evidence for semi-arid climatic conditions throughout the Last Glacial period to the early Holocene (42,000–8500 BP) in the eastern area of the region (Behling et al., 2002). During this period, however, there are records of a series of short intervals pointing to a climatic reversal that appears inland as a dry event (recorded at Lake Caço between 12,800 and 11,000 cal BP), and in the coast as a wet event (the broader interval was recorded at Ceará in 15,500–11,800 BP). Accordingly to Ledru (Ledru et al., 2006), this phenomenon is related to an influence of the Younger Dryas in the Southern Hemisphere.

For the Central region there is evidence of greater local variability and climatic oscillations at the beginning of the Holocene. We summarise data published for six different locations: Lagoa Bonita, MG (Barberi, 2001), Vereda das Águas Emendadas (Salgado-
Comparing the records of the Northeast and Central regions of Brazil, there is evidence that a wetter climate prevailed in the Northeast during the Late Pleistocene (at least in its northern part), while in Central Brazil there was a general trend to very arid conditions. During the early Holocene there was a general trend towards wetter conditions in different parts of Central Brazil. Meanwhile, the North-eastern region enters an arid phase, although gallery forest remains in the main river valleys. Even though by the beginning of the Holocene there were different changes taking place in each region, in both cases it promoted the spread of savannah-like environments. After 10,000 BP the trend toward more humidity is interrupted by short and abrupt changes of drier conditions, possibly represented by extended dry phases, as it is the case for Salitre between 11,000–10,000 BP and for Lagoa Bonita during the early Holocene.

According to the available data there is evidence for some archaeological sites dated by the Terminal Pleistocene in different regions of Brazil, reaching dates that goes back to 23,000 BP (23,120 –260 BP, GIFA 99177, Vialou et al., 2017:873). Although the quantity and quality of these data has been increased significantly in the past ten years (Vialou, 2003, 2005, 2011; Boeda et al., 2013, 2014, 2016), this chronology is still a matter of debate (Boeda et al., 2014; Borrero, 2015, 2016). For our discussion, we decided to work with well-established dates younger than 13,000 BP. We agree with some authors that we have already enough data to propose that the earlier occupation of South America should be older than 13,000 BP (Dillehay, 2013; Politis et al., 2016), but it is still not enough data to discuss mobility and territoriality (or even technological organization), which are the main focus of this paper.

We still have a restricted sample for the period between 13,000–11,000 BP, both in terms of number and spatial distribution of known archaeological sites (Figs. 1 and 2). For this chronological interval there are sites with solid evidence in three different locations at the BCP. Archaeological sites include one rockshelter in the region of Serra da Capivara, Southern Piauí–Sítio do Meio (Guidon, 1986; Guidon and Delibrias, 1986), another one from Peruaçu valley, northern Minas Gerais–Lapa do Boquete (Prous, 1991a,b; Prous and Fogaça, 1999), and one from Montalvânia region, northern Minas Gerais–Lapa do Dragão (Prous et al., 1996/1997). For the moment, these three areas define the region with clearest and most reliable signs of human occupation in the Pleistocene - Holocene transition in Brazil (Bueno et al., 2013). Even though data is scarce, there are some aspects that suggest a similar composition of the archaeological record for these three sites.

Regarding sites’ establishment, these three rockshelters are located at salient or physically distinctive places, drawing attention for example, to land plant cover, soil type and topography at the micro-regional level.

3. Peopling of Central Brazilian Plateau in the Pleistocene/ Holocene transition (13,000–11,000 BP)

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to places that could be easily found or viewed in the landscape from a long distance and, at the same time, that concentrate a good diversity of resources in the surrounding area.

The monumental karstic relief of Peruaçu River valley assembles close to a hundred sites, including Lapa do Boquete site with an occupation dated at 12,000 BP. This valley runs into São Francisco valley and among its natural features are a special concentration of floristic variety along few kilometres and hundreds of large rockshelters (which throughout the Holocene would be covered by many thousands rock art figures) (Prous and Rodet, 2009a,b).

The Serra da Capivara is another monumental relief ensemble, with exuberant arenitic forms and large rockshelters. More than five hundreds archaeological sites were found so far, mostly at rockshelters. The human occupations occur without significant interruptions from this first phase to the XXth century (Pessis et al., 2014).

As pointed by Kelly (2003, pp.49), “People entering a new continent may have avoided areas where the local topography could not be connected to some larger topographic scheme. In this regard, linear mountain chains (or their foothills), major rivers, and coastlines might provide the easiest topography to navigate and to relate to other known places.”

Sítio do Meio rockshelter was excavated at the end of the 1970’s, where eight archaeological levels were identified. In level V charcoal samples, from different hearth structures, were dated at 12,200 ± 600 BP (GIF-4628), 12,440 ± 230 BP (GIF 5403) and 13,900 ± 300 BP (GIF 4927). They were found in association with a lithic assemblage that includes limaces, retouched and simple flakes, cores, cobbles, two hammers and a chopper, made mainly on flint, quartzite, sandstone and quartz (Guidon, 1986, pp.168–169).

Lapa do Boquete rockshelter, excavated during the 1980’s and the 1990’s, has a consistent chronological sequence, which encompasses the late Pleistocene and all the Holocene, and excellent conditions for preservation of a rich assemblage of organic remains (Prous and Schlobach, 1997). For the period between 13,000 and 11,000 BP there are six dated charcoal samples collected from different hearth structures. They were recovered from levels 7 and 8, with a great amount of lithic and faunal remains and large fire hearths (Kipnis, 2003; Rodet, 2006).

