This interview between the writer and critic Erik Morse and the artist and theorist Warren Neidich took place over the course of two months in the fall/winter 2021–2022. The interview focuses on a body of work entitled the Hybrid Dialectics produced between 1997–2002 that served as bridge between his earlier performative reenactments and fictitious documents entitled, *American History Reinvented*, 1985–1993, and his more recent neon sculptures most notably the *Pizzagate Neon*, 2017–2021 and his *A Proposition for an alt Parthenon Marbles Recoded: The Phantom as Other* (2021–2022).

Neidich’s project extends his interdisciplinary experiments carried out in the fields of cinema studies, structural film and apparatus theory which foregrounded cinematic devices and tools at the expense of the image. This forms the foundation of Neidich’s engagement with photographic medium as a form of politicized aesthetics embedded in a bidirectional embodied and extended cognition. His hybrid dialectics take off where artists like Michael Snow and Tony Conrad left off. They are the result of grafted neuro-opthalmologic devices, used in the measurement of squint and skewed gaze, upon the photographic lens which results in a destabilized and estranged image; making them other and queered while at the same time challenging the stillness of the photographic object. The neuro-photographic assemblages release the vibrant energy of their human and non-human subjects distributing them across the surface of the photographic paper. These portray a lexicon of control that would later appear again, in his recent neon sculptures in the form of the Google effect, meme magic, and click bait. *The Hybrid Dialects* represented forms of dissensus against what Guy Debord called the *Society of the Spectacle* where as Neidich’s recent neon work is a rebuttal of the consciousness industry of social media and Big Data.
Keywords: Cognitive Capitalism; Photography; Reenactment; Apparatus; Structural Film; Double Vision; Fake News

Introduction
Artist and theorist Warren Neidich is among the rare breed of cultural producers whose prolific theoretical work was rooted in the practice of photography, which he practiced almost exclusively from 1983 to 2007, until expanding it thereafter to incorporate other visual media such as painting and, most recently, neon glass installations. Although he is perhaps most notable as the founder of www.artbrain.org and the Activist Neuroaesthetics school of philosophy via the School of Visual Arts, Goldsmiths, University of London and the Saas-Fee Summer Institute of Art, his investigations into the intersections of aesthetics and science began in earnest in the mid 1980s with his photography experiments. His decade-long debut, American History Reinvented (1985–1996), a section of which was published by Aperture as a monograph in 1989, was a photographic study and critique of the institutionalized despotism of the photographic archive characterized by its racist and misogynist tendencies. AHR combined elements of forensic research, trompe-l’oeil and historical reenactment and was inspired by Roland Barthes’ Camera Lucida, the Simulations of Jean Baudrillard, and most importantly, Fredric Jameson’s Postmodernism, or, the Cultural Logic of Late Capitalism. As noted photographic historian Kathy Kubicki writes in her essay “Reinventing History: Warren Neidich, Photography, Re-enactment and Contemporary Event Culture”: “A consideration of additional, more recent, photography suggests how Neidich’s American History Reinvented can be understood as a precursor to the work of contemporary practitioners negotiating the territory of re-enactment, particularly the UK artists Jeremy Deller (b. 1966), who won the Turner Prize in 2004; Tom McCarthy (b. 1969) and Rod Dickinson (b. 1965) in their collaborative projects; and photographer Jim Naughten.” Perhaps to these illustrious names could be added Walid Raad whose interest in alternative and fictional archives as it pertained to Lebanon, as developed by his imaginary collective Atlas Group, shares much with Neidich’s earlier project. Embedded in AHR was what Neidich refers to as the “apparatic unconscious” in which visual tropes and games, such as a fleeting anachronism in the guise of a punctum, plays hide and seek in the pictorial surface, as well as techniques of airbrushing, cropping and enlargement. In this early work Neidich initiated his research project into the camera’s biomorphic capacity to form and register an eye-body organic mnemonic system, a relationship first fostered by Descartes in his Dioptrics of 1637. From 1996, Neidich’s work takes a radical turn in which he returns to his training in neuroscience and medicine to produce work he then described as neuroaesthetics during a series of lectures at the School of Visual Arts. Thereafter what had been hidden and unconscious took center stage in his practice. The emphatic potentials of the image captured in the simulations of his earlier photographs expanded to consider a phenomenological reimagining of the real in his next photography project The Hybrid Dialectics (1997–2003). Heavily influenced by the experimental optical machinary of Marcel Duchamp, Eadweard Muybridge, and Étienne-Jules Marey and by the apparatus theory of Avant-Garde and Structural film, his Hybrid Dialectics made use of various optokinetic instruments and film technologies to simulate a century’s worth of distressed and abstract mechanical visualities. The Hybrid Dialectics was exhibited in its entirety at the California Museum of Photography in 2002 in an expansive exhibition entitled The Mutated Observer Part 1 and Part 2. Unfortunately, a catalog planned to document the exhibition never came to fruition due to the untimely death of one of the main funders to the museum. As such, this work never received the public attention it deserved. A reconsideration of these works is included here, is an attempt to remedy that absence.

In the following interview, Neidich and I discuss the formal, material and historical influences of The Hybrid Dialectics series, including how the origins in Neidich’s practice as an ophthalmologist, in which he used instruments such as the prism bar and Lancaster red-green
glasses to treat ailments of ocular alignment, would become playfully entangled with anachronistic optical technologies like the Claude glass, the tereopticon card and now extinct Polaroid 665 film to create an alternative photographic pictorialism requiring a new philosophic epistemology in order to decode it. The Hybrid Dialectics would act then as a bridging work connecting Neidich’s interest pre-1995 and post-1995. In that regard the interview concludes with a discussion of his diagrammatic neon sculptures of the past five years in the context of late cognitive capitalism, with its emphasis on becoming-brain model reimagined in the neuroplastic transformation of memory and the brain.

Interview

Erik Morse: Before entering into a discussion concerning your The Hybrid Dialectics (1997–2003), which is the main focus of this interview, I thought it would be important first to discuss your American History Reinvented (1985–1995) which predates The Hybrid Dialectics by several years. Briefly, it attempts to reimagine the political and geographic histories commencing with the Civil War, a moment notable for both the birth of photography and the struggle for social justice. Can you give some background on the project and your reasoning for choosing this critical technological and political juncture in American history to begin your own practice interrogating and investigating the archive?

