

FIELDS OF CONSCIOUSNESS: THE GHOST IN THE MACHINE

The contentious debate as to an aesthetic relationship between mind-mechanism-representation has not gone away, that is in spite of scientific researches in physiology and neurophysiology that have recently dressed matters up in terms of mapping the brain and a causal bio-chemistry. Yet given a recent return of somatic dominance there nonetheless still remains much to be said about the mental role of a creative culture in the living biochemistry of modern being. This is not to argue that nineteenth century Driesch-ian derived ideas of 'vitalism' and its legacy, can any longer offer a non-materialist hiding place for theories of mind and consciousness.¹ Theories of mind have largely been reduced today to two areas, namely the biological sciences and/or experimental cognitive psychology.² It is the discursive and interactive relationship between biological science and the different psychologies of consciousness, that for the most part frames the current debate. In areas of cognitive consciousness the emphasis is now firmly placed upon the 'embodied', that is to say in living conditions of 'being' that foments representation: to represent means quite literally an embodiment of signs that are brought to mind only in and through reflective consciousness as lived experience.³ The subjective Cartesian formation of the mind-body question, and its many subsequent philosophical interpretations, has been increasingly side-lined somewhat ironically (given Descartes mechanistic view of the body), by an extension of materialist mechanisms (scanning machines), and the explications of neuroscience that accompanies their use.⁴

But how the brain works and the related questions born of how representation within consciousness takes place, remains a vexatious territory that is still fundamentally unresolved. It is clear that the representation of the world through sign and symbols is a given and everyday reality, but to what extent can it be said that consciousness and its physiological component can be altered by the sensory experiences of the world through the changing conditions of cultural representation? It leaves open the question whether consciousness is nothing more than an extension of structural physiology with a purely biological foundation (that is to say pre-determined by brain chemistry), or whether there is a spectral or non-definable hermetic substance that changes the conditions of consciousness through interactions with numerous sensory experiences in the world, something that shapes, sharpens, and thereafter alters the physiological arguments of pure mechanism? Put another way does the visual language experience of representation (I use the word 'language' advisedly) alter in any way the simple physiological processes of working consciousness? If it is the first question posed, this leaves aesthetics and discussions as to the aesthetics of consciousness in a perilous position. If the second the representational aspects of aesthetics remain open and in a continual state of change and development. And as an aside in simple historical terms this also questions as to whether there could ever be a fixed 'cultural canon' of those conventional but shifting representations through artistic experience, as either expressed or implied by continuous transformations of states of cultural consciousness.

In more conventional aesthetic terms it touches upon one of the oldest of philosophical-aesthetic concerns, namely whether different material forms of

representation take on the appearance of change (merely as a sort of repetitive cultural and pictorial mutation), or conversely, that cultural change is a continuous and changing condition of appearance as those successive temporal representations take place.⁵ In short in what ways does living culture alter and/or expand upon the aesthetic aspects of our consciousness? How do representations through perceived experiences in and of the world effect interaction between consciousness and the body? And, where do representations stand in regards to the return or 'eternal recurrence' of images and ideas that daily saturate our lived experience? The artist Warren Neidich has long been concerned with these contentious issues, and has also written a related book of essays which concentrated on these issues, emphasising different cultural effects on neural networks as they relate particularly to experiences of film and photography.⁶ I intend in this essay for the most part to concentrate on Niedich's photographic and film/video-based work, incorporating aspects and use of his different performance-experience-experimental contents that consistently appear within what is a challenging and diverse body of art works.

It is quite clear that photography and film combines aspects of mind and mechanism. The camera has the status of a tool in terms of representation and visual language, a tool that has a use value that mediates representations through applications of mind as consciousness. But it is commensurate to argue that pictorial representation is a continuous visual language that sculpts and shapes our ongoing perception of the world. The bi-focal aspects of the mind and mechanism are grounded as a necessary form of mutuality that are ineluctably manifested within lived experience. Neidich's work in recent years

has concentrated on two *vital* concerns.⁷ The first I will discuss is a large and developing series of the artist's work he has called *Blanqui's Cosmology* (1997-2005), a work that investigates questions around issues of origin as regards the modern subject in photography, and specifically ideas as it relates to repetition and recurrence. He asks what are the meanings exposed (as simile) by repetition and recurrence? The second area of discussion will be Neidich's diverse series of conceptual works in different media that investigates the *History of Consciousness* (1996-2010). Their analogous relationship is self-evident as both the inside and outside (perception and perceived) of mind and mechanism, cosmological projections of consciousness (consciousness fused with mechanism) on the one hand, and the internal assimilations that forms a fluid creative state of sensory consciousness on the other. As applied to culture and the history of photography, mind and mechanism is always in a state of confrontation with resistance.⁸ Among the myriad aspects of cultural objects and their conditions of experience in the world, the state of their resistance to any singular assimilation or interpretation is well established. It becomes the basis for arguing that the conditions of consciousness are shaped by any number of provisional interactions.

The role of the camera as mechanism in capturing the conditions of culture at a given moment is neither uniform or singular, but always subject to the prevailing provisional and historical states of consciousness. This is not to say that they cannot be mapped, but at best used only to define a transitional state of apparent reality at a given period of time. The role of resistance in culture and the objects of culture (born of 'intentionality' as origin) is encoded

in such a way so as to make them take on the hidden visible of photography. It is not surprising therefore that the corollary of the 'negative' has been essential to the historical development of the photograph and of film, a mechanistic inversion that expresses itself through the obverse image.

