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The abstract beauty of medicine, technology, and math inspire Laura Splan, Ruth Scheuing, and Daina Taimina. *by Lindsay Obermeyer*

Since the times of the Ancient Greeks, the arts and sciences have been intricately linked. The Muses inspired astronomers as well as poets. Training in the visual arts and sciences frequently overlaps; witness the rise of electronic visualization labs and the use of CAD (computer-assisted design) at universities across the country. Art historian Barbara Maria Stafford points to this overlap in training and interests in her book *Body Criticism: Imaging the Unseen in Enlightenment Art and Medicine* [MIT Press, 1991]: "... [S]urgeons were akin to painters, sculptors, and architects. Their dedication to the education of the eye in order to capture fleeting signs and symptoms was similarly coupled to the training of an acute sense of touch."

The process of revealing, structuring, and interpreting information doesn't always translate to the written word. The information must be processed visually through graphs, maps, diagrams, models, and patterns. Embedding information into patterns in their art textiles are Laura Splan, Ruth Scheuing, and Daina Taimina. These artists use techniques such as rug hooking, knitting, weaving, and crochet to decode a complex world.

Laura Splan examines the cultural trends and events that underscore the manner in which the fragility of the human body is taken for granted. In her work, she combines scientific materials and images with familiar domestic ones. Advances in medical technology, bioterrorism, health epidemics, and the mutation of super-resistant microbes are all fodder for her art.

In her series *Vigilant*, started soon after September 11th, *E. Coli*, *Smallpox*, *Ebola*, and *Anthrax* are rendered in soft, tactile, colorful wall sculptures. Splan juxtaposes the idyllic nature traditional to latch hooking with simplified renderings of dangerous microorganisms. "Vigilant was kind of a meditation on ideas of awareness and helplessness at the same time," she notes. The

abstract beauty of these organisms belies the anxiety they provoke, while the labor-intensive sweetness of the craft generates a sense of futility.

Splan's altered or revised medical instruments illustrate the absurdity of their design and function. A hand-knitted exam gown evokes a sense of care and concern often lacking in sterile hospital environments. *Blood Scarf*, on the other hand, takes the concept of knitting to the extreme. A photographic diptych depicts a knitted scarf of vinyl tubing. It warms the wearer with her own blood as it seeps out of her body drop by drop.

While Splan initially attended college with aspirations of becoming a veterinarian, she graduated with a major in visual arts. (Her BA is from the University of California, Irvine; her MFA, from Mills College in Oakland, California.) Splan grew up latch hooking, cross-stitching, and sewing. She refers to her family as being "super crafty." There were also early influences in the biological sciences. Her grandmother was a nurse, while her dad and her sister both work for companies that manufacture medical products, which has given her unusual access to images, videos, and other objects from the medical industry.

For Splan, art allows her to explore her many interests. Issues pertaining to social construction, gender, class, and power are evident.

Older work was overt in its feminist agenda, but she found that many dismissed it simply because of the "f..." content. Though this agenda is no longer overt, the highest compliment people may pay her is when they label her latest work "feminist" or "queer." "These readings are of the same work that people call exquisite or beautiful," she says. "That's when I know I'm on the right track. That's what so wonderful about craft (feminine or otherwise): it can serve as a camouflage for another underlying meaning or agenda."

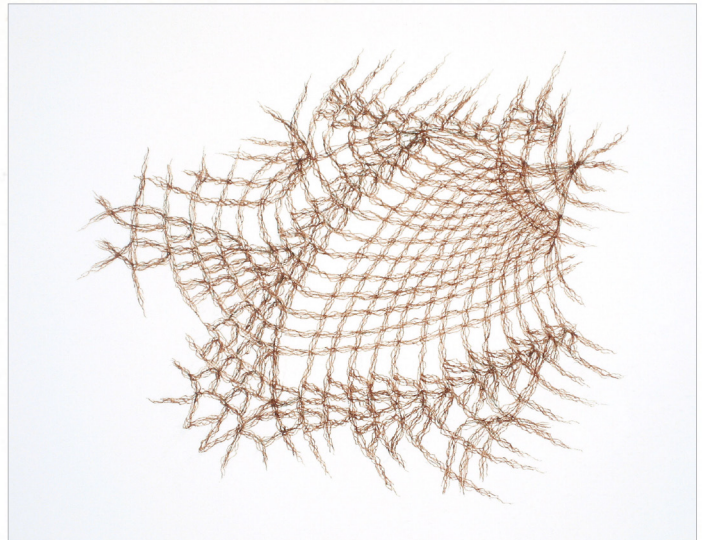
Ruth Scheuing's work (see pages 1 and 32) explores the



history of textile production and technology. Her first experience with computers was with her father, an accountant who installed several huge computers for a health insurance company in the early 1960s. It is easy to forget that these computers were originally run on punch cards, like their conceptual forerunner, the Jacquard loom. Scheuing's introduction to weaving didn't occur for another fifteen years when she was given the opportunity to return to university at age thirty.

Born in Switzerland, Scheuing first obtained a technical diploma in chemistry. Work in cancer research eventually brought her to Canada, where she was employed at the University of British Columbia. "Looking for cell abnormalities was really at that time part science and part art, as one had to distinguish abnormal growths from simply visual defects," she says. Involved in the early development of the electron microscope, she found this way of studying pattern fascinating in visual as well as scientific terms. When she returned to university, she chose to study art at Nova Scotia College of Art and Design.

Textiles, weaving in particular, provided the perfect format for her to indulge her love of pattern and complex imagery. Frustrated by the glass ceiling she felt in the sciences, she saw women from many cultures taking leadership roles in the making of textiles. Though early work exhibited didn't involve much weaving, Scheuing always had something at work on her loom.



OPPOSITE PAGE: Laura Splan, *Salmonella and Smallpox* (details from *Vigilant*), 2002; latch-hooked yarn. ABOVE: Laura Splan, *Incomplete Retrieval* (#2), 2007; blood on hot-press watercolor paper; 11" x 11". From a series of drawings that explore the pattern and structure of the doily, a traditional heirloom object, as a metaphor for the formation and degradation of memory. The drawings are done with blood, a substance that contains our inherited genetic information. BELOW: Laura Splan, *Blood Scarf*, 2002; chromogenic prints mounted on aluminum; 24" x 20" (each). The scarf was handknitted from vinyl tubing. Photos by the artist.



all natural examples of hyperbolic geometry.

Taimina had seen paper models of hyperbolic planes developed in the 1970s, but they were too fragile to easily hold and inspect. For Taimina, crochet was a natural solution. Born and raised in Latvia, where crochet was taught in the schools, she was familiar with the process of making rapid increases to create ruffles. Anyone who has attempted to crochet a flat plane, such as a circle, and made the mistake of increasing too rapidly has observed the beginnings of a hyperbolic plane. While on a camping trip with her mathematician husband, David Henderson, Taimina crocheted her first model.

Taimina's work is rich in color and very tactile. Variations in stitch style, yarn, and tightness create unique forms, each one based on a particular algorithm. Mathematicians from around the world have inquired about her work. Several models are part of the permanent collection at the Institute For Figuring in Los Angeles. Taimina encourages others to create their own hyperbolic planes. Patterns are available through her website (www.math.cornell.edu/~dtaimina) and were printed in the Fall 2005 issue of *Interweave Knits Crochet*.

These three artists use textiles for their inherent quality of relating information. They provoke us to think about the ramification of technology and its place in contemporary culture. They break down complex concepts into that which is readable and easy to understand. And they share an insatiable desire to decipher the world around them. ●



ABOVE: Daina Taimina, *Seven Shades of Purple*, 2005; wool; crocheted; 15" x 15" x 5". BELOW: Daina Taimina, *Growing on a Stone*, 2006; wool; crocheted; 19¼" x 19¼" x 9¼". Photos by the artist.

This summer, work by Laura Splan (www.laurasplan.com) can be seen in a solo exhibition at the International Museum of Surgical Science in Chicago (through July 20) and in a group exhibition at Translations Gallery in Denver (June 1–July 14). Work by Daina Taimina (www.math.cornell.edu/~dtaimina) can be seen in the exhibit *The HandMaking* at the Abington Art Center in Jenkintown, Pennsylvania (through July 28).

