Lea

BOOKS

In this particular volume the issue of art as interference and the strategies that it should adopt have been reframed within the structures of contemporary technology as well as within the frameworks of interactions between art, science and media. What sort of interference should be chosen, if one at all, remains a personal choice for each artist, curator, critic and historian.

INTERFERENCE

STRATEGIES

LEA PUBLISHING & SUBSCRIPTION INFORMATION

Editor in Chief
Lanfranco Aceti lanfranco.aceti@leoalmanac.org

Co-Editor
Özden Şahin ozden.sahin@leoalmanac.org

Managing Editor
John Francescutti john.francescutti@leoalmanac.org

Art Director
Deniz Cem Önduygu deniz.onduygu@leoalmanac.org

Editorial Board
Peter J. Bentley, Ezequiel Di Paolo, Ernest Edmonds, Felice Frankel, Gabriella Giannachi, Gary Hall, Craig Harris, Sibel Irzık, Marina Jirotka, Beau Lotto, Roger Malina, Terrence Masson, Jon McCormack, Mark Nash, Sally Jane Norman, Christiane Paul, Simon Penny, Jane Prophet, Jeffrey Shaw, William Uricchio

Cover
Deniz Cem Önduygu

Editorial Address
Leonardo Electronic Almanac
Sabanci University, Orhanli – Tuzla, 34956
Istanbul, Turkey

Email
info@leoalmanac.org

Web
» www.leoalmanac.org
» www.twitter.com/LEA_twitts
» www.flickr.com/photos/lea_gallery
» www.facebook.com/pages/Leonardo-Electronic-Almanac/209156896252

LEONARDO ELECTRONIC ALMANAC, VOLUME 20 ISSUE 2

Interference Strategies

BOOK EDITORS
LANFRANCO ACETI & PAUL THOMAS

EDITORIAL MANAGER
ÇAĞLAR ÇETİN

Leonardo Electronic Almanac
Volume 20 Issue 2

Interference Strategies:
Is Art in the Middle?

If we look at the etymological structure of the word interference, we would have to go back to a construct that defines it as a sum of the two Latin words *inter* (in between) and *ferio* (to strike), but with a particular attention to the meaning of the word *ferio* being interpreted principally as *to wound*. Albeit perhaps etymologically incorrect, it may be preferable to think of the word interference as a composite of *inter* (in between) and the Latin verb *fero* (to carry), which would bring forward the idea of interference as a contribution brought in the middle of two arguments, two ideas, two constructs.

It is important to acknowledge the etymological root of a word not in order to develop a sterile academic exercise, but in order to clarify the ideological underpinnings of arguments that are then summed up and characterized by a word.

This book, titled *Interference Strategies*, does not (and in all honesty could not) provide a resolution to a complex interaction—that of artistic interferences—that has a complex historical tradition. In fact, it is impossible, for me, when analyzing the issue of interference, not to think of the Breeches Maker (also known as Daniele da Volterra) and the coverings that he painted following a 1559 commission from Pope Paul IV to 'render decent' the naked bodies of Michelangelo Buonarroti's frescoes in the Sistine Chapel. That act, in the eyes of a contemporary viewer, was a wound inflicted in between the relationship created by the artwork and the artist with the viewer (*intentio operis*

and *intentio auctoris* with *intentio lectoris*), as Umberto Eco would put it. Those famous breeches appear to be both: a form of censorship as well as interference with Michelangelo's vision.

Interference is a word that assembles a multitude of meanings interpreted according to one's perspective and ideological constructs as a meddling, a disturbance, and an alteration of modalities of interaction between two parties. In this book, there are a series of representations of these interferences, as well as a series of questions on what are the possible contemporary forms of interference—digital, scientific and aesthetic—and what are the strategies that could be adopted in order to actively interfere.

The complexity of the strategies of interference within contemporary political and aesthetic discourses appears to be summed up by the perception that interference is a necessarily active gesture. This perception appears to exclude the fact that sometimes the very existence of an artwork is based on an interfering nature, or on an aesthetic that has come to be as non-consonant to and, hence, interfering with a political project.

