Warren Neidich
by Sanford Kwinter

As our understanding of the forces shaping social life deepened in the early modern era—Freud's unconscious, Marx's relations of production, Nietzsche's physiology of power—art practice expanded too. No longer content to address only the senses, artists began to address the spirit, or mind, as well. Once conceptual art practice was inaugurated by Duchamp, the relations between aesthetics and consciousness could finally be explored within the fullness of our nervous system's compound life.

Many of the transformative practices of the twentieth century owe their power to this controversial development—those of Moholy-Nagy, Stockhausen, Beuys, Smithson, and Snow, to name just a few that are not normally assimilated into the precarious category of Conceptualism. We have not yet established categories for these unorthodox practitioners, other than as exciting outliers to the parochial conventions of art history. What matters more is what they leave in their wake. From the viewpoint of the wider culture, they represent founders of discourse, and they change fundamentally what is, and can be, said about the world.

The cognitive-sensory project that the theorist, artist, and organizer Warren Neidich has engaged in for more than thirty years, for all its difficulty and seeming esoterism—are feeling, sensing, and thinking really esoteric?—is among the most novel, powerful, and elaborated contemporary endeavors pertaining to how we understand the origins and practice of human culture.

Neidich's project of connecting our somatic, noetic, and nervous system machinery to our social and economic ones, as so many ways of arranging material and sensible worlds, has created a new framework. It is a framework developed across a dozen books, global conferences, an art practice, and a school. And more importantly still, Neidich assembled an international community of theorists, artists, scientists, and philosophers who continue to generate work as part of an expanding program to rethink human ecology and imagination in an increasingly imperiled world. The following exchange is excerpted from an initial conversation that Neidich and I conducted this past spring on the phenomenon of eco-agnosia.

Installation view of *Brain Without Organs*, 2022, in *Brain Without Organs: The Aporia of Care*, at the Museum of Neon Art, Glendale, California, neon colored glass, 5 × 10 feet. Photo by Evan Bedford. Images courtesy of the artist.

Just Like TV, 1985, albumen print, 8 × 10 inches.

SANFORD KWINTER: We first met at MIT in 1991, a time when transformations in behavior and understanding were taking place in science as well as society. Rare still were the attempts to integrate the two domains, to see them, as you were beginning to do, as part of a single process. You were still a "recovering ophthalmic surgeon" with a keen interest in how the organization of social information—*media*—taps the eye in order to molest the soul. One might say you were seeking to reveal a pathology that by definition escapes attention.

WARREN NEIDICH: I had an exhibition at MIT, which featured my installation *American History Reinvented* (1985–93). The work attempted to create an alternative photographic archive in clear distinction from the standard, hegemonic collections, like those at the Museum of Modern Art. My idea was to build a more authentic historical record than those appreciated at the time, which were routinely normative, racially homogenous, and skewed. Like many other postmodern artists, I used reenactment strategies of staging, rephotography, and appropriation, in combination with anachronistic historical photographic techniques, like albumen, platinum, and tintype. I tried to create a fictive, trompe l'oeil image record that revealed the inaccuracies in existing institutional portrayals of people of color and Indigenous peoples. I also wanted to delink the history of photography from the history of camera technologies and its linear positivist advancement in Enlightenment science. At best, my hope was to reveal the material photographic archive as plastic and flexible as opposed to forever crystalized or tethered to unchanging records and essences of so-called "truth."