Warren S. Neidich: American History Reinvented, 1985–1995, was an attempt to create an alternative, inclusive and diverse history of photography which could join that which was already at hand. It used staging and performative reenactment, an interest in minor histories and fictive documents, as well as a reinvigoration of anachronistic photographic material processes that had appeared at the

Figure 1. American History Reinvented, Aperture Books, New York City, 1989.
end of the 19th and early 20th century. I used Albumen, Platinum, Tintype as well as Polaroid and resin coated machine printing to create the illusion that the photographs one saw were relics of the past. As such I wanted to emphasize that the photographic archive then being collected, distributed and organized as a cultural repository represented and perpetrated a single point of view representative of the power relations then at hand. With these anachronistic photographic emulsions and material substrates I was emphasizing a soft process-based non-linear history of photography that was meant to exist side by side with the hard linear and positivist technological one that dominated at that time. A living archive as an unfinished project rather than one which was unchanging and frozen.

It was developed over a period of ten years and consisted of fifteen different projects some of which were not photographic. The first four projects were published as an Aperture monograph in 1989 called American History Reinvented (Figure 1, cover). As an illustration I will describe some of the projects especially those that engaged with vision and attention. In the first project of American History Reinvented, Recoding American History (1985), tiny objects and signs were surreptitiously placed in elaborately staged readymade scenes, which were reenacted at Colonial Williamsburg and Old Beth Page Village Restoration. In Just Like TV (1986), a vintage advertisement with a lenticular surface is placed behind the enactor’s left shoulder without her being aware of it before I took the picture. In Apres de Stijl (1986), a miniature de Stijl model chair is incorporated into a still-life. In Airplane (1986), an airplane, which happened to be flying across the sky above the homes, found at Colonial Williamsburg, as the photos were taken, is included. In each case, the anachronistic elements give away the punch line of the artwork disclosing it as a fake as well as the history reenacted at these living museums that at that time excluded people of color. These elements acted as punctums, borrowing Roland Barthes’s
term from the Camera Lucida (1980). There, Barthes describes the difference between the studium and the punctum. The studium is the general field of the photograph, which is entangled in cultural training and allows for a generalized engagement with the photograph and its sense of pleasure. The other is the punctum, which breaks the studium and rises out of the picture to prick the viewer and awaken him or her from the lull of normativity. In my take on Barthes idea presented in Recoding American History, (1985) the anachronisms perform differently as essential pieces in a visual game of hide and seek meandering throughout the images’ optical unconscious’ trying to engage and subvert the viewer’s gaze. Like in many children’s hide and seek books, which require the child to find hidden objects in a picture, here the viewer’s attention is directed towards the task of finding an anachronism, like the airplane or a De Stijl chair, buried in the picture plane. Furthermore, in doing so it distracts the viewer of this visual game from properly inspecting the photograph as one would normally and in doing so unnerves the relationship between gaze, visuality and power. The anachronism as a tool predates the neuro-ophthalmological instrument I will use later in my Hybrid Dialectics, 1997–2003, as a political-aesthetic form of play and subversion. This visual game and its consequences for the politics of cultural memory and history is taken one step further in the second series that makes up American History Reinvented entitled, Pseudoevent: The Politics of Appropriation (1986–1987) (Figure 2A and B). Here I first self-appropriate the image of my staged photograph, which appears on the left of the diptych to create the duplicate image on the right. Then, with a variety of photographic methods like photo retouching and air brushing, cropping and dodging and burning I
alter that image. The anachronism which had appeared in that left hand image is made to disappear. The spectator’s search is now engaged instead with discovering what is missing. The punctum has now gone missing and with it its important function of unveiling. As such the righthand image in comparison with the left hand image, reveals the process of archival normalization through which the generalized expectation of normativity is restored. An alternative or alt-punctum, the punctum, now as pictorially missing but mnemonically present, is meant to distract the viewer from a sensorial awareness of a prick, to rather something of an intellectual engagement with the dull ache of absence. Not simply a discreet sensation as it was used in Recoding American History, 1986, to be discovered in the optical field but rather as a doorway through which to enter the expanded field of archival disruption and forgetting. Essential here is that this deletion process happens both at the time of taking the picture as well as later after it has entered the archive: after its archiving. The image is manipulated and altered, and as such its’ veracity as a true indicator of truth, is assaulted. Without the anachronism as a clue of its fakeness the document is normalized, to adhere to the status quo of the institutionalized reading of history at that time which was unabashedly Eurocentric and patriarchal. In doing so it succumbs to the larger process of despotic photo-fictionalization. We can see examples of this in the retouching and reframing of photographs in the archives of the Soviet Union. Stalin removed Trotsky from group pictures with himself and Lenin. By such devouring actions upon the photographic surface, in which Trotsky had once appeared but now disappeared, Stalin could claim to be Lenin’s proper heir. His great purge not only resulted in the deaths of over 750,000 people but also in the doctoring of the photographic archive in order to change people’s perceptions. This kind of manipulation of the archive has been found in many other countries and has become rampant in our age of digital manipulation and fake news at the hands of scanning and Adobe Photoshop. The photograph as a safe space of the truth, which we now know it never was, is exposed.

Finally in Aerial Reconnaissance Photographs: The Battle of Chickamauga, 1990–1991, a complex assortment of visual and machinic apparatus are linked together in a mind-boggling assemblage. Each image in this series was created by photographing a Civil War reenactment of the Battle of Chickamauga, one of the deadliest battles of the Civil War, from a rented light aircraft in 1990. The photos were taken with a 35 mm analogue camera with three lenses mounted upon it: a 35 mm, 50 mm and 125 mm. Therefore three different perspectives of differing scale were created. One more distant and topographical, one matching normal vision and one telephoto in which one can see individual soldiers/reenactors. The black and white film was then processed at a local photo processing kiosk in a mall near the battlefield. Thereafter, I took the black and white prints to a photographer’s souvenir tent, which had been set up on the battlefield to capture images of the reenactors in their costumes. I asked him to use his tintype camera as a graphic camera to transform my black and white printed aerial photos to tintypes.

