In this paper we present some of the results obtained from a technical study of a series of pieces of portable art from the Middle Magdalenian levels of three of the most important sites from the period in Cantabria and the Pyrenees: Las Caldas (Asturias), La Garma Galería Inferior (Cantabria) and Isturitz (Pyrénées-Atlantiques). Microscopic observation with Scanning Electron Microscopes (SEM) and stereoscopic microscopes was used to identify the technical factors that then enabled us to reconstruct the methods and technical characteristics involved in producing the figures. The study was based on a methodology that had already been proposed in previous work on the technological analysis of portable art. The results were analysed together with evidence of processes of destruction or reuse, as well as evidence of any possible symbolic or ritual uses for the art.

The technical study of the aforementioned corpus aimed to identify the operational sequences involved in the production of the artistic objects, including the phases prior to decoration, the process of engraving itself, and the subsequent processes that affected the objects, such as their use, destruction, and abandonment.

Phases and subphases of the various processes involved in the pieces of portable art analyzed.
The production of decorative objects on hard animal materials involved a range of technical expertise. By identifying these skills we can reconstruct the operational sequences used and establish conclusions about the actors involved, and through this, the society to which they belonged. Our research has demonstrated the technical uniformity of portable art in the Middle Magdalenian in Cantabria and the Pyrenees, a uniformity that could even be extended to the Aquitaine region in the light of previous research in terms of the methods used for producing both figurative and non-figurative art. This uniformity indicates a regulated code transmission system that allowed formal and technical schemes to be perpetuated throughout the different regions of southwest Europe.

At the same time, reconstructing operational sequences and understanding the processes involved in the production of portable art, from the phases prior to decoration to the abandonment of the objects, has highlighted the great complexity involved. As Tosello has pointed out, the term “portable art” covers a wide range of different types of object, and the results of the study show that there was great diversity in terms of the degree to which the materials were prepared beforehand, the extent to which they were decorated, the uses of the objects, and even the destruction processes. These differences are a reflection of the different uses that Magdalenian societies probably made of these objects and are roughly reflected in the type of material used, whether stone or bone.

In addition, the data suggests that there was a very close relationship between symbolic and daily activities, or more precisely, that daily activities were imbued with symbolism. In this sense we can consider portable art a process that was an integral part of the different activities that Magdalenian groups carried out. Alongside the decoration of utilitarian objects, such as weapons (knives, protoharpoons, perforated batons, hammer stones, ...) or objects intended as ornaments, we can also see the production of motifs on material that had no specific use, such as diaphysis fragments and engraved plaquettes. In both cases destructive processes have been observed, such as erasing, scratching, cutting, and intentional fracturing. This suggests that, despite their different uses, they were all part of a common symbolic system.
As the majority of portable art from the Middle Magdalenian was found during excavations that took place in the late 19th century and early 20th centuries, we do not know the contexts that surrounded the portable art and it is therefore difficult to explore these issues. At some sites, such as Las Caldas, or La Garma Galería Inferior (Cantabria), where the floor of a chamber from the Middle Magdalenian period is still intact, we are currently able to gather further information on the context and although the data is highly fragmentary and has not yet permitted us to establish general trends, the study of the spatial dispersion and contextual association of the pieces of portable art and the reconstruction of operational sequences are currently proving to be some of the most promising ways of understanding the role of portable art in Magdalenian societies.