As a practicing ophthalmologist surrounded by apparatuses—such as the visual field machine or keratometer, used to survey the eyes and brain—I was naturally interested in any technology related to vision. As an artist working with photography, I was drawn to the apparatuses of cinema and their epistemology. Early on I read a lot of Roland Barthes's writing on cinema and later I explored Annette Michelson's film criticism, especially her writing related to Stan Brakhage, Dziga Vertov, and Sergei Eisenstein. Michael Snow's 1967 film *Wavelength* and Harun Farocki's 2003 *Eye/Machine III* have been key works for me. These influences, and especially Farocki's concept of operational images, were crucial to my project *Hybrid Dialectics* (1997–2002), in which I superimposed diagnostic devices used in neuro-ophthalmology over photographic and video cameras, resulting in very strange images. Barthes's theory about the studium and punctum was on many artists' and theorists' minds in the 1980s. The studium represents the social, political, economic, and cultural field of a photograph, which is determined by a language taken for granted. The punctum represents a break or a punctuation of events taking place on the picture surface to disrupt our sense of visual normalcy and politeness. Like a pinprick, the punctum leaves a photogram on the emulsion, like a bruise on skin. The punctum creates a synaptic frenzy.

In *Recoding American History*, which was the first part of *American History Reinvented*, I wanted to explore the punctum as an element in a game of visual hide and seek, similar to those one discovers in hidden picture puzzles or brain teasers. I created a counterfeit historical artwork by inserting a 1950s lenticular print ad—saying "Just Like TV"—behind the left shoulder of a seated female actor in real time during a visit to Colonial Williamsburg, in Virginia. Without her awareness, I photographed the entire scene and then printed the negative as an albumen print. The lenticular print, once discovered, exposes the work as fake. This faux piece of photographic history connects to my subsequent interest in fake news, which culminated in *Pizzagate Neon* (2017).

When the intention of an image switches from historical information to that of a game, the normal relationship between seeing and visuality is disrupted. As a physician, my goal was to bring everything back to normal. As an artist, my project became to create estrangement and disorder beyond the means of language.

SK: I started to pay particular attention to your activities a few years after we met, when you were working out the essays of your first book, *Blow Up* (2003). In retrospect, that's when you seem to have started to achieve the synthesis and originality from which your later work has followed. You now designated seeing as a physical process—a process of carving up amorphous matter into spatio-temporal particularities—but it is also a *noetic* or noological one: carving up not only

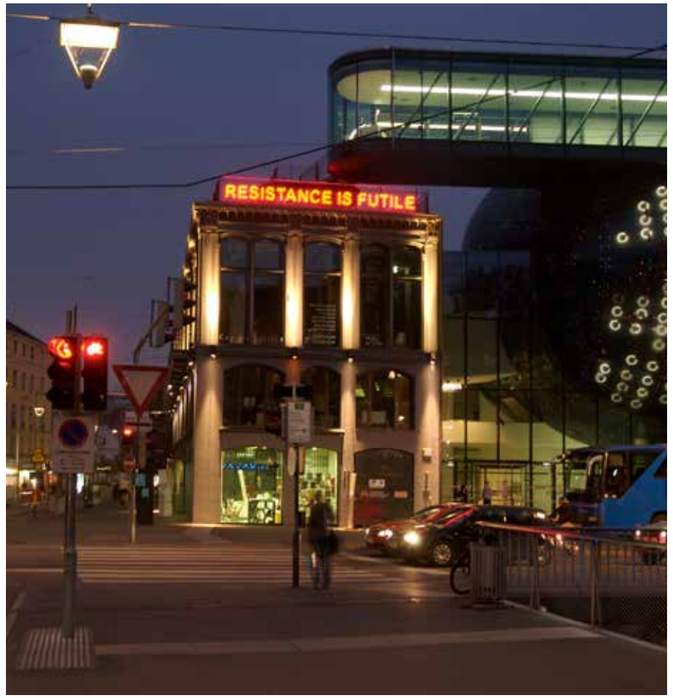
Installation view of *Pizzagate Neon*, 2017, at Zuecca Project Place, Venice, Italy, neon glass, 14 × 6 feet.

mental states but also those of the physical brain and body themselves.

