

“The Cutting Edge” Offers Arresting Body of Works

By Tyler Smith

Those looking for examples of impressionist, expressionist, cubist, or surrealist art won't find them at the latest exhibition of work at The Art Gallery in the University of Colorado's Fulginiti Pavilion for Bioethics and Humanities on the Anschutz Medical Campus.



Travis Vermilye co-curated “The Cutting Edge,” an exhibit of contemporary surgical illustration at The Art Gallery on the Anschutz Medical Campus.

What you will find on display is an arresting collection of precision portraiture, though of a very different type than that practiced by Rembrandt, Vermeer, Van Eyck, and other masters of the type. Instead, the subjects are surgical: depictions of renal denervation, transaortic valve replacement, esophagectomy, carpal tunnel release, small intestine resection, and other subjects more likely to conjure images of blood than beauty.

“The Cutting Edge,” showing for another month at the Fulginiti, brings together the work of about a dozen Colorado-based medical illustrators and Corrine Sandone, director of the [Johns Hopkins Graduate Program in Art as Applied to Medicine](#).

Fine line. At first blush, the intersection of surgical suite and art gallery might seem unusual, admitted Travis Vermilye, an assistant professor of visual arts at the University of Colorado

Denver's College of Arts & Media, who co-curated the show with independent curator and art consultant Simon Zalkind. But Vermilye, a medical illustrator whose 2013 Fulginiti show “[Hyperstasis](#)” creatively explored the effects of disease states on the body's workings, said “The Cutting Edge” shows the two worlds share plenty of common ground.

“From an aesthetic point of view, I was looking for pieces that would look good hanging on a wall – those with a sense of design, color, clean lines, and that drew attention to a focus area,” he said. “As medical illustrators, we're all trained first as artists. We have to be good draftsmen and observers.”

Like a portrait artist, the medical illustrator's first and most important subject is the human body – but rather than asking his subjects to sit, he contemplates the cadaver, the ultimate learning ground for gross anatomy.



“Renlane” (left) and “Transseptal Puncture” are digital renderings by Randy Nelson.

“Art is a part of it,” Vermilye said. “We learn creative techniques and the skills to render and draw in a way to direct one's eye to the area of interest.” In depicting surgical techniques, the medical

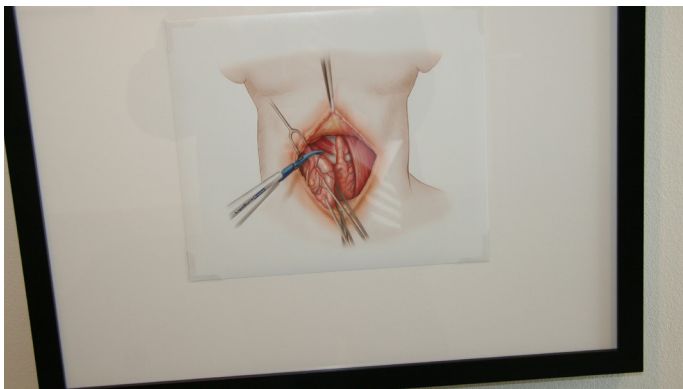
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illustrator's task is to accurately depict the human anatomy and the devices used to repair it. But the work involves stripping the paintings and drawings to "the information necessary to communicate a message as clearly as possible," he said.

That process of manipulating shape, line, and color to convey something essential is one familiar to any artist, Vermilye contended.

"What does a painter do?" he asked. "He or she is trying to communicate emotion."

The line between artist and surgeon is also finely drawn, Vermilye said. He pointed to the work of Peter Schmid, DO, a facial plastic, head and neck, and liposuction surgeon and sculptor who last August led a "[Sculpture for Surgeons](#)" course in Las Vegas with anatomy instructor and designer Andrew Cawrse.



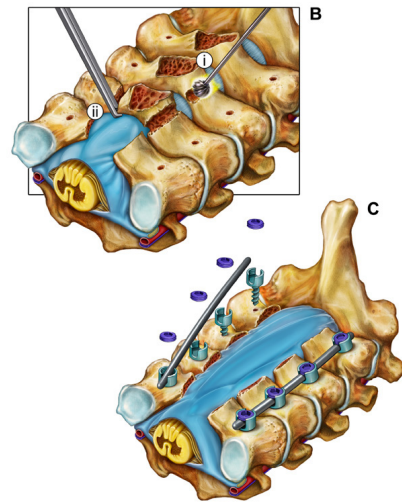
Molly Borman-Pullen's "Thyroidectomy" demonstrates the medical illustrator's fine control of lines, Vermilye said.