I exhibited, Aerial Reconnaissance Photographs: The Battle of Chickamauga at the Photographic Resource Center as part of my Historical Inter-ventions (1991) show, which ran concurrently with an exhibition of my mixed media sculpture Cultural Memory at the MIT List Visual Art Center. At the Photographic Resource Center I presented the tintypes on white shelves mounted perpendicular to the wall and covered with glass. It required spectators to assume a posture of looking down; reenacting my original performance of looking down on the reenactment from the airplane. Above the photos I installed text panels of fragments appropriated from a New York Times article that addressed the difficulty of analyzing aerial reconnaissance images made by the United States Air Force during the first Iraq Gulf War due to deceptive maneuvers of the Iraqi army like the installation of dummy tanks made of cardboard and the use of
camouflage. These contrivances confused statistical analysis of these aerial photographs making them useless. In Aerial Reconnaissance Photographs: The Battle of Chickamauga other maneuvers were at play which questioned the value of such images as documents for the following reasons: 1. They were in fact unusual at best in the moment that they were supposed to have been made-the period of the civil war where the reenactment takes place predated live, in action, military applications of aerial photographs. 2. My tintypes recorded a reenactment of a battle which could not take place on the original battle field because of a county ordinance which prohibited the recreational use of the original battlefield.

EM: Although you have been working in the medium of photography and scopic experimentation since the mid-1980s, your work from the late 1990s to the early 00s produced an innovative series of images which you refer to collectively as The Hybrid Dialectics (1997–2003). These photo series use myriad analogue and digital techniques and have an optokinetic or phenomenological focus. They imagine various forms of motion, kinesis, blurring/misalignment/specter-ing and assemblage through the manipulation of ocular devices that were originally intended as measuring tools for the sick or disabled eye. Can you talk about some of the central themes undergirding The Hybrid Dialectics, the conceptual roots that lie at the heart of your practice during this period and how the dual roles of art and science inform your interest in photography?

As a visual artist and a trained doctor of ophthalmology, you have assumed both an aesthetic and clinical-ized eye—for lack of a better word—for interpreting the history and mechanics of what one might call the technologization of visuality. How do technology and prosthesis inform your aesthetic interests in the photograph’s capacity for play and estrangement, themes that are so important in your work?

WSN: I consider The Hybrid Dialectics as a bridging work that connects my earlier culturally inflected photographic work such as my American History Reinvented (1985–1996) to my recent work in neon sculpture, which include The Pizzagate Neon (2017) Staticon Neon (2017) A Proposition for an alt Parthenon Marbles:The Phantom as Other (2021). In conceptual terms, The Hybrid Dialectics provided a space for play or, as Walter Benjamin stated, a Spielraum, where I could merge my previous training in medicine and science with my interests in cultural and critical studies. Spielraum suggests a space or practical milieu where the artist can experiment and rehearse new playful uses of particular technologies, in this case neuro-ophthalmologic devices that I had used to measure and care for gaze defects, especially in children. In the case of The Hybrid Dialectics I wanted to release other aesthetic capacities, which lay dormant in a number of scientific apparatuses, typically used by ophthalmologists to treat Strabismus, or crossed eyes, to produce non-photographic work that no longer succumbed to a limited form of representation and the power relations it implied socially, culturally, politically and philosophically. When, in the case of a child, the eyes are crossed the development of the visual cortex, where sensory data collected in the eye is relayed and processed, is at stake. Normally when the eyes are crossed one of the eyes is straight and dominant. That eye, which has excellent vision, suppresses the eye that is crossed or has less than perfect acuity. In the first eight years, particularly between ages three and five, the visual cortex is most sensitive to this suppression. The brain cannot deal with the double vision resulting from the projection of the world upon non-corresponding places on our two retinas: the result of each eye looking in different directions at different points of the visual field. It therefore subdues one of the inputs and eventually turns one eye off. This condition is referred to as suppression in its early stage, leading to a loss of depth perception and later to amblyopia, which can result in complete blindness if severe enough. Instruments such as Lancaster red-green glasses and the prism bar, which are among the instruments I used to make
the *The Hybrid Dialectics*, are used to determine the degree to which the eyes are crossed, in the case of the latter, and the corresponding degree of suppression, in the case of the former. These instruments are important in the diagnosis of the disability and in the caring and repair of the individual eye and its cerebral connections. These are the clinical roots of *The Hybrid Dialectics* series. But as important as such uses of techne are, these instruments hold within them other aesthetic-political-technical possibilities and alternative capacities for transformation. Yes, the repair of the tissue of the eye and brain (nature) is a noble cause for celebration of techne, but what about other causes of celebration, like artistic and political ones. The idea of Spielraum, or a space for play, creates another platform for alternative performances with which to investigate the interplay of humankind, techne, especially those grounded in cinema, and nature. Play releases these hidden possibilities and otherings: those that are alien to the instruments and their history as techne. In my work, for instance, the photograph becomes a documentation of the processes through which these other possibilities are exposed and unearthed. Possibilities, which make explicit and visible to the world a non-standard aesthetics and what Francois Laruelle refers to as photo-fiction. This is the point where my Hybrid Dialectics begin to function as a performance situated inside the stance or posture of the photographer him or herself. A perfect example is Thomas’s choreographic contortions while photographing the model Veruschka in Michelangelo Antonioni’s *Blow-up*. During this performance, camera and body are one and rather than an instrument of objectification it becomes part of the phenomenological event itself.

**EM:** How does this subversive reversal of the aesthetics/philosophical paradigm reflect the relationship between your photography and the later theoretical development of your work in Activist Neuroaesthetics?

