

Problems of Speaking about Art and Science, and a Proposal:

Thinking of Non-Art Images Discursively

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Organization of this lecture

I. General problems of the border between art and science

- A. Artists who allude to science, refer to it, “practice” it (LeWitt, André, Celmins, Kac...)
- B. The “ghetto” of science-oriented art exhibits (SIGGRAPH, etc.)
- C. Art historians working on scientific themes (Wieczorek, Kemp)
- D. Science presented as art (Jean-François Lyotard)
- E. Artists working with scientists (Frankel, Therian-Gottschalk)
- F. Scientists working *as* artists (Hybrid Medical Animation, DNA II)
- G. Scientists explaining science in terms of beauty (Berry, Frankel)
- H. Scientists claiming art shows scientific principles (Shlain, Perkowitz)

2. A proposal: discursive analysis of the “languages” of non-art images

3. Some sad conclusions

The “ghetto” of some science-oriented art exhibitions

The principal science-oriented exhibitions:

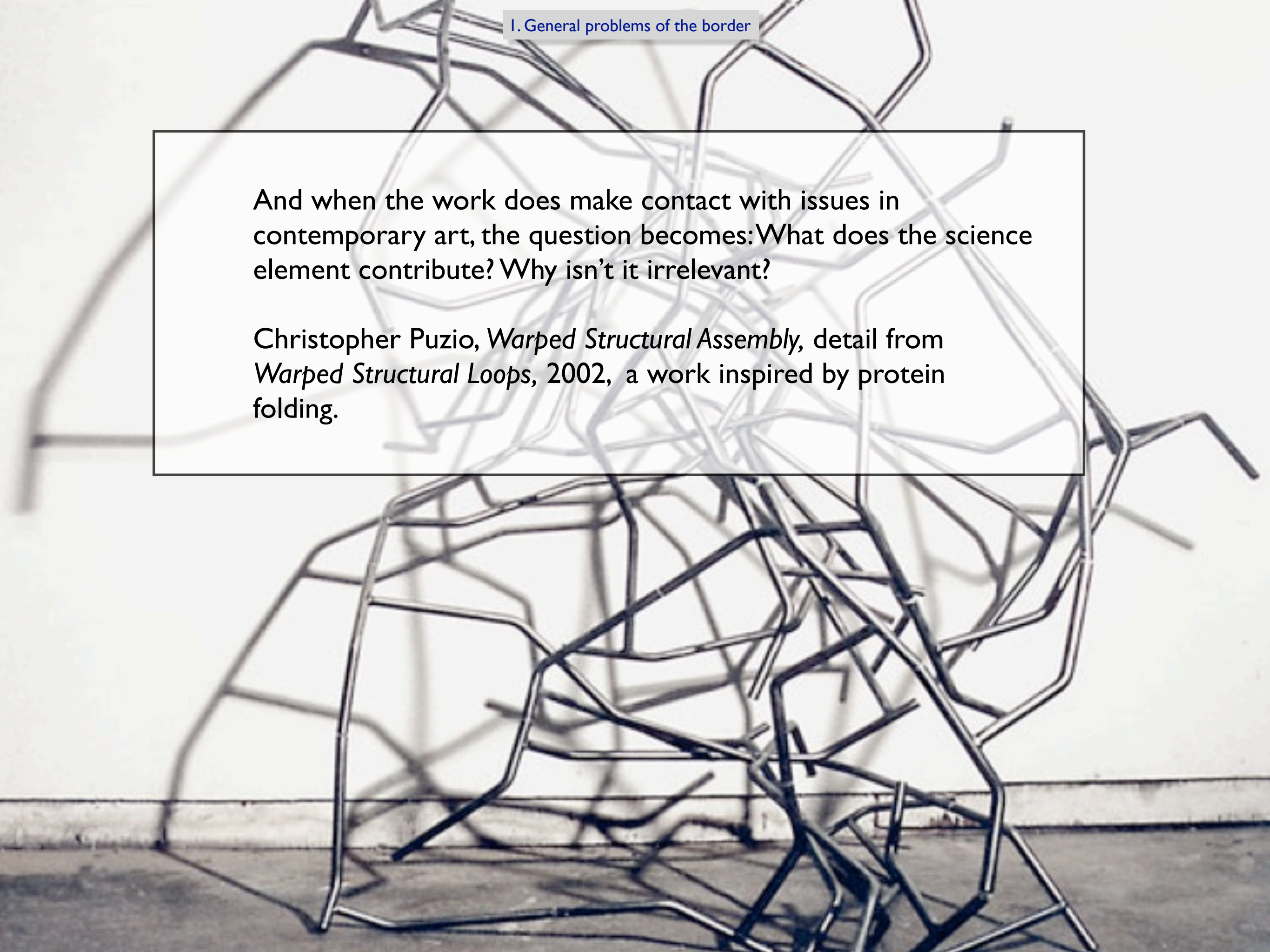
- (a) ISEA, Inter-Society for the Electronic Arts
- (b) SIGGRAPH, a computer art and science society

