

## GINA CZARNECKI

*Humancraft*

In 1972, when I was seven years old our family went to Poland for summer holidays. This was the first time my father had been back to his homeland since he was liberated from a concentration camp, as a teenager, just after the Second World War. Thirty-two years later he was told that his sister had also survived and this was to be their first re-union.

Part of that ‘holiday’ was visiting the remains of the Majdanek concentration camp. My father narrated this visit to the barracks, gas chamber and ovens. He spoke of sleeping eight to a bunk and pushing out corpses from the bed in the mornings, of seeing a pregnant woman being left with her legs tied together as she was about to give birth, and, unwittingly, many more gruesome details that were both fascinating and have lodged firmly in my psyche. This was also the first time that we had ever heard our father speak Polish. He wanted to be able to forget and I learned to remember.

In tourist terms this excursion was not considered morbid or extraordinary: up until 1989, the end of the Communist regime, all Polish citizens were required to go on government-sponsored group tours to the former Nazi concentration camps as part of their indoctrination in the hatred of the opponents of Communism. Polish schools taught a censored version of history during the Communist rule, leaving out such details as the Russian invasion of Poland and the pact between Stalin and Hitler, but emphasizing the crimes of the Nazi fascists. Russian soldiers killed my dad’s parents; shot right there in front of him. German soldiers arrested his brothers, and it is believed that they were later killed in one of the Nazi extermination camps.

I believe that this experience was the catalyst to my interest in human biology and evolution. I began questioning that good doesn’t equal truth and truth doesn’t always triumph and that the morality and truths I had been force-fed through a Catholic upbringing were constructs or

invention. These influences have been developed and manifested through my artwork more directly since the early 90’s and further stimulated by scientific events such as the human genome-mapping project. The identification of the approximate 30,000 genes in human DNA, begun formally in 1990, coincided with my first experiments in digital photography.

The simultaneous development of digital imaging technologies, image analysis and the mapping of the human genome essentially enabled the deconstruction of ‘the whole’ into the individual building blocks, both the pixel and the individual base pairs within a gene. There was a growing belief in genetic determinism and a growing disbelief in the authority of the photograph as the arbiter of the truth.

If one could reconstruct the illusion of authenticity by manipulating the individual units in digital imaging then what were the implications of this for human genetic engineering? If something can be identified and isolated then can it therefore be eliminated? And is it the elimination of defects, as scientists would claim, or for the elimination of the defected?

The Human Genome Mapping Project also ignited my imagination because of the potential for new, silent and allegedly accurate possibilities for a eugenics that could sculpt the world population — through invisible genocides and through scientific and technological (economic) enslavement, and using medical research rather than religion as justification for a politically or ethnically motivated mass-killing of civilians.

The idea that the human is a genetically perfectible artefact is eugenic. There is a tension between the idea of the human body existing in a state of nature, which must be preserved at all costs, and the idea of the body as part of an ongoing technical evolution. The biological possibilities were spectacular, however my concerns were with context, who and what are defining this?

In 1996 I started working on *Versifier*, an installation that directly addressed the parallels I drew between digital photography and genetic engineering. In *Versifier* eighteen life-sized naked human forms are subtly changing, yet retain the appearance of the authentic or untouched photograph. The viewer is confronted with this line-up of specimens that have an un-nerving and imposing presence. There is a sense of entrapment, but with an ambiguity as to who is caged. The bodies take on an essence of divinity and allude to the vast reserves of unused potential that all of our bodies contain. It is a graphic statement about the similarities and differences between these people — of different sexes, nationalities, cultures — and us.

How does one define difference and normality?

Where does the natural end and the constructed begin?

By this time (1996) thousands of individual genes had already been identified as being responsible for specific diseases and characteristics — data organised into information and contextualised into knowledge. We had heard of the gay gene, the smart gene.... This was mediated to the public in sensational claims of single genes that effect specific traits. The thought of our lives being entirely genetically pre-determined both challenges and corroborates Christian/Humanist anthropocentrism. Whilst defining the human as an animal/organism and individuals as only part of the human super-organism, it elevates the human to the level of that which is in control of its biological fate — unlike other animals. Ironically this seemingly condemns humans to a lifetime marked by our own deficiency.