**WSN:** The importance for me of *The Hybrid Dialectics* photographs is that they began to create a language for what would later become the disciplines of Neuroaesthetics and subsequently Activist Neuroaesthetics. Key for the understanding of *The Hybrid Dialectics* is that the series took its cue from the histories of both photography and cinema, especially from experimental filmmakers like avant-garde cinematographers Maya Deren and Alexander Hammid as well as those who came later in what P. Adams Sitney would refer to as Structural film, exemplified by Tony Conrad’s *The Flicker*, Michael Snow’s *Wavelength*, Dog Star Man by Stan Brakhage, Stan Vanderbeek’s *Moirage* and of course Zorn’s *Lemma* by Hollis Frampton. For instance, Brakhage’s desire to create an unruly eye in a new adventure of perception, Snow’s insistence in foregrounding the zoom apparatus, Conrad’s uses of the flicker to destabilize the temporality of seeing through repetition, Vanderbeek’s use of the Moire Pattern to produce hallucinogenic visions and Frampton’s homage to the work of Eadweard Muybridge all find resonances in my series. These same relations would form the foundation of the work of the German cinematographer Harun Farocki especially *Eye/Machine*, 2000. However, there are two key differences in my approach:

1. I am extending the repertoire of cinematic and photographic apparatuses and their uses by including neuro-ophthalmological apparatuses grafted upon the front of a Mamiya RZ 67 camera body and its normal lens to create a new type of camera device. 2. As I mentioned before, I am keenly interested in these actions as political gestures in the way delineated by Jacques Ranciere; as devices for picturing and display of now altered distributions of sensible and the neural cognitive mutations they provoke and propagate. A later manifestation of structural film called structural/materialist film followed its American counterpart in the UK and was political in nature.

**EM:** While speaking of Structural film, I think it is important to highlight your photographs’ use of mechanical and aesthetic sleights of hand—or perhaps, trompe-l’oeil is a better descriptor—to simulate not only spatial dislocation but also temporal
anachronism as if the viewer’s perceiving eye is experiencing a steady deceleration or even regression through a visual archive of cinematic, para-cinematic and pre-cinematic forms of seeing. Many of the images possess an indefinable, anti-contemporary aspect. Can you discuss a bit about The Hybrid Dialectics’s relationship to the archive of early photography, and particularly to the late nineteenth and early twentieth century’s technologization of vision?

WSN: As I already have mentioned, The Hybrid Dialectics series provided a pathway that bridged the divide between my neon work of the past five years and my earlier work American History Reinvented with its staged and performative reenactment of a pseudo-archive and its interest in minor histories and fictive documents. The Hybrid Dialectics also acted upon the photographic history then at hand, but it took aim at its positivist technological teleology. At the time of the late nineteenth and early twentieth centuries, the relationship of technology to the body, embodiment, and labor was undergoing a radical change that in many ways exemplified modernism and was perhaps best illustrated by Marcel Duchamp’s ready-mades such as Bottlerack (1914) and Fountain (1917). The deskilling of the laborer in his or her transition from the handmade and handicraft to his or her role as a proletarian providing deskilled and abstract labor on the assembly line is mimetic of the deskilling of artistic labor that the ready-mades represented. The artwork no longer needed to be fabricated from scratch but rather found, pondered and reassembled. The hand and eye were given new roles. Rather than being integrated into a reflex loop of creating and molding and recreating until an object or thing is produced, which is at the very core of the methodology of handiwork, Duchamp’s works reordered the laborer’s role as one of recontextualizing found objects to change their sign values. This idea creates a seismic shift in what it means to be an artist and destabilizes the hierarchy of artistic production in which painting is downgraded from its superordinate position.

However, as I mentioned in my first lecture on Neuroaesthetics at the School of Visual Arts in 1996, entitled “Marcel Duchamp and His Optical Machines,” another, epistemic shift was in the offing. With the new role of the artist, Duchamp realized that art should not only engage solely with retinal pleasures like those afforded by Impressionism but instead should be supplanted by an alternative kind of artistic work focused upon the intellect and appealing to the mind and grey matter of the brain. In my case conceptual art’s task was not a means to dematerialize the art object but rather to radicalize the material sensory-perceptual-cognitive system. It was modeled upon approaches developed by Duchamp and others like Max Ernst for Dada and Surrealism, and later in the 1970s by the works of Mary Kelly, Yoko Ono and Adrian Piper. These optical apparatuses of The Hybrid Dialectics were both conceptual and research tools similar to Duchamp’s various optical apparatuses such as Rotary Demisphere (Precision Optics)(1925), To Be Looked at (from the Other Side of the Glass) with One Eye, Close to, for Almost an Hour (1918), Rotary Glass Plates (1920) and of course The Bride Stripped Bare by Her Bachelors, Even (1915–1923). Where he was exploring, with these art works, the immaterial social, political, cultural and technological relations that defined his moment I, in my own way, am using my Hybrid Dialectics to explore those same relations as they define my own situation immersed in Cognitive Capitalism defined as it is by the new information economy which is transitioning to a neural based economy at our doorstep: what I have been referring to as the neural economy of late-stage cognitive capitalism.

EM: So, it appears that Duchamp’s simultaneous work between theory and practice provided an essential template for your own critical and creative work.

WSN: Yes, that is correct. It provided me with the discursive tools with which to create a foundation for my Hybrid Dialectics. I wanted to create an alternative stream through which the idea of conceptual
art could be understood based upon Duchamp’s distinction between that which stimulated the retinal and that which was tuned to the proclivities of the brain’s grey matter. In an interview with James Johnson Sweeney he stated that painting should not be only for the retina but should also be made for the grey matter. I have interpreted his use of grey matter to mean the cerebral cortex, that sheet of neural tissue that consists of the outer layer of the brain. Of course, my own conception of the brain(s) posits that the intracranial material brain is entangled in and coevolving with an extra-cranial milieu or brain(s) consisting of social relations, technological systems in flux, political power and contested economic conditions. The evolution of this extra-cranial brain(s) is coextensive with events taking place in the evolution of the intracranial brain(s), for instance the enlargement of the frontal, parietal and temporal lobes and vice versa. Bernard Stiegler has called this process exosomatic organogenesis in which technology joins endosomatic organogenesis, resulting from changes in the gene, in instigating changes in the brains’ anatomical and physiological evolution.