SIGGRAPH is a snapshot of the contemporary art world, but every work is done in a digital medium or with the help of digital technologies.

Often the untheorized question is: Why remake work that is already being done in specific media?

And when the work does make contact with issues in contemporary art, the question becomes: What does the science element contribute? Why isn't it irrelevant?

Christopher Puzio, *Warped Structural Assembly*, detail from *Warped Structural Loops*, 2002, a work inspired by protein folding.



Science presented as art

Jean-François Lyotard's *Les Immatériaux* was an influential exhibition at the Pompidou Centre, curated by the poststructuralist philosopher.

Irit Rogoff (critic at Goldsmith's, London) describes *Les Immatériaux* as one of two exhibitions in memory that are often cited as a breakthrough moment in the theory of exhibitions

It included bubble-chamber images of atomic particles, presented as implicit parallels to painting such as Cy Twombly's.

The same was done by Jeannie Therrian-Gottschalk, a photographer who re-photographed bubble chamber images from the Fermilab particle accelerator in Batavia, Illinois, USA

But in the absence of any scientific explanation, the images have to be read aesthetically, in light of gestural abstraction, post-Pop, colour field painting, calligraphy...

Artists working with scientists

Felice Frankel, head of the Edgerton Imaging Center at MIT, author of *On the Surface of Things, Envisioning Science*; columnist in *American Scientist*

Felice is trained as a photographer (originally, a landscape photographer)

She helps scientists re-photograph their material for publication, and writes guides for photographers and photo-books.

From a piece in *American Scientist* on the photo of the Eagle Nebula: the scientist, Jeff Hester, says “Interestingly, the beauty of the image is not happenstance. When people talk about ‘beauty,’ they are talking about the presence of pattern in the midst of complexity.” (“Sightings,” *American Scientist*, September-October 2004, p. 463.)



Felice has also organized major conferences called *Image and Meaning*. The first was MIT, June 2001; the second was the Getty Center, Los Angeles, 2005.

In the first *Image and Meaning* conference, a blue-ribbon panel of scientists were joined by Susan Sontag. The other speakers were all scientists and engineers. Sontag insisted on the meaninglessness of images, and underscored historical contexts. (She was alone in both.)

The principal question was: How far can scientists alter images before the science content is compromised?

Who Will Attend

Art and Science was an international exhibition and global symposium, Tsinghua University, Beijing, 2001

From the website: “Art and science are not such strange bedfellows. And they are attempting a marriage nowadays, amid applause, shrugs and speculation.

“An international exhibition entitled ‘Art and Science,’ which opened last week in Beijing, has attracted huge numbers of visitors. Even Chinese President Jiang Zemin visited the exhibition.”

Do these conferences further the dialogue, or repeat received ideas about art and science?

Scientists working *as* artists

Chemistry in Art, a special issue of the chemistry journal *Hyle*, presented chemists interested in the visual aspects of chemistry, and also chemists interested in making their own art

