## The demonstration of the Sense Organs in the waxes of the Bologna school between XVIII and XIX century.

Nicolò Nicoli Aldini and Alessandro Ruggeri

Museo delle Cere Anatomiche "Luigi Cattaneo" Alma Mater Studiorum - Università degli Studi di Bologna, Bologna, Italy

In the field of the morphological disciplines the name of Filippo Pacini (1812-1883) is mostly related to the discovery of the sensitive Pacinian Corpuscles of the skin, but also to studies about the eye, particularly in the microscopical structure of the retina. Because this important respect of his scientific work, it seems appropriate to investigate the contribution of anatomical wax modelling to the representation of the sense organs between XVIII end XIX century. Considering the school of Ercole Lelli (1702-1766) in Bologna, of particular interest are the models made by Anna Morandi Manzolini (1716-1775). The approach in demonstrating the sense of tact is exquisitely functional, not only anatomical, by a wax reproducing two hands, one of them in the action of touching, the other withdrawing from a wounding object, thus giving a lively scene of a function, the tact, that at time science could not yet explain in their inner mechanisms. In the set of waxes about the vision, besides the general conformation of the eye and of the extrinsic muscles, is well presented the structure of the eyeball with the three tunics and vessels. Quite different in the artistic feature are the models of the eye and lachrymal apparatus performed by Cesare Bettini (1814-1885) about a century later. These waxes are of great dimensions, to be more useful for their educational purposes. The waxes of the school of Bologna not show the microscopic appearance of the organs: it was still too early for this kind of knowledge at the time of Anna Morandi Manzolini, but also the preparations of the wax modelers of the XIX century, at the epoch of the anatomists Francesco Mondini (1786-1844) and Luigi Calori (1807-1896), are not devoted to these fine aspects, that instead we can find in other collections, as those of the Anatomy Museum of the University of Florence.

## References

Focaccia M. (2004) Le cere anatomiche di Anna Morandi Manzolini. In: Rappresentare il corpo. Arte e Anatomia da Leonardo all'Illuminismo. Bononia University Press edizioni., Bologna. Pigozzi M., Ruggeri A. (2010) Cesare Bettini (1814-1885) disegnatore e modellatore anatomico, pittore e litografo bolognese. TIP.LE.CO. edizioni, Piacenza.

Keywords: Wax models, history of Anatomy, University of Bologna, Anatomy museums.