

THE TERROR OF IMMORTALITY (2014)

by Lynn Hershman Leeson

The term “cyborg” was first coined in 1960 when Manfred Clynes and Nathan S. Kline identified through the lens of their microscope, and notated it in their article “Cyborgs and Space”. Over the next five decades, emerging lens technologies brought into sharper focus inquiries as to the nature of Kline and Clyne’s “cyborgian thing”.¹²

Cyborgian mythology was reborn with a vengeance when, as recently as 1995 live cells were placed in 3D bio printers. When living cells were first placed within an ink cartridges (the same ones used in photo printing) they developed into 3D printouts of pulsating synthetic organs designed for transplantation into human beings. This methodology extends the photographic process into one of developing into a new age - printing living tissues including synthetic organs and skin. Skin and organs emerge pulsating and fully formed through accessible photographic printing equipment. Living tissues are assigned algorithmic designs into which were inscribed specific functions when it entered the living bodies of receivers. Instead of inks, plastics and other artificial materials, science and medical labs now use a patient’s actual living cells to replicate organs that the body can recognize and accept. Perversely, this method of replication simultaneously extends the life of biological systems while posing a lethal threat to what was formerly known as “nature”.

Similarly, banks are being established to store and archive DNA from issues of plants and animals so as not to lose the original source, just as we are able to regenerate ancient species from frozen DNA. Bio printing instigates tremendous promise for medicine, but also carries the potential to create life that is, in many ways counterfeit

There are long-term consequences for what I term “unnatural selection”. These include biological censorship, where wealthy clients have the ability to pre select designer babies with markers they aesthetically approve, such as blond hair and blue eyes. These designer babies will in turn have genetic markers to breed further progeny that carry these traits.

Gene patenting proffers a fascinating view of what types of ethical and social decisions will be necessary in the future. For example, the Supreme Court of the United States ruled that human genes could not be used in experimental tests because it violated the 13th amendment - slavery. If you own a human gene, you own the person. This however, does not apply outside of the United States and other countries are already using human genes for tests.

As organic printing and DNA manipulation reshapes the identities of newly manipulated organisms, so too the culture of absorbed surveillance has dynamically shifted. In the next 100 years, the materials used to create DNA will become increasingly distributed and hybridized. The implications of this research include not only the creation of a sustainable planet of hybrid life forms that can survive a sixth extinction and incorporates into its existence a morally responsible future.

¹ Durden, Mark, *Art in America*, May 2006

² Manfred E. Clynes and Nathan S. Kline, "Cyborgs and Space" *Astronautics*, September 1960.