Interfering artworks, which by their own nature challenge a system, were the artworks chosen for the exhibition *Entartete Kunst* (1937). The cultural and ideological underpinnings of the National Socialist German Workers' Party could solely provide an understanding of aesthetics that would necessarily imply the defini-

tion of 'degenerate art' produced by 'degenerate artists.' Art that was not a direct rhyme to the grandeur of Germany could not be seen by the Nazi regime as anything else but 'interfering and hence degenerate,' since it questioned and interfered with the ideal purity of Teutonic representations, which were endorsed and promoted as the only aesthetics of the National Socialist party. Wilhelm Heinrich Otto Dix's *War Cripples* (1920) could not be a more critical painting of the Body Politic of the time, and of war in general, and therefore had to be classified as 'degenerate' and condemned to be 'burnt.'

Art in this context cannot be and should not be anything else but interference, either by bringing something in between or by wounding the Body Politic by placing something in between the perfectly constructed rational madness of humanity and the subjugated viewer. An element that interferes, obstructs and disrupts the carefully annotated and carefully choreographed itinerary that the viewer should meekly follow. In this case interference is something that corrupts, degenerates and threatens to collapse the vision of the Body Politic.

In thinking about the validity of interference as a strategy, it was impossible not to revisit and compare the image of Paul Joseph Goebbels viewing the *Entartete Kunst* (*Degenerate Art*) exhibition [1] to the many images of pompously strutting corporate tycoons and billionaires in museums and art fairs around the globe, glancing with pride over the propaganda, or—better —over the breeches that they have commissioned artists to produce.

Today's contemporary art should be interfering more and more with art itself, it should be corrupted and corrupting, degenerate and degenerating. It should be producing what currently it is not and it should create a wound within art itself, able to alter current thinking

and modalities of engagement. It should be—to quote Pablo Picasso—an instrument of war able to *interfere*: "No, painting is not done to decorate apartments. It is an instrument of war for attack and defense against the enemy." [2]

If art should either strike or bring something is part of what has been a long aesthetic conversation that preceded the Avant-garde movement or the destructive fury of the early Futurists. In this particular volume the issue of art as interference and the strategies that it should adopt have been reframed within the structures of contemporary technology as well as within the frameworks of interactions between art, science and media.

What sort of interference should be chosen, if one at all, remains a personal choice for each artist, curator, critic and historian.

If I had to choose, personally I find myself increasingly favoring art that does not deliver what is expected, what is obvious, what can be hung on a wall and can be matched to tapestries. Nor can I find myself able to favor art that should propaganda or business under a veil with the name of art repeatedly written in capital letters all over it. That does not leave very much choice in a world where interference is no longer acceptable, or if it is acceptable, it is so only within pre-established contractual operative frameworks, therefore losing its 'interference value.'

This leaves the great conundrum—are interferences still possible? There are still spaces and opportunities for interference, and this volume is one of these remaining areas, but they are interstitial spaces and are shrinking fast, leaving an overwhelming Baudrillardian desert produced by the conspirators of art and made of a multitude of breeches.

Interference Strategies:
Is Art in the Middle?

If we look at the etymological structure of the word interference, we would have to go back to a construct that defines it as a sum of the two Latin words *inter* (in between) and *ferio* (to strike), but with a particular attention to the meaning of the word *ferio* being interpreted principally as *to wound*. Albeit perhaps etymologically incorrect, it may be preferable to think of the word interference as a composite of *inter* (in between) and the Latin verb *fero* (to carry), which would bring forward the idea of interference as a contribution brought in the middle of two arguments, two ideas, two constructs.

It is important to acknowledge the etymological root of a word not in order to develop a sterile academic exercise, but in order to clarify the ideological underpinnings of arguments that are then summed up and characterized by a word.