The lithic industry from levels 7 and 8 includes limaces, side
scrapers, end scrapers, retouched flakes and cores. Debitage is represented by some bifacial flaking and a fragment of a projectile point. The *chaîne opératoire* associated to the production of formal and informal tools from these levels is clearly defined, pointing out complementarities between both sequences and showing elements of continuity among the assemblages (Fogaça, 2001).

Technological characteristics of the lithic industry remains the same for the whole period, as it is also the case for the subsistence pattern. This pattern involves a broad-spectrum diet, with different species of small and medium-size mammals (Kipnis, 2003). The Lapa do Dragão rockshelter is located in Montalvânia, in the north of Minas Gerais and 90 km from Lapa do Boquete. This site is composed by two neighbouring rockshelters in the southern part of a doline, on the west margin of the Cocha River, and 4 km away from the main river. In 1977 three different areas were excavated at one of the shelters, identifying ten archaeological levels and obtaining ten radiocarbon dates for the site. A charcoal sample collected from a hearth on Level VIII was dated at 11,000 ± 300 BP (CDTN 1007). This is the earliest level with archaeological remains at the site and was associated with a large lithic assemblage. This assemblage shows similar technological characteristics to those described for Lapa do Boquete. There were different scrapers, *limaces* and evidence of bifacial flaking, but a clearly dominance of unifacial flaking. According to Prous et al. (1996/97), the high typological diversity, the proportion of retouched flakes and a more controlled flaking process are the main distinctive aspects for this Pleistocene/Holocene lithic industry in comparison to the Mid-Holocene assemblage.

It is worth noted that for this period there are no bioarchaeological or rock art data from the sites mentioned before.

### 3.1. Hypothesis

Based on this context we propose that the period 13,000 to 11,000 BP corresponds to a mapping phase of a poorly occupied landscape, where the Serra da Capivara and Peruaçu valley, as well as the São Francisco river basin, functioned as important land markers in a landscape that need to be known (Kelly, 2003). Given the marked climatic change and variability that characterizes this period, with an alternation between extremely dry conditions and periods with seasonally heavy rainfall, these places could have been regarded as hot-spots in terms of diverse resource availability, playing an important role as focal points to organize logistical mobility. Thus, both factors—landmark and ecological hot-spots—could have contributed to their selection as focal points to be continuously occupied by hunter-gatherer groups during this phase.

The characteristics of the archaeological record of all three sites suggest an occupation phase of groups with already some knowledge of the region. The continuous shelters’ reoccupation (particularly at Lapa do Boquete and Sítio do Meio), the procurement of varied plant and animal resources, and the use of diversified bifacial raw materials show the existence of a previous knowledge on resources’ distribution and reflects a moment between the exploration and the effective occupation of the region. This means that these contexts do not represent the first moments of settlement nor the begging of the occupation, but they can be consider as related to an exploration time of the area.

In this sense, the main question related to lithic industries and spatial occupation in Central Brazil during this period involves the discussion regarding the meaning of these similarities and their relation to mobility patterns and cultural affiliation, questions also involved in the definition and characterization of the Itaparica Tradition (Schmitz, 1980; Guidon, 1986; Etchevarne, 1999; Oliveira and Viana, 1999; Prous and Fogaça, 1999; Bueno, 2007a,b; Rodet et al., 2011). For the last 10–15 years this concept has received more attention and have been the focus of detailed lithic technological analysis (Fogaça, 2001; Bueno, 2007a,b; Rodet, 2006; Isnardis, 2009; Lourdeau, 2015). Based on these studies we could say that there is a strong homogeneity in the production schemes and mapping objectives to obtain the main unifacially shaped artifacts commonly found in these assemblages (Lourdeau, 2015). These artifacts have always many different edges (in terms of line, angle and size) combined in a single piece, suggesting they were multifunctional artifacts. They are also characterized by their curation: they almost always have signs of successive resharpenings and were produced in anticipation of use. These attributes along with their multifunctional nature supports our interpretation of them as portable artifacts, traveling with their producers throughout the landscape (Bueno, 2007b).

### 4. Intensification and dispersion in the peopling of BCP during the early Holocene (11,000–9000 BP)

Just after 11,000 BP we have a huge increase in the number of sites and their spatial distribution, occupying all the BCP (Fig. 3). Nevertheless, it is good to remember that this occupation was not homogeneous and it did not covered all spaces that encompasses the BCP. Here as well there are selected places that show similarities—or at least places that have been occupied more frequently to generate an archaeological signature (Bueno, 2011; Dias and Bueno, 2013)—and other places in which we have a distinct archaeological record, especially regarding lithic technology, as we observe at Lagoa Santa (Bueno and Isnardis, 2017).

In this phase the occupation expands to other major river valleys of the region, as the Tocantins River and the Upper Parana (Paranáiba valley), and included too several tributaries of these main rivers (Schmitz et al., 2004; Bueno, 2007a). Also, special attention is given to those well-defined valleys that offer a good diversity of game and fruit, and maintain water availability throughout the year. This seems to be the case for other regions which we can connect with this second phase: Santa Elina, Serranópolis, Diamantina and Montalvânia (Prous et al., 1996/1997; Schmitz et al., 2004; Isnardis, 2009; Bueno, 2011; Lourdeau, 2015). The remarkable similarities in the lithic technology and technological organization among all these areas is what allows us to propose a regional phenomenon, whose origins are certainly related to the exploration dynamic that characterizes the previous period.