"There is a strong correlation between art and medicine," Vermilye said. "Almost every surgeon I know is also interested in the fine arts."

Under the skin. The work highlighted in "The Cutting Edge" uses a variety of techniques to depict surgical work, most often by taking the viewer inside the mysterious world of the human body. Randy Nelson's "Renlane," for example, is a digital rendering of a multielectrode ablation catheter of the same name used to treat patients with resistant hypertension. The vivid pinks surrounding the blue clamped catheter manage to suggest the constant motion within the human body.

"We're flying down an artery in the image," Vermilye said. If one judges art by its ability to open the viewer to a new world,

Nelson's "Transseptal Puncture," another digital rendering, surely fits the bill. We see in startling detail a needle about to breach the wall between the chambers of the heart, a step in procedures to treat cardiac arrhythmias and repair valves.



A portion of Brett Ganyard's "Cervical Laminectomy" series.

"The level of detail in the wall is beautiful," Vermilye said. Delicate white lines, he added, capture the soft wetness of tissue, "something that is very hard to do."

Molly Borman-Pullen's work, which depicts liver transplant, lumbar trauma, pulmonary artery repair and more, has a "hand-drawn quality," Vermilye said, showing that it advanced from crude sketches to final pencil drawings before the artist scanned it into Photoshop for color work.

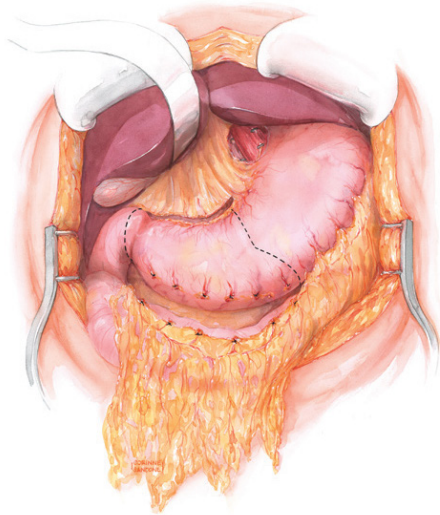
"The quality of the lines is exceptional," Vermilye said.

He called Sandone's watercolor work, several of them in this exhibit showing gastrectomies, that of "a modern master" in its visceral capture of sutures, veins, layers of skin, and organs. "There is a very high level of understanding of what tissue looks like and feels like," Vermilye noted.

Clinical and colorful. Even in the pieces that appear the most straightforwardly technical, the artist's eye is evident. Brett Ganyard's two graphite/Photoshop renderings of cervical laminectomies – removal of bony structures at the back of the spine to relieve pressure on nerves – displays a portion of the

cervical vertebrae and the tools used to remove the laminae in coldly clinical images.

But Vermilye pointed to the field of blue representing the dural sac, which holds the fluid that surrounds the spinal cord. The blue color takes greater space as the sequence of drawings – representing the procedure – progresses.



“Partial Gastrectomy,” by Corrine Sandone of Johns Hopkins, who Vermilye calls a “modern master” of medical illustration.

In a purely clinical view, “The dural sac is not blue,” Vermilye said. “He took liberties to represent tissue. It’s a question of medical illustration: how to represent the anatomy so people recognize it.”

Call them artists or call them illustrators, Vermilye hopes “The Cutting Edge” will open eyes to the range of talents those in the field of contemporary surgical illustration possess.

“They are all working toward the same end, but get there in different ways,” Vermilye said. “I want to open us up to the public eye and to make sure people know that the field is out there.”

“The Cutting Edge” will be at The Art Gallery in the Fulginiti Pavilion for Bioethics and Humanities through Feb. 19. Admission is free.

The gallery is on the Anschutz Medical Campus at 13080 East 19th Avenue. Click [here](#) to learn for more on the exhibit and to view a catalogue of the works on display.