Lane Last, *Of Vibrations and Time*, 2002

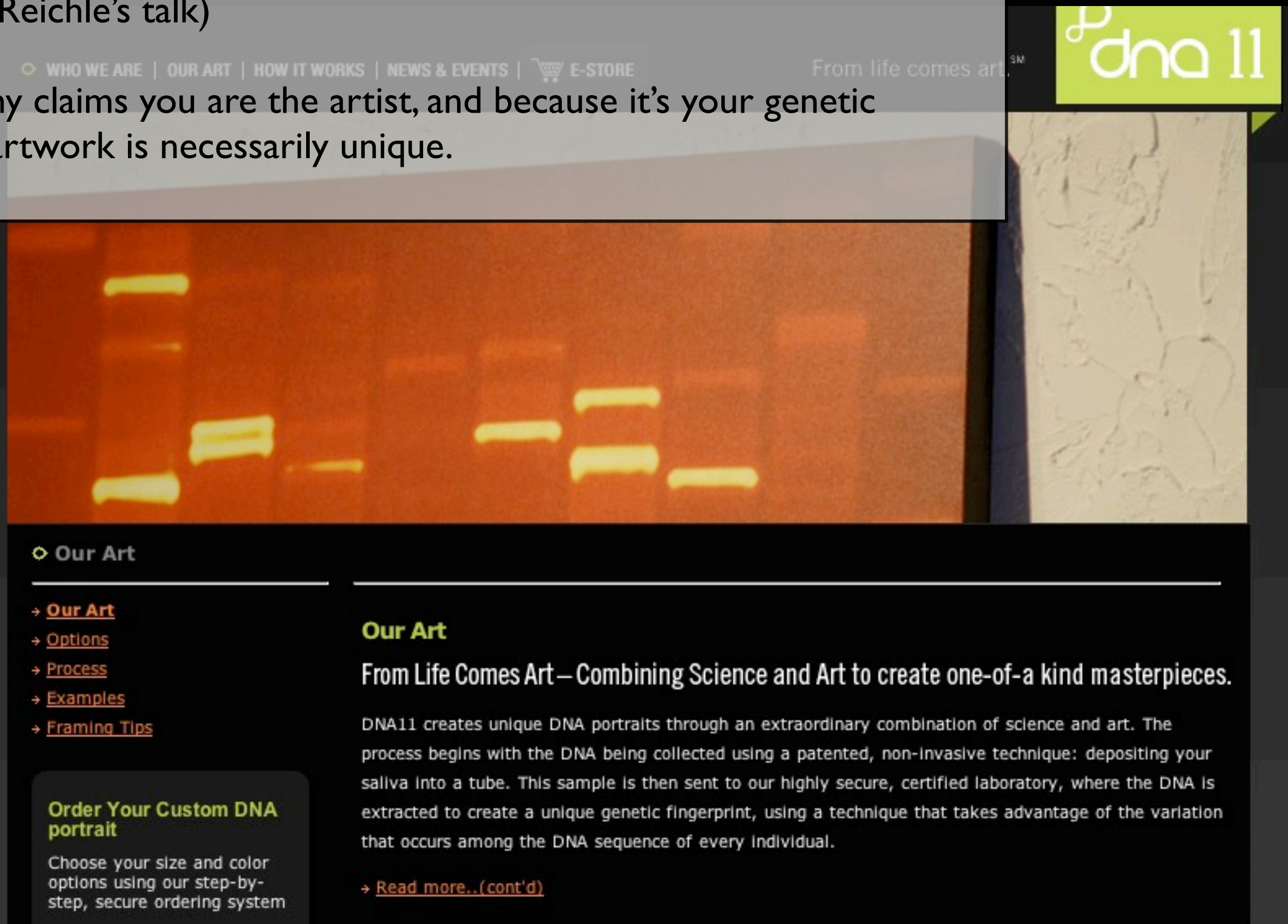
Hybrid Medical Animation (.com), which sells digital films of medical processes, “gratuitously” enhanced as in *Star Wars*—

On its website, an endorsement from Ed Bell, Art Director, *Scientific American* (accessed January 2006):

“Hybrid’s illustrations and animations extend beyond the boundary of highly informative graphics: they enter the realm of high art, achieving a combination of Truth and Beauty.”

DNA11, a company that takes a sample of your saliva and turns it into “one-of-a-kind masterpieces.” (A popular version of Steve Miller, etc., as in Ingeborg Reichle’s talk)

The company claims you are the artist, and because it’s your genetic code, your artwork is necessarily unique.



The screenshot displays the DNA11 website. At the top, a navigation bar includes links for WHO WE ARE, OUR ART, HOW IT WORKS, NEWS & EVENTS, and an E-STORE icon. The main header features the tagline "From life comes art." and the DNA11 logo. Below this is a large image of a DNA gel electrophoresis result, showing several horizontal bands of varying lengths and positions. To the right of the gel image is a DNA portrait, which is a stylized, abstract representation of a person's face created from DNA data. Below the main image, there is a section titled "Our Art" with a list of links: Our Art, Options, Process, Examples, and Framing Tips. To the right of this list is a section titled "Our Art" with the subtitle "From Life Comes Art—Combining Science and Art to create one-of-a kind masterpieces." and a paragraph describing the DNA11 process. At the bottom left, there is a call to action: "Order Your Custom DNA portrait" with a brief description of the ordering system. At the bottom right, there is a link to "Read more..(cont'd)".