The subsistence seems to remain basically the same in this second phase, based on generalized exploration of small and medium mammals, fruits and birds (Kipnis, 2003; Schmitz et al., 2004). As pointed out by Kipnis (2003) and Schmitz et al. (2004), for several sites dated on this period, there are a remarkable presence of botanical remains, suggesting the importance of plant collecting in the subsistence pattern of these groups. As it has been stressed in several papers, there is no evidence of megamammals in the archaeological record of the BCP, even when there are evidences pointing to the coexistence of this kind of fauna and human occupation in the same area and period (Hubbe et al., 2014). The only exception comes from Santa Elina site, where there were found perforated osteoderms (Vialou, 2011).

Zooarchaeological studies carried out by Kipnis (2003) and Schmitz et al. (2004) in sites located at the Peruaçu valley and Serranópolis region, respectively, have suggested a subsistence where collecting plant resources should have had a very important role during the early Holocene.

To illustrate the main characteristics of this phase in order to discuss settlement strategies and the mobility system, we will...
discuss more closely the case of middle Tocantins river valley, in the Lajeado region.

According to the data obtained over the last 15 years of research in the middle Tocantins river valley, we have a well dated sequence that starts by 10,500 BP and continues until today, if we include in this sequence the actual Xerente’s occupation of this area (Morales, 2006; Bueno, 2007a,b; Bueno et al., in press).

For this region the available data comes from rockshelter and open-air sites. There are six open-air sites with a well dated sequence between the early and middle Holocene and two rock-shelters with dates for the same interval - 12,000–5000 BP (Bueno et al., in press).

The assemblages recovered at the open-air sites consist of lithic remains that are related mostly to the production of unifacial artifacts and only a few bifacial ones, mainly associated with the Itaparica Tradition. According to a set of analysis that include these dated sites and other open-air sites with same archaeological material, it was possible to propose some characteristics of the lithic technological organization associated to these contexts.

In the Tocantins valley we see the typical raw material selection that can be observed in other areas for the same period. Different strategies of raw material acquisition regarding its quality take place: that finest rock varieties are chosen for the production of unifacially shaped artifacts, while the rock varieties of inferior quality are used to make simpler tools and unmodified flakes.

When we look at the technical choices, we can clearly see an articulation between formal and informal tools production and discard. The formal unifacial artifacts are made by a well-defined chaîne opératoire, which implies specific technical choices from the raw material selection to the successive resharpening process.
until the abandonment of the tools. These choices involve the selection of the finest and most homogeneous raw material, only available in the bigger quarries of the region. On these quarry sites, a previous flaking of the cores was made, producing some blanks that were transported and flaked in other areas. These blanks must present two parallel and elongated sides, and must be thick enough to allow a continuous resharpensing process during its life cycle. Thus, the production of these artifacts involves a continuous process of definition, delineation and resharpensing of small edges. They were basically used on the production and maintenance activities of other artefact assemblages made on wood and bone. The process of defining edges to be use in different activities, and the constant redefinition of the artifacts’ passive part in order to permit its hafting and/or handling, involves a constant reformulation of the blank’s original form and volume (Bueno, 2007b). So, we see in Lajeado the same general process described by Fogaça (2001) for the North of Minas Gerais (Peruáçu Valley) and by Lourdeau (2015) for the Serranopolis region.

The distribution of the unifacially shaped artifacts within the sites, the variability of their edge compositions and dimensions, the use of resharpensing as part of the production process, and the number of artifacts, led us to propose that they probably were part of the toolkits that were transported by the individuals of these groups in different kinds of movements, and that they were used for a variety of activities involving mainly the acquisition of different resources. In this context, they were produced in anticipation of use—in terms of places of use and the activities that would be performed (Bueno, 2007b).

Another aspect of Tocantins river valley is that it was possible to see differences between sites in terms of environmental location and assemblage composition, probably due to some sort of logistical mobility. Nevertheless, it was possible to identify a recurrent use of the same places during more than a millennium, showing certain stability in the territorial dynamics. The quantity of archaeological sites that we found along the Tocantins River reinforces the idea that this major water courses should have had during this period. Furthermore, the archaeological record suggests a totally established occupation of the area, the maintenance of territoriality patterns and a strategy of lithic technological organization that involves mobility and an operational sequence that were implemented to cope with unpredictability in resource encounters in time and space (Bueno, 2007a).

If we look to other parts of the BCP, it is possible to identify within the operational sequences some aspects of the lithic technological organization shared between areas that were more than 2,000 km far from each other (Fig. 4) (Fogaça, 2001; Rodet, 2006; Lourdeau and Pagli, 2014; Lourdeau, 2015).

According to Lourdeau:

“The techno-functional analysis of the early Holocene lithic assemblages at GO-JA_01 [Serranopolis region], Toca do Boqueirão da Pedra Furada and Toca do Pica-pau [Serra da Capivara region] thus reveals the technological proximity of the unifacially shaped artifacts produced at these three sites, despite the great distance separating them. Similarities between the flake tools in these three assemblages are also pointed out. The technological relationship between these collections is thus not limited to the common presence of remains known as unifacially shaped artifacts. The three data sets demonstrate the existence of identical knapping objectives and similarity in the production schemes used to meet them. These lithic assemblages result from the same technological system. These observations, which support the strong conceptual homogeneity of these assemblages, are reinforced by data published for several other sites in the region. For example, at Lapa do Boqueirão or at sites in the Lajeado region, unifacially shaped artifacts are produced by the same modalities as at the three sites previously studied, and they show the same volumetric range in profiles and transverse sections. Based on published drawings, we also noted the existence of an UTFt [Transformative Techno-functional Units] on the ends of these artifacts with rounded, pointed or transverse rectilinear delineation. Finally, the debitage schemes used to obtain blanks for the associated flake tools are always described as simple, without core preparation, and by series of mainly unidirectional removals. These data tend to strongly confirm the existence of Itaparica technocomplex as a vast technocultural group distributed in central and northeast Brazil during the Pleistocene-Holocene transition and the early Holocene” (Lourdeau, 2015, pp. 65/66).