Neidich's reference to the writings of Louis Auguste Blanqui (1805-81), a nineteenth century French radical, a Republican socialist-activist, who spent much of his life incarcerated, may not seem immediately relevant to the task in hand. However, Blanqui's text dealing with the cosmology of revolution *L'Éternité par les astres* makes it immediately relevant. Apart from his importance to historical political science, Blanqui's text draws an analogy between the continuous cosmological contents of the universe, the formation of stars, novae and supernovae, the coming together and the cosmic dissolution of galaxies, to common mentalities within human consciousness that can be linked to photography.⁹ If physical laws (mechanism) govern the universe, they do so in a state of unending revolution: perpetually in being as light in darkness, as death in life and life in death. Repetition and cosmic recurrence form a undefined frame in which the variable possibilities of the universe remain infinite. The cosmos is in a state of eternal recurrence whose condition is that of revolutionary contentiousness. The same cosmological analogy of light in darkness that can be said also to mark the material and psychological origins and practices of photography.

Blanqui's inference of eternal recurrence or repetition, preceding as it does Nietzsche's use of the term in *Daybreak* and *Thus Spake Zarathustra* a decade later, argues the idea of repetition as both an infinite and eternal

variation.¹⁰ Photography and its instrument the conventional camera (mechanism) similarly denies the possibility of a repeated temporal excision of an image (the same), but gives repetition to images through the use of a reproductive copies. The camera is a mechanism that captures light through darkness, photography is therefore born of light.¹¹ All forms of sensory perception and assimilations of consciousness through representation also depend on light; the world around us is not a sheet of darkness. It was the same Blanqui idea of eternal repetition as infinite variation and differentiation, that later attracted the attention of Walter Benjamin (1892-1940). It attracted Benjamin for two reasons, the mechanistic inasmuch as repeatable images can be derived or copied from a single negative, and a more complex sense of repetition that he saw as an extenuated form of continuous alterity. For repetition or recurrence is never 'the return of the same' but a movement within which something other has become inscribed within the same. Benjamin's interest in mechanical processes is well known, not least his texts on photography and mechanical reproduction.¹² However, his interest in eternal recurrence and Blanqui's text, was part of his near encyclopaedic but unfinished research investigations called the *Arcades Project*. The project was Benjamin's attempt to encapsulate or frame the epistemology that generated and explained states of formed cultural and social consciousness operating in nineteenth century Paris. A city traditionally associated with the foundation of photography, notwithstanding the immediacy of the developments in England. In what Benjamin calls the 'ingenuous reflections of an autodidact' he quotes an extended paragraph from Blanqui's *L'Éternité par les astres*:

'....So each heavenly body, whatever it might be, exists in infinite number in time and space, not only in the *one* of its aspects but as it is at each second of its existence, from birth to death....The Earth is one of these heavenly bodies. Every human being is thus eternal at every second of his or her existence. What I write at this moment in a cell of the Fort du Taureau I have written and shall write throughout all eternity – at a table, with a pen, clothed as I am now, in circumstances like these. And thus it is for everyone....the number of our doubles in infinite in time and space. One cannot in good conscience demand anything more. These doubles exist in flesh and bone – indeed, in trousers and jacket, in crinoline and chignon. They are by no means phantoms, they are the present eternalised. Here nonetheless lies a great drawback: there is no progress....What we call "progress" is confined to each particular world, and vanishes with it....the same drama the same setting, on the same narrow stage....believing itself to be the universe, and living in its prison as though in some immense realm, only to founder at some early date along with its globe....'¹³

In his reading of the text Benjamin asserts a 'phantasmagoria of a history', a phantasm or imposed teleology and of imagined novelty and false consciousness. The German writer made great play of the fact that Blanqui's cosmology was based on the 'mechanistic general sciences', and since materials and elements are finite, and if cosmic nature must repeat their combination *ad infinitum*, it follows that there is inevitably a perpetual aspect and necessary phenomenon of eternal recurrence. Benjamin went further and devoted a whole collated section of the *Arcades Project* to 'Boredom and Eternal Return' quoting from many other passages of the Blanqui cosmological text. And, Benjamin throughout, and in other writings, extended the astral analogy of the stars as repetition and reproduction of light, an argument that becomes part of his thought as to the informing principle of photography as it developed. The Benjamin argument was that 'the universe in its entirety works like a gigantic photographic machine.'¹⁴ And, since all aspects of mind, consciousness, and mechanism, are necessarily part of that cosmological universe we can never be ultimately separated from it. In that

respect they form the macrocosm that dwarfs the microcosm posed by the immediacy of mind-body question, and which in turn must become seen as no more than a system within a provisional and eventually self-exhausting solar and planetary system.

Warren Neidich's *Blanqui's Cosmology* is a contemporary mapping of what might be called a continuous presence through eternal recurrence. It departs from the reference to the early procedures of photography, namely time, light and the modern subject. At the same time the long exposure photographs attempt to map a sense of period consciousness, the hidden visible that photographs are able to reproduce, and the influence of photography in shaping a whole series of scientific, psychological and para-psychological (formerly called psychical research) nineteenth century discourses that emerged around the use of the camera as mechanism. Working with 1200 shaved-headed portrait subjects over a protracted period of many years, both men and women, Neidich used a light pen drawing upon the head of each subject and developed the photograph through long exposure in a darkened space. Two elements were immediately foregrounded as important ideas by the artist, the choice of the head signifies the seat of consciousness, and the performance contents whereby he physically interacts with the sitter while making the light pen drawings. An aspect of performance and the free participation of subjects is a common feature in many of Neidich's photographic and video works. At the same time the portraits refer visually, perhaps, to early ideas of photographic portraiture technology, the calotype and the daguerreotype – the first mechanical photographic systems of light

exposure to darkness and which offered reproductive images.¹⁵ The cosmological metaphor of light and dark exposed and expressed through the procedures of mechanism.

