

Multi-layer spiral CT with 2D, 3D and 4D volume rendered electronic reconstructions of wax models and natural bone made by Giuseppe Astorri kept at “Luigi Cattaneo” Museum in Bologna

Luisa Leonardi¹, Cristian Mancini¹, Ester Orsini¹, Marilisa Quaranta¹, Elios Sequi¹, Francesco Colaci¹

¹Department of Biomedical and Neuromotor Sciences (DIBINEM), UNIBO

The Museum's collection of normal and pathological wax anatomical models provides a clear understanding of the developments in medical knowledge that took place during the 18th and 19th centuries. In this period the interest of the anatomists began to move from normal anatomy to pathological anatomy. The wax modelers made both types of wax anatomical models: normal and pathological. Our study investigates through the works of Giuseppe Astorri the differences between these two types of models, revealing hidden structures and materials used in a completely non-invasive way. The Computer Tomography (CT) analysis was carried out using an experimental CT system specifically designed for the analysis of Cultural Heritage materials, developed by the X-ray imaging research group at the Physics and Astronomy Department of the University of Bologna. The results of this project can also be shown through a dynamic 3D (i.e. 4D) virtual projection using a device capable of emulating a holographic representation.

References

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Keywords

Wax models, holographic representation, computer tomography, anatomical representation