Based on the available information we propose that more than a conceptual framework for unifacial production, these regions were occupied by groups sharing specific ways of territoriality, involving high mobility patterns and logistical mobility. At the same time, this sharing behavior could have enabled the transit between different group territories, probably involving flexible frontiers, and the visitation by individuals from groups from distant locations.

But, as we mentioned before, there are places, such as Lagoa Santa, with an archaeological record that does not show these same characteristics. According the extensive data presented by Walter Neves and colleagues (Neves et al., 2003), the chronology obtained in this area shows a very clear scenario. In spite of some early evidence of humans crossing the region (the strongest support of this comes from a burial context where a female skeleton, known as “Luzia”, was recovered and was dated between 11 and 12,000 BP), the bulk of human occupation at Lagoa Santa started, rather abruptly, around 10,500 BP. Soon after 10,500 BP, new sites begun to be occupied. There are plenty of evidences in rockshelter and open air sites, especially in the surroundings of one of the largest karstic lakes of the region, where the amount of lithic remains increases. There are also evidences of the use of plants and, finally, the presence of some well elaborated human burials.

The lithic assemblage associated to this context is composed mainly by quartz crystal flakes, with a low frequency of flint, concentrated in the deeper layers. Most of the remains are quite small, less than 4 cm long, and most of the tools are informal, with one or two well defined small edges. Although scarce, some artifacts show resharpensing and reuse. There is also some evidence of hafting, even in these small tools, that were mainly unifacially flaked. In spite of the fact that most of the lithic raw materials were probably obtained from local sources, there are data showing the exploitation of raw materials located at least 60 km far from Lagoa Santa (Hurt, 1960; Pugliese, 2007; Bueno, 2010; Bueno and Isnardis, 2017).

These characteristics of the lithic technology tend to remain constant according to the following two millennia. However, there is an important technological innovation: all shelters more intensively excavated so far (systematically or not) indicate the production of a type of ground stone artifacts—hand axes. They are made of hematite or igneous rocks, raw materials not commonly found in the vicinity, and they represent the earliest record of ground stone artifacts for this area, as well as for Brazil, with dates that go back to 9500 BP (Pugliese, 2007; Bueno, 2010).

But perhaps the most striking aspect of the occupation of this area are the hundreds of human burials registered in several of these shelters, especially after 9000 BP. These burials are occupying large rockshelter’s and they indicate an important change in the process of handling and preparing buried bodies (Straus et al., 2016). This use of the rockshelters as funerary spaces marks a strong differentiation on meaning of the natural shelters compared to the other areas previously discussed (Peruáçu, Serra da Capivara, Serranopolis, Lajeado). Therefore, we could stand that in Lagoa...
Santa there was another structuration of the territory, other uses and meanings of the shelters and, by extension, of the other places connected with them.

Neves and collaborators have recently published a paper presenting what may be the oldest record of rock art for this region (Neves et al., 2012). They found engravings in the base of the shelter in Lagoa Santa, buried under a thick sediment column with samples dated by different techniques at 9500 BP. The engraved figures are stylistically similar to those registered in other shelters of this region. This case from Lagoa Santa points that, at least in that region, the rock art is already part of the building of place meanings during this second phase of peopling of the BCP.

Fig. 4. Unifacial (plane-convex) artifacts. (A) Serranópolis region (Lourdeau, 2015); (B) Peruaçu valley (Rodet, 2006); (C) Peruaçu valley (Rodet, 2006); (D) Middle Tocantins (Lajeado) (Bueno, 2015).
4.1. Hypothesis: changing patterns

In the late centuries of this second phase, we identify some changes in lithic technology. The main aspect of this change is that the traditional unifacially shaped artifacts are no longer produced.

Of course this does not happen at the same time in all places in the BCP. This was a changing process that occurred between 9000–8000 BP, at least in Serranópolis (Schmitz et al., 2004), Lajeado (Bueno, 2007a,b), Peruçu (Fogaça, 2001; Rodet, 2006) and Serra da Capivara (Lourdeau and Pagli, 2014).

These changes regarding lithic technology and rock art took place between 10,000–9000 BP and consolidated in the following millennia, leading to a process of regionalization. To understand such process, perhaps it would be helpful to take another look to the number of dates and sites for Brazil and, specifically, for the BCP during this period, as shown in Fig. 1. One of the aspects that we can note is that for the interval between 10,500 and 10,000 BP, slightly before these changes took place, we have the highest point on the graph, indicating the highest number of occupational events. If this could be seen as a proxy of demography, these changes might have happened right after an increase in the demographic patterns that we have observed for the BCP peopling process.

Another important aspect is that, based on site distribution, we could identify a spread of occupations toward the western of the BCP, where are located the headwaters of several major river basins of Brazilian inland, which could connected this area with other main Biomes of Brazil that are experiencing an intensification in human peopling too (Paraguaçu River with Chaco region and Plata basin, Xingu and Tocantins with Amazon basin, Paranába with Paraná basin) (Bueno et al., 2013).