As the same time *Blanqui's Cosmology* reveals embedded an extended references to the uses and discursive applications that early procedures in photography provoked. The most obvious was that of physiognomy, through the early use of photography in cranium studies and cerebral localisation,¹⁶ and indirectly thereafter to the pseudo-science of phrenology.¹⁷ By the second half of nineteenth century the photographic images of heads and skulls served also as primary illustrations to studies in eugenics,¹⁸ and were even more rapidly expanded in their use following Galton's naming of the science in 1883, allied to further photographic advances in technology.¹⁹ Peripherally early photography was extended into numerous other areas, pathological psychiatry (then called alienism) through images of congenital idiotism, cretinism, the nineteenth century science of anthropological degeneracy, and as the founding illustrative pictorial documents of criminal anthropology.²⁰ The creative performance aspects integral to the creation of Neidich's photographic images also evoke something of the photographs of pseudo-performances of hysterics at Charcot's Salpêtrière,²¹ presentation experiments which were later discredited by showing through theatrical repetition that they were increasingly the product of psychological suggestibility.²² The use of photography in experiments of animal magnetism (later called hypnotism) was also extensive throughout much of the nineteenth century.²³

Early photographic uses in physiology were also common, particularly in myology, where electrodes and electric shocks were tested on mental patients to establish how muscle systems worked.²⁴ Texts on physiognomy that were frequently dedicated for the use of artists. Just as common was photography's nosological use in asylums to pictorialise largely imagined categories of mental illness. Boundaries between science and what later became seen as mere pseudo-science were not clearly delineated.²⁵ Positivist experimentation (facts and images) were misguidedly seen and largely taken as a truth equivalent, following on from an old physiognomic idea that outward appearance must accord in some way as a truth to an interior reality.²⁶ Applications in astronomy (the universe as the primary source of light and dark) had some practical use and photographic validity, at least in an abstract sense, since any physical sense of provable material verification was low. But photographic applications and manipulations in areas of Spiritualism and other areas of psychical research, such as photographs of ectoplasmic events, ghost appearances, and other strange kinetic phenomena are plainly non-sensical when seen in retrospect.²⁷ This said, however, Spiritualism and psychical research (parapsychology) bore intimate proximity with the early parallel developments of dynamic psychology, and by extension with increasingly numerous investigations into the workings of unconscious and conscious mental mechanisms. And, at the same time, Niedich's *Blanqui's Cosmology* also bears intimate pictorial relation to the implied physical interiority of the body, something that was expressed by Roentgen's development and use X-rays (electromagnetic radiation) from the mid-1890s.²⁸

Neidich's evocation in *Blanqui's Cosmology* has a deliberately intended intellectual elasticity, the word elasticity suggesting both actions of expansion and contraction as resistance. Hence the repetition or recurrence of discursive tropes of history are not intended by the artist to be read or to serve a didactic purpose, but rather express the necessary role of resistance itself; it follows from a supposition that resistance leads to changes of functional field within cultural and mental consciousness. If we remember that Blanqui's ideas of astral cosmology were primarily written and framed in terms of political activism, and that he pursued revolution and the overthrow of the aristocratic and bourgeois order of his day as a necessary end in itself. It was a revolution that was to be simultaneously materialist as well as one that transformed human consciousness.²⁹ It is the reason, perhaps, why the Marxist Benjamin frequently linked Blanqui to Nietzsche in his writings, though it is patently evident they come from totally different traditions of intellectual-political thought.³⁰ Thus encoded within issues of recurring consciousness, when *Blanqui's Cosmology* was installed by Neidich in an exhibition it followed the same pictorial convention of light in a darkened space, and was installed in a manner that seemed redolent of an installation mediating the space between art and science, between comparative taxonomy and a grid-like conceptual minimalism. Also given that the 1200 component photographs the work offers enormous possibilities of interchangeable installation, and as a result the work intentionally repeats the cosmological potential of Blanqui's original thesis. A repetition that does not 'return as the same' but as a recurrence within which the subtle movement of the other has been inscribed.

Issues of mind, mechanism and cultural consciousness, are similarly encapsulated in many different ways in the series of works that Neidich has called *The History of Consciousness*. They constitute a large number of projects that have pre-occupied him over the last fifteen years. While the ideas and their material realisation are never uniform they almost always involve aspects of cultural interaction. The works engage with either/or elements of physical-conceptual consciousness, and often require different types of direct participation and/or performance. A recent project has been *In the Mind's I* (2009-10) that were a series of interactive performances between Neidich and an artist or critic in a pre-staged setting.³¹ Seen only in silhouette in a darkened space set against different and changing colour monochrome backgrounds, the artist asks his fellow participants to bring along personal objects and thereafter imagine them within the context of a proposed exhibition. The personal objects chosen by the participants were unknown to Neidich prior to the meeting. In the form of an interview, better described as a shared performance, a discussion of the objects personal meaning and their motivated contents were revealed. In one respect it followed the idea of memory as re-staging a set of former conditions of personal consciousness and identity, that is as they originally and currently related to the objects. Yet on another level it constituted a form of projection drawing upon a particular exhibition space setting, in a setting as imagined, described, and projected through the participant's own choosing.

The purpose was to create an exhibition of the mind, conceived solely in the mind's eye without a material or commercial manifestation. No exhibition was to remain save that of the purely imagined exhibition, and the only remaining

contents were those referring to its existence through the video-d performance, and the discussions alongside those of the two participants and audience attendees at the performance video installation. The film staged setting, framed as it is in terms of a imagined visual presentation, allowed the viewer to share only in a what might have been, and the artist participant retained their integrity over that which they personally imagined, thereby challenging the conventional idea of a materialised art exhibit. However, since the objects used were not immediately identifiable other than to the direct participants, the viewer has to project the exhibition simultaneously within their own imagination. But not only does this idea question issues of potential authorship, in a non-delineated boundary between the maker and the viewer – where in real terms does the actual exhibition reside – but also raised fundamental questions as to where the boundary between art and the artist exists, that is in the idea of the exhibition or in its realisation, and further still who might be a position to realise it? In terms of conceptual strategies there have been many creative ideas of origin, but in the light of appropriation other conceptual strategists have realised them; one might think of the recent instance of the development of facebook. The question of 'origins' and the source of ideas become problematised as a result. In certain respects the work not only references Neidich earlier associations and familiarity with Art + Language,³² but also recalls and extends several issues of 'dematerialisation' common to conceptual art in the 1960s and 70s.³³ What distinguishes Neidich's approach, however, is that he creates the grounds of a continuously shifting consciousness from maker to making, from making to made, from made to reception, back into immaterial memory as recollection; there is a

sort of intellectual and cosmic circularity about what has taken place. If art can never be free of itself as being art, it can at least be free of a singular subjectivity that limits its cultural parameters to the maker and thing made. That Neidich often does this through the uses of film and photography, owes as much to his familiarity with the facilities of mechanism as it does to any separately operating system of imagined consciousness. The view that mechanism and consciousness are mutually interactive and constitute a 'forming' relationship that is subject to cultural experiences is an intellectual and axiomatic position for the artist.

A fascination with the history of photographic apparatuses and technologies has always been an ever present aspect of Neidich's art work. This was evident in an exhibition installation called *The Mutated Observer part 1* (2001) in Los Angeles, in which the apparatuses of early photography were placed in relation to the discursive contents brought about and enlarged the artist's view as to the newly triangulated environment of mechanism (brain), mind and eye.³⁴ The installation included some early photographic elements of the then ongoing project *Blanqui's Cosmology*. A particular emphasis was placed in the exhibit of understanding the history of photography in the context of Lyotardian 'postmodernism', namely the idea that "A work can only become modern only if it is first postmodern. Postmodernism thus understood is not modernism at its end but in the nascent state, and this state is constant."³⁵ Called 'hybrid dialectics' Neidich posed the question whether the advent of photography had altered the eye to mind relationship to consciousness. Installed in vitrines as if an 'art and science' intervention, the exhibit introduced a complete re-shuffling and de-stabilising of nineteenth century

epistemological categories, generating a new set of relations that included conversation maps, painted and drawn elements, as well as suggesting a necessary re-configuration of what might be understood by media history. The recursive approach which appeared to define the function, but which expressed an infinite condition by using finite components, was the key to understanding the problematising aspects of Neidich's installation. Since recursion is itself a form of semantic repetition inherent to photographic reproduction, and repetition is an incomplete recurrence, it is embedded in the use of language and by extension in visual language.³⁶

A history of consciousness is not necessarily a history of recorded thought but rather a history of sensory thinking, that is to say a mapping of various behavioural tendencies within the processes of thinking; it stresses the fact that all thought is embodied and in consequence inevitably performative. In *Mutated Observer part 2* (2002), installed at the same museum one year later, Neidich extended the question of the idea of mechanism as apparatus (the camera) to its operative realities in the social space, and in a series of video and photographic installed elements entitled *Remapping 1-6*, *Blind Man's Buff* (dream sequence video image projected from a screen to the top of a person's head), *Shot Reverse Shot and Beyond the Vanishing Point*.³⁷ The idea of diagrammatic cultural and aesthetic mapping (often by means of wall drawings) is another continuing feature of this artist's works. It is frequently related to ideas of the performance-lecture, as in Neidich's performance presentation at the Temporäre Kunsthalle, Berlin, in 2009. A lecture that was developed in some respects from a Stockholm audio performance-lecture during a IASPIS residence in Stockholm in 2009, which also included a large

scale wall drawings. Yet the desire to delineate and survey the conditions of continuously dynamic consciousness, is tied closely to the artist's concern with sustaining sensory thinking rather than the mere production of thought, sensory thinking is closely allied to aesthetic intuition rather than deterministic rational thought. It picks up on the immediacy of embodied experience as against distilled and prolonged conceptual reflection. Notions of the dynamic (the speed of synapses in contemporary life), and the constantly shifting grounds of our contemporary perception, are for the artist directly analogous to our contemporary understandings of brain function. In this respect Neidich might be said to dislike certain aspects of stasis, because not only does it reflect for him the tendencies of earlier forms of consciousness, but carries of at least implies the inhibition of entropy.

In the film and photographic mediated world of today performance as acting and cultural role playing exists in all our lives, there are no neutral spaces where we are free of continuous role play. The expanded nature of cultural role play is the price paid to participate in our ever increasingly mediated world. In consequence it has opened up an far reaching issues around the discursive problems of identity in contemporary life. Warren Neidich embraces the idea of role play and performance, and its temporal-transitional documentation, he believes it is essential to his view as to creating the ability of verify the existence of cultural neuro-aesthetics; those arguments that the neural networks of the brain are subject to adaptation in relation to mediated cultural experiences. In a work he called *Earthling* (2006), he adopted a very simple but provocative approach by using the conventions of mass media,

newspapers, video-film, and photographic reproduction. Clearly, Neidich's intention was to show that, as he puts it,

"....new forms of temporality and spatiality become embedded in architecture, design, fashion, design, and aesthetic practice and as such create a new kind of network, for instance in the visual cultural field These new network relations in the real world, which might be called the real-imaginary-virtual interface, can reconfigure neural networks in the brain These networks are dynamic: and as they reconfigure the matter of the brain they produce new possibilities for the imagination and creativity...."³⁸

Photographed in a series of cafes across Europe and America, the artist asked café customers if they would hide their faces behind headline images in national and international newspapers and magazines. The artist then cut out the eye sockets of the famous or at least newsworthy faces, and/or symbolic- iconic images, presented photographically on the newspaper or magazines front pages. Aligning the eye or eyes of the anonymous café customer (the temporary actor of role play) behind the headline images, they were then photographed. On the face of it we might assume that the different newspaper and magazine media were chosen to reveal the subject interests of each café customer, and as a consequence organs of social appropriation and identity in some way associated with the person hidden behind them. But Neidich disavowed this stereotypical and he thought bland idea that the participants were to be determined simply by what they read and consumed, since the newspaper and magazines were collected and provided by the artist. The site of cafes evokes complex dialectical relations to the history of culture, as both familiar places and non-places, a transitory location of self-presentation deeply embedded in culture conventions and often associated with personal locality, but just as conversely with touristic transience. It cannot be ignored that in terms of café culture, art and artists have had a long association with

such places.³⁹ But Neidich's intention was to excise precise moments of shifting temporality, to convene and parody the sometimes farcical sound bites and over-simplifications that contemporary newspapers and magazine headlines always present. Concerns with how consciousness assimilates the pseudo-texts of popular media, its tendency to alienate and reduce the reality of images to one-dimensionality, echoes, as Marcuse long ago observed, a measure of the ever increasing forms of hidden social and political control through repetition and homogenised information formulae.⁴⁰ This offers a political framework and understanding for much of Neidich's art, that is to say inasmuch as it touches directly upon the forming and manipulation of personal subjectivity within consciousness. At the same time *Earthling*, with its humorous science-fiction comic-book redolence, also reveals the ever more complex strategies adopted by contemporary psychology in manipulative presentation, its superficiality (formulae), its theatricality (body-face-pose), its disembodiment and substitution (its 'faux' suggestion of time and place that strips it of any substantial or contextual meaning), its ubiquity (everywhere and nowhere), its indigestibility (sound bites and headlines to be swallowed whole), its games of genealogical pretence (for it denies the actual contents of a meaningful subject) as regards establishing a sense of the development of an individual identity and/or picturing the true nature of a society, and so on into a future of seemingly endless disembodied synchronicity.⁴¹ It is repetition and return that arguably serves no purpose other than the economics of expanded consumption.

I began this essay by speaking of the brain, mind and consciousness, in relation to contemporary modes of representation as they are presented by

the use of photographic images; the simile between photography, the cosmos and consciousness. The raw and literal presentation of modern media gives no better example than the direction in which modern forms of photographic representation (photography, film, internet) are being driven. They have at times a complete lack of self-reflexivity and value structure, and mirror in many respects recent invasive political attempts at getting mediated photographic images under control (particularly on the internet). Warren Niedich's thesis that these tools of media monopoly constitute at the same time instruments that form the various states of consciousness, and as a result alter the neural networks of the brain's biochemistry. If this is the case it supposes many challenges in terms of the political, social, and cultural field, and suggests an ever increasing form of cultural mind control on an enormous scale. Neidich has taken matters further over the last decade, for if consciousness is of brain and mind it also has to be considered as having a spatial aspect that might just as easily be subject to manipulation.

In works like *Infinite Regress* (2008), Neidich addressed ideas of perception and consciousness in space with a transparent three-sided pavilion installation. In this instance a sensor operated doors in the three primary colours opened and closed as viewers passed by, in or through the pavilion.⁴² Once triggered and in order to heighten awareness the doors continued to open and close for two and a half minutes. At one level it recalled and exaggerated such phenomena in the transitional spaces of public access, stations, airports, department stores, etc. highlighting social phenomena that operate upon consciousness, but which are rarely scrutinised. While it draws on Light Art traditions of artists like Turrell and Irwin, it avoided their

ephemeral sense of conceptual transparency and expanded upon it asserting itself as an object.⁴³ Given the sensor mechanism as the doors continued their opening and closing the three primary colours used were in a state of continuous overlapping, and in consequence generated a visual blending and dissolving of the colours as they interacted with one another. The work can be said to have operated in the visual and intellectual space between Light Art and Dan Graham's phenomenological spatial constructions.⁴⁴

An interest in chromatic perception also lay behind *Rainbow Brushes* (2007-8), in the same exhibition space, where a series of large paint brushes, more often used as 'paste' brushes in the hanging of wallpaper, were adapted to present the rainbow colours found in Ruben's famous *Het Steen* painting 'Landscape with a Rainbow' (1636), in the Wallace Collection in London. The colours were arranged on paper and the brushes pulled across it leaving a series of rainbow-coloured after traces that constituted the paintings that accompanied each brush as installed in the exhibition. In appearance though in a different scale they were not unlike Morris Lewis's earlier vertical poured presentations. However, Neidich's more conceptual orientation showed his long interest in the foundations of colour perception, and was an attempt to illustrate that colour owes as much to historical artistic practices in the shaping of cultural conscious as it does to the 'physical' prismatic principles argued by Newton's *Optics*. Of course colour is also linked closely to theories of light, for without light there can be no colour. The mass or volume of an object generally remains constant, but its coloured appearance is always modulated in relation to light. The point Neidich made related specifically as to

how artistic practices and experimentations with colour have changed radically the status and perception of colour, and as a result changes in understanding in terms of our cultural comprehension of a colour consciousness.⁴⁵ From Isaac Newton's colour 'physical' wavelength Optics, to Goethe's psychological theories of colour in 'Farbenlehre', to Chevreul's chemical theories of colours, to Runge and Romantic philosophy, to theosophical and spiritual connotations in Blaue Reiter, historical consciousness has been in a continual state of flux as regards the interpreting and meaning of the colours of the rainbow.⁴⁶ Colour is continuously determined by prevailing historical periods that have redefined them in relation to contemporary perception and consciousness. Neidich's installation presented through altered colour configurations was a direct challenge to the determined mechanistic 'normative' approaches of Newtonian science. The symbolic role of the rainbow, has in the post-Romantic age largely been subjected to the aesthetics of the sublime. However, originally in earlier times the 'rainbow' was always connected to the aesthetics of wonder and rare experiences through curiosity and poetic bafflement, and frequently evoked in relation to cosmological analogies.⁴⁷ Colour theory and brain function are among the most complex areas of contemporary cognitive studies of consciousness, where many contemporary cognitive neurologists speak of the phantoms of the brain.⁴⁸ Scientific evidence of neural pathways adapting and remapping themselves to changing physical and environmental conditions are increasingly prolific. Warren Neidich would assert that this research, and *prima face* historical evidence that cultural consciousness reshapes our perceptions, gives tangible reality to adaptations within the biochemistry of

