

An Artist Who Vastly Enriched Medical Education: Frank H. Netter

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I have repeatedly discussed in these articles how issues related to science were addressed and interpreted by artists in their works, but then there are the artists who devote their time to direct visualization of the concepts of science. They are the medical and scientific illustrators. Like designers in industry, they are often—and wrongly—categorized as “backroom persons.” Yet, they have made a major contribution to the creation of an entire biological aesthetic (1) and thus have helped both the science community and the wider public conceptualize the subcellular molecular world. Journals such as *Nature* and *The New England Journal of Medicine* have evolved their own distinctive styles of visual presentation. The people behind these efforts, like the medieval cathedral builders, often remain anonymous or are mentioned only in some small-print credit lines. There was, however, a medical illustrator whose style of presentation became as important to his readers as the scientific message. His name was Dr. Frank Netter (1906–1991) (2, 3).

Netter was a trained surgeon but would probably be better described as an artist temporarily “distracted” into medical practice, the experience of which subsequently enhanced his art. He practiced medical illustration from the late 1930s until the end of his life. He has been called the “Michelangelo of Medicine,” and such was the title of the 2011 exhibition of his works in the Morris Museum in Morristown, New Jersey (4).

Netter was born in New York. He had studied art, at the National Academy of Design and subsequently the Art Students League of New York, before he did medicine. After working for a period as a commercial artist, he studied medicine at New York University Medical College and completed a surgical internship at Bellevue Hospital.

Having become a doctor, Netter continued to draw. His breakthrough came when his illustrations created for the leaflets produced by the CIBA pharmaceutical company became sought after by medical practitioners. Even-

tually, Netter ceased practicing medicine and started working for CIBA as a medical illustrator (CIBA later became CIBA-Geigy, which in turn merged with Sandoz Laboratories to become Novartis).

Netter’s body of work includes illustrations for the 8-volume *CIBA Collection of Medical Illustrations*, 13 books published beginning in 1948 and widely known as the “Green Books.” The Books could be found in medical libraries across the world, and they stood out from conventional texts. In 1989, CIBA-Geigy published the *Atlas of Human Anatomy*, now in its fifth edition and published by Elsevier, which Netter referred to as his most important work (5).

Netter’s anatomic drawings, closer to human reality than the ones found in standard textbooks, enhanced all sorts of clinical contexts (Fig. 1). They beautifully visualized anatomy and physiology, but what made them unique was Netter’s talent for combining medical knowledge and artistic expression, weaving a doctor’s humanity into the explanation of biological concepts. The high medical quality of the Netter books was also the product of an editorial process that allowed for extensive discussions between the artist and the leading medical specialists who provided the text (6).

Netter’s style and his rendering of figures and bodies seem nostalgically dated today. One can see the strong influence of the magazine illustration style of the 1930s to the 1950s, and that of American Realism and the Ashcan painters, a particularly interesting group in the history of American painting (7, 8). These artists were active at the beginning of the 20th century and rebelled—like such writers as Theodore Dreiser—against the “genteel style” represented in painting by artists such as John Singer Sargent and William Merritt Chase. The Ashcan artists became the portraitists of a modern city. Their focus on unembellished urban reality made many viewers uncomfortable, thus the pejorative “Ashcan” label. The man who started it all was Robert Henri (1865–1929), who studied in the Philadelphia Academy of Fine Arts just after Thomas Eakins had left. Although Eakins was not there, his message to focus painting on American reality was being passed on by his successors. In the mid 1890s, Henri gained followers, all of whom were newspaper illustrators, which then meant being part artist and part reporter. These followers included William Glackens, Everett Shinn,

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students thought of anatomy and physiology in his visual terms. In a sense, Netter was a great enhancer—somebody who, through his artistic talent, facilitated the understanding of medicine among its practitioners. There is hardly a better example of what medicine gains by keeping artists within its universe.

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