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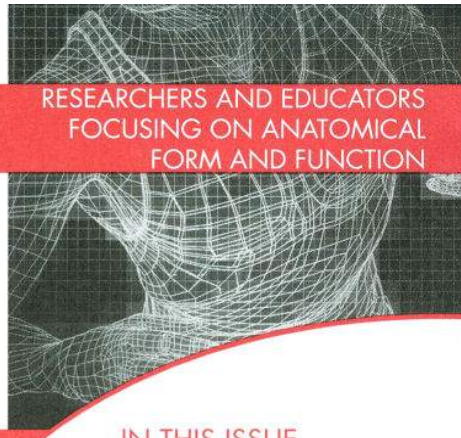
AMERICAN ASSOCIATION OF ANATOMISTS

News

RESEARCHERS AND EDUCATORS FOCUSING ON ANATOMICAL FORM AND FUNCTION



VOLUME 17, NUMBER 3, SEPTEMBER 2008

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entries, and related topics or more detailed subtopic lists, in addition to the pages where a topic or concept is discussed.

Since neuroimaging is playing an increasingly fundamental role in all aspects of neurological diagnosis and management, a suggestion for future editions of this text would be the inclusion of much more imaging. There are many opportunities throughout the text to facilitate the student's recognition of common neurological disorders using a variety of imaging modalities.

Essential Neuroscience gives the reader a strong foundation in basic neuroscience concepts and principles important for understanding diseases and dysfunction of the nervous system.

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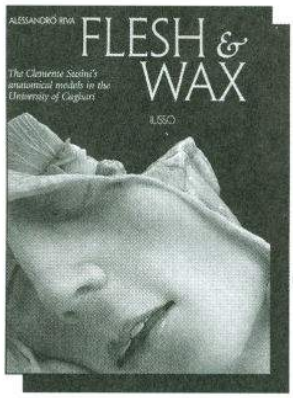
FLESH & WAX: CLEMENTE SUSINI'S ANATOMICAL MODELS IN THE UNIVERSITY OF CAGLIARI

Alessandro Riva, editor
Ilisso Publishing House, 2007; 211 pp., €56.00

Alessandro Riva's *Flesh & Wax* is not your ordinary coffee table book. It is a book about beautiful models, but these are not models of the Tyra Banks variety. On the cover is



the face of a young woman: her lips are parted slightly, as if to offer a comment or a wry smile toward furthering the conversation happening around her. An otherwise strikingly beautiful woman, except for the unnatural flap of skin that is peeled inferomedially, displaying the sanquineous details of her open orbital cavity and temporal fossa to all who would turn their gaze beyond her lips. She is one of the ceroplast models from the collection of the University of Cagliari, which are the subject of this book.

Ceroplasty (Gr., *keros*, wax + *-plasty*, from *plassein*, to shape or mold), as utilized in educational practice, grew into prominence in Bologna, Italy, during the late 17th century. A medieval European tradition of making elaborative votive offerings of human figures out of wax was waning, and artisans skilled in wax modeling were now commissioned to reproduce botanical and animal specimens for the relatively new market of scientific museums.

Although Gaetano Giulio Zumbo is credited with making the first human anatomical waxes, it was Ercole Lelli in Bologna who was given the task of creating a series of waxes for a new Anatomical Museum, commissioned by none other than Pope Benedict XIV. Benedict, a Bolognese himself, knew Lelli from the latter's work on the famous anatomy theater and saw great value in the teaching of anatomy through waxes. In particular, such teaching could be done at times when anatomies could not be conducted in the theater.

Bologna already had its share of scientific wax models. Among the first scientific waxes created were those developed for the famous Bolognese botanist, Ulysses Aldrovandi. A forerunner of Linneas, Aldrovandi was said to have commissioned ceroplast replicas of plants as a means to preserve rare specimens brought to him by sailors returning from voyages across the oceans.

The museum collection featured in this book owes itself to one such sabbatical voyage of Francesco Antonio Boi, who held the chair in anatomy at the University of Cagliari. In September 1801, Professor Boi found himself in the awkward but liberating position of having no students enrolled for him to teach, as there were no new medical students that year. Boi did exactly what many of us would do under the circumstances: he sought out and received a grant from the Viceroy of Sardinia to visit the famous anatomic teaching centers of the day, notably on the Italian mainland. To those more familiar with an anatomical atlas than with a geographical one, Cagliari lies on the southern tip of Sardinia in the Mediterranean Sea. Boi proposed traveling to visit the anatomical hotbeds of his day: the great Antonio Scarpa and his anatomical theatre in Pavia, and ultimately to study in Florence, where Peter Leopold, the Grand Duke of Tuscany, was bringing in anatomists from throughout northern Italy to develop a new anatomy program.