As we mentioned before, in the beginning of the Holocene there is a general trend to warmer and wetter conditions in this area, which is almost entirely covered by a kind of savannah vegetation (Cerrado). Based on this data we are proposing here that the combination of demographic increase, intensification of cultural contacts and flux of people and information, improvement of resource availability could have contributed for the changes observed on the lithic technology and rock art, but they certainly also involved changes in mobility patterns, social organization, and territoriality. We could also add to all these aspects the proposal of Neves and Pucciarelli (1991) that, by the 9000 BP could have taken place a migration of a population from a distinct biological stock into South America.

5. Regionalization and transition (9000–7000 BP)

As noted before, what we see during 9000–7000 BP is an intensification of the regional variability and that, instead of technological homogeneity and large shared territories, the scenario is dominated by a regionalization (Fig. 5).

The lithic assemblages are essentially generalized, produced on local raw material and it seems that these regional assemblages are related to an expedient technological organization. Unfortunately, there are only a few projects with regional approaches, but what they are showing is a low variability between sites and a strong correlation with primary refuge at the sites, which could indicate the preference for a forager strategy. Nevertheless, it is important to mention that subsistence patterns remain the same, in terms of faunistic and floristic remains, even considering the taphonomic bias.

If we look closer to some of these regions, the distinctive attributes between the previous phases and this third one can be made clearer. In Serra da Capivara, the lithic assemblage is more restricted. Some types of artifacts, that were present since the Pleistocene levels, are no longer registered at the sites (rockshelters nor open-air sites) (Lourdeau and Pagli, 2014). There is less variability. However, the unifacial artifacts are still being produced. If we pay a close attention to the chronology, we will see that this change was happening around 9000 BP. Among the exuberant sandstone formations of Capivara, the bigger number of occupied sites can be found between 9000 BP and 6000 BP. It is not clear, however, if this increasing number corresponds to more similar or more distinguished sites.

In Peruçu Valley, both Fogaça (2001) and Rodet (2006) underline that a remarkable change took place around 9000 BP. In the rockshelters (where all the known sites from this period are located), the unifacial formal and sophisticated artifacts became rare or disappear from the archaeological record. The industries became simpler, made of less selected raw materials (Rodet, 2006), compatible with local sources, and suggest expedient solutions (Fogaça, 2001) such as less blank varieties, and simpler and non-patterned chaînes opératoires.

In the middle Tocantins river valley, the open-air sites which were intensively occupied during the previous period, were now abandoned. Between 9000 and 7000 BP we only have clear evidences of human occupation in rockshelters, places that were not occupied in the previous period. Thus, this area represents an interesting case of settlement patterns’ change and, at the same time, indicates the permanence in the region coupled with abandonment of some places and incorporations of new ones (Bueno et al., in press). The formal unifacial shaped artifacts that were produced earlier are no longer found at these sites.

From these data, we can observe reducing signs of logistical strategies that seems to be replaced by a generalized system for gathering raw materials for lithic industries. But this replacement was not general in the BCP. Yet, different objectives regarding lithic materials and different ways to deal with rocks and artifacts replace it. In some areas we no longer see the production of artifacts in anticipation of use, which were replaced by artifacts that seems to be made for occasional needs. Whereas, in another areas, the previous planned and multifunctional unifacial artifacts remain and are still important. It’s not just a change, it’s a change into diversity.

It is very interesting to note that Lagoa Santa context that present a distinct lithic technology, a large quantity of human burial, rock art and polished stone tools, shows an intensification process of occupation during the same period, between 9500 and 8000 BP (Bueno and Isnardis, 2017). As we have mentioned above, besides the ancient dates for rockshelters, the occupational dynamics of this region indicates an intensification after 10,000 BP, and a change on the activities performed at these places, especially the record of human burials in each site.

During this period we see the emergence of the rock art in distant places located within the BCP. The main areas to which we have more consistent data regarding rock art chronology are Peruçu and Serra da Capivara. At least in these two areas we could say that the rockshelter’s walls are inaugurated during this phase, between 9000 and 7000 BP (Ribeiro, 2006; Pessis et al., 2014). Besides the scarcity of data, it seems that between 9000–8000 BP we found the first rock art manifestations also in Lajeado rockshelters (Bueno et al., in press).

At Toca dos Otenta, a sandstone rockshelter in Serra da Capivara, a sediment level dated between 7840–7600 BP covers rock paintings (Pessis, 2002). At Lapa do Boquete, in Peruçu valley, a fallen block was filled with incisions and, after them, with geometric engravings, stylistic similar to one of the oldest styles in northern Minas Gerais. The level under the fallen block has a radiocarbon date of 9350 BP and the level covering the block was dated at 7810±80 BP (Ribeiro, 2006). In both cases, the
stratigraphic conditions are clear, well established, and the dates seems reliable.

But the presence of rock art in this phase is still subtle. It does not dominate the shelters and does not change the landscape, as it would do in the later periods. The pictures, especially in Peruaçu Valley, occupy the rock walls in small numbers and their themes and style are quite simple and non-specific (Fig. 6).

Even with few secure dating (see discussion in Ribeiro, 2006), we could say that the differences in rock art ensemble in Central Brazil start to become clear still in this phase. Ribeiro (op. cit.) sets in the two millennia of this third phase the first styles of Northern Minas Gerais and South-western Bahia states. The first styles on Peruaçu valley rock walls are composed by monochromatic anthropomorphic figures and by “geometric” figures, more frequently monochromatic, as simple parallel lines, “grids”, groups of spherical or squared biomorphic little figures (Ribeiro and Isnardis, 1996/97; Isnardis, 2004).

