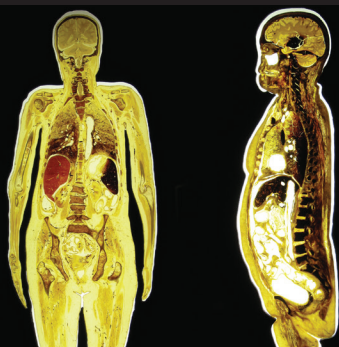


THE AMERICAN BIOLOGY TEACHER



About Our Cover

Human Body Cross Sections

This photograph shows cross sections of two actual human bodies that are part of the *Human Body Gallery*, a remarkable exhibit at the Science Museum of Minnesota in St. Paul.

The bodies were donated to the *Institute of Plastination* by individuals who wanted their bodies preserved and used for educational purposes. The preservation technique involves replacing bodily fluids with a plastic material that preserves the appearance of the tissues and allows the body to be mounted in a variety of ways or, as we see here, sectioned to reveal the positions of the internal organs. The Science Museum of Minnesota presented this exhibit in collaboration with physicians at the University of Minnesota.

This preservation process was developed in 1977 by German anatomist Gunther von Hagens. It consists of four steps including fixation, drying using materials such as acetone, plastic vacuum impregnation of the tissues with silicone and epoxy, and a polyester-copolymer hardened with heat and UV light. The technique is highly adaptable to posing the bodies in any fashion from a typical dissection illustrating key structures and organ systems to the occasional unnatural situations, which have often given rise to controversy.

Von Hagens is responsible for the *BodyWorlds* exhibit of mounted human and animal specimens that has toured the world accompanied by acclaim and criticism. These exhibits feature scores of plastinated human bodies in poses ranging from those playing chess and tennis to one individual carrying his own skin and another sitting astride a fully preserved skinless horse. As would be expected, many viewers have found the exhibit highly disrespectful while others have marveled at the detail in the preservation that permits much to be seen and learned about the internal human anatomy that would be difficult to see otherwise. Certainly, the display of human specimens in any form in museums and in commercial venues such as *BodyWorlds* and in von Hagens' own museum, the *Plastinarium* in Germany, is a topic worthy of classroom conversation that might involve bioethical and pedagogical perspectives.

This digital image was recorded with a Nikon D810 camera using a 28-300 mm image stabilized zoom lens. The photographer is William F. McComas, editor of *The American Biology Teacher* and Parks Family Professor of Science Education and director of the Project to Advance Science Education at the University of Arkansas (mccomas@uark.edu).

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