*The authority of science comes from the power it gives humans over their environment. Now and then, perhaps science can cut loose from our practical needs, and serve the pursuit of truth. But to think that it can ever embody that quest is pre-scientific – it is to detach science from human needs, and make of it something that is not natural but transcendental. To think of science as a search for truth is to renew a mystical faith, the faith of Plato and Augustine, that truth rules the world, that truth is divine.*

*Straw dogs*, John Gray<sup>1</sup>

Technologically-enabled human genetic manipulation and selection is an integral element of a newly emerging socio-political ideology. Could germ line engineering and techno-eugenics driven by the global marketplace make health, appearance, personality, cognitive ability, sensory capacity, life — span all become artefacts? Of course anything can be commodified, and within a market primed for eternity and youth, the demand is surely high enough for such products that cost would be no object to those who can afford to aspire to be gods.

Moving away from an ideological position and increasingly working with people from different disciplines enabled me to access the actuality of some technologies and gain deeper knowledge overall. Collaboration also enabled me to draw parallels between my concerns as an artist and similar questions from other viewpoints. It enabled the evolution of ‘out-of-paradigm’, novel approaches and cross-disciplinary thinking. The investigation of how systems re-organise and react when new entities (players, mutants, infections, ‘synthetic’ genes, new species, for example) join has many wider applications than the purely technological and biological. How do communities evolve when new-comers, for example asylum seekers, join them? Cultural issues such as gene patenting, population diversity, new reproductive technologies, nature/culture boundaries, and more, are implied.

I had always been concerned with pushing the boundaries of the performative process, and digital representation, to make virtual, ephemeral, representations and graphic expressions that challenge assumptions around the human body and its depiction. Now I became increasingly interested in enabling the people playing the artwork (who had hitherto been termed audience) to generate the artefact. This instituted a massive leap in my practice, from being the sole maker and author of my linear works, to being part of a team of people collaborating. Engaging with positions I had not historically agreed with and opening up to an over-riding value system pro or against reproductives, resulted in wanting to make an installed artwork which allowed the ‘audience’, the players, to make these decisions.

Interactive, generative art also mirrored genetics, in that it alluded to unknown outcomes and futures. We created a stage for artificial

evolution where human ‘control models’ and their created offspring are the subjects for the players to manipulate and mate. The players therefore direct the evolutionary course. The interface enables multi-user interaction that is controlled by experiments in team-working and ‘mass consensus’ — i.e., people working together essentially determining who lives and dies. The interface measured and responded to the proximity and mass or combined behaviour of the participating audience/activators.

The people on the screen — the models — were documented using video and audio. All provided specimens for analysis, both for visual references and for DNA analysis. There were twenty-two participants, creating the image of a crowd of life-sized, naked human forms on one projection screen.

There is a distance at which we can recognise the individuals in a crowd and there is a near distance at which we all appear the same again, as similar organisms constructed of the same stuff. Dr Alan Prescott of the Wellcome Trust Image Analysis Lab and I, were surprised as to how individual the body samples were. For instance, peoples’ urine dries in different, grid-like patterns, depending on the chemical composition. A common head hair holds information specific to that individual, just as earwax shows unique individual patterning. From a distance we appear the same. How far or close do you have to be to recognise difference? How close in can you get before the visual ceases to become relevant information for you? When does data become information become knowledge?

The players’ movement in the space selects individual models. As the selection process progresses the sound files are activated and the projections appear to talk, revealing some further intimacy about them, their lives or what they hold precious. The final stage is that of the genetic information revealing genetic defects in vision. Will what they say, shared knowledge or intimacies of some sort, influence their ability to survive? Or will people select on the basis of knowledge of genetic condition? (Four people had genetic defects in vision. Whilst analysis could detect these defects it could not identify what the defect was. As the assay was purely for colour-blindness I had to go back to the individuals and ask them if they knew about any defect in their sight. One woman had a sensitivity syndrome, and her daughter was a carrier.

