

# **ANOTHER TESTIMONY OF CROSS-CULTURAL INTERACTION? THE WALL GROOVES OF BUSHMAN ROCK SHELTER**

**Session "Populations and interactions in Late Holocene" - 6 sept, 15h**

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## **Intro:**

Foragers were not isolated from the other groups living in Southern Africa, herders and farmers communities. These interactions between them can be seen in many domains, like rock art, which have been well studied by several researchers. For example, Cathelijne and Edward Eastwood showed that in the Limpopo foragers enriched their image repertoire after herders arrived in the region. Another example is the engravings of Driekopseiland, in the Karoo, that are the result of a mixed community called the Khoisan by David Morris. In those two cases, interactions in the rock art sphere hints that, in some places, foragers and herders had close socio-economical relationships. In order to better characterize those interactions, we should consider another kind of archaeological remain : grooves.

## **Definition:**

A groove can be defined as a simple engraved line. They are found in many places all over the world, from the Palaeolithic in Europe to more recent time in Australia, including North America and Africa.

They are documented in different locations in Southern Africa, mostly in the Limpopo Shashe Confluence Area, in rock-shelter or boulders. Their number, arrangement and morphology vary from a site to another.

In the Limpopo Shashe Confluence Area, Cathelijne and Edward Eastwood attributed part of the grooves to hunter-gatherers as a part of rituals, and another part, to Iron Age communities, as a result of sharpening metal blades or to shape other tool. In the North-West Province, Jeremy Hollmann found that grooves had probably been done for powder production as part of ritual in Khoe-San communities.

## **Issues:**

Understudied, several issues about the grooves are still debated:

-their antiquity,

-the duration of the practice,

-was this practice shared by one or several communities,

-if yes, how did this sharing happened?

-and indeed, the intentions behind such practice: rock art, ritual activity or using it for a common purpose or for having several functions?

## **Context:**

These questions have been addressed in my master research, supervised by Camille Bourdier and Sam Challis. I specifically considered the site of Bushman Rock Shelter as a case-study, within the framework of the ongoing research program supervised by Guillaume Porraz and Aurore Val, and funded by the French Ministry of Foreign Affairs, the CNRS, and the IFAS.

It's a large shelter located in the Limpopo, formed in dolomite, large of 55m, 25m deep and 13m high. It contains a rich MSA and LSA deposit, and a layer of Iron Age, excavated and studied since the 1960 's, especially by Hannes Eloff and Ina Plug, and, since 2013 by Guillaume Porraz and Aurore Val. Northern Sotho paintings are also found as hundreds of grooves. Louw assumed they've been made by sharpening metal tools during the Iron Age, but actually they had never been neither documented nor studied properly until then. So the chronology, the cultural attribution and the intentions behind the practice were still to be fully investigated.

### **Objectives:**

My research questions addressed the homogeneity of the grooves, and specifically considered the distribution of the grooves (location and composition), and their technology (tools and technical processes for their making). These 2 investigative perspectives bring new elements on the chronology and on the intentions.

### **Method:**

For that purpose, we considered first the distribution of grooves on the walls and their taphonomy. Then, we selected a representative sample (20% of all the grooves), in order to study the grooves layout. On the same sample, we conducted as well morpho-technical analysis, using 3D photogrammetry and reference document from literature.

### **Results:**

- Why
  - Every groove have been engraved on flat dolomitic surfaces, avoiding cracks in the rock or calcite inclusions
  - + The composition follows a repetitive pattern: most of the grooves are grouped by 5 to 20, aligned together horizontally and tend to be parallel or at least strictly avoid to cross each other
  - + Grooves morphology is the same for most of them: more or less vertical and straight.
  - + most of them have irregular profile, thin and elongated at the extremities, blunt edges, symmetrical and angular section. This shows that the same gesture and tool have been used
  - At the same time, this pattern is not systematic, as none of the groups are similar: the number of grooves differs, they are not perfectly parallel or vertical, no groove have exactly the same length, depth and width (from 50 to 350 mm of length, 0,5 to 7 mm of width and 0,2 to 1 mm of depth) or profile, implying variations in the technical gesture.
  - = seems that a certain pattern is repeated but it's not strictly standardized
  - → this repeated composition and technical pattern indicates that most of the grooves were probably done with the same purpose

- → indicates for us that the main goal is not to create a pattern/design in a strictly ornamental purpose, and that grooves were made during a ritualised activity.
- What about the chronology
  - When we look at grooves distribution in the shelter, we can see than the lowest one used to be covered by the deposit removed during excavation. And the one that are very close to the stratigraphy were probably covered by LSA deposits
  - The taphonomy also tells us the antiquity of some grooves that are higher up: crust had time to form inside engravings that are between a meter and 2 above ground level. Some grooves have been partly destroyed because of natural spalling of the rock face. Those two processes take a certain time, even if it's difficult to know exactly how long.
  - The highest being at 2,5m above the current ground level
  - Number of grooves
  - → this practice is ancient and probably dates back from the LSA.
  - → As only a part of the grooves are very low, as only a part had been filled by crust, it's very likely there've been many episodes of engravings, that are difficult to date
  - → finally, it seems that LSA foragers originated at least a part of the grooves. It is now difficult to be sure that it's the case for the whole set of Bushman Rock Shelter, but, if we refer to other sites where grooves have been attributed to more recent population, like the Khoe-San in the North-West Province, as proposed by Jeremy Hollmann, it appears that groove making have been shared by several different communities throughout the longue durée. These marks could thus be another perceptible transcultural element within the material culture of hunter-gatherers and herders.

## **Future perspectives**

At present, the main objective for the ongoing research program on BRS grooves, still developed by Camille Bourdier, is to precise the chronology of the practice:

- starting time during the LSA ;
- duration of the practice with the issue of a single or several cultural attributions ;
- eventually the number of grooving episodes ;
- and the temporality of these several grooving episodes.

In this perspective, the 2 investigative approaches conducted in the Masters research will be deepened :

- the taphonomic study of the walls and grooves, in collaboration with geomorphologists and geologists, in order to characterize the different processes precedently noticed and recorded, and to determine their relative sequencing ;

-the technology of the grooves will be further studied through an experimental approach of groove-making with lithic and metal tools, on spalls of walls found in BRS vicinity, with the full range of taphonomic states documented in the site. These experimental referentials will then be compared to the archaeological grooves through HD 3D photogrammetric capturing. Indeed they will also help better characterize the technical gestures which created the grooves.

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