Blow Up seemed to tell the story of a previously undisclosed union that shaped modern historical experience forever thereafter: the contemporaneous arising of the motion picture cinema and the first outlines of the functional rules of the brain in the new science of neurology. Among the unusual concepts in your book—certainly unusual for the art world of the time—was that of the "secondary repertoire," which refers to capacities acquired by the brain as the result of interactions with the world around it rather than those encoded in genetic or species endowments. In humans alone, the secondary repertoire accounts for the preponderance of brain formation and behavior. The Copernican lesson here was that in so many ways we are sculpted by the very world of which we imagine ourselves, hubristically, to be the sovereign sculptors. For many of us, that seemed to change the whole theater of struggle.

WN: What changed in the years since my critical photographic history work is that I moved from a purely sociocultural argument that understands the archive as the source of ideological and epistemological power to one that is neural-technical-cultural. The archive today is no longer domiciled at a physical address and administered by magistrates who control what is displayed for subjects or spectators to view and *to know* (such as official documents), but is rather a condition of the mind's eye.

Cognitive capitalism, a term initiated by a group of Italian political philosophers in the early eighties, took account for the effects of digitization, the role of knowledge in the production of wealth, and the importance of performative and immaterial labor. In cognitive capitalism, the traditional proletariat working on the assembly line of the Fordist factory is now



Installation view of *Resistance is Futile / Resistance is Fertile*, 2006, in *Protections: This Is Not an Exhibition*, at Kunsthaus Graz, Austria, neon glass and steel, 3 × 18 feet.

replaced by a *cognitariat*, or mental worker, who labors predominantly in front of networked screens. Relational activities, affective economies, and communication processes take precedence and the distinction between the mind and brain evaporates.

In this context, archivalization moves from the historical museum or Library of Congress to that of a collective mind's eye. Long- and short-term memories are reimagined and reconstructed through a process of internal attention or salience to create the dramaturgy that I refer to as *internal narrative construction* or *scenario visualization*. The mind's eye is used to designate the site of mental reenactment for the purposes of future action. I often refer to the mind's eye as the mind's "I" or the mind's "we" to reinforce its role in the production of subjectivity and agency in the case of the former, and its social and collaborative potential in the case of the latter. It happens consciously or unconsciously and constitutes neuropower—in distinction to biopower. The mind's eye and the memories that are exchanged there represent the site of contemporary despotism. But it is also the site of artistic, poetic, and architectural emancipation. The natural, living basis for creative struggle was beautifully modeled in the theory of neuronal group selection first described by the neuroscientist Gerald Edelman. The brain we are born with, the primary repertoire, interacts with and is sculpted by the socio-economic-cultural-political environment, both real and virtual, to transition to the secondary repertoire.

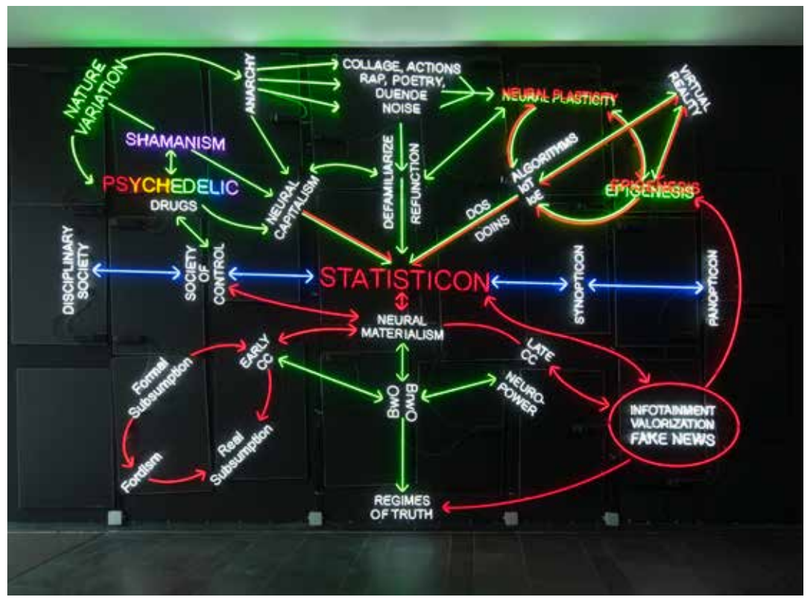
I always imagine the primary repertoire to operate as a correlate of what Gilles Deleuze calls the "plane of immanence" or the "transcendental pre-individual." In the first years of life, a massive proliferation known as synaptogenesis takes place in the cerebral cortex. At this time there are more synapses than in the adult brain but they are haphazardly connected and need to be finetuned. In the process of transitioning to the secondary repertoire, the material brain's incredible neural diversity is reduced and ordered by the environment, a process called pruning. Today this environment is becoming ever more saturated and controlled by technology. And it is this environment that now sculpts the neural elements of the brain.