My ideas were also influenced by Rosalind Krauss’s text The Optical Unconscious (1993). (Its important to understand that my project The Hybrid Dialectics commenced in 1997.) In it she emphasized that Duchamp’s form of physiological optics acted against Impressionism, especially artists like Robert Delaunay whom he felt refused to go beyond the retina. According to Krauss, Duchamp referred to this stubborn refusal as “l’arrêt de la rétine.” Impressionism’s impasse at the retinal plane is surpassed by Surrealism and Dada’s march onward to the grey matter. My Hybrid Dialectics bootstrapped on these artistic insights to produce artistic-medical machinic assemblages, through redistributing the sensible, as a means to challenge perceptual-cognitive normativity. The beginning of The Hybrid Dialectics came shortly after the initiation of my www.artbrain.org website and slightly before the exhibition I curated at the Thread Waxing Space in 1999 entitled Conceptual Art as a Neurobiological Praxis in which these ideas were also implemented. In fact, the premise of Conceptual Art as a Neurobiological Praxis concerned exploring the roots of Conceptual Art in relation to the distinction between art of the retina and grey matter.

EM: You previously mentioned the Lancaster red-green glasses and the prism bar as examples of ophthalmologic devices that you utilized in The Hybrid Dialectics. Could you describe how your use of them imaged this Duchampian shift in retinal art?

WSN: The Hybrid Dialectics, 1997–2003, some of which are presented here, represented about fifteen projects. Some made with the prism bar and others made with Lancaster red-green glasses. The prism bar was drawn across the front of the camera lens as one would glide a bow across the strings of a violin. It was used to make Studio, 1999 Writing, Drawing, and Painting, 2000 and Law of Loci, 2001. Double Vision Louise Point, 1997, Double Vision Katerskill Falls, 1997–1998 and Double Vision Malibu, 2000, were made by inserting Lancaster red-green glasses between the camera lens and point of view.

The prism bar is an instrument made of conjoined plastic prisms that vary in strength between five and fifty diopters. By moving the bar in a horizontal direction in combination with a flashlight or occluding device the ophthalmologist can determine the degree of gaze misalignment of two crossed eyes. This information provides the guidelines with which to carry out surgical operations to cure the problem of skewed misalignment of two crossed eyes. This information provides the guidelines with which to carry out surgical operations to cure the problem of skewed misalignment of the eyes. As an artistic and emancipating apparatus this same graduated prism bar reenacts, as it is drawn across in front of a camera lens during a long exposure photograph, the history of the transition from the photographic still image to the dynamic image of cinema, most notably discovered in the works of Étienne-Jules Marey and Eadward Muybridge. Duchamp understood the importance of film to the works of the cubists and mentioned the direct influence that Marey’s photographs had on his seminal
work Nude Descending a Staircase, No. 2 (1912) in his interview with Pierre Cabanne. Instead of the elaborate paraphernalia invented by Muybridge and Marey such as the sequential camera or photographic gun, *The Hybrid Dialectics* work was all smoke and mirrors created by moving an array of graduated plastic prisms in front of the camera lens. The visual jumps between prisms in the bar are registered as different planes of light of varying thickness and grey scale arranged in sequence in the picture plane of the photograph. The Hybrid Dialectic works made with the prism bar also reenacted scenes from the history of technological invention found, for instance, in the Wheatstone stereoscope, which unveiled the physiologic optics of 3-D vision as a result of mirrors set at 90 degrees from each other, as well as the zoetrope and phenakistoscope. In reference to the stereoscope, Duchamp would refer to the effect as *mirroirique*. As I already mentioned the prism bar is also a set of graduated prisms, and by moving it in front of the camera lens during the picture-taking process a virtual illusion of movement was registered. As such the prism bar-camera assemblage acted to queer, estrange and disrupt the distributions of sensibility. Estrangement or *ostranenie* was a term coined by the famous Russian literary critic Viktor Shklovsky to describe the action of a device that through a process of disruption of sensibility revivified our perceptions, which had been dulled by routine and habit. Photography, film and media play an ever more significant role in the production of reality and sensibility today. Especially during Covid much of our waking time is spent interacting with computer and cable television screens which to a certain extent help determine the real. As such *the Hybrid Dialectics* are political works because they redistribute the sensible on
and off the screen. In his book *The Politics of Aesthetics*, Jacques Ranciere describes this distribution of sensibility as a means through which sovereignty regulates perceptual facts thus molding and normalizing a heterogeneous constituency into an easily controlled uniform entity. The virtual distributions of the screen which are dominating our viewing experience are determined by digital codes at the service of the digital dominion. I have stated on a number of occasions that this distribution of sensibility and its redistribution have consequences for the living neuroplastic brain, which is sculpted and molded by these sensible relations. Sensible relations that tune neural plastic potentials leading either to control or emancipation; this is where Duchamp’s idea of retinal art and that of the grey matter collide with my own.

**EM:** What was so important about that particular grade of Polaroid film?

**WSN:** Polaroid Positive/Negative Land Film or Polaroid type 665 was very important to this work, because it allowed me a fast way of seeing the results of my constructive play immediately. Polaroid type 665 was an example of analogue film that has been discontinued and enters into what I call ‘analogue media obsolescence,’ another topic important to my work for the past twenty-five years. Very early on I was interested in the transformation of the analogue format into the digital and the effect it would have on the disappearance of analogue processes, many of which are becoming extinct. This work thus allowed me to continue my interest in researching anachronistic technologies begun in American History Reinvented. It afforded me the opportunity to use...
a quickly becoming extinct film to make works that functioned in a contemporary conceptual context. This particular film was a case in point. Even though there were practical reasons for its discontinuation, like product viability, its withdrawal from the market marked a generalized subsumption and termination of the analogue at the hands of the digital. Continuing with my reasons for using this film, when you expose the film it produces a positive image like other Polaroid films you may have used, but it also creates a negative after some additional development, which can be used to make enlargements. With one click of the shutter release you produce both a positive print and a negative transparency. It's called a negative because it produces the opposite or negative image of what the eye—sees as black is white and white is black. Polaroid film was also used in the second series of my American History Reinvented project, entitled, News From No Place, 1998. In that case I used a special large format 20 × 24-inch Polaroid camera then available as a graphic camera.

Finally, the Polaroid 665 positive/negative film, which is very insensitive to light and so required very long exposures for an image to be registered. This long exposure provided the opportunity for me to move the prism bar in the horizontal, vertical and diagonal planes within a specified exposure period. The image thus produces both a spatial and temporal register in four dimensions of the space-time continuum.

