

Anthropology and Paleopathology of the Natural Mummies of Navelli (Central Italy). Preliminary Results

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Abstract

The church of San Sebastiano in Navelli contains hundreds of mummified bodies dating back to XVI-XIX century and accidentally discovered in 1980.

The recovery, started in 2001, yielded the remains of 206 individuals in different conditions of preservation. The series includes 157 adults (102 males, 42 females, 13 indefinite), with an average age of 51 years, and 49 children.

No macroscopic evidence of internal organs was observed in mummified subjects, whereas skin, skeletal muscles and other superficial tissues (eyes, ears, hair) appeared well preserved, suggesting a preminent role of desiccation in mummification process. Limited examples of mummified animals were also recovered, confirming the environment capability in tissue preservation.

The initial paleopathologic analysis allowed to identify various pathologic conditions, including degenerative joint disease, periodontal disease, healed bone fractures, occasional tumors and traces of post-mortem examination.

A huge amount of information will be available as soon as the recovery will be completed.

(The study was partially supported by the "Consorzio Beni Culturali Provincia L'Aquila")

Introduction

The church of San Sebastiano in Navelli (inner Abruzzo region, Central Italy) contains hundreds of mummified and

skeletonized bodies, presumably ranging from XVI to XIX century (Ventura et al., 2001). They were accidentally discovered in the crypts beneath the church in 1980. Since then, only a preliminary report has been made (Capasso et al., 1991), because of the lack of funds and interest by the local organizations.

We present the preliminary information collected between summer 2001 and spring 2004.

Anthropology

The recovery was started in 2001 and, up to date, yielded the remains of 206 individuals, in different conditions of preservation (Ventura et al., 2001; Ventura et al., 2002). The burial appeared widely disturbed and the majority of the bodies did not present complete anatomic connection. The series includes 157 adults (102 males, 42 females, 13 indefinite) and 49 children. The adults had an average age of 51 years (53 years for the males, 49 for the females). Figures 1 and 2 show the complete age and sex distribution of the individuals.

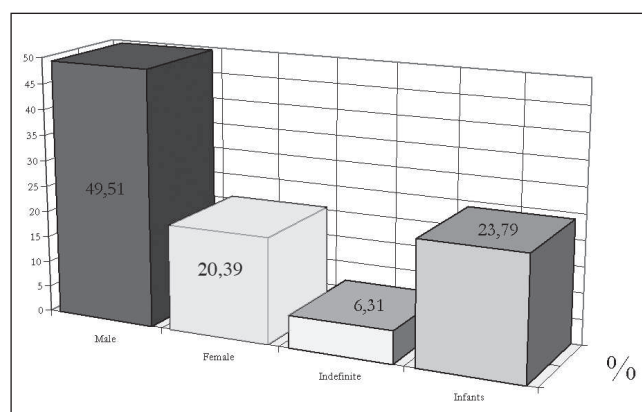


Fig. 1 - Sex distribution of the recovered individuals.

State of preservation

No macroscopic evidence of internal organs was observed during the external inspection of mummified subjects, whereas skin, skeletal muscles and other superficial tissues (eyes, ears, hair) appeared well preserved. This situation suggests that desiccation had a preminent role in the

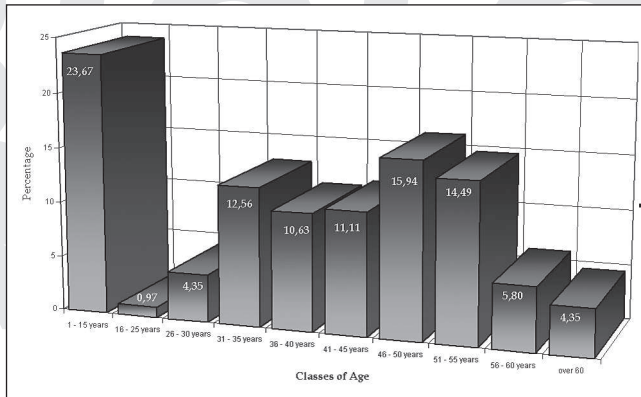


Fig. 2 - Age distribution of the recovered individuals.

mummification process (Aufderheide, 2003; Cockburn et al., 1998). The best preservation was recorded for the infants, with 36 of 49 subjects completely mummified (Fig. 3). Limited examples of mummified animals were also recovered, confirming the environment capability in the preservation of the tissues.



Fig. 3 - Infant mummy.

Paleopathology

The initial paleopathologic analysis allowed to identify various pathologic conditions, including degenerative joint disease, periodontal disease, healed bone fractures and occasional tumors. We could also recognize traces of post-mortem examination in a partially mummified young adult male, dead of uncertain causes (Fig. 4). Similar findings were noted in three other skulls, suggesting that autopsy was performed in this community two centuries ago. Further investigations planned for the next steps of the study include computed tomography and gross examination of mummified and bone remains, along with histological analysis of tissue samplings. Additional investigation methods will be determined according to the needs of single cases. When the remains of this first group of individuals will be thoroughly examined, a new recovery phase will be started.



Fig. 4 - Signs of post-mortem examination in a partially mummified young adult male.

Conclusions

Although ultimate conclusions cannot be drawn at present time, a huge amount of information about one of the largest series of mummified remains will be available as soon as the recovery will be completed. This important collection, along with other series from the same geographical area (Ventura et al., 2002), enables us to consider our region as one of great paleopathological interest. Anthropologic and paleopathologic data will help us to better understand the health status of this small community in the Appennine highlands.

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