SK: The word *resistance* started to appear in your work around 1997, when you launched artbrain.org. I assume this corresponds to your discovery of the Italian Deleuzo-cognitive school which you had a prominent role in introducing to the Anglo-Saxon cultural world. The Italians, especially those who participated in what is referred to as *Operaismo* and post-*Operaismo* social theory, typically maintained an image of life and practice as one elaborated in social-historical relations. They seemed to refer to a structured and oppressive "inside" and a free and open "outside." Access to emancipatory experience and to the tools of the outside was typically invoked as task of consciousness practices such as those developed by poetry, literature, and the cultural production of images. But in your formulations you also frequently invoke the ancient arts of shamanic practice, activities inseparable from human social and psychic practice. Shamanic practice typically involves passage to other worlds to access often salvific and heterodoxic understandings, which are largely lost within the constraints of industrially organized societies. Might this be why you started artbrain.org?

WN: You are right in noting the project's roots in Deleuze and Guattari

right: Exhibition view of *Statisticon Neon*, 2017, in *The Color of Politics*, Kunstverein Rosa-Luxemburg Platz, Berlin, neon glass, 12 × 9 feet, Photo by Ludger Paffrath.

overleaf: Detail of *A Proposition for an Alt-Parthenon Marbles Recoded: The Phantom as Other*, 2021, at Kunstverein Rosa-Luxemberg Platz, Berlin, neon glass, photography, and LED, 15 × 9 feet. Photo by Annette Kradisch.

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and the Italian post-*Operaismo* movement. These were powerful guides in my activities as an artist, organizer, and theorist, although I arrived at them sequentially, not together. I came to Deleuze and Guattari's work first, and these formed the basic philosophical backbone of the approach I wanted to create. I must say though that for me art precedes philosophy and does not follow it as a guide. Quite the opposite: artists estrange the socio-cultural milieu in such a way as to make it unrecognizable, requiring philosophers to attempt to make sense of it. Also, artists' investigations differ from those of scientists. They offer alternative understandings of the world, exploring cognition, perception, and the sensible—ultimately to create signs at the very margins or thresholds of what is possible to make sense of. Artistic sensations derange common sense to catalyze a different kind of thinking. This is the essential dimension of what I was then just beginning to consider as *cognitive activism*. I concocted, and for a short time used, the term *neuroaesthetics* to describe a methodology and a practice of producing new sensations and percepts in the manner that postcolonialism and queering can do.

While writing *Blow Up* in the late 1990s, I began to understand the biopolitical implications of what I was struggling with. I realized the importance of neural plasticity—much less familiar to the public at the time than today—as a political apparatus, both of despotism and emancipation. Although neural plasticity is today all over the news, it's important to understand that it has both positive and negative results.

