

I Dream of Genomes

Reflections on identity, artificiality and evolution

genome (jē'nōm') *n.* The total amount of genetic information in the chromosomes of an organism, including its genes and DNA sequences.

Identity Crisis

In the fifty-five years since James D. Watson, Francis H. C. Crick and their associates discovered the structure of the DNA molecule the field of biochemistry has exploded. The science itself has sped forward faster than our ability to apprehend it. As a community, we haven't even agreed upon a definition of life, let alone the gray areas that orbit around its considerable girth.

Much has happened in the intervening decades. We've now embarked on a scientific horizon that includes the replication of cells, embryos and body parts. The bio-tech industry is booming. We all know the stories; the monkey embryo, "Dolly" the cloned sheep, the tales of test tube babies. Ready or not, the cloning of human life is perhaps just a matter of time. In the future, procreation through sexual intimacy may not only be unnecessary, it may be too dangerous. If the "urge to merge" were to lose its biological imperative, would it spell the end of evolution? One of these days the scientific community will be able to eliminate sickle cell anemia, Parkinson's, diabetes and the like. What would prevent them from also eliminating blue eyes or an uneven temperament? Would it mark the end of natural selection? It may sound like science fiction, but just a decade ago who dreamed that the debate over cloned cow burgers would be headline news?

How do we define life? What does it mean to be human? Who owns *your* DNA? Cloning, morphing, bio-colonialism, genetically altered food, animals, cell structures, viruses, organs. **I Dream of Genomes** examines the structure of life; the authentic self; personality, ethnicity and uniqueness; things that are real, things that have ceased to be real and some of the gray areas in between.

For **Hope Sandrow**, genetics has bred new life into her South Fork studio/home. One day last year, a rooster landed in her backyard. "Shinnecock", as he came to be known, was no ordinary farm hen. Like a fugitive from some aviary *Project Runway*, he is, in a word, majestic. Exotic feathers erupt into plumage atop his white head. Shinnecock is a Paduan rooster, one of the most beautiful birds in this species. Prized for their pure white eggs, ironically, Paduans do not propagate. And so, it was with extreme anticipation that Sandrow welcomed the brood of chicks that busted out of their pearly white shells once Shinnecock found true love late last summer. Despite warnings from chicken specialists across the map as to the species' inability to procreate, nine healthy offspring were welcomed into the world.

But the real surprise was the derivation of their offspring. They popped out all different breeds. Dozens of wildly different species -- orange birds, black birds, dappled birds, white birds. Sandrow had unassumingly rocked the genetic boat. Her chickens have produced purebred offspring that share none of the characteristics of their parents; anathema to everything we know. Here, at Islip Art Museum, a live feed has been hooked up in Sandrow's chicken coop. You are invited to witness the complex social interactions among this family of birds, their eggs in situ and, with any luck, the emergence of another rainbow coalition of baby chicks.

The works of **Kathleen Kucka**, **Lisa Kellner**, **Birgitta Weimer** and **Michelle Hinebrook** focus on macrocosms within human cell structure. Weimer's translucent bulbs exist somewhere in between this world and the next, hovering like the nuclei of a single celled giant under glass. In a kind of homage to the ultimate in navel gazing, Hinebrook's and Kellner's magnifications of skin structures examine the fleshy mazes of epidural tissue,

drawing on concepts of self-identity and human portraiture. Likewise, Kucka examines the cell structure of tissue on a microscopic level, its elasticity and endless layers revealing a depth of cellular information.

The science of the double helix, DNA strands and visual adaptations of cellular function is the driving force in the work of **Steve Miller**, **Julia Condon** and **Meridith Pingree**. For Miller, visualizing the function of proteins, polymers and chromosomes has stirred interest in the community of biochemists currently working in the field of genomics. In his painting, Technical Divide, the actual notations from Nobel laureate Rod MacKinnon's lab books serve as a backdrop for the artist's ink dispersions and images of laboratory equipment. Similarly, the airy simplicity of Condon's glass mobiles and Pingree's hyperbolic zipper shapes illustrate the inherent beauty within mathematical structures.

It wouldn't be fair to gaze into the future of the genetic revolution without speculating on the possibility of scientific malfunctions, mishaps and miscalculations. In spite of the wonderful advances in medicine made possible by the mapping of the human genome, it is not without its risks, its theoretical complications and its ethical dilemmas. The ability to clone stem cells inevitably brings to mind human clones, morphed identities and mutant mix-ups. For **Kate Clark**, the future is made horrifyingly present in her mutant antelope/man titled, Night After Night. Slightly less ghastly but no less startling, **Jake Rowland** has morphed photographic portraits of himself and his wife into a family of mutants. With their vague gender identity and distant stares, the quartet of human metamorphs is frighteningly out of wack. Along the same lines, **Andrea Cote** examines a sort of human morphology, her own image fluctuating in and out of focus as she commingles with the many personalities of her own facial structure.

David Gamble takes a look at the synthetic self and the ways in which identity is diminished by cultural distinctions and the sciences. Here he questions the diminishment of authenticity in our cultural heroes in the images of both Jesus and Mike Tyson. How do we, as a culture, identify personality? Culturally, which figure is more real to us -- the plastic figurine or the sum total of newsworthy anecdotes about the individuals in question? How are our personalities shaped by mood altering drugs, make-up and potions? Within days of Andy Warhol's death in 1987, Gamble was asked to document his home. What is portraiture if not a revealing look inside the personality. What does this portrait of Warhol's synthetic self - his medicines, tanning lotions and fancy soaps - say about Andy Warhol the man? **Catamount Mayhugh** also examines the replication of Warhol and his treatment of subject matter. Mayhugh, who comes from a long line of mid-western farmers, also looks at the genetic engineering of crops that families such as his have been undertaking for decades.

Taken all together, the world of science fiction has nothing on reality anymore. In 2007, the full genome of Dr. James D. Watson was deciphered marking what some scientists believe is the gateway to an impending era of personalized genomic medicine. A young industry specializing in genomic profiles is emerging. For \$2,500, companies the likes of 23andMe and DeCODE offer genetic profiles that identify genetic traits and things like one's predisposition to illness, fatness or baldness. With as little as a vial of spit, these burgeoning companies can outline your genetic past and future. Were you born to like the taste of brussel sprouts? Does your genotype predispose you to heart disease? Alzheimer's? How much do you want to know?

As we march forward into this Golden Age of Biology, we go armed with the genetic blueprint to life. I wonder what would Plato have to say?

Janet Goleas, Curator

I Dream of Genomes

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The Islip Art Museum

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www.islipartmuseum.org

Hrs: Wed - Sat 10am - 4pm
Sunday 12noon - 4pm