WHO WE ARE | OUR ART | HOW IT WORKS | NEWS & EVENTS | E-STORE

From life comes art.

Our Art

- [Our Art](#)
- [Options](#)
- [Process](#)
- [Examples](#)
- [Framing Tips](#)

Order Your Custom DNA portrait

Choose your size and color options using our step-by-step, secure ordering system

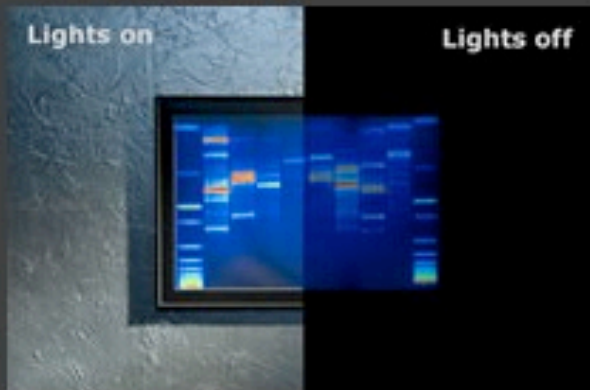
Our Art

From Life Comes Art—Combining Science and Art to create one-of-a kind masterpieces.

DNA11 creates unique DNA portraits through an extraordinary combination of science and art. The process begins with the DNA being collected using a patented, non-invasive technique: depositing your saliva into a tube. This sample is then sent to our highly secure, certified laboratory, where the DNA is extracted to create a unique genetic fingerprint, using a technique that takes advantage of the variation that occurs among the DNA sequence of every individual.

→ [Read more..\(cont'd\)](#)

◊ Create your personalized DNA GlowFrame™



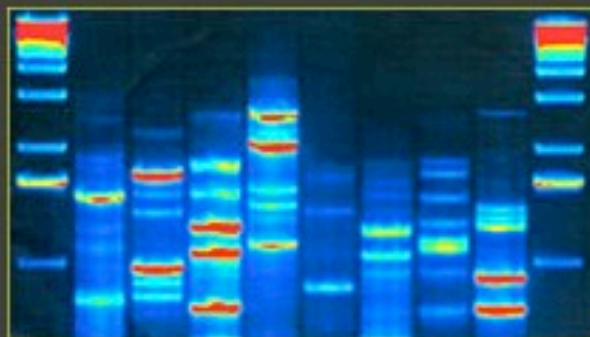
DNA GlowFrame™ Features:

GlowFrame backlit frames incorporate proprietary "edgelighting" technology, allowing for even, and uniform illumination of your custom DNA 11 piece. In fact, at less than one inch thick, the profile of a GlowFrame is virtually indistinguishable from any other desktop or wall-mount picture frame. It has a plasma screen-like look and feel to it.

→ See Examples

- ▶ Includes easy to use DNA-collection kit and instructions
- ▶ Comes framed and mounted ready for hanging
- ▶ Includes power supply and super-thin 3M™ 15" cord
- ▶ 20,000 hours of bulb life
- ▶ Low-heat
- ▶ Hand signed certificate of authenticity
- ▶ **100% unconditional satisfaction money back guarantee**

*Shipping will be \$50 in Canada and the US or \$100 International



Infrared: A vibrant range of colors set on a cool blue background.

◊ Color Options



The website just calls these “high-end, unique abstract art from DNA.”

There is no explanation of electrophoresis gels, and no way to read or calibrate the lanes—hence no way to extract scientific information.

This is touted as a good thing, because it preserves privacy.

DNA II is not serious about science, and not (successfully) serious about art.

Scientists explaining science in terms of beauty, etc.

Examples:

(a) Michael Berry (Bristol) who presented a 'Café Scientifique' in the Glucksman Gallery, Cork, in March 2005.

He showed pictures of patterns of water and light, and compared them with prose descriptions (A.S. Byatt, Thomas Pynchon, John Banville) and paintings (David Hockney)

(b) Felice Frankel, *Surfaces*: a book of her photomicrographs of surfaces of objects. There is a commentary by a chemist, but it does not add much information, so the book is mainly 'visual' — it has no theorized aesthetic content or connections to art history