actual being. He suggests since mind today is shaped by culture, rather than nature, that "...as such the history of the representation of the rainbow might be looked at as an ontology of mindedness. Their historical trajectory can be considered a projected image of the condition of the mind itself."⁴⁹ It also further implies the idea that while the subject of 'rainbow mindedness', like other returning phenomena, inevitably reappear over time they are never quite the same, some other aspects or mind configuration have also been newly inscribed within the ongoing conditions that are continually shaping our cultural consciousness.

It may appear as if I have underplayed the role of sensory perception in this essay. But perception as mechanism (as optics) find their meaning in the workings of mind and consciousness, sensory perception is the purveyor of experiences of our world. Perception receives, collects, takes possession, and apprehends, but what one perceives is commonly an interplay between past experiences, often tied specifically to particular cultures, and to the general interpretations existing around the perceived. A history of perception is not the same as a history of consciousness, perception is the mirror that is ultimately shaped by mind through consciousness. In the contemporary moment it is the neural field of mind and mechanism that largely grounds our present day understanding of the issues, if Neidich is right it is possible to foresee that this may not always be the case so simply answered. If the universe is in a state of eternal recurrence and repetition, it suggests that in the future there may well be shades of consciousness of quite another colour.

©Mark Gisbourne
12 January 2011.

ENDNOTES

¹ Hans Adolf Eduard Driesch (1867-1941), a biologist and embryologist-philosopher who founded 'Neo-Vitalism', largely argued through a re-adaption of Aristoteles's theory of 'entelechy'. The notion of 'entelechy' being the 'potentiality' at work in areas of motion, causality, physiology and human ethics, as distinct from their actuality in the working system whereby phenomena takes on its reality.

² In recent philosophy of biology (1970s to the early 1990s), the primary debate about reduction has focused on the question of whether (and in what sense) classical genetics can be reduced to molecular biology. Another less prominent strand of discussion concerns whether evolutionary theory is inherently anti-reductionist because of the principle of natural selection. <http://plato.stanford.edu/entries/reduction-biology/>

³ Francisco Varela, Evan Thompson, and Eleanor Rosch, *The Embodied Mind: Cognitive Science and Human Experience*, Cambridge, Mass., and London, The MIT Press, (1993), 2000.

⁴ It is ironic because Rene Descartes (1596-1650) in the 1640s defined the body as a *machine*, distinguishing it from *mind* which he saw as the seat of consciousness, and thereby founding his philosophy of mind-body dualism. Modern research scanning machines for brain-mapping argues an increasingly integrated relationship.

⁵ In Pre-Socratic philosophy Parmenides of Elea (5th cent. BCE) argued nothing changes only the appearance of things change, and that the everyday perception of reality and its different forms was a mistake, the underlying principle being one immutable whole or truth (aletheia). Its more contemporary relevance can be linked to Heidegger's essay on Parmenides (1942-43), but equally relevant to his 'The Origins of a Work of Art', in Martin Heidegger, *Poetry, Language, Thought*, New York, Harper, 1971. Conversely, Heraclitus of Ephesus (c. 535–c. 475 BCE) claimed everything changes and is constantly in a state of flow, is in a perpetual state of transformation. Heidegger again addressed this subject in his Heraclitus Seminar (1966-67)

⁶ Warren Neidich, *Blow-Up: Photography Cinema and the Brain*, New York, D.A.P. Publishers, 2003.

⁷ I emphasise the word *vital* not in its Driesch-ian 'spiritual' sense of a separate internal perfecting principle, but its literal meaning of belonging to and relating to life, its energy and function, contributing to life, containing life: living. But also necessarily as capable of life, in terms of a contemporary meaning of entelechy as mind and consciousness; a unity of mind and mechanism that realizes or makes actual what is otherwise merely potential.

⁸ Vilém Flusser, 'The Gesture of Photography' *Towards a Philosophy of Photography*, London Reaktion Books, 2000 "The acts of resistance on the part of culture, the cultural conditionality of things, can be seen in the act of photography, and this can, in theory, be read off from the photographs themselves." p. 33

⁹ Louis August Blanqui, *L'Éternité par les asters*, Paris, 1872.

¹⁰ Friedrich Wilhelm Nietzsche (1844-1900) *Daybreak: Thoughts on the Prejudices of Morality (Morgenröte. Gedanken über die moralischen Vorurteile, 1881)*, Cambridge and London, Cambridge University Press, 1982; and *Thus Spoke Zarathustra: A Book of All and None (Also sprach Zarathustra: Ein Buch für Alle und Keinen, 1883-85)*, London, 1961 (and subsequent editions).

¹¹ Eduardo Cadava, *Words of Light; Theses on the Photography of History*, Princeton and London, Princeton University Press, 1997.

¹² Walter Benjamin 'The Work of Art in the Age of Mechanical Reproduction', *Illuminations* (1973), London, 1992 pp. 211-42; and 'A Short History of Photography', *One Way Street and Other Writings*, London, 1985, pp. 240-257

¹³ Walter Benjamin, *The Arcades Project*, Cambridge, Mass., and London, Harvard University Press, 1999, pp.25-26 "Men of the nineteenth century, the hour of our apparitions is fixed forever, and always brings us back to the very same ones."

¹⁴ Cadava, *op cit.*, p. 33

¹⁵ Traditionally 1839, is set as the historical moment that initiates photography (though not without earlier experimentation), its founders being the Frenchmen Louis Daguerre (1767-1851) and Joseph Niépce (1765-1833), and the Englishman William Henry Fox-Talbot (1800-1877). Recently several artists including Chuck Close and Adam Fuss, and others, have reintroduced the daguerrotype process into their art works.

¹⁶ Franz Joseph Gall (1758-1828) neuro-anatomist and physiologist was the first scientist to develop and publish theories of brain localisation. Around 1800, he developed a system in Paris called *cranioscopy*, a method to determine the personality and development of mental and moral faculties on the basis of the external shape of the skull. It was later given the name phrenology and it is important to stress that Gall was a serious scientist who was not responsible for turning the system into the pseudo-parlour game that it subsequently became.

¹⁷ Johann Gaspar Spurzheim (1776-1832) coined the term 'phrenology' and was a great populariser of the movement after he arrived in Paris in 1807. He died of typhoid in Boston in 1832, whereafter his skull, brain and heart were preserved, and was so celebrated that the Bostonians gave him a public funeral and commissioned a cemetery monument for him at Mount Auburn, Cambridge, Massachusetts.

¹⁸ Anne Maxwell, *Picture Imperfect: Photography and Eugenics, 1870-1940*, Brighton, Sussex Academic Press, 2008

¹⁹ Francis Gall (1822-1911) the term 'eugenics' was first coined in Gall's *Inquiries into Human Faculty and its Development*. London, Macmillan, 1883, p. 199.

²⁰ For a pictorial overview, see *L'âme au corps: arts et sciences 1793-1993*, Grand Palais, Paris, Réunion des Musées Nationaux, Gallimard/Electra, 1993, and *Wunderblock: Eine Geschichte der modernen Seele*, Messepalast, Vienna, 1989.

²¹ Jean Martin Charcot (1825-1893) known as the founder of modern neurology, and whose students included Sigmund Freud, Joseph Babinski, Pierre Janet, William James, Pierre Marie, Alfred Binet, Georges Gilles de la Tourette, and numerous others who form the founding figures of modern dynamic psychology and psychoanalysis. He is most known however for the photographed 'hysterical' performances that were later debunked. See, J Bogousslavsky (ed). *Following Charcot: A Forgotten History of Neurology and Psychiatry (Frontiers of Neurology and Neuroscience)*, Basel, Karger Pub., 2010

²² Hippolyte Bernheim (1840-1914), Head of the Nancy School of Psychiatry and Neurology, was an influential figure who developed psychological theories of suggestibility and a critic of Charcot and his methods. See *Suggestive Therapeutics: A Treatise on the Nature and Uses of Hypnotism, (De la Suggestion et de son Application à la Thérapeutique, 1883)*, New York, G.P. Putnam's Sons, 1889, and. *New Studies in Hypnotism (Hypnotisme, Suggestion, Psychothérapie: Études Nouvelles 1891)*, New York International University's Press, 1980.

²³ Dr James Braid (1795-1860) first coined the term 'hypnotism' for what was formerly called animal magnetism in his lectures of 1841-42, and is seen as the founder of hypnotherapy. The word hypnotism means literally nervous sleep (sleep of the nerves).

²⁴ Guillaume-Benjamin-Amand Duchenne (de Boulogne) (1806-75) *De l'Électrisation localisée et de son application à la physiologie, à la pathologie et à la thérapeutique*, Paris, 1855, *Mécanisme de la physionomie humaine, or Analyse électro-physiologique de l'expression des passions applicable à la pratique des arts plastiques*, Paris, 1862, and *Physiologie des mouvements démontrée à l'aide de l'expérimentation électrique et de l'observation clinique, et applicable à l'étude des paralysies et des déformations*, Paris, 1867

²⁵ Dr Jules Baillarger (1809-1890) was probably one of the first to make portraits of the mentally ill in the early 1840s in Paris, immediately following the founding of photography. But the best known early portraits were taken by Dr Hugh Welch Diamond (1809-86) at the Surrey Asylum in England, in the years 1848-58. Diamond was an amateur photographer who began photographing three months after Fox Talbot unveiled his new calotype photographic system, and was the first Secretary of the Photographic Society (founded 1853) and the editor its journal. See, Sander L. Gilman, *The Face of Madness: Hugh W. Diamond and the Origin of Psychiatric Photography*, New York, Citadel Press, 1986.

²⁶ Cesare Lombroso (1835-1909) was the founder of criminal anthropology and whose theories stated that criminality was inherited and that someone was a *born criminal* who could be identified by physical defects and, which confirmed a criminal as in a savage or atavistic being; the measurement system he developed was called anthropometry. Lombroso was among the most famous men in Europe in the second half of the nineteenth century, and his Research Institute still exists in Turin. The subject of criminal degeneracy and subsequently Social Darwinism was a huge area of research in the years following Benedict Augustin Morel (1809-73) coining of the term 'degeneracy' in 1857 (*Traité des dégénérescences physiques, intellectuelles et morales de l'espèce humaine et des causes qui produisent ces variétés maladives*), as it related to progressive mental degeneration. He was also the alienist who coined the term *dementia praecox* (1860), later renamed *schizophrenia* by Eugen Bleuler (1911).

