

ARTnews

the genetic esthetic

DNA, MRIs,
and
X-Ray
Visions



Gary Schneider,
Hands, detail
from
*Genetic
Self-Portrait*

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ON THE EDGE

THE STRIKING IMAGE YOU SEE ON OUR COVER IS THE RESULT OF AN UNUSUAL alliance of art and science. It's part of *Genetic Self-Portrait*, a group of images by Gary Schneider that depict his corporeal makeup: from his eyeballs to his sperm to his very chromosomes. As you'll read in our cover story, "The Genetic Esthetic," Schneider is one of a growing number of artists who are using advanced medical technology—

from X rays and MRIs to DNA diagnostics—to explore issues of identity and expand notions of portraiture. Also in this special "On the Edge" section, we profile five up-and-coming artists who are finding their own ways to break ground and push boundaries—whether it's with meticulous figurative drawings or through a gallery done up like a disco.



THE FUDGE

The Genetic Esthetic

Artists are using medical technology such as X rays, MRIs, and DNA diagnostics to redefine notions of portraiture By Barbara Pollack

"I hate hospitals!" exclaims photographer Gary Schneider. Yet, for a year and a half, he spent most of his days at Columbia Presbyterian Medical Center in New York, giving hair, blood, sperm, and cheek-tissue samples to a battery of doctors and technicians. The result? *Genetic Self-Portrait*, a 1997 work that translates medical images of the artist's body into a powerful installation composed of 55 black-and-white photographs. Schneider admits that this was an unusual approach for an artist squeamish about medical procedures. "But it was an opportunity to do a diagnostic self-portrait, where I could harvest images of my own body," he says.

Schneider is one of a growing number of artists using cutting-edge medical technology—from X rays and MRIs to DNA diagnostics—as part of their art-making practices. Documented in the scientist's lab and transformed in the artist's studio, this kind of work brings a new view of the body to public attention with images that can range from color photographs of chromosomes to video footage of interior organs. Stripping away a person's outside appearance in this way, artists are, in essence, redefining traditional notions of portraiture and questioning what signifies individual identity.

"Schneider's *Genetic Self-Portrait* ironically demonstrates that the human body is more than the sum of its parts," says Edward Earle, curator of digital photography at New York's International Center of Photography, where *Genetic Self-Portrait* is on view through the ninth of this month. "The sheer beauty he has brought to these images reveals more about the artist than the specifics of his microbiology." (A show of Schneider's work from the past 12 years is on view through the 22nd of this month at the Eleanor Barefoot Gallery in New York.)

To produce *Genetic Self-Portrait*, Schneider worked closely with Dr. Dorothy Warburton, director of the Genetic Diagnostic Laboratory at the Babies and Children's Hospital at Columbia. Warburton, a leading expert in DNA research, was used to viewing genetic material through a microscope but had never perceived her work as having to do with art. But together, she and

Schneider identified and examined parts of the artist's biology—from his fingerprints to the nucleus of a single cell—for the project. Schneider then transformed the microscopic images of these samples into large-scale photographic ones.

Schneider is not the only contemporary artist who has borrowed from science to create a kind of self-portrait. Robert Rauschenberg had X rays taken of his entire body and included images of his skeleton in lithographs he made in the late 1960s. More recently, Australian artist Justine Cooper portrayed her body using magnetic resonance imaging, or MRI, for her 1998 sculpture *Self-Portrait*. Most patients shrink from getting MRIs, a process that requires lying in a container for an extended period of time, even for a single scan. Cooper endured dozens of these. She mounted each MRI film on a clear Plexiglas sheet, stacked all of them together with space in between, and connected them with steel cables. Seen as a whole, *Self-Portrait* is an eerie likeness of the artist's external form, delineated only by the outlines of each MRI film. But up close, one sees that each sheet reveals a slice of the artist—brain, ear, stomach, liver, reproductive system.

Mona Hatoum underwent a more invasive examination to procure images of her interior for *Corps étranger* (Foreign Body), a 1994 video installation. She had an endoscopy, a procedure in which a tube with a camera attached to it is inserted into the mouth or anus and snaked through the body to in-

OPPOSITE Gary Schneider photographed the interior of his eye for *Iris*, 1997.

COURTESY P.P.O.W. GALLERY, NY

spect areas such as the esophagus, stomach, and intestines. In the installation, the video takes the viewer on a fantastic voyage through orifices and organs, offering, perhaps, a more intimate look at the artist than a traditional self-portrait. "A portrait is just looking at the surface of the body," says Hatoum, whose video suggests how foreign the human interior may look to us. "We are very close to our bodies, but the fact is we are completely unfamiliar, we are strangers to our insides."

To be sure, to obtain images of their insides, artists are pushing the boundaries of self-exposure, subjecting themselves to painful scrutiny on many levels. For Hatoum, the endoscopy was a "complete invasion of the body. I was completely vulnerable," she says.

Schneider, too, faced vulnerability. While undergoing DNA analysis, he confronted some of his greatest fears, including whether he inherited the gene that might have caused his mother to die from cancer. The results indicated that he did not have such a propensity. "I was basically asking, How far will I go to look at myself?" says Schneider.

Providing the background for Schneider's and other artists' work is the Human Genome Project, an effort coordinated by the United States Department of Energy and the National Institutes of Health in 1990 to decode all genetic information in the human body—that is, to identify every gene on the 23 pairs of chro-

mosomes and to determine the biochemical characteristics of each one. The first draft of the project's initial findings will be released this summer, and the ramifications of the research will be wide-reaching. The data could lead to a new understanding of genetic disorders and how they can be diagnosed, treated, and even prevented. But it also raises concerns about the increasing availability of genetic information and the way it is or could be used. Already it is legal to patent DNA, and an international industry is developing that markets products ranging from genetically engineered tomatoes to therapies that substitute a malfunctioning gene for a normal one. Meanwhile, medical-insurance companies are considering whether to incorporate genetic proof of an individual's propensity for a particular disease in their definition of "preexisting condition," the basis for denying coverage. A portion of the Human Genome Project is dedicated to investigating the ethical, legal, and social implications of the project itself.

"Congress is going to make laws governing the use of genetic research, but how well do even they understand it?" asks Karen Sinsheimer, curator of photography at the Santa Barbara Museum of Art and the wife of Robert Sinsheimer, a professor in the department of Biological Sciences at the University of California, Santa Barbara, and an initiator of the Human Genome Project. "Artists can visually represent and translate these issues for the rest of us," she says. Inspired by the project's research, she organized the 1998 show "Out of Sight: Imaging/Imagining Science," featuring artists such as Schneider, Joan Fontcuberta, and Du Seid, who have been looking at the world of biological science.

A more recent show at the Santa Barbara Museum of Art, "The Jefferson Suites," by Carrie Mae Weems, looked at the issues—not the images—that surround genetic research. For her installation, which included banners, photographic images, text, and an audio component, Weems focused on the recent findings regarding Thomas Jefferson's DNA. For decades, Jefferson's relationship with one of his slaves, Sally Hemings, was merely a rumor—until scientists proved through DNA tests that he most likely did father at least one of her children. In this case, Weems seems to point out, genetic research can be a positive force, resolving historic controversies. Still other parts of her installation comment on more dubious applications of this knowledge, including harvesting "genius" genes from university students and Wall Street's latest stock promotion of the genetic-research industry, sometimes referred to as "junk genes."

DNA as a marker of identity was also the subject of Inigo Manglano-Ovalle's 1998 exhibition "Garden of Delights," which appeared at the Southeastern Center for Contemporary Art in Winston-Salem,



North Carolina. Here, Manglano-Ovalle turned DNA samples into 48 ethereal, abstract color photographs, each standing five feet tall. He invited 16 people to choose 2 other people—relatives or friends—to participate in the project. Their DNA photos were hung as triptychs according to the selected threesomes, creating a kind of 21st-century version of a family portrait.

Dr. Suzanne Hart, then-director of the biochemical and molecular genetics laboratories at Wake Forest University (she is now at the University of Pittsburgh), assisted Manglano-Ovalle in developing the participants' DNA samples into chainlike images. ("We worked the same way a painter works with a master printer," explains Manglano-Ovalle.) As part of the process, Hart put the samples through standard PCR (polymerase chain reaction) tests, generally used to ascertain paternity or criminal culpability. Manglano-Ovalle points out that though these tests are being used for forensic purposes to determine identity, within the context of his project it is social relations—who picked whom as their "family"—that tell more about individual identity than DNA.

His latest exhibition, "Banks in Pink and Blue," on view at the University of Washington's Henry Art Gallery through the 16th of this month, also investigates the notion of genetic identity. It includes two cryogenic sperm banks—one in pink and one in blue—holding semen samples from people the artist selected, sorted by the gender they would produce. Manglano-Ovalle initially hoped the piece would raise discussions about genetic selection, in which parents can choose the sex of their child. Now, he finds himself embroiled in the kind of legalities usually faced by scientists working in this field.

"Being a university on a state campus put us in a different position from a private gallery, and the university was concerned about liabilities," explains associate curator Rhonda Lane Howard. "They wanted Iñigo to agree to destroy all the samples at the end of the project, but this goes against the intention of the project, that the work will go on after the exhibition." Manglano-Ovalle hired his own lawyers, who incorporated the project—The Banks in Pink and Blue Corporation—and drew up contracts delineating the artist's responsibility in relation to the university and to the sperm "lenders." Now part of the piece, the contracts underscore the complications of using genetic material and its possible applications in the future.

Howard points out that most visitors to the gallery see the sperm banks as minimalist sculpture or the supporting text as conceptual art, but they rarely connect the work to the body or sex. "This is a whole new exploration of portraiture," she says. "The usual portrait deals with exterior physicality. Here, even when you are looking at internal, fundamental identities, you may not know what you are seeing."

More recent and upcoming projects continue this exploration of science's impact on art and identity. Suzanne Anker, art-history professor at the School of Visual Arts, in New York, convened a panel titled "Picturing DNA" at the annual College Art Association conference last February. Curators Marvin Heiferman and Carole Kismaric are preparing a large-scale exhibition on the subject, opening at New York's Exit Art in September. And Thames and Hudson has recently published a book of molecular-medicine photographs by television writer Hank Whittemore, aptly titled "Your Future Self."

While science cracks the genetic code, many artists are focusing more on the body's inner mechanics than its outward appearance. "We think of the body as organic," says Howard, "but now that we are on the verge of discovering its essence, the code of codes, the focus is on the intricacies of the interior."

Scientists, in turn, are becoming increasingly willing to work with artists to interpret their research. When asked why she devoted time and energy to Schneider's *Genetic Self-Portrait*, Dorothy Warburton explained, "People have a distorted image of what we scientists do, as if geneticists are all-powerful. When artists treat these images as almost sublime, they are able to convey the significance, beauty, and meaning of this project to ordinary people." Her words recall the famous quote of James Watson and Francis Crick, the team who discovered DNA in 1953: "We knew it was right because it was so beautiful." ■

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