One man knew of a defect in one eye but thought this was merely a lazy eye. The other two people were not aware of any defect.)

The audience members’ decisions essentially evolve virtual populations by choosing to evolve or terminate. By definition evolution requires reproduction and development, change or mutation. Using algorithms or sets of computational rules I generate these forms using the paradigms and processes of natural selection, analogous to the work of genes. Chance plays a part in the process and puts in random mutations and combinations. The outcomes therefore cannot be predefined. ‘Evolutionary computing’, or ‘genetic algorithms’, equate the biological with the engineered and visa versa but also work on problems of complexity, possibility and chance — so that a and b don’t make c, but there are a number of possible combinations and that c, if it is evolved not just copied, will contain some otherness, a random mutation. In animal population this random mutation could be so minimal over generations that it becomes invisible.

The evolution of these ‘people’ on the screen changes from day to day, exhibition to exhibition. The collectively evolved communities built by the collective contribution from different audiences throughout the entire life span of the installation are archived and the history of each evolution can be traced.

The geneticists that I worked with on *Silvers Alter* included Dr Cornelius Weiger of The Wellcome Trust and Dr R.D.Campbell, Dr Tom Weaver and Andrew Dearlove at the Human Genome Mapping Project Resource Centre, Cambridge UK. Their research involved going along the chromosome, systematically changing or removing base pairs to create mutations that can be measured, i.e., those that can be expressed in the physical world either behaviourally, chemically or physically. The terminology used to refer to the inactive parts of genes — those that have no expression in the physical world — is ‘redundant’ or ‘silent’. These tests at the Wellcome and HGMP were carried out on chicken embryos, mice and fruit flies so my question was then how do we measure the effect on consciousness and mental health, for example? If one were coming from the philosophy of pure genetic determinism

then would consciousness be purely the connection between genetically inherited traits that are quantifiable?

For the purposes of this artwork I needed to work with something that is allegedly entirely genetically determined, ‘Pure’ genetic determinism can allegedly be ascribed to only two or three conditions, all others being complex, multi-gene conditions that are environmentally and genetically determined in varying degrees. This forces us into complex questions of balance between the biologically and environmentally determined. What the results and complexity of information really address are systems of analysis, application and measurement that pertain to academic values.

For example, there are from five to fifty genes thought to be associated with what is described as intelligence. Many of these genes have ‘enormous effect’ — therefore any ‘abnormality’ will result in mental illness or disability. Particular genetic markers may give a person the predisposition to have a 1-2 point higher I.Q., but as DNA tests don’t know the I.Q. of the individual/potential individual to start with, this is an arbitrary figure. Also, just as in consumer surveys, the statistics are for populations and not for individuals. The results from tests on anonymous control models are amplified to represent entire populations. Perhaps this is another case of qualitative research being confused with the quantitative and ‘norms’ becoming fixed with little basis.

Rather than finding a single viewpoint, when I began talking to scientists about *Silvers Alter*, I found that there is a crowded field of opposing hypotheses proposed by scientists on just about every subject.

The variety of opinions on whether to inoculate babies using the combination MMR jab further supports this. There is nothing more emotive and challenging to rational thought than decisions regarding our own kin. At seventeen weeks pregnant with our first child my partner and I were informed that we had a one in twelve chance of this child having Down’s Syndrome. We faced a week waiting for the results and considered what would be our decision if this test were to come back positive. The medical profession could not tell us the extent of Down’s — some people with Down’s live apparently normal lives whilst others need

constant supervision for basic functioning. The results are known at nineteen to twenty weeks gestation. Half term and the baby had already started moving and having patterns of activity that you become familiar with. The information comes as black or white and far too late. What could we do with this knowledge once we had it? Whilst acknowledging the paradox of wanting a ‘perfect’ child and respecting diversity, a baby born at twenty-three weeks is now able to live without any long-term problems. Yet many people terminate a chromosomally abnormal child at 20 weeks.

