

**And the neuroplastician said, you peel away all the layers of the onion and there's nothing in the center.**

– on the work of Antye Guenther

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As our relationship with technology is ever more intimate and pervasive, its influence deeply entrenched within the human living complex, it seems increasingly difficult, even impossible to uphold the artificial separation line between nature and technology. Nevertheless (conscious) organic matter is in need of an environment enabling its subsistence over time, where it would be difficult to imagine the human body surviving in conditions intolerable to its material consistency. This does not entail the human body is 'natural' by any means: the slabs of matter that we inhabit are equally the outcome of cultural and technological processes. However, if the human body is to be deemed a cultural-technological construct, it will always still be in need of an environment with conditions that make its reproduction and mobility possible. This ultimately concerns a discussion of the relationship between consciousness and evolution, for which the latter has had its obvious effect on consciousness. Concerning the reverse: could one imagine consciousness acting out on the evolutionary process? At the heart of this discussion one may locate the artistic practice of Antye Guenther, actively revolving around questions of how to adapt the human body and neural system—through the lens of science (fiction) and technology—to the changing and mutating environment, in relation to nonhuman and non-biological modes of existence.

For the past years, Guenther's artistic practice has been invested into epistemological questions prompted by the fields of science, technology, post-humanism, and speculative literature. In that, main subjects of artistic research concern the enhancement, manipulation and control of human brains and bodies along the lines of technological developments such as prosthetics, machine learning and artificial intelligence, the extent to which these developments are increasingly indexed on the vectors of governmental and techno-company power-control within a neoliberal regime, as well as a speculative reading of science as a form of fiction in setting future horizons beyond these tendencies.

One of these horizons Guenther has been exploring recently concerns the concept of neuroplasticity, as the ability of the human neural system to adapt and change as to cope with environmental changes and mutation. In that, Guenther has made mention of the concept of 'infective heredity'—following the work of microbiologist Carl Woese who spoke of horizontal gene transfer (countering Darwinian vertical sequencing through parental inheritance)—which has recently been popularized by science writer David Quammen in his book *THE TANGLED TREE: A RADICAL NEW HISTORY OF LIFE* (2018). Infective heredity could be read as a rampant and radical, non-intentional horizontal exchange of genetic information between bacteria. In the earliest days of life on earth, the process of infective heredity was even more common. Bacteria were floating around in the primordial soup with very permeable membranes, allowing them to easily transfer genetic traits between individuals. At some point in the history of life, bacteria—and later organisms—became more

protective of their DNA. However, the exchange and sharing of information never entirely halted: the human remains to be a composite creature in direct and active relation to its tangled microbial ancestry—where 8% of the current human genome is viral DNA.<sup>1</sup> Within Guenther's artistic research this line of thought is interesting, insofar as it is sidestepping the dominant scientific tradition in which binary logics inform categories of individual species. Additionally, the notion of infective heredity and the incremental and ongoing mutation between life forms it represents is linked to neuroplasticity in the current climate regime, as it informs the need for a conscious adaptation of humans on the level of interspecies exchange and interdependence—where infections, mutations and viruses could be seen as a form of 'contamination as collaboration.'<sup>2</sup> Parting ways from the notion of identity, individuality and species as stable categories, Guenther's work is more inclined to opaque and complex readings of the morphology of the human body and its cognitive interdependence—a reading more in line with what evolutionary theorist and biologist Lynn Margulis would have referred to as 'humans as a symbiotic mosaics.'<sup>3</sup>

The question remains to what extent environmental processes affect us, and, if the evolution-consciousness problematic is at the core of how environmental processes and changes are affecting us humans, how does that look on a material level? When we employ the word "mutation" we are referring to the mutual and often irreversible symbiotic transformation of the organism together with the environment, but can we consciously interact with neuro-mutation? Can we consciously and politically act on the evolution of the brain? For Guenther these aforementioned questions are actively addressed in long term research and installation projects such as PROSTHESIS – SIMULATION KIT OF EXTERNALIZED HUMAN BRAIN TISSUE (2017–2018) and THE UPLOAD (2017–2019). Consisting of a series of sequentially positioned paravans covered with bright yellow transparencies, the screens in the upload are somewhat reminiscent of a clinical aesthetic—like an optimized hospital setup for efficient blood sampling. Each screen envelops a tubular chair pointed in the direction of a video screen with headphones attached. The video presents an animated visualization of MRI brain data, coinciding with a meditative voice inviting the viewer to relax and follow the abstracted and continuously rotating brain with individually color-coded segments. Watching the work evokes an eerie effect, as if one is immersed in watching one's own brain. The meditative-hypnotic text is interwoven with the narrative of brain self-examination, a method originally developed by the US foreign intelligence service in the 50s and 60s as to gain external control over brain and thought activities, and is now commonly used to increase brain performance. The video is structured as a somewhat ironic and fictionalised tutorial on brain enhancement, interspersed with binaural brain entrainment sound frequencies, believed to increase concentration, creativity and logical thinking. For Guenther the experimentation with brain entrainment music in an arts context serves as a testing ground to create a conceptual integration between the space of the cognitive and its perceptual registration. In other words, to gather which sonic somatic inputs and stimuli may actively act on the viewer's brain functioning, as to stimulate a heightened aesthetic sense-awareness for one's surrounding envi-