While in Florence, Boi saw the ceroplastics workshop of the Museum of Physics and Natural History (La Specola) in which Felice Fontana had begun operations in 1771. Throughout the end of the 18th century, this Florentine workshop would craft anatomical waxes for clients throughout Europe. Antonio Boi himself obtained permission from the Sardinian Viceroy to commission a series of anatomical waxes for use in teaching at Cagliari. The ceroplast modeler he chose was Clemente Susini. Susini had joined Fontana's *La Specola* workshop in 1773 and had been its chief wax modeler since 1782.

"Wax" in the 18th century consisted not of synthetic paraffins, as might be the case today, but rather of beeswax, which was harvested, purified, and then mixed with a variety of substances, notably animal fat and natural pigments. The resulting material could be molded, sculpted, using added features such as real human hair applied to give details as chin whiskers, eyebrows, eyelashes,

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and beard stubble—all to achieve a profound realism that nonetheless convincingly displayed a body on a dissection table rather than a salon sofa. Such was the level of artistic ability among the wax artists that, once upon a time, to be compared to a wax figure was a high compliment of beauty.

The central feature of the book is its large, lovingly rendered color photographs of the Susini waxes. These photos are of highest quality and are laid alongside smaller gray-scale images that have important anatomic landmarks labeled. The models represent a full spectrum of gross anatomy—the really remarkable ones appear to be life-size, although there are some larger-than-life models of the eye and sense organs included in the photographs of the collection.

The text, comprising essays by a number of authors familiar either with the collection or its history, has its share of typographical errors, but this is a trifle. Viewing the waxes is a powerful experience—from the eerie beauty of the models to the exquisite detail shown in their execution and presentation. Throughout history, viewing the waxes has elicited strong emotional feedback, in many ways not unlike the present attentions paid to traveling shows of plastinated corpses. The most striking aspect of viewing these waxes, even in the photographs of this book, is how remarkably lifelike they appear, even when pigmented to appear as cadavers. The anatomical waxes of La Specola in general, and the Cagliari models by Clemente Susini in particular, represent teaching models of cadaver specimens prepared collaboratively between anatomist/dissectors and master artists, each informing the work of the other. The resulting collaborations and their remarkable history make this book a compelling addition to the collection of any anatomist or historian of science.

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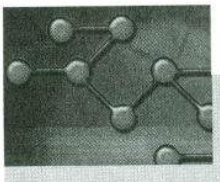

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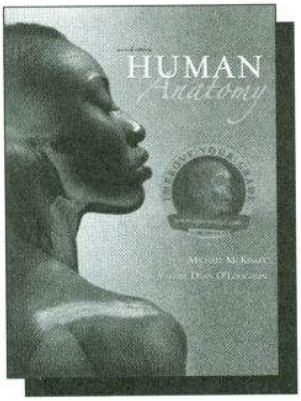
www.mentornet.net

If you are a student, postdoc, or untenured faculty member looking for more specific one-on-one guidance, check out the e-Mentoring program at Mentor Net. The site claims to have established over 22,000 mentoring relationships in the past decade, with a specific focus on providing career support to women and minorities.

HUMAN ANATOMY

Michael McKinley and Valerie Dean O'Loughlin
McGraw Hill 2008; 2nd edition, 874 pp, hardcover, $165.31

I received this book for review thinking it was intended for medical gross anatomy courses. It is not. As clearly stated in the introduction, this book is intended for upper level undergraduate courses in human anatomy. Further, the authors have written this book assuming that the students can take an anatomy course without prior coursework in biology or chemistry. There are six introductory chapters clearly outlining fundamental concepts in everything from cell biology through the basic tissues.



The textbook is well illustrated using many different types of images. The authors did an outstanding job selecting a wide variety of interesting, visually pleasing, and easily understood illustrations. I found the embryology illustrations particularly clear. Cadaveric photos are used effectively in many of the chapters. Radiographs and surface anatomy photos demonstrate other interesting aspects of the anatomy. I enjoyed the visual presentation of the text.

The text is filled with numerous study aides to assist the student in learning the material presented. Students are asked "what they think" and "what did they learn" frequently throughout this text. At the end of each chapter, there are formative tests to take and there are numerous applied anatomical scenarios presented throughout. Clinical vignettes are the most numerous, but there are also embryology and geriatric examples. I applaud the authors for the latter. Forensic anthropology examples are also used where appropriate.

An included CD allows students to study the anatomical sciences using cadaveric pictures, light micrographs, and various imaging techniques. All in all, this is an excellent, well illustrated text that would be a top choice if I were teaching an undergraduate anatomy course. The authors have offered such a rich array of learning tools that this book should pique the interest of students who embody a multitude of learning styles. ❖

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