EM: As I understand it you did not use the Polaroid film in making those Hybrid Dialectic images in which the Lancaster red-green glasses were used, but you did with those using the prism bar. Could you

**WSN:** The prism bar works were so contingent and uncontrollable that one could never imagine or predict the results one would generate. The film is also tricky to use and many abnormalities are caused by the processing itself. For instance, in Meena, Reading 2001 the right edge of the picture is a scene of a processing trauma represented by an abstract and discolored surface emulsion. This can be quite disturbing to the image in some instances making the picture unusable even though the resulting distortions can be quite beautiful in the unconventional sense. The Polaroid was indispensable as an immediate record and indication as to whether the picture needed to be done again. This was not the case in the works utilizing the Lancaster red-green glass in which the image production was quite predictable.

**EM:** Maybe you could give some concrete examples of the prism bar photos?

**WSN:** Studio, 1999 was made during my residency at the Macdowell Colony in 1999 and consists of many series, one of which is called Ladder Macdowell, 1999 (Figure 3). In this work, the prism bar was used to animate inert matter like tools and objects lying around my studio, of which an old wooden ladder was one. In this work I wanted to use the prism bar-camera assemblage as a means to break down the dipole between life and matter, or what Jane Bennet calls in Vibrant Matter, *the life*...
matter binary. In Studio, 1999, I use this new class of apparatuses that combine both life, the eye and brain and material apparatus of the prism bar to awaken the latent vibrant pluri-potentiality of my studio tools. The studio becomes a Speilram, and the apparatuses are transformed from medical diagnostic tools into toys. This is for me the key to transitioning the object to the thing. For instance, in the work Ladder Macdowell, 1999, the use of prism bar unlocks its thing-power and thus the ladder exceeds its status of an object as a man-made item and manifests traces of aliveness.

Law of Loci, 2001, also plays with this framework of vibrant matter but instead of the tools in my studio it focuses upon my childhood home as a memory palace. The Law of Loci uses the mnemonic technique called the Method of Loci in which items are transformed into mental images and linked to specific locations in a house. On one my last journeys to visit my father at our home in the country, a few days before his death, I made this series. His death represented my own immanent loss of connection to him and the home where I had grown up. It was to become an orphan. The work was a means with which to deal with my grief and the realization that my house and all of its associations would be lost forever. The prism bar-camera assemblage by releasing its vibrant nature causes the house and all its objects to vibrate allowing for its embedded and crystalized memories to be released. In the picture House, 2001 the back of the house becomes a fourth dimensional object in which time is included (Figure 4). In Hallway, 2001, the hallway where I was made to walk up and down a single board in the floor by my mother for one hour a day to help cure my waddling gait becomes a corridor.

Figure 7. Meena Alexander Writing, 1999, 16”x20” From Writing, Drawing and Painting.
of horrors like in Stanley Kubricks, The Shining, 1980 (Figure 5). The front door in Frontdoor, 2001 is a series of flashbacks collapsed into a single image of the many remembered moments of my mother greeting my arrival with outstretched arms and a loving smile (Figure 6).

In the last series presented here, Writing, Drawing and Painting, I play with the relationship between stillness and movement in photography. In each of these works, Meena Writing, 2000, Frances drawing, 2001 and Julia painting, 2001 the subject is still in a moment of repose and through the gliding of the prism bar in front of the camera the subject and their instruments for writing, drawing and painting are animated (Figures 7–9). In a way they represent the moment before the creative act when the mind is preparing to act and the brain is preparing itself.

EM: So you are saying that although these works appear as motion studies in the tradition of Etienne Jules Marey’s The Running Lion Tamer, 1886, they depict very different forms of motion.

WSN: Yes that’s right. Marey concocted an elaborate machinic assemblage to create what he called the chronophotographic process. He produced his own apparatus by incorporating a technology used at that time to study the stars called a photographic gun with a silver bromide emulsion on a paper ribbon, a rotating shutter and a gelatin-based film. With this device he studied real human and animal motion.
Marey’s first client was the French government, which hired him to study how to make their troops more fit at a time when one of the army’s major concerns was the disabling condition called neurasthenia. This condition is a psychopathology characterized by lassitude, fatigue and irritability. It was thought to be the result of a lack of nervous energy brought on by the stresses of technological and social changes of the industrial revolution. As I mentioned above, in these pictures I use a very different device made up of an assemblage of a photographic camera and a neuroophthalmologic device called the prism bar, which is used to animate a still figure, of a hand holding a pen, paintbrush or piece of chalk, to create first a light impression on a piece of polaroid film, which is then transferred to a piece of photographic paper. Although it appears that the pen moves across the book in a sinusoidal wave in Meena Writing it actually does not. In Francis Drawing it appears that the long sensuous fingers of Francis Alyss are in motion but they are still. In Julia Painting, 2001, Julia Jacquette is motionless yet in the image she seems to be in a paroxysm. It is the prism bar that moves across the optical plane and with it the rays of light emanating from the pen, chalk and paintbrush and refracting inside the various sized prisms that then creates the image. It is all smoke and mirrors.

EM: Many Enlightenment philosophers like Edmund Burke and Immanuel Kant were particularly fascinated by this distinction between the beautiful and the sublime in aesthetic judgement. Perhaps you could briefly describe their ideas and then relate them to your work in Double Vision, Louse Point, Double Vision, Katterskill Falls and Double Vision

Figure 9. Julia Jacquette Painting, 1999, 16" x 20", From Writing, Drawing and Painting.
**Malibu.** What is the Claude glass and how is it involved?

**WSN:** In three projects included in my Hybrid Dialectics (1997–2003) entitled Double Vision, Louse Point, Double Vision, Katterskill Falls and Double Vision Malibu from 1997 to 2000, I used the Lancaster red-green glasses to create a disruption of nineteenth century lens-based opticality envisioned in the concept of the picturesque (Figures 10A, B, 11A, B, and 12). The picturesque was an ideal that guided the aesthetic relationship to landscape at that time. The picturesque provided an image of nature, which was guided by two concepts: the beautiful, which produced pleasure and delight; and the sublime, which elicited fear and wonderment.

**EM:** Yes, many Enlightenment philosophers like Edmund Burke to Immanuel Kant were particularly fascinated by this distinction between the beautiful and the sublime in aesthetic judgement. Perhaps you could briefly describe their ideas and then relate them to your work in Double Vision, Louse Point and Double Vision, Katterskill Falls. What is the Claude glass and how is it involved?