ronment. Here, aesthetics are made to work on a fundamental level, connected to the Latin root of "to perceive," to attune and render oneself perceptible and sensitive to matter of shared care and concern.

The tendency to make the human neural system felt and palpable as a workable material, to externalize and visualize its functioning, is tested and extended elsewhere through different bodily invocations. With Guenther one could speak about an inverted idealism: it is not the human mind-dependency of matter that counts—where anthropocentric tendencies inform an objectification of the world—but rather an understanding of matter, in the plural, as the fundamental building blocks that inform our bodily material consistency and enable our subsistence over time. Perhaps more akin to Rosi Braidotti's idea of "the embrainment of the body and the embodiment of the brain," in a Spinozist monistic worldview ridden of binaries and autonomous units, where entities sit on an equal footing with one another, both sharing properties and interdependent in their becoming.<sup>4</sup> In works such as *THE VESSEL*, *ALICE AND BOB (FUTURE PERFECT)*, and *NO STRUCTURE, EVEN AN ARTIFICIAL ONE, ENJOYS THE PROCESS OF ENTROPY* (all 2018) one could observe an interesting middle ground between the figuration of the human body, its prosthetic extension, and somewhat alien modes of being in the shape of ceramic objects-turned-subjects. Here one could argue that ceramics are used as analogues to the human fleshed-existence: as entities with organic interiors and skins functioning as porous thresholds to a world of external entities and surface effects. For Guenther, however, the employment of ceramics is indeed more indebted to a discussion of porosity in light of the hybridization of the human body; the human body as a template rather than as a unit of reference, resting overly comfortable in its category of being. Ceramics in that sense facilitate a discussion around the futuristic potential of hybrid intelligence, thinking and communication, crossing feigned boundaries between human and nonhuman, biological and non-biological forms of intelligence. Organic tissue and alien prostheses are merged and modified by means of technological intervention, simultaneously and increasingly blurring the lines of demarcation between the biological and the artificial; or perhaps culture is what we fail to perceive as nature? The latter being exemplified in the work *THE HACKER* (2018), in which prosthetic forms come to the aid of human remnants in the desire to extend our figuring capacities and performances elsewhere.

The transhumanist aim to overcome the shortcomings of human body and its desire to dissolve brain-computer barriers is as seductive as it is problematic. For instance, how can we understand the brain as a complex circuitry based on elaborate algorithms, and, on the other hand, what does it entail when computer architectures are modelled on neural networks? How will our modes of thinking change in light of the rapid progress in machine learning and artificial intelligence? How far are we willing to enhance our brains and bodies to keep up with technological developments? From a body that carries part of its brain outside of the neural vat, to a computer code that successfully crossed its artificial borders to access the brain circuitries, within Guenther's work we come to learn that the post-human will never be post power. The latter concerns the idea that

scientific and technological developments are almost immediately indexed on the vectors of advanced capitalism, with its far-reaching and hierarchical logic of biopower as the management of all that lives. Within Guenther's work we see a wariness for this potential problematic background, but equally a shift towards imagining a different outcome: an alternative possibility that lies in the conscious ability of brain self-moulding, which cannot be considered purely in terms of human evolution but also in terms of consciousness. Her work involves approaches seeking for the epistemological re-conjunction of disjointed fragments of living knowledge—an artistic practice as a process of synthetic thinking. Seeking for forms of reoriented and networked knowledge, disentangled from the domination of financial capitalism, her work is an active search for the possibilities of adapting mental activity to the neuroplastic evolution of the brain, creating contexts and artistic encounters for the conscious transformation of the techno-neurological environment.

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<sup>1</sup> Infective Heredity (Radiolab broadcast) < [www.wnycstudios.org/story/infective-heredity](http://www.wnycstudios.org/story/infective-heredity) > (21 September 2018).

<sup>2</sup> Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton and Oxford: Princeton University Press, 2015), 27–8.

<sup>3</sup> Lynn Margulis, *The Symbiotic Planet: A New Look at Evolution* (London: Orion Books, 2013).

<sup>4</sup> Timotheus Vermeulen and Rosi Braidotti, "Borrowed Energy," *frieze* 165 (2014): 130–3.