This book, titled *Interference Strategies*, does not (and in all honesty could not) provide a resolution to a complex interaction - that of artistic interferences - that has a complex historical tradition. In fact, it is impossible, for me, when analyzing the issue of interference, not to think of the Breeches Maker (also known as Daniele da Volterra) and the coverings that he painted following a 1559 commission from Pope Paul IV to 'render decent' the naked bodies of Michelangelo Buonarroti's frescoes in the Sistine Chapel. That act, in the eyes of a contemporary viewer, was a wound inflicted in between the relationship created by the artwork and the artist with the viewer (*intentio operis*

and *intentio auctoris* with *intentio lectoris*), as Umberto Eco would put it. Those famous breeches appear to be both: a form of censorship as well as interference with Michelangelo's vision.

Interference is a word that assembles a multitude of meanings interpreted according to one's perspective and ideological constructs as a meddling, a disturbance, and an alteration of modalities of interaction between two parties. In this book, there are a series of representations of these interferences, as well as a series of questions on what are the possible contemporary forms of interference - digital, scientific and aesthetic - and what are the strategies that could be adopted in order to actively interfere.

The complexity of the strategies of interference within contemporary political and aesthetic discourses appears to be summed up by the perception that interference is a necessarily active gesture. This perception appears to exclude the fact that sometimes the very existence of an artwork is based on an interfering nature, or on an aesthetic that has come to be as non-consonant to and, hence, interfering with a political project.

Interfering artworks, which by their own nature challenge a system, were the artworks chosen for the exhibition *Entartete Kunst* (1937). The cultural and ideological underpinnings of the National Socialist German Workers' Party could solely provide an understanding of aesthetics that would necessarily imply the defini-

tion of 'degenerate art' produced by 'degenerate artists.' Art that was not a direct hymn to the grandeur of Germany could not be seen by the Nazi regime as anything else but 'interfering and hence degenerate,' since it questioned and interfered with the ideal purity of Teutonic representations, which were endorsed and promoted as the only aesthetics of the National Socialist party. Wilhelm Heinrich Otto Dix's *War Cripples* (1920) could not be a more critical painting of the Body Politic of the time, and of war in general, and therefore had to be classified as 'degenerate' and condemned to be 'burnt.'

Art in this context cannot be and should not be anything else but interference; either by bringing something in between or by wounding the Body Politic by placing something in between the perfectly construed rational madness of humanity and the subjugated viewer. An element that interferes, obstructs and disrupts the carefully annotated and carefully choreographed itinerary that the viewers should meekly follow. In this case interference is something that corrupts, degenerates and threatens to collapse the vision of the Body Politic.

In thinking about the validity of interference as a strategy, it was impossible not to revisit and compare the image of Paul Joseph Goebbels viewing the *Entartete Kunst* (*Degenerate Art*) exhibition [1] to the many images of pompously strutting corporate tycoons and billionaires in museums and art fairs around the globe, glancing with pride over the propaganda, or - better - over the breeches that they have commissioned artists to produce.

Today's contemporary art should be interfering more and more with art itself, it should be corrupted and corrupting, degenerate and degenerating. It should be producing what currently it is not and it should create a wound within art itself, able to alter current thinking

and modalities of engagement. It should be - to quote Pablo Picasso - an instrument of war able to *inter-ferio*: "No, painting is not done to decorate apartments. It is an instrument of war for attack and defense against the enemy." [2]

If art should either strike or bring something is part of what has been a long aesthetic conversation that preceded the Avant-garde movement or the destructive fury of the early Futurists. In this particular volume the issue of art as interference and the strategies that it should adopt have been reframed within the structures of contemporary technology as well as within the frameworks of interactions between art, science and media.

What sort of interference should be chosen, if one at all, remains a personal choice for each artist, curator, critic and historian.