**WSN:** Actually, the notion of the sublime is important throughout my work, but the different apparatuses used in The Hybrid Dialectics accommodate its various definitions in different ways. Important here is that authors like Burke originally understood the sublime as something that produced terror and pain, but if the inciting stimulus was at a distance, and not too close, that same sensation could produce pleasure. Kant’s writings on the sublime in Critique of Judgment (1790) concur in many ways with Burke’s as they both claim that...
the sublime can produce pleasure. But they also differed. Kant understood the beautiful to have boundaries while the sublime was boundless and formless. Whereas the beautiful could be a property of objects, the sublime was a condition of the mind. Kant also described two classifications of the sublime: the mathematical and dynamic sublime. The mathematical sublime is important for my ideas in *The Hybrid Dialectics* as well as for a concept I proposed in my book Blow-Up: Photography, Cinema and the Brain (2003) called the neurobiological sublime. The mathematical sublime occurs when we are witnessing nature that overwhelms the imagination to comprehend it. As such, it is supersensible and elicits unease. The dynamical sublime is when we witness something in nature that is fearful but is of such a distance from it that we feel safe. We are natural beings, but at the same time through our capacity to reason superior to it. My concept of the neurobiological sublime is related to the concept of the supersensible but goes one step further. It delineates the moment when changes in the socio-political-cultural-technological milieu accelerates at such a pace that they outdistance the capacities of the becoming brain’s neural plastic potential and emerging capacities to adapt to its new reality. Fredric Jameson in Postmodernism, or the Cultural Logic of Late Capitalism in describing the Bonaventure Hotel in Los Angeles alludes to this when describing what he calls postmodern hyperspace, which transcends the perceptual and cognitive abilities of the individual to map their position in the external world, leading to a state of bewilderment. Furthermore, Jameson stated that in fact

*Figure 10B. Throwing ball, 1997, 24” x 30” Archival Type C-Print, Double Vision Louse Point.*
there has been a mutation in built space or the object without an equivalent mutation of the subject, most notably that the subject whose perceptual habits had been trained in spaces described by Euclidian geometries had not yet developed the perceptual habits to match this new curved and non-linear hyperspace. This new hyperspace is, according to him, an imperative to grow new organs of perception. My concept of the neurobiological sublime is that hyperspace and the accelerated subsequent socio-cultural- technological mutations brought on by digitality are beyond the capacity of the plastic brain to fully accommodate to it, leading to a schisis. Techno-cultural plasticity outruns neural plasticity.

**EM:** And how do these distinctions relate to The Hybrid Dialectics and the picturesque?

**WSN:** Important for understanding The Hybrid Dialectics series is the relationship of the Lancaster red-green Glasses to the eighteenth-century device called the Claude glass. The Claude glass, named for the French landscape painter Claude Lorrain, was a darkly tinted convex mirror, which shrunk the scene in front of a spectator while at the same time giving it a sense of order. The glass thus made the unruly scene of nature manageable and contained. The fear and horror that the natural world possessed was transformed into a well-formed and manageable image. In many ways this became the distinguishing feature that differentiated the Neoclassical period from the Romantic. The Romantic embraced the precarity and insecurity induced by the sublime. You could even turn your back to a scary and horrific scene without fear of being hurt and lift the Claude glass into the air to view a reflection that

*Figure 11A.* Falling Water, 1997, 24” x 30” Archival Type C-Print, From Double Vision Katterskill Falls.
was behind you and tamed by the glass. What appeared to the eye of the beholder of the glass, whether artist or commoner, was a picture akin to that which one might experience viewing Lorrain’s The Roman Compagne (1639) or Worship of a Golden Calf (1653). These images also possessed a golden glow somewhat analogous today to a filtered Instagram post. This reference to the Claude glass in my landscape work is the root of your observations of an antiquated and anti-contemporary aura in these Double Vision photographs, especially of sacred spaces where one might find the picturesque such as Katterskill Falls, a favorite place for Hudson River School painters like Thomas Cole and Frederic Edwin Church, and Louse Point, a meeting place in East Hampton, New York, for Abstract Expressionists like Jackson Pollock, Lee Krasner and Wilhelm De Kooning.

The use of the Lancaster red-green glasses in The Hybrid Dialectics creates contemporary images that reach back to the history of optical devices such as the Claude glass as well as the camera lucida and camera obscura. As the device’s name implies, it is made of one red and one green lens. These lenses are used in the analysis of double vision, as one eye will see through a green lens and the other through the red lens, making it possible to measure the degree of squint. While wearing the glasses both the examiner and patient hold a light and shine it on a screen. When the eyes are straight, the observed red and green lights will appear on top of each other, and when the eyes are crossed, they will appear separated from each other depending on the degree of squint. In René Descartes’s short treatise Dioptrics (1637), he not only discusses how optical technologies make us the masters of nature.
but investigates their role in the perfection of a human vision that is not on its own, naturally, adequate. *The Hybrid Dialectics* attempts to nullify this desire to master nature by disrupting forms of optimization that technology pursues. Instead of a still and highly resolved image produced for inspection, *The Hybrid Dialectics* produces a dynamic, precarious image on the verge of collapse. Unlike the Claude glass, which creates a manageable image, *The Hybrid Dialectics* do the opposite. They partake and perform in an alternative history of optical technology: one not based on a positivist ontogeny of a succession improvements of function and ergonomics but rather one based on the dysfunctional and liberating.

**EM:** Before moving on to your recent neon works, I want to speak about one other work, which that was shown in the exhibition at the California Museum of Photography, Riverside, entitled *Shot-Reverse-Shot* (2002). Where did you get that title, and how does it relate to *The Hybrid Dialectics*?

**WSN:** Shot-reverse-shot or shot/reverse is a cinematic technique used mostly in dialogue scenes. It is based on two sequential shots. It uses over the shoulder shots to create continuity in a dialogue scene. One person is speaking and seen from over the shoulder of the other person in the scene who is listening. The camera angle is then reversed. I used this technique in a metaphoric way to express a conversation between technologies couples use to investigate themselves. A mobile, handheld video camera and a prism bar create an internal exchange within the larger framing of the shot-reverse-shot.
Figure 13. Shot-Reverse Shot, 2003, Archival Type C-Print, 8” x 10”, Archival Type C-print. Installation 1 of 20.