²⁷ Societies of Psychical Research and their publications were founded across Europe and the U.S.A. in the 1880s and 90s (London, 1882). G.W.H. Myers, and the philosophers William James and Henri Bergson were all members. The distinction between dynamic psychology and psychical research (now called parapsychology) was not clearly established. For photographic examples of the research, and so-called ectoplasm photography, see *Im Reich der Phantome: Fotografie des Unsichtbaren*, ex. cat., Städtisches Museum Abteiberg Mönchengladbach, 1998.

²⁸ Wilhelm Conrad Röntgen (1845-1923) first developed X-ray was of his wife's hand on the 22nd December, 1895, and the first public presentation in a lecture on the 23rd January, 1896. See, Bettyann Holtzmann Kevles, *Naked to the Bone Medical Imaging in the Twentieth Century*. Camden, NJ, Rutgers University Press, 1996.

²⁹ Blanqui took part in the armed insurrection in Paris, in 1839 (May 12-13) , and was a leading member of the Société des Saisons, as a result he was sentenced to death in 1840, later commuted to life imprisonment. The oath of allegiance to the Société stated that members were to kill the aristocracy of birth and the bourgeois aristocracy of money that had replaced it.

³⁰ In this we need not be surprised since Benito Mussolini (1883-1945) Italy's Fascist dictator was profoundly influenced by both Blanqui and Nietzsche, and an epigraph of Blanqui adorned *Il Popolo d'Italia* the Italian Fascist newspaper.

³¹ The participant-performances took place Maison Gregoire, Brussels, December 5, 2009; Kunsthalle Athena, Athens, May 2010; and at LAXART, Los Angeles, July 30-31, 2010

³² For a overview perspective on Art & Language, see Charles Harrison, *Essays on Art & Language*, Cambridge, Mass., MIT Press, 2003

³³ See, *Live in Your Head: Concept and Experiment in Britain 1965-75*, ex. cat., Whitechapel Gallery, London, 2000

³⁴ It took place at the California Museum of Photography, Riverside, 2001. The use of the term 'mutated' was significant since it is generally seen as a value free non-teleological premise. Mutation means simply to change shape or form, usually argued as the process of natural selection, and it emphasises a process, as distinct from evolution that argues differentiation and gradual development.

³⁵ Jean-François Lyotard, 'Answering the Question: What is Postmodernism?', *The Postmodern Condition: A Report in Knowledge*, (Fr. 1979) Manchester, Manchester University Press, 1984 (pp. 71-82) p. 79

³⁶ Rene Cori, Daniel Lascar, Donald H. Pelletier, *Recursion Theory, Godel's Theorems, Set Theory, Model Theory*. Oxford, Oxford University Press, 2001

³⁷ *op cit.*, The same works were later extended and installed in New York, in Storefront for Art and Architecture, 2002.

³⁸ 'Warren Neidich in conversation with Hans Ulrich Obrist', *Earthling*, New York, Painted Leaf Press, 2005 (pp.13-21) p. 14

³⁹ Less common today, artistic culture and cafés largely belong to an earlier 'flaneur' time periods where the suppositions of a continuous temporality was more secure, see Marc Augé, 'From Places to Non-Places' *Non-places: Introduction to an anthropology of supermodernity*, London, Verso, 1995 (pp. 75-120)

⁴⁰ Herbert Marcuse, *One Dimensional Man*, New York and London, 1964. He argues that the ideology of advanced industrial society produces false needs, false consciousness and one-dimensional mass consciousness. Extended to society in the online essay 'One Dimensional Society' "A comfortable, smooth, reasonable, democratic unfreedom prevails in advanced industrial civilization, a token of technical progress. Indeed, what could be more rational than the suppression of individuality in the mechanization of socially necessary but painful performances; the concentration of individual enterprises in more effective, more productive corporations; the regulation of free competition among unequally equipped economic subjects; the curtailment of prerogatives and national sovereignties which impede the international organization of resources." <http://igw.tuwien.ac.at/christian/marcuse/odm1.html>

⁴¹ Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences*, New York and London, 1970. A important discursive argument (though now largely assimilated) that opened up the discourse on the history and shifts that take place in the history of scientific consciousness.

⁴² The installation and exhibition took place at Magnus Müller Gallery, Berlin, 2008.

⁴³ Peter Weibel and Gregor Jansen (eds.), *Light Art from Artificial Light: Light as a Medium in the Art of the 20th and 21st Centuries*, Ostfilden Hatje Cantz, 2006.

⁴⁴ Bennett Simpson and Chrissie Iles, *Dan Graham: Beyond* (Novartis Foundation Symposia), Cambridge, Mass., and London, 2009.

⁴⁵ John Gage, *Colour and Culture: Practice and Meaning from Antiquity to Abstraction*, London, Thames & Hudson, 1993.

⁴⁶ John Gage, *Colour and Meaning, Art, Science and Symbolism*, London, Thames & Hudson, 1999.

⁴⁷ Philip Fisher, 'The Rainbow and Cartesian Wonder (The Aesthetics of the Rainbow)', *Wonder, the Rainbow, and the Aesthetics of Rare Experiences*, Cambridge, Mass., and

London, Harvard University Press, 1998 "In the aesthetics if experience the rainbow stands alongside many other candidates for wonder, for example, the night sky filled with stars." p. 33

⁴⁸ Vilayanur S. Ramachandran, *The Emerging Mind (Reith Lectures)*, London, Profile Books, 2003; see also, Ramachandran, Sandra Blakeslee, Oliver Sacks, *Phantoms in the Brain: Human Nature and the Architecture of the Mind*, London, Fourth Estate, 1999. Ramachandran's recent neurological studies of synaesthesia argues the cross-activation of different sensory functions in the brain.

⁴⁹ Warren Neidich. *Acceptable Differences: Pluripotentiality and Painting* (Warren Neidich in collaboration with local artists and experts), Cultural Center of Belgrade Art Gallery, (12-30 January) Belgrade, 2011, p. 15