If I had to choose, personally I find myself increasingly favoring art that does not deliver what is expected, what is obvious, what can be hung on a wall and can be matched to tapestries. Nor can I find myself able to favor art that shrouds propaganda or business under a veil with the name of art repeatedly written in capital letters all over it. That does not leave very much choice in a world where interference is no longer acceptable, or if it is acceptable, it is so only within pre-established contractual operative frameworks, therefore losing its 'interference value.'

This leaves the great conundrum - are interferences still possible? There are still spaces and opportunities for interference, and this volume is one of these remaining areas, but they are interstitial spaces and are shrinking fast, leaving an overwhelming Baudrillardian desert produced by the conspirators of art and made of a multitude of breeches.

In this introduction I cannot touch upon all the different aspects of interference analyzed, like in the case of data and waves presented by Adam Nash, who argues that the digital is in itself and *per se* a form of interference: at least a form of interference with behavioral systems and with what can be defined as the illusory realm of everyday's 'real.'

Transversal interference, as in the case of Anna Munster, is a socio-political divide where heterogeneity is the monster, the wound, the interfering and dreaded element that threatens the 'homologation' of scientific thought.

With Brogan Bunt comes obfuscation as a form of blurring that interferes with the ordered lines of neatly defined social taxonomies; within which I can only perceive the role of the thinker as that of the taxidermist operating on living fields of study that are in the process of being rendered dead and obfuscated by the very process and people who should be unveiling and revealing them.

With Darren Tofts and Lisa Gye it is the perusal of the image that can be an act of interference and a disruption if it operates outside rigid interpretative frameworks and interaction parameters firmly set via *intentio operis*, *intentio auctoris* and *intentio lectoris*.

It is the fear of the unexpected remix and mash-up that interferes with and threatens the 'purity' and sanctimonious fascistic interpretations of the aura of the artwork, its buyers, consumers and aesthetic priests. The orthodoxical, fanatic and terroristic aesthetic hierarchies that were disrupted by laughter in the Middle Ages might be disrupted today by viral, a-morphological and uncontrollable bodily functions.

My very personal thanks go to Paul Thomas and the authors in this book who have endeavored to comply with our guidelines to deliver a new milestone in the history of LEA.

As always I wish to thank my team at LEA who made it possible to deliver these academic interferences: my gratitude is as always for Özden Şahin, Çaglar Çetin and Deniz Cem Önduygu.

Lanfranco Aceti
Editor in Chief, Leonardo Electronic Almanac
Director, Kasa Gallery
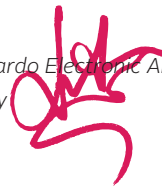
REFERENCES AND NOTES

1. "Reichsminister Dr. Goebbels auf der Ausstellung 'Entartete Kunst,'" February 27, 1938, in the Das Bundesarchiv, Bild 183-H02648, http://www.bild.bundesarchiv.de/cross-search/search/_1414849849/?search[view]=detail&search[focus]=3 (accessed October 20, 2014).
2. Herschel Browning Chipp, *Theories of Modern Art: A Source Book by Artists and Critics* (Berkeley and Los Angeles, CA: University of California Press, 1968), 487.

Interference Strategies

The theme of 'interference strategies for art' reflects a literal merging of sources, an interplay between factors, and acts as a metaphor for the interaction of art and science, the essence of transdisciplinary study. The revealing of metaphors for interference "that equates different and even 'incommensurable' concepts can, therefore, be a very fruitful source of insight." [1]

The role of the publication, as a vehicle to promote and encourage transdisciplinary research, is to question what fine art image-making is contributing to the current discourse on images. The publication brings together researchers, artists and cultural thinkers to speculate, contest and share their thoughts on the strategies for interference, at the intersection between art, science and culture, that form new dialogues.

In October 1927 the Fifth Solvay International Conference marked a point in time that created a unifying seepage between art and science and opened the gateway to uncertainty and therefore the parallels of artistic and scientific research. This famous conference announced the genesis of quantum theory and, with that, Werner Heisenberg's uncertainty principle. These events are linked historically and inform interesting experimental art practices to reveal the subtle shift that can ensue from a moment in time.