Figure 14. Shot-Reverse Shot, 2003, Archival Type C-Print, 8” x 10”, Archival Type C-print. Installation 1 of 20.
This internal exchange is meant to describe the connection between the history of the devices meant to measure the organic eyes gaze and that of the history of optical devices the handheld video camera being one. In this work their mitwelt is the creative process. The prism bar released from its medical and technical purpose because an actant in the production of new kinds of images. The video camera is part of a long history of technical objects that substitute for the eye and record images and memories to be inserted in narratologies. This installation consists of five such exchanges and dialogues, which are enacted by five different couples of various cultural identities and displayed as a grid (Figures 13 and 14).

**EM:** Based on what you proposed above, how does this research into apparatuses, disability and the distinction between retinal and cortical art inform your recent neon works like the *Pizzagate Neon*, 2017–2022, which you exhibited at the Venice Biennal in 2019 and A Proposition for an alt-Parthenon Marble Recoded: The Phantom as Other (2022) (Figures 15 and 16).

**WSN:** The trajectory of my critical writings of the past twenty years has led me to realize that we are currently in the midst of a transition from an information and knowledge-based economy to one that can be described as neural or brain-based. As can be seen from my answer above, this transition was a process already set in motion and has its roots in the late 19th and early 20th centuries. Just as the industrial economy subsumed craft and agricultural economies, and the information and knowledge economies of the late twentieth and early twenty-first centuries subsumed the industrial economy, this imminent brain-based economy, which I refer to as late-stage cognitive capitalism will subsume all those economic formations that preceded it. Not to eradicate them, making them null and void, but rather building upon and incorporating them. They create
a new cultural DNA that different social, political and technological relations activate and regulate. Just as Duchamp’s experiments were in response to the social-political-economic relations that he found himself in so too are my works like The Hybrid Dialectics and neon sculptures a response to my own circumstances. My two recent neon sculptures The Pizzagate Neon and A Proposition for an alt-Parthenon Marbles Recoded: The Phantom as Other are works in glass, neon glass tubes, filled with gas. Like The Hybrid Dialectics, 1997–2003, they too engage with apparatuses and disabilities. In the Pizzagate Neon, 2017, the conditions of cognitive capitalism create new forms of psychopathologies as well as new apparatuses of control and despotism leading to the Post-Truth Society and Fake News. In A Proposition for an alt-Parthenon Marbles Recoded: The Phantom as Other phantom limbs sprout from broken limbs of the Parthenon Marbles sculpture damaged on its transport from the Acropolis in Athens to the Elgin Room at the British Museum in London. The phantom limb represents queering, the specter of Marx, and the paranormal. Psychic energy emanating from these phantoms join energy springing from the Marbles in the hidden layer of the artificial neural network. Together they modulate its connections in the end forming what I am calling the alt-Singularity seen at the top of the
neon diagram. The Singularity is the term invented by Ray Kurzweil to describe the moment when machine intelligence overtakes human intelligence. I see this Singularity is a form of digital despotism created by a Eurocentric, patriarchal and anthropocentric form of essentialism and optimization. The alt-Singularity is a post-human, post-anthropocentric digital governance which is caring, fluid, generous and global.

EM: With this in mind, let’s turn finally to these works. What new dispositifs are at play here? In your critical writings over the past two decades, you have become more engaged in theories of cognitive capitalism especially its late-stage or neural-turn. Why are these conceptual frameworks important?

WSN: My Pizzagate Neon, 2017, illustrated many of the ideas found in my recent writings while expanding upon concepts initiated in my earlier artworks. Pizzagate was the name given to the now debunked conspiracy theory that went viral toward the end of the 2016 Presidential election between Hillary Clinton and Donald Trump. According to the theory, the Democratic National Committee was running a child sex trafficking ring in the basement of Comet Ping Pong pizzeria in Washington D.C. As preposterous as this sounds, people believed it. The story was spread through social media and billboards like Facebook, Instagram, Reddit, Twitter and Wikileaks and entangled itself in the new apparatus of cognitive capitalism like memes, meme magic, the attention economy, click bait, Google bubbles, deep fakes and Big Data, all of which engage with the brain’s plasticity in sophisticated ways.

The Proposition for an alt-Parthenon Marbles Recoded: The Phantom as Other is a form of what I refer to as a “decolonial exosomatics.” It posits disability and illusory sensations of the phantom limb as a means of empowerment and positive change in our moment of digitalization. The Proposition for an alt-Parthenon Marbles Recoded: The Phantom as Other is directed towards the causes of a recurring cycle of historical expropriation, racism and gender bias which is at the heart of the Enlightenment in its original form and is again manifesting itself in our Algorithmic culture. The same Enlightenment that constituted an excuse for colonialism and the eternal return of repeated systematic cultural looting. For instance, it has become apparent that face recognition software like Amazon’s Rekognition is racist. This work acts as a proposition and retort to these recurring problems. It attempts to find a solution and cure to this eternal return. The phantom limb like the ocular disabilities of my Hybrid Dialectics becomes a source of power and radical transformation. This phantom energy represents queering, othering, and the specter of Marx. It joins psychic energy emanating from the remaining intact Parthenon Marbles and together these forms of psychic energy, perfect and imperfect, percolate into the vast array of nodal connections that constitute the hidden or inner layer of the artificial neural network that makes up this model of deep learning. Together they compete for influence at the synaptic junctions and sculpt the architecture of the alternative artificial neural network that becomes responsible for the processing of patterns of data. Like biological brains, the strength of the connection, the speed at which information can be transmitted between nodes, is controlled by the strength of the connection, also called its synaptic or mathematical weight. Like I mentioned above, this psychic energy influences and sculpts the intricate connections of the hidden layer of the deep learning artificial neural network to produce, what I am calling, an alt-singularity, seen at the very top of the sculpture.

EM: Thank you, Warren, for sharing your insights.

WSN: Was my pleasure.

Disclosure statement

No potential conflict of interest was reported by the authors.