

*Abstract from the 1st Interim Meeting, November 3 & 4, 1989, Knoxville, TN USA*

TEACHING SECTIONAL ANATOMY with SHEET-PLASTINATED SECTIONS, Alexander Lane, Triton College, River Grove, IL

Plastinated human body sections, from Carolina Biological Supply Co., were photographed. Four photographs of each section were printed and one of four anatomical systems (units) [musculo-skeletal, neurovascular, visceral, and enclosing] was labeled on each photograph. These labeled photographs were the primary teaching aid in the sectional anatomy course. On selected transverse (axial) sections, organ location was recorded (in mm) with regard to the junction of median and midaxillary lines. In addition, many organs were located using the clock face analogy, ie. On a cross section of the thorax, the sternum was assigned the 12:00 o'clock position and the vertebral body the 6:00 o'clock position. Undergraduate students, with career goals in radiographic technology (MRI, CT and Ultrasound) have been the primary target groups for this course. With rapid expansion of these technologies, which display the body in clinical sectional images, sectional anatomy is the main support course for the computerized body scanning systems. Course prerequisite is six semester hours of anatomy and physiology. A regional approach to anatomy, which encourages three-dimensional thought, better prepares students for sectional anatomy. In sectional anatomy, the body is presented in three views [cross, coronal (frontal), and sagittal sections]. The study of sectional anatomy enables medical imaging personnel to pin-point structures seen in clinical sectional images (MRI, CT and Ultrasound).

*Abstract from the 4th International Conference, March 21 - 25, 1988, Macon, GA*

PLASTINATION of LARGE SPECIMENS,

Robert U. Henry, College of Veterinary Medicine, The University of Tennessee, Knoxville, TN 37901, USA **SPECIMEN**

**PREPARATION** is of foremost importance. Large containers are necessary to process large specimens (fix, rinse, bleach, dehydrate). **FIXATION** and **DEHYDRATION TANKS (Vats)** with **SPECIMEN BASKETS**, which fit snugly into them, should be the same size as the plastination chamber and fabricated from 18 ga (1.2 mm) stainless steel for durability. Therefore, any specimen which fits into your basket will fit into your plastination unit. **SPECIMEN BASKETS** facilitate handling specimens, aid maintaining the desired conformation of the specimen, and aid draining and submerging the specimens. To stiffen the basket, the top side edges are hemmed in and the top end edges are turned in 100° to serve as a handle. Top and bottom grids are cut from aluminum or SS mesh. To stiffen the **FIXATION and DEHYDRATION TANKS**, the top edge should be hemmed outward. Either direct drive or belt driven pumps provide adequate vacuum for large **PLASTINATION UNITS** which may be constructed of 1/8 to 1/4 inch (6 mm) stainless steel or steel. However, internal and external bracing may be needed depending on the size of the unit. It is desirable to prime the steel and coat with epoxy paint. Reinforced fiberglass may be used, however, no benefits have been found from using fiberglass. A stainless steel liner, constructed similar to the vats, is recommended to protect the epoxy coating of the steel from methylene chloride. Smaller liners and baskets may be used to confine the polymer into a smaller area, thus decreasing the quantity of polymer required. A **VACUUM RESERVOIR** aids sealing larger plastination chambers. Empty refrigerant (freon) containers, a smaller vacuum chamber which seals easily, or utilizing the vacuum from another larger vacuum chamber which is in use are good vacuum reservoirs.