The simple yet highly developed double slit experiment identifies the problem of measurement in the quantum world. If you are measuring the position of a particle you cannot measure its momentum. This is one of the main theories that have been constantly tested and still remains persistent. The double slit experiment, first initiated by Thomas Young, exposes a quintessential quantum phenomenon, which, through Heisenberg theory, demonstrates the quantum universe as a series of probabilities that enabled the Newtonian view of the world to be seriously challenged.

If the measurement intra-action plays a constitutive role in what is measured, then it matters how something is explored. In fact, this is born out empirically in experiments with matter (and energy): when electrons (or light) are measured using one kind of apparatus, they are waves; if they are measured in a complementary way, they are particles. Notice that what we're talking about here is not simply some object reacting differently to different probings but being differently. [2]

In the double slit experiment particles that travel through the slits interfere with themselves enabling each particle to create a wave-like interference pattern.

The underlying concepts upon which this publication is based see the potential for art to interfere, affect and obstruct in order to question what is indefinable.

This can only be demonstrated by a closer look at the double slit experiment and the art that is revealed through phenomena of improbability.
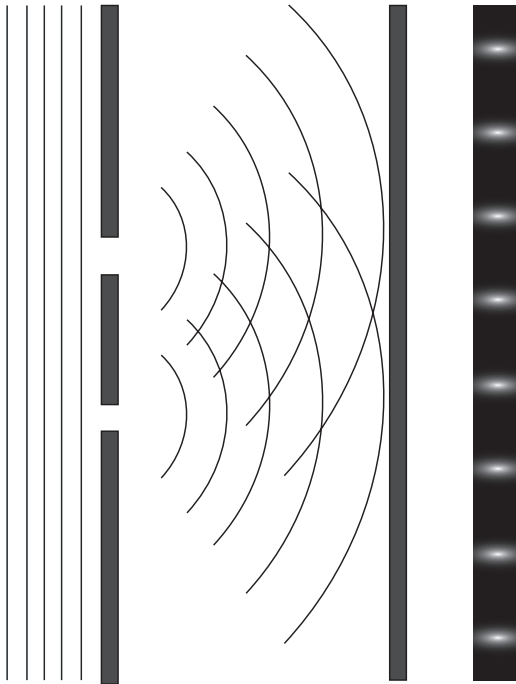
Figure 1. Diagram of the double slit experiment that was first performed by Thomas Young in the early 1800's displays the probabilistic characteristics of quantum mechanical phenomena.

When particles go through the slits they act as waves and create the famous interference pattern. The concept is that one particle going through the slit must behave like a wave and interfere with itself to create the band image on the rear receptor.

Interference Strategies looks at the phenomenon of interference and places art at the very centre of the wave/particle dilemma. Can art still find a way in today's dense world where we are saturated with images from all disciplines, whether it's the creation of 'beautiful visualisations' for science, the torrent of images uploaded to social media services like Instagram and Flickr, or the billions of queries made to vast visual data archives such as Google Images? The contemporary machinic interpretations of the visual and sensorial experience of the world are producing a new spectacle of media pollution, obliging the viewers to ask if machines should be considered the new artists of the 21st century.

The notion of 'Interference' is posed here as an antagonism between production and seduction, as a

redirection of affect, or as an untapped potential for repositioning artistic critique. Maybe art doesn't have to work as a wave that displaces or reinforces the standardized protocols of data/messages, but can instead function as a signal that disrupts and challenges perceptions.

'Interference' can stand as a mediating incantation that might create a layer between the constructed image of the 'everyday' given to us by science, technological social networks and the means of its construction. Mediation, as discussed in the first Transdisplinary Imaging conference, is a concept that has become a medium in itself through which we think and act; and in which we swim. Interference, however, confronts the flow, challenges currents and eulogizes the drift.

