

Science and Culture: Dangerous doilies

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Artist Laura Splan's oeuvre has beauty and death, illness and medicine, science and fashion paired in artworks that provoke and challenge our notions and traditions. Splan studied biological sciences before settling on art, and methodical experimentation is integral to her artistic process. Her current exhibition of doilies created in the shapes of the molecular structures of viruses invokes an uncomfortable metaphor: Just as heirloom needlework is passed on to others, so can be viruses. Splan answered some questions for PNAS.

PNAS: Why did you pick HIV, SARS, Herpes, Influenza, and Hepadna for the doilies?

Splan: I chose these particular microbes for rather formal reasons. I knew that I wanted to create a series of circular doilies that were based on the structure of viruses. The circular parameter narrowed the scope. From there, I narrowed the focus further to sources that seemed most culturally relevant or topical at the moment. So HIV was certainly a candidate. And in 2003, the SARS epidemic was still continuing to unfold in

the news and in public health measures. I try to create work that resonates on many levels: aesthetic, conceptual, personal, political, social. Choosing viruses that most people will recognize the name of was a way to ensure that the titles of each piece would evoke a personal meaning for the viewer as it is informed by shared cultural experiences. We all have our own very personal reactions to and relationships with biomedical events and phenomenon. Health epidemics, bioterrorism, antimicrobial products, and disease can evoke very different intellectual and emotional responses from one viewer to the next. The seemingly innocuous and generally familiar doily form becomes the common ground or projection surface on which to explore the mutability of these experiences.

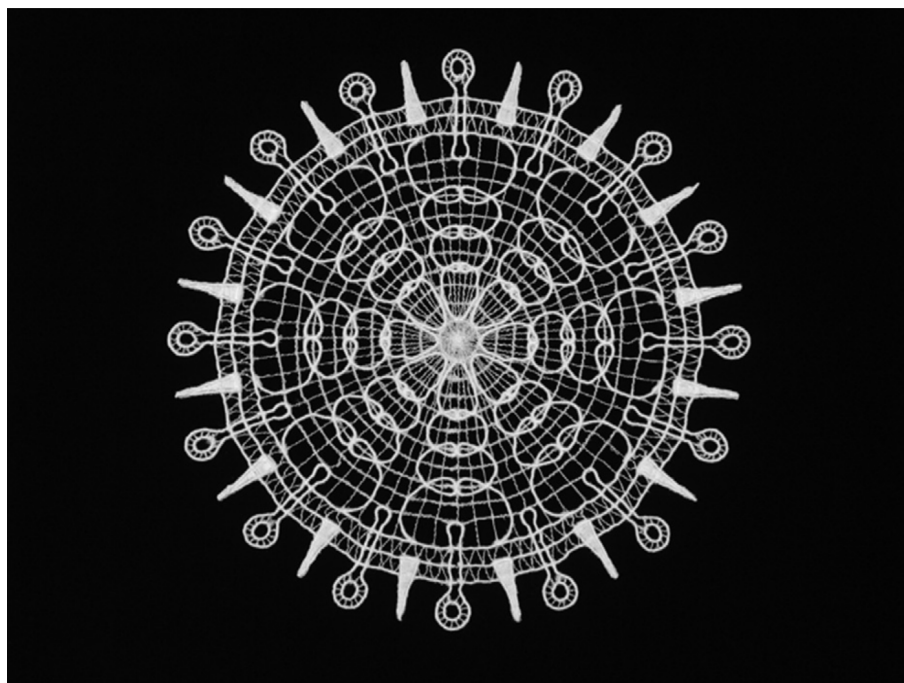
PNAS: Can you explain how you created the doilies?

Splan: I created the doilies using a computerized machine embroidery process. Each doily was designed in embroidery software and then output onto water-soluble fabric. Once stitched out by the machine, the fabric was dissolved away, leaving only the doily.

To design the doilies, I researched the structure of each virus. Each doily in the series represents a cross-section of a virus. Here, DNA, RNA, protein spikes, capsids, and lipid envelopes are reimagined as decorative motifs within the traditions of radially symmetrical doily patterns.

PNAS: How does your scientific training impact your art-making process?

Splan: Although my degrees are in art, I originally studied Biological Sciences at University of California, Irvine. I have also done some independent study in Biology during and after graduate school. The part of my process I most relate to scientific training is a nurturing of curiosity and the sense of play required in that.



Laura Splan, "Doilies (Influenza)," 2004, computerized machine embroidered lace. Image courtesy of the artist.