With no reliable dating, composed by simple lines, zoomorphic figures (most of them suggestive of lizards) and schematic anthropomorphic pictures, the earlier rock art from Goiás (at Serranópolis and Caipara regions) is not very different from that first styles of Peruaçu (Schmitz et al., 1989, 1996, 2004; Isnardis, 2004). But their local development will take very different directions in the following centuries.

At Unaí, in Northwestern Minas Gerais, P. Seda (Prous, 1991a,b) obtained an 8160 BP date at a level that covered a fallen fragment from the painted wall, thus establishing a minimal dating. Unfortunately, we do not have specific representations of those graphisms in the literature, but the date marks the beginning of this practice on rockshelters within the 9000 e 7000 BP phase.

In Serra da Capivara, the dates presented by Pessis (2002) around 7700 BP are related to the already very typical figures at

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Southern Piauí called “North-East Tradition” (Pessis, 2003; Pessis et al., 2014). By this period, the regional walls are dominated by anthropomorphic paintings combined in very suggestive sets that seem to compose scenes. For some researchers these themes will remain throughout the next millennia. If we compare the themes and stylistic characteristics of the sets of graphisms in these areas, we can already observe a diversity, even though it is not intense and evident enough as it will be later in the following periods of the rockshelters’ occupation.

In Tocantis (Goiás region) and in the rest of the Minas Gerais state there are no known burials dated on this period. The rockshelters are not being used as funerary areas. The only area that has burial assemblages is the Lagoa Santa region. Nevertheless, W. Neves and his research team have suggested that the horizon that comprises the third phase we proposed could corresponds with the arrival into the Planalto Central of new human populations, based on data regarding diversity in cranial morphology (Neves and Hubbe, 2005; Neves et al., 2003; Hubbe et al., 2014). The presence of a new morphology could be taken as an aspect to think on the wide range of processes that was developing during this third phase, where the most ancient similarities are being dismantled within a framework of an emerging regionalization.

Fig. 6. Most ancient rock art discussed in this paper. (A) Engraving in Lapa do Santo, Lagoa Santa region (Neves et al., 2012); (B) Fallen block from Lapa do Boquete, Peruaçu valley (Ribeiro, 2006 - modified); (C) Most ancient style of rock art at Serra da Capivara (Pessis, 2003); (D) Early styles from Peruaçu valley (Isnardis, 2004).
5.1. Hypothesis

It’s clear that, besides possible sampling bias, another territoriality is being built. Moreover: another territorialities are being build. The use (and meaning) of sites have changed. When one compares between the regions during this period, the differences become very significant. In some regions, as Lagoa Santa Karstic Plateau, the caves and rockshelters became funeral places. The known rockshelters at Diamantina region are empty of archaeological remains. In Serra da Capivara, this is the major period of rockshelter occupations. In Peruáçu valley there are many remains in rockshelters, but the unifacial artifacts are gone. In Serranópolis region, the number of occupied sites increases and they became more similar to another. This configuration seems to reinforce the changes that begun at the end of the previous phase, consolidating the regionalizing process that resulted on the development of new artefactual assemblages and new dynamics on the use of space. These changes on technology, mobility and territoriality will mark a new phase in the peopling process. Between 9000 and 7000 BP seems to be the end of the slow and gradual occupational process of the BCP that begun at the end of the Pleistocene, and that comprised the building of wide and shared territories. As we observed by the end of the last period, these changes could have been related to a demographic growth, an intensification of the information flow and environmental changes, and possibly also to the arrival of new human populations to the BCP.

6. Fission, abandonment(?), rock art and the formation of archaeological record: further into Holocene and diversity

To finish our long history, by 7000 BP we have another scenario taking place at the BCP. What we see is a strong decrease of the archaeological signal for the BCP. The number of sites and dates decay abruptly in several regions (Araujo et al., 2003; Araujo, 2014).

Araujo and colleagues in a paper published 12 years ago, have identified this pattern of low archaeological signal as the Archaic Gap. In that paper the authors presented a revision of paleoclimatic data for Central Brazil and a revision of known dated samples from archaeological sites. By comparing these two sets of data they presented a hypothesis to explain the almost absence of dated sites during the middle Holocene in Central Brazil. In their opinion, this phenomenon could be explained by a process of regional abandonment due to a paleoclimatic context marked by an intensification of aridity that should have led to a scenario of low water availability (Araujo et al., 2003).

To exemplify one possible alternative explanation to that proposed by Araujo et al. (2003), we can explore, in a regional scale, the archaeological context for the Central-northern of Minas Gerais. This region encompasses 6 archaeological areas that have been the research focus from different archaeological teams or the same team in different periods, from South to North: Lagoa Santa, Diamantina, Montes Claros, Unai, Peruáçu and Montalvania. Almost 600 km separates Lagoa Santa, in the South, from Montalvania, in the North; from Unai, at the North-West and Diamantina, at the Eastern border of this region, the distance is about 400 km. Such distances define an area of almost 300.000 km².

Using an interval of 500 years (to maintain the method utilized by Araujo and colleagues) to distribute the dated samples, what emerges from the graphic is an “alternation pattern”. The occupation periods of each area is intercalated within each other: when one area does not have dates, the neighbour area has (Fig. 7). This seems to be a pattern at least between 8000 and 4000 BP. It suggests that we have an integration among these areas, with some kind of circulation of their “gravity center”.