Together with others, I founded artbrain.org and the *Journal of Neuroaesthetics* to draw attention to artists whose work explored sensation, perception, and cognition. Psychedelic drugs are related. My interest in shamanic modalities stems from early experiences I had as a youth—both with LSD and in formal plant ceremonies in Indigenous contexts while traveling in Peru. Now, more than forty years later, I'm researching how these phytochemicals impact both the mind and brain, particularly in their capacity to resculpt by undoing earlier-formed connections and instigating new ones. I'm sure you remember the "Psychotropisms" conference I co-organized with Victor Albarracin in Pereira, Colombia, in 2016. Ayahuasca, I conjectured, and possibly other psychedelic agents transform the brain into a "Brain Without Organs," expanding Artaud's concept beyond Deleuze and Guattari's "Body Without Organs." The "Brain Without Organs" is indeterminate, nonhierarchical, unformed, subject to change, morphogenetically active, and—this is important—ecocentrically predisposed toward nature. Ayahuasca is said to return humans to their rightful place as an equal participant in the natural order, one in which nature possesses value in and of itself and not only as a resource for human exploitation.

As we now know, ayahuasca's impact is not limited to experience and mind, it also induces change at the neural synaptic interface, some of which are proving to be extraordinarily reparative and regenerative. And, no surprise, it has also been found to promote remarkable neural plasticity. Our society's renewed familiarity with and recreational use of these "medicines"—even via microdosing and psychedelic wellness retreats—has placed their potential for healing and agency in the hands of the private citizen and has provided a means of deliverance from the psychopathological straitjacket of the mental economy.

The compulsive swiping of screens and clicking of mouses wears and damages our attention. "Changing one's brain" has now arguably become a creative eco-ethical practice accessible by almost anyone. But we mustn't forget the inverse of this equation. These material changes of the brain have direct repercussions for culture and technology, both within a single generation and transgenerationally. I am hoping that our society will become more psychotropically mature and in the process new evidence and practices will manifest themselves in the ways we treat both each other and nature. The Anthropocene is intersectionally connected to every other contemporary development.

Psychotropic technology, as I like to refer to it, is arguably *eco*centric rather than *anthropo*centric. In his lectures, the French philosopher of technology Bernard Stiegler proposed a mirroring between the forces of anthropogenic technologies (like fire, spear points, steam engines, and the atomic bombs) and the expansion of the material brain used to service them, especially its parietal, temporal, and frontal lobes. I argue that we need to consider what that same mirroring might mean for the coevolution of the "becoming brain" in response to future ecogenic technologies which respect nature and entangle human, plant, and animal consciousness in a nonhierarchical fashion.

SK: I am struck by your invocation of a kind of cognitive commons in your last comment. There are some wonderful counter-orthodoxies of cognitive life that we have been discovering over the last years—from southern thinkers like Ailton Krenak and Davi Kopenawa, to those who engage southern epistemologies and sensory universes, like Boaventura de Sousa Santos, Eduardo Viveiros de Castro, and Eduardo Kohn. These are only a few associated with South American cosmologies, animism, perspectivism, cosmovision, and so on. Central to the emerging Indigenous revival has been, on one hand, the principle of a so-called *cognitive extractivism* (unbridled and nonreciprocal assimilation of states of mind), and on the other, what certain Indigenous Canadian thinkers refer to as "two-eyed seeing," the rich and improvisatory exploratory posture that permits a free dialogical engagement of divergent knowledge systems.*

You've used the term "*activist* neuroaesthetics" in a similar manner. Likewise, with respect to a more engaged ecological use of the mind, the perceptual psychologist J. J. Gibson taught us that the way an environment is ambient for a living object differs from the way it is ambient for an inert one. How we negotiate this particularity has become central to our cognitive survival, especially as it becomes "normal" and even necessary to conceive of the world as alive. Gibson's famous principle of affordances—places of privileged engagement between actor and world, points of action and transformation—seem to offer new ways to imagine meshing with a responsive or even "intelligent" world.

WN: I think one cannot speak of Gibson's notion of affordance without acknowledging its relation to Jakob von Uexküll's idea of *umwelt*. An umwelt refers to an organism's self-constituted environment or surroundings, which corresponds to its situated assemblage of sensory and motor organs and their bodily counterparts in time. As you say, affordances are dynamic and are referred to as perception in motion. Humans, for example, endlessly change the affordances within their environment to better suit them. For instance, when one moves fingers to grasp the handle of the teacup before pouring a cup of tea, one is responding to learned and ergonomic relational affordances. Key here is the role of experience and, with it, motricity or ability to navigate through the world. Organism and environment are coevolving and mutually shape one another. Meaning appears in the world as opportunities for action.