The idea of abnormality, or difference, implies that the notion of the normal and the pure exist. This also implies that normality is pure and that the abnormal is external and impure. Where is the dividing line between the external and the internal? Nazis did not just kill disabled people and the Jews; they increasingly exterminated anything alien, anything outside of their race. With human genetic engineering alternative voices contributing to the definition of normality are increasingly critical.

There is a growing number of artists working with representational gesture or quasi-scientific, institutionally-enabled attempts at understanding the mechanisms from a non-commercial basis, as a form of action — research as critique. Small beginnings yes, but methods of engagement in research areas are often mystifying and inaccessible.

<http://www.caedefensefund.org/>

Since May Steve Kurtz, Professor in the Department of Art at the State University of New York’s University at Buffalo, and a member of the internationally acclaimed Critical Art Ensemble, has been the subject of a highly publicized federal investigation involving his possession of bacterial agents and lab equipment. The trouble began on May 11 when the artist woke to find that his wife, Hope, was dead. After emergency workers arrived, they discovered what they considered to be suspicious items and called in the FBI. Invoking a 1989 bioterrorism law and the USA PATRIOT ACT, which grants the federal government unprecedented search-and-seizure powers, federal agents detained Kurtz for 22 hours; they searched his home for two days, as well as his office at SUNY-Buffalo, where he is a faculty member. The bureau confiscated his wife’s

body, his house, car, equipment, computer hard drive, books, writings, correspondence, art projects and other items, even his cat. His house, cat and car were returned to him after one week, once it was determined that his wife’s death of heart failure, at age 46, was unrelated to the bacterial matter.

On 15 July 2004 Kurtz and one of CAE’s collaborators, Ferrel, appeared before a Federal Grand Jury, initially facing charges under Section 175 of the US Biological Weapons Anti-Terrorism Act of 1989, which has been expanded by the USA PATRIOT ACT. As expanded, this law prohibits the possession of “any biological agent, toxin, or delivery system” without the justification of “prophylactic, protective, bona fide research, or other peaceful purpose.”

However, the defendants were charged not with bioterrorism, the investigative reason that was stated on the original FBI subpoenas, but, in the words of Kurtz attorney Paul Cambria, with a glorified version of “petty larceny” - basically mail and wire fraud (United States Criminal Code, Title 18, United States Code, Sections 1341 and 1343), which each carry a maximum sentence of 20 years in prison.

The laws under which the indictments were obtained are normally used against those defrauding others of money or property, as in telemarketing schemes. Historically, these laws have been used when the government could not prove other criminal charges.

Under the arraignment conditions, Kurtz is subject to travel restrictions, random and scheduled visits from a probation officer, and periodic drug tests.

*Science gives us the sense of progress that ethical and political life cannot. Again science alone has the power to silence heretics. Today it is the only institution that can claim authority. Like the church in the past, it has the power to destroy, or marginalise independent thinkers (think how orthodox medicine reacted to Freud, and orthodox Darwinians to Lovelock). In fact, science does not yield any fixed picture of things, but by censoring thinkers who stray too far from current orthodoxies it preserves the comforting illusion of a single established worldview. From the standpoint of anyone who values freedom of thought, this may be*

*unfortunate, but it is undoubtedly the chief source of science’s appeal. For us, science is a refuge from uncertainty, promising — and in some measure delivering — the miracle of freedom from thought; while churches have become sanctuaries for doubt.*

*Straw Dogs*, John Gray<sup>2</sup>

And if the possibilities of human genetic engineering and its sister, biological warfare, are dangerous and threatening that’s because, as a race, we are. It is about the claim on science and who owns it. In attempting to engage at a fundamental level, I hope I have progressed beyond the level of mere gesture — however, let’s remember that the authentic is another myth.

#### Footnotes

1. Straw dogs, John Gray Page 20

2. Straw Dogs, John Gray Page 19