

The mummy of San Davino Armeno (?-1050). Rare case of the natural mummy of a Pilgrim Saint from Medieval Italy

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Summary: The preliminary study of the mummy of San Davino Armeno (†1050) was performed by the Division of Paleopathology of the University of Pisa in March 2018. The mummy of San Davino, preserved in Lucca for about a millennium in the Basilica of San Michele in Foro, is one of the oldest natural mummies of saints known in Italy. Macroscopic examination showed a partially skeletonized natural mummy of a man of about 25 years, 1.70 m tall. The paleopathological preliminary study revealed two traumatic lesions of the skull with long-term survival: a superficial sharp force lesion on the left frontal bone, perhaps caused by a toothed blade, and an elliptical wound produced by a blunt weapon on the right coronal suture, with evident signs of surgical treatment. Probably for these lesions on the head, Davino is traditionally invoked against headaches.

Objectives: The study of the natural mummy of San Davino was performed to obtain archaeological, anthropological and paleopathological data about a rare mummy of 11th century.

Theoretical focus: In the Middle Ages Lucca was an important city along the Via Francigena, a major trade and pilgrimage route connecting France and Northern Europe with Rome. The hagiographic sources report that Davino left Armenia and, after a long pilgrimage to Jerusalem and Rome, arrived in Lucca in the year 1050. He died in the Tuscan city during a stop of the pilgrimage to Santiago de Compostela. The veneration of the body is already attested in 11th-12th centuries, probably amplified by its fine preservation¹. Mummies of saints are a particular category of Italian mummies². They have historical and cultural relevance to anthropologically reconstruct the use of a saint body as symbol of power and identity in the Cristian world. The scientific study is essential to establish the natural or artificial mode of the mummification process. In Italy there are important examples of artificial mummies of saints already in the 13th century³. The biological profile of the mummy traced by the paleopathological study helps to characterize the figure of the Saint Pilgrim Davino both historically and culturally.

Methodology: The mummy, preserved in the high altar of the Church of San Michele in Foro in Lucca (Fig. 1), was transferred to a temporary lab set up in a transept of the church, at the same conditions of temperature and humidity. The study of the mummy included: undressing, macroscopic examination, endoscopy of the oral cavity and CT total body. Very small tissue samples were taken for further studies. The body, in balance with the environmental conditions of the church, was then redressed and replaced under the high altar.



Fig. 1. The mummy of San Davino Armeno

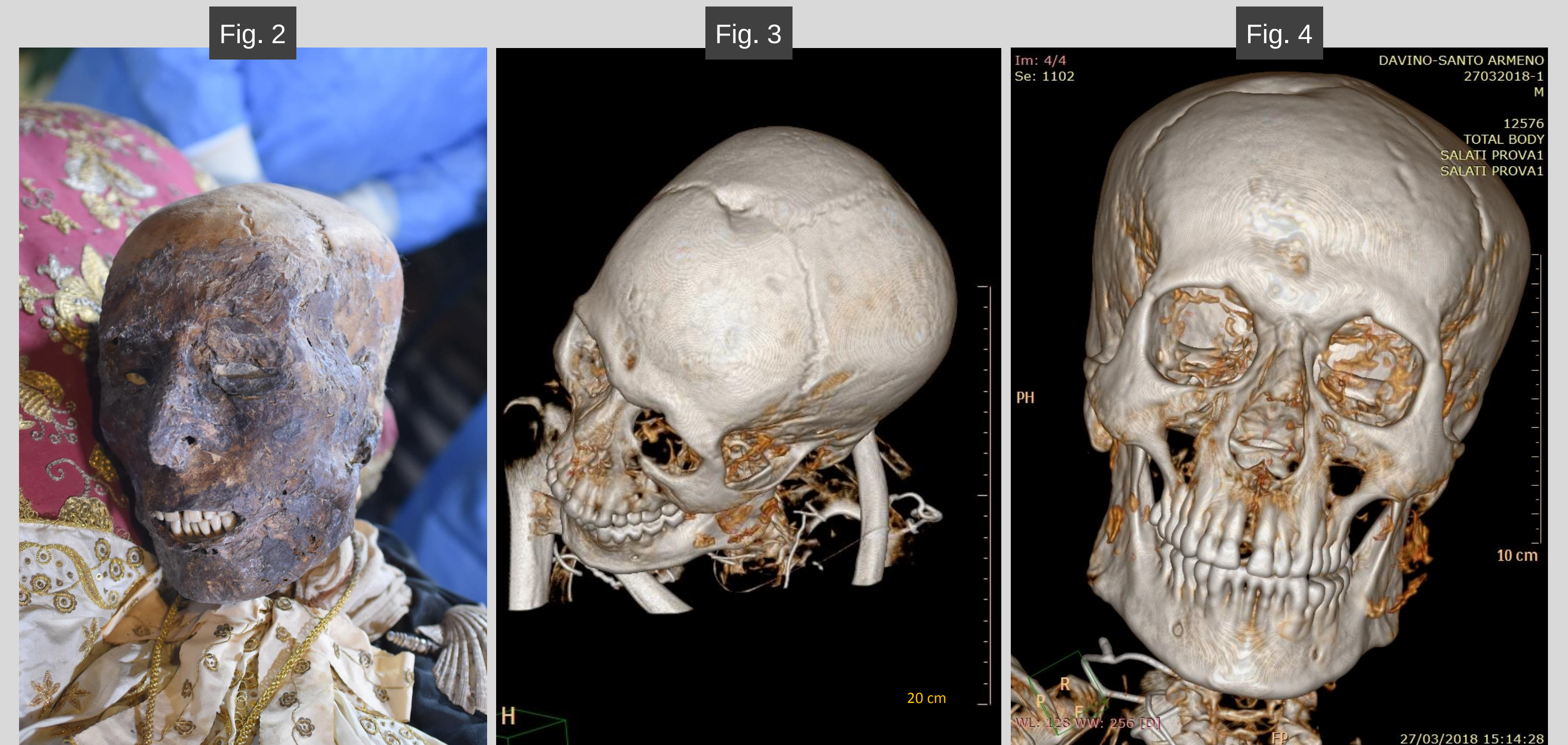


Fig. 2 The face of San Davino Armeno

Fig. 3 Volume rendering of the skull of San Davino Armeno, top view

Fig. 4 Volume rendering of the skull of San Davino Armeno, frontal view



Fig. 5. The two lesions on the skull of San Davino

Fig. 6. Sharp force lesion on the left frontal bone by a toothed blade

Fig. 7. Healed blunt trauma (a) on the right coronal suture with signs of surgical treatment by a cautery (b)

Findings and results: The body of San Davino (Fig. 1) is the partially skeletonized natural mummy of a vigorous man of 25-30 years, 1.70 m tall. The cranial vault, spine, and thorax resulted to be skeletonized. The skin is preserved on the upper and lower limbs and partially in the pubic region. In the 16th-17th century the body was recomposed for liturgical exposition, and the skull was restored with starched gauze and waxy material to reconstruct the features of the face (Figs. 2-3-4), and the bones of the thorax and pelvis were held together by wires. CT shows the partial preservation of the brain in the posterior skull, and the remains of the rectum, prostate and external genitalia. The study of the teeth reveals no dental wear, a penetrating caries of the second upper right molar and diffused periodontal disease, with partial alveolar resorption of the anterior teeth and accumulation of dental calculus on the lower incisors on the lingual side. The muscular insertions of the upper and lower limbs demonstrate a strong muscular activity. Traces of periostitis are evident on the tibiae and fibulae. The paleopathological preliminary study reveals two traumatic lesions of the skull with long-term survival (Fig. 5): a sharp force lesion is evident on the left frontal bone (4 cm in total length, 0.5 cm in width), perhaps caused by a toothed blade, inflicted with an oblique downward stroke by a right-handed aggressor (Fig. 6); an irregular elliptical (2.0 x 0.7 cm) completely healed wound, produced by a blunt weapon, is located on the right coronal suture. This lesion shows evident signs of surgical treatment by a cautery with polygonal head, that created a thin margin (0.05 cm) around the lesion, with a wide impression of about 2 cm on the side (Fig. 7). It is likely for these lesions on the head that Davino is traditionally invoked in Lucca against the headaches. The lesions are interesting clues to a life exposed to episodes of violence and perhaps military combat. The surgical treatment is a rare case of 11th century cauterization applied to a cranial wound, testified by the medical literature especially in Byzantine (Paul of Aegina) and Islamic medicine (Albucasis), but very uncommon to observe in the archaeological records.

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