Each organism enacts its own umwelt as it engages with specific physical stimuli according to its unique sensory and motor apparatuses. Neural excitation and inhibition cause perception and action and the memories that result. Another term for umwelt, in another register, is *niche construction*—a value-rich assembly of ecological factors that improve an animal's or human's capacity for survival in a less competitive milieu, in the context of multiple coexisting habitats.

Human beings, unlike animals, constantly create new things which then enter into their umwelt, hence modifying it. We endlessly shape, build, and take things apart. This process engages the pluripotentiality of the brain, giving voice to what are called silent synapses. Novel objects and their relations sculpt new neural network configurations, open new pathways and neural connections. This fact led me to adopt an embodied and enactive perspective. Humans do not simply record and act on information but rather participate in the generation of meaning and adjust their environments. Humans can and do radicalize their umwelt—and umwelten radicalize humanity.

Today's problem of cognitive capitalism issues from the historical transition from Fordism to post-Fordism through which muscle work and body know-how gave way to mental labor. Umwelts have become primarily noetic: linguistic, epistemic, digitally coded, immaterial, and immersive. In late-stage cognitive capitalism the brain is the focus of capitalist innovation and investment. Immaterial labor and performance, like a rock concert or a violin recital, do leave traces in the supple, wet, and plastic brain. They are recorded as some of our most pleasant and memorable experiences and can form the acoustic backdrop to visually contrived scenario visualizations.

SK: The term *eco-agnosia*—an inability to recognize or grasp the intimate and proximate relations of the ecosphere—has come up in your recent work. Am I wrong to see eco-agnosia as a crisis in our ability to access the deepest, most mysterious and diverse operational world of affordances?

WN: I like to invoke the idea—or dream—of an Ecocene that might yet supplant the Anthropocene. The Anthropocene is in fact an artificial transgenerational umwelt assembled and refined over generations, one which marks humanity's withdrawal from the natural world. The resulting isolation became a source of immense but largely unidentified anxiety, accompanied by the dissipation of collective bonds, dis-solidarity, both with the natural basis of our surroundings, and our own humanity. The Enlightenment, for all its contributions to what is good in the world, also led to the Unlightenment. Its arrogance led to many of the catastrophes of the nineteenth and twentieth centuries, including colonialism and the Holocaust.

The silent, continuous communication with nature that historically sustained us was anchored in the active, intuitable, and natural overlap of our respective umwelts. To invoke the idea of a counter-Anthropocene or Ecocene is to establish a target for consciousness that reveals that these umwelts are still latent and ready to be exhumed. Similarly, emergent phrases in our broader culture such as "plant consciousness" and "plant teachers" remind us of this ancient link. For we must remind ourselves that when plant and animal organisms become extinct, their networks and umwelts become extinct with them, leaving gaping holes in the fabric of collective consciousness, now populated by phantoms. The ceremonial use of plant medicines and our renewed notice of Indigenous knowledges and ways might be seen to belong to an important contemporary methodology of reenactment and reimagination. We earthlings need to uncover what has been lost and prevent a continual cultural genocide, while at the same time creating new technologies based on counter-anthropogenic dogmas: ecocentric dispositions based on deep ecology and Indigenous knowledges, which could potentially reshape the brain and consciousness. We need to embrace non-Western knowledge as it pertains to nature, historical experience, and ways of life. There may be no other path.

* I would like to acknowledge the remarkable "new era" work of Ana María Durán Calisto (Yale University), Aleksandra Jaeschke (University of Texas), and artist Ursula Biemann (Zurich) with whom I have had the privilege to work and from whom I have learned so much.