Along this exact period, the lithic industries of all these regions share some features: they rarely made formal artifacts; they selected local raw materials; most of the artifacts are small, with a few retouched edges and low frequency of resharpening behaviour; their nucleus does not show too specific characteristics, indicating an absence or a minimum of planning prior the flaking process; they are not looking for a specific type of support, but they are producing specific kinds of edges in different supports. Besides regional variations probably regarded to the access of particular raw materials, it is possible to say that during this period there is some similarity between their lithic assemblages, especially regarding the central and northern areas of Minas Gerais state.

When we look closely to those areas, we can see, beyond the similarities in lithic industries, different modes of territoriality.

For Lagoa Santa region, besides the aspects showed above, the lithic artefact production remains focused in quartz crystals, which are very ubiquitous throughout the landscape. However, the burial practice in caves and rockshelters is abandoned, meanwhile the previous day-to-day activities continues in those sites.

In Diamantina region, among the approximately 20 excavated sites only in one of them it was obtained radiocarbon dates between 6000 and 3000 BP (the excavation was conducted by Prof.

Fig. 7. Distribution of C14 dates per 500 yr for archaeological sites located in five different areas in center and northern Minas Gerais.
Marcelo Fagundes and his UFJVM team (Fagundes, 2016). This single case indicates the human presence in the region for the middle Holocene, but the strong absence of archaeological levels for this period at the rest of the sites shows a remarkable change in technological organization and mobility strategies. Before explaining this absence by regional or local abandonment, we wish to underline that all the dated samples come from rockshelters. Thus, we are looking at an absence in these particular locals in the landscape. What we can really say is that rockshelters lost the important role that they had previously played; they no longer occupy a relevant function in mobility strategy and technological organization.

At Peruaçu valley and Montalvânia region, in the extreme North of Minas Gerais state, after 7000 BP there are no more signs of plan-convex artifacts or any other kind of formal (or complex and patterned) lithic artefact. The density of lithics and other materials in archaeological levels decays. However, the shelters continue to be used until the upper Holocene. The rock art became more frequent, intense and more distinguished between the areas, but secure dating is still difficult to obtain (Fig. 8).

In Lagoa Santa region (we include the neighbouring Serra do Cipó, in the southern point of Espinhaço mountain chain) the researchers presented solid radiocarbon dates that indicates the rock art composing from $5120 \pm 130$ BP, at Lapa Vermelha (Laming-Emperaire, 1979), until at least 2000 BP, at Santana do Riacho (Prous and Baeta, 1992/93). Known as “Planalto tradition”, the oldest pictures in this region are dominated by zoomorphic figures.
(especially “deers”).

Significant similarities were observed between Serra do Cipó and Diamantina rock art (Isnardis, 2009; Linke, 2014). Not only in terms of themes election, but also the stylistic change (the older figures in Serra do Cipó are very similar to the older figures in Diamantina); the same occurs with the younger pictures. If we assume the same range of dates for both regions, we would have the rock wall occupation in Diamantina beginning at the same period for which we have no archaeological levels.

For Peruaçu valley and Montalvânia region we don’t have rock art dating between 7800 and 2800 BP (Ribeiro, 2006). But this last date corresponds to the last style of “São Francisco tradition”, and the first date seems to correspond to its first style (Ribeiro, 2006). So, its development could be placed in the middle Holocene, based on the available data. Characterized by polychromic figures, abundance and major interest in high and wide panels, the so called “São Francisco tradition” dominates the rock walls in Peruaçu valley. In both thematic and stylistic aspects the early São Francisco tradition is deeply different from the figures that dominate the rockshelters in Diamantina, Lagoa Santa e Serra do Cipó.

Another important aspect related to rock art in central and northern Minas Gerais is the fact that in both regions it seems that the interactions with previous occupation of the shelters are key elements in the panel composition (Ribeiro and Isnardis, 1996; Isnardis, 2004, 2009; Linke and Isnardis, 2012). Continuity throughout the middle Holocene is a significant component of rock art for both areas. This phenomenon suggests strong ties with the painted places, a strong sense of relation between those people and their territory. However, in each region those interactions involved different behaviours, reinforcing the strong cultural diversity in middle Holocene (for further discussions see Isnardis, 2004; Linke, 2008; Linke and Isnardis, 2012).

Some similarities can be found in the intermediate areas, between Serra do Cipó/Diamantina and Peruaçu/Montalvânia regions, as well as in Jequitai (Tobias, 2010), Monjolos (Guimarães et al., 2011) and Montes Claros (Bueno, 2013). The rock art assemblages from those areas present some similarities with the first regions, but also local specificities. They show particular ways of selecting and combining the themes shared with other regions, integrating original themes and also composing specific spatial organizations on the rockshelters.

The funerary practices are still unknown for most contexts of central Brazil, far away from the littoral area, until the range of 3000 BP. Most of the data that we have for the first millenniums of this fourth period comes from rockshelters, which seem to have functioned as funerary spaces on a punctual way (Prous and Rodet, 2009b). Nevertheless, Neves points out that the morphology of most of the known individuals are similarly with the contemporary Amerindian populations and, therefore, distinctly different from the morphology of the individuals from the beginning of the Holocene. The site Caixa D’Água de Buritizeiro, north of Minas Gerais state, is an important exception to the scarcity of burials in the Brazil inland during the first millenniums of this fourth phase. It is an open-air context on an old terrace of the São Francisco River that was used as a funerary space for a long period, between 7000 and 6000 BP (Prous and Rodet, 2009b). But we still lack of detailed studies on the morphologies of the dozens of individuals buried there.

6.1. Hypothesis

Based on these data we propose that during the mid-Holocene what we have, at least for this region of central-north Minas Gerais, it is not a “regional abandonment”. Maybe we could work with the idea of changes in territoriality, with a different mobility pattern and different ways of conceiving, using and maintaining a territory. Instead of thinking about abandonment, we could conceive such process as permanence, with some kind of dispersion of small social units for wider regions that, in certain moments, came together at specific places of this large region. The similarity identified in the lithic technology, this integration between areas with distinct rock art, the importance of re-occupation and interaction with previous occupations, the pattern of dated samples pointing to an intercalation of occupation intensity between these areas. All these aspects allow us to propose this hypothesis: during the mid-Holocene, at least for the area of central-north Minas Gerais, we have a process of territoriality changes, one that involves not a regional abandonment but the incorporation of wider areas in a movement of permanence that involves integration, articulating different areas across the space and time.

7. Final remarks and future research

In this paper we have proposed four distinct periods related to different process of peopling the Central Brazilian Plateau. These periods involve changes in technology, territoriality, mobility, and rock art. As we mention, there are series of factors that could have contributed to these changes: demography, cultural contact, environmental changes. From a theoretical point of view, we are proposing that all such aspects must be considered for building an interpretation about the reasons and meanings related to these changes.

Based on what was presented above we can synthesize these four main periods as follows:

Phase 1—from 13,000 to 11,000 BP. At the local level we have evidences of a logistical mobility being practiced associated in the regional level with large territories without well-defined boundaries, facilitating an intense flux of people, information and goods; related to an exploration and colonization phase (sensus Zedeno, 1997); Phase 2—from 11,000 to 9000 BP. We still have a logistical mobility at the local level, more influenced by Cerrado seasonal variability, demographic increase in the beginning of this phase and, towards the end, we can propose that a regionalization process is taking place at the BCP, with a decrease in territorial extensions and probably well-defined boundaries; this phase could be correlated to a Settlement phase (Zedeno, 1997).

Phase 3—from 9000 to 7000 BP. The wide sharing of technological organization in the Central Brazilian Plateau fades away. Instead, more peculiar strategies and technological choices rise in each region. Diversity takes place and we can see different kinds of mobility, other territorialities, which change the meaning and use of the places in the landscape (which in turn it occurs in different ways in each region). The rock art became part of the landscapes, but still in a shy way.

Phase 4—from 7000 BP. The diversity increases. The rock art multiplies and becomes a strong component of regional landscapes. Some elements of technological organization are being shared among the areas, especially in Minas Gerais, but lithic industries, site function and mobility are diverse throughout the Central Brazilian Plateau. Some areas show weak archaeological records or only specific kinds of remains (as rock art). Some places are abandoned, but human presence is still clear and culturally diverse throughout Central Brazilian Plateau.

How can we explain these changes? Why did they occur?

First of all, it is important to stress that, although it is possible to propose these changes based on the characteristics of archaeological record, as we have just presented, we still need more and better data to truly understand the reasons that have guided the choices.
made by the people that were experiencing those places in the BCP.

The changes identified in a macro-regional scale by 9000 BP happen a short time after a huge increase in the quantity and geographical distribution of the sites. As we have argued, it could have involved changes in territorial extent and boundaries, cultural interaction and flux of information between human groups living in different places.

One remarkable aspect in the occupation process of the BCP is that, besides all these changes, there are some places that are occupied during all periods. Certainly, the choices made by the people who inhabited, built and lived in these places were not the same.

Studying the rock art of some sites of Peruçu river valley and Diamantina region Isnardis and Linke have identified interaction processes between the figures painted in the wall. In both regions, the younger paintings are placed in the walls establishing an intense dialogue with the older figures. In Peruçu valley, new paintings are placed very close to the older ones with the same themes; older paintings are re-painted or receive a new contour (with a new colour); the graphic spaces (the panel limits), defined at the first moment of painting, are maintained (Isnardis, 2004). At Diamantina, the interactions are even more radical (clearly composing a different system of interactions): the new paintings are mainly composed touching the limits of the older ones; sometimes they are placed inside their limits or they completely encompass older figures; in many cases the new paintings do not compose complete figures, they are partially composed by traces that belong to older figures or they put another elements into older paintings, transforming them (Linke, 2008, 2014; Isnardis, 2009; Linke and Isnardis, 2012).

Putting all these aspects together we could present a hypothesis that some places, once selected as important landmarks to help navigate the uninhabited or poorly known landscapes, as in phase 1, becomes more and more “Places of People” (Machado, 2012). By the material remains on the floor and, especially the painted walls, they become recognizable as places that were once occupied, places that were already used by people with whom they could or could not have engaged directly or even recognized. In the perspective of regional ranking, we can say that these are places of interrelated temporalities, places that connect people through different times, places where people from different times engage together to continue building them, performing different kinds of interactions through the figures painted at the walls: denying, complementing, reinforcing are all aspects that, curiously or not, correspond to the same actions that we perform in the process of constructing histories and memories (Santos-Granero, 2007).

So what we are trying to build is an understanding for this long process of exploration, colonization, settlement and abandonment of the BCP that does not focus in just one aspect, neither present just one and major cause to explain such process. We are proposing that we need to put all aspects together and look for an explanation where environment, demography, technology and subsistence were combined to explain in contextual perspective the dynamics of territorial histories involved in the peopling of BCP.


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