

## Archaeology and Caves in the Carstic Province of Arcos-Pains-Doresópolis, Minas Gerais

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### Abstract

In the limestone province, in which are situated in the towns of Arcos, Pains and Doresópolis, 200 kilometers South-West of Belo Horizonte, prehistoric archaeological evidence in caves has already been identified in the nineteenth century. Since then, limited archaeological research has been done. The mapping of caves since the 1980's revealed a great number of archaeological sites. In 1998, archaeologists and students of the speleological group *Guano Speleo* reopened the discussion and started a systematic search and registration of sites, participating of an interdisciplinary study, led by researchers of the *Instituto de Geociências (IGC-UFMG)* of Belo Horizonte. New sites, with pottery, lithic, bone, rockpainting and charcoal were discovered. Large concentrations of material were found in the illuminated entrance of caves, but differently from other carstic regions, better known by archaeology, also in afotic places, penetrating 40 to 50 meters into the natural cavities.

### Introduction

All limestone areas, thanks to certain specific characteristics, hold potentially important archaeological data. This kind of relief with natural shelters, lakes, rivers that disappear and reappear from the limestone and the thick forest galleries (woods that follow the border of rivers), always attracted man, since prehistoric times. In the Carstic Province of Arcos-Pains-Doresópolis, we can find a rich archaeological heritage, as significant as the Lagoa Santa plateau and the Peruaçu river valley. All of these regions are situated in the state of Minas Gerais. Apart from the abundance of natural resources, the caves and shelters function as if they were timecapsules, preserving a great variety of archaeological evidence, many of these with large chronological depth.

### Researches of the Past and Present

The limestone formations in the towns of Arcos, Pains and Doresópolis have been the stage of archaeological findings since the nineteenth century (Eschewege, 1944).

However, the main archaeological initiative was taken by researchers of the *Instituto de Arqueologia Brasileira/RJ (IAB)*, for the PRONAPA-project (Nacional Program for Archaeological Research), between 1969 and 1974. This team, led by Ondemar Dias Jr., made fieldtrips and registered over 30 sites (Dias Jr., 1974). The material collected was of a diverse nature: lithic instruments, charcoal, pottery, etc. Besides the definition of the Piumi-phase as a part of the Una pottery tradition, little information was published (Dias Jr., 1971/1974, Prous, 1992). Later, at the end of the 1970's, the Province was visited by members of the *Setor de Arqueologia* of the Federal University of Minas Gerais (UFMG), led by André Prous, who published some dispersed information (Prous, 1992).

The speleological prospection, ironically, has been since the 1980's until now, the responsible for the localisation of major part of the sites.

At the end of the last decade, an interdisciplinary project was undertaken by researchers of the *Instituto de Geociências (IGC)* of the Federal University of Minas Gerais (UFMG), with the intention to elaborate a program of sustainable development for the province. The big number of caves containing prehistoric material in its interior created the need for an archaeological survey, that is being realized by archaeologists of the *Guano Speleo* group. Over 20 caves are already registered, and a variety of material was discovered: gravings in stone, uncovered burials, stone instruments, shells, charcoal and a great number of sherds,

some already covered by carbonatic deposits. This relation between prehistoric groups and caves is unique in the state of Minas Gerais and demands careful interpretation.

This work, until now, has been limited to searching for archaeological evidence on the surface or in eroded areas and in registering the sites without any kind of intervention.

### The Archaeological Material

After almost two years working in the region, we noticed that the shelters with material rarely are to be found in places of difficult access, like the top of the limestone massive, or far from water, for example.

The archaeological material is in many cases seen at the entrance of the caves, that is, at the sheltered and illuminated part, but, sometimes, it extends up to 30, or sometimes even 50 meters inside. This happens, for example, in the caves *Gruta de Massambará* and *Gruta do Capoeirão* (see last page for *Table 1* with relation site x material evidence). This is not common in Minas Gerais. In the two carstic regions, best known by archaeology, Lagoa Santa and the Peruaçu Valley, such phenomenon doesn't occur in the same intensity.

In many cavities, hundreds of sherds are scattered on the surface, sometimes accompanied by rests of bonfire, alimentation, spindles, other times by human bones and polished axes. In the rockshelter *Abrigo da Lagoa do Peixe* we found concentrations of flakes of various types in eroded places. What surprised us then, was the total absence of pottery. It could be that we here are dealing with hunter-gatherers, knowing that these, in general, didn't make pottery and had a flaking technic that was different from the ceramist groups.

The sherds we found in the caves, have not yet been analysed systematically. However, some characteristics were observed. The pottery we are dealing with has different shapes, sizes and thickness, has no decoration and, occasionally, has red or white coating. Some times we see sherds with black walls, because it was burnished. No reinforcement of the walls, typical of the Tupiguarani, was detected. At least three forms were identified, thanks to fragmentated rims we found: (1) a smaller form, with an open rim, the wall inclined internally and a round bottom; (2) a bigger form, with a thicker wall, that inclines internally, a closed rim and tending to be globular; (3) an open vessel with a wall that inclines externally. The pottery, thus, seems to be multifunctional because of the different sizes and shapes.

### Final Considerations

What could have been the relations between the prehistoric indians and the caves? The caves could have been used for various activities and by different kinds of groups. But, these natural cavities, we believe, were not the preferred permanent places to live, and this for two reasons. The first, because of a logic of convenience: why live in a hole, in many cases a humid place, where different kinds of animals frequently look for shelter and where it is impossible to accommodate a large number of people, when there are resources, space and a favorable climate to build a settlement in a more salutary place, close to a stream, for example? The second reason we find in the archaeological evidence. In the regions of Lagoa Santa and in the Peruaçu Valley, the cavities were also used as a temporary shelter, a place to bury the dead and for storing provisions. Thus, for complementary activities.

Nevertheless, we have a new element that makes the carstic province of Arcos-Pains-Doresópolis different: the fact that we find archaeological material, with bigger frequency than elsewhere, in the afotic area of the caves.

## Table

Table 1: relation between the sites found and visited by our team and the main kinds of evidence

Sites	Town	Type of Evidence					
		Lithic	Pottery	Rock-painting	Human Remains	Charcoal	Fauna
Abrigo L, de Peixe	Doresópolis	X					
*Perdição I	Pains	X		X		X	
*Perdição II	Pains			X			
Gruta Capoeirão	Doresópolis	X	X				X
*Gruta da Dobra	Pains	X				X	
*Sorvetão	Pains		X			X	
Isaías	Pains		X				
*Anemólitos	Pains		X				
*Gruta Marinheiro	Pimenta	X	X	X		X	X
Gruta do Brega	Pains		X			X	
Gruta Milagres	Pains		X				
Abrigo de Carro	Arcos			X		X	
Gruta Paranoá	Pains		X				
*Buraco Sujo	Pains		X			X	
*Loca de Pedra	Pains	X				X	
*Gruta ½ Encosta	Pains		X			X	
Dolina dos Machados	Doresópolis	X	X				
*Gruta do Osso	Pains	X	X		X		X
*Abelhas	Doresópolis	X				X	
*Lagoa de Peixe II	Doresópolis		X				
*Ti'Rafa	Pains		X	X			
*Favo de Mel	Pains	X	X			X	X
*Gruta dos Peixes	Iguatama		X				
Gruta Massambará	Pains	X					

\* Sites found by our group.

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