## Old material, new data. The mummified human remains from the Sacro Monte (VA)

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**Abstract.** The discovery of a forgotten burial place in the hypogeum of the Sanctuary of Santa Maria al Monte of Varese (western Lombardy, Italy) has made it possible to find some mummified human remains. This letter wants to underline the informative potential of these peculiar osteoarchaeological materials, proposing some laboratory analyses for the future.

Key words: Mummified Human remains, paleopathology, Sacro Monte Italy

During the last few years, even in the face of a complex health situation, research on mummified human remains has flourished in north-western Lombardy (1,2). These materials resulted to be really interesting for the research, because they put in evidence new data and knowledge from an anthropological (3,4), historical (5) and metodological (6) point of view. We can remarke, that in stead of the deep knowledge of this territory it can still surprises us with new opportunities.

In 2001, during the works of an elevator was put in evidence to the archaeological investigation a forgotten ambient of the Sanctuary of Santa Maria al Monte di Varese. The hypogeum was dug directly into the rock and housed various anthropological remains. Four anthropomorphic masonry tombs belong to the most ancient phases of use of the hypogeum and housed the remains of members of the clergy; later, between the end of the 15th century and the eraly 19th century. This room was used as a burial place for more than a hundred subjects of the population of the Sacro Monte. Some mummified anatomical portions were also found among the skeletonized remains, in detail: a head (Figure 1), a hand and two feet. These remains have already been analyzed by anthropological and radiological analysis shortly after their discovery. However, their information power is far from being exhausted.

The review of these osteological materials led to propose the further following methodological process.

A new series of analysis will allow the acquisition of more anthropological and paleopathological data to supplement those published. This will make possible to have verified and homogeneous data set useful for the analysis itself and for comparison with other osteoarchaeological contexts.

Reviewing these mummified materials will also allow us to acquire new data useful for understanding the processes that led to their conservation. For instance, it will be possible to perform non-destructive analysis in Fourier transform infrared spectroscopy (FTIR). Actually, applying this analysis, is possible to highlight the presence of heavy metals that were often used to prepare the bodies in cases of embalming; otherwise it will be possible to shift our attention in greater detail to the place of conservation of the remains, which could have played a crucial role in the mummification process. Finally, the entomological analysis will increase the value of the study. This type of analysis finds a fertile field of application in archaeological contexts, as well as in the forensic one and they expresse great potential in the archaeological field.

In fact, there are many informations that may be inferred about the history of the subjects, both on the peri and post mortal phase, as: the season of death, the rituals adopted, the treatment of the body and the methods of burial.

All things considered, these remains are actually still rich in informations that will have to be acquired,



**Figure 1.** Frontal view of the partially mummified head from the Sanctuary of Santa Maria al Monte di Varese.

to integrate the picture of our knowledge on mummified human remains from western Lombardy.

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