The questions posed in this volume, include whether art can interfere with the chaotic storms of data visualization and information processing, or is it merely reinforcing the nocuous nature of contemporary media? Can we think of 'interference' as a key tactic for the contemporary image in disrupting and critiquing the continual flood of constructed imagery? Are contemporary forms and strategies of interference the same as historical ones? What kinds of similarities and differences exist?

Application of a process to a medium, or a wave to a particle, for example, the sorting of pixel data, literally interferes with the state of an image, and directly gives new materiality and meaning, allowing interference to be utilised as a conceptual framework for interpretation, and critical reflection.

Interference is not merely combining. Interference is an active process of negotiating between different forces. The artist in this context is a mediator, facilitating the meeting of competitive elements, bringing together and setting up a situation of probabilities.

In response to the questions posed by the conference theme, presentations traversed varied notions of interference in defining image space, the decoding and interpretation of images, the interference between different streams of digital data, and how this knowledge might redefine art and art practice. Within that scope lies the discourse about interference that arises when normal approaches or processes fail, with unanticipated results, the accidental discovery, and its potential in the development of new strategies of investigation.

In "[t]he case of Biophilia: a collective composition of goals and distributed action", [3] Mark Cypher highlights the interference in negotiations between exhibit organisers, and space requirements, and the requirements for artist/artworks, resulting in an outcome that is a combination generated by the competition of two or more interests. As part of the final appearance of *Biophilia*, the artwork itself contained elements of both interests, an interference of competing interests, comprising a system in which the artist and the artwork are components, and the display a negotiated outcome. Each element interferes with itself as it negotiates the many factors that contribute to the presentation of art. In this sense the creation of the final appearance of *Biophilia* is the result of the distributed action of many "actors" in a "network." [4] (To put this in another form all actors are particles and interact with each other to create all possible solutions but when observed, create a single state.)

In summing up concepts of the second Transdisciplinary Imaging conference, particularly in reference to the topic of interference strategies, Edward Colless spoke of some of the aspirations for the topic, entertaining the possibilities of transdisciplinary art as being a contested field, in that many of the conference papers were trying to unravel, contextualise and theorise simultaneously.

The publication aims to demonstrate a combined eclecticism and to extend the discussion by addressing the current state of the image through a multitude of lenses. Through the theme of interference strategies this publication will embrace error and transdisciplinarity as a new vision of how to think, theorize and critique the image, the real and thought itself.

Paul Thomas

REFERENCES AND NOTES

1. David Bohm and F. David Peat, *Science, Order and Creativity* (London: Routledge, 2000), 45.
2. K. Barad, *What is the Measure of Nothingness? Infinity, Virtuality, Justice*, Documenta 13, The Book of Books, 100 Notes, 100 Thoughts, (Ostfildern: Hatje Cantz, 2012), 646.
3. Mark Cypher, "The case of Biophilia: A Collective Composition of Goals and Distributed Action," (paper presented at the Second International Conference on Transdisciplinary Imaging at the Intersection between Art, Science and Culture, Melbourne, June 22-23, 2012).
4. Ibid.

Towards an Ontology of Colour in the Age of Machinic Shine

by

Mark Titmarsh

University of Technology, Sydney
mark.titmarsh@uts.edu.au
www.marktitmarsh.com.au

ABSTRACT

This paper argues that the enduring mystery of colour, in particular its elemental effusiveness, has been tamed and managed by notions of good taste and chic that equate cultural maturity with a limited palette. Yet colour in all its post industrial forms continues to break free of constraints in an audacious display of autopoiesis. The science of colour based on image, mimesis, and the physiology of the eye has missed the phenomenon of colour altogether because it takes place at the incalculable level of shine and radiance. Ontologically colour makes things manifest by revealing them in their unique presence rather than merely facilitating communication, representation or spectacle. Before colour is seen, before light can facilitate a look, colour looks back in such a way that looking and seeing are provoked.

Using Thierry de Duve, David Batchelor and Martin Heidegger it will be shown that these ways of being with colour are extended by a formal evolution in painting whereby expanded painting addresses everything in the everyday world that carries colour from data screens to plastic utensils and even paint itself. Ultimately, the medium of painting however deconstructed or expanded, has become the entity to 'whom' the work of colour is addressed.

Colour is a very familiar experience, we are always already immersed in it, but when it comes to speaking or writing colour, something else happens, that is neither colour nor language. The more we talk about colour the more we talk about language and its limitation at the phenomenal edge of perception.

Because of this, as David Batchelor demonstrates in his book *Chromophobia*, [1] we tend to live in a world of colour prejudices and cultural taboos against colour, that align good taste and cultural sophistication with a severe restriction on the use of colours. As such the West is inherently chromophobic, equating taste and sophistication with clothes, houses and paintings that are black, white, grey, or brown. This is to be contrasted with chromophilia, [2] a wantonness of colour which erupts in the excessiveness of the "feminine, primitive, infantile, vulgar, queer or pathological." [3] This apartheid of colour is also reinforced by the ancient argument between colour and line, dating back to Aristotle who argued that the "repository of thought in art is line, the rest is ornament." [4] Ever since then colour has been understood as superficial, an ephemeral occurrence on the surface of things, whereas line and the under-coloured is permanent, structural and meaningful.

Despite some of the prohibitions against immodesty in colour, the meaning of the most basic term in this discussion, namely "colour" itself , is poorly understood. The slipperiness of colour has been sometimes held in place by symbolism that ties some colours to specific social purposes and meanings. For example the Sumptuary Laws of Elizabethan England mandated that only royalty could wear purple attire. Into the 20th century, various modern artists attempted to develop a grammar of colour linked to music or emotions. Kandinsky developed a primary polarity of yellow and blue that suggest active and passive perceptual sensations. Johannes Itten a colleague of Kandinsky at the Bauhaus, developed a complex colour theory that linked colours to certain emotions and spiritual states.

Colour is verifiable, it surrounds us at all times, but the words we use to divide the spectrum of colour into functional divisions is quite arbitrary and untranslatable between different cultures and ages. The Inuit supposedly have a vast array of terms for the single colour we call white, the French use brown and purple as interchangeable in certain situations, Russians see two colours where we just see blue, and Hindus don't differentiate red and orange. The word 'red', or any colour term in any language, has no inherent chromatic value and is only an arbitrary signifier shifting under cultural and historical differences.

Colour is there, but it continually slips through the grasp of linguistic possession.

Batchelor cites Plotinus [5] to show us why. In short, there is an incommensurability between colour and language because colour is indivisible, there are no breaks in the rainbow, while language is based on divisions and conceptual units that contradict colour's natural tendency to "spread, flow, bleed, stain, soak, seep, and merge." [6]

Because of this, the difference between the perception of colour, the social experience of colour and the history of colour terms, has produced a bewildering set of possibilities. At various points physics weighed in as the most authoritative voice, but due to an unresolvable uncertainty between wave and particle theories it has resulted in "one of the worst muddles in the history of science." [7]

COLOURISM

Colour is a constant challenge to our understanding. It challenges the scientist to quantify light, the thinker to bring colour to language, and the painter to embrace it elementally. It is the indeterminacy of colour in its

movement between physical presence and modes of understanding that leaves us with a bewildering array of colour strategies in art. In 20th century art whenever there was a struggle between concepts as pure idea, unadorned by colour, and perception embodied in colour, idea always won out. Consider the different status of Conceptual Art and Cubism versus Op Art and Fauvism.

The polarity of colour and concept is a lingering Platonism that favours the immortal realm of ideas over the temporary and sensuous. [8] Colourist artists are usually associated with a kind of anti-realism, breaking with the natural colours of things, to make colour an expressive, affective or formal element as in impressionism, abstraction, and colour field painting. The nature of colour for a colourist changes with time and according to the presence of pigments and how they are harnessed and made available. Before the 20th century colour came from earthly pigments sometimes captured in a tube, later on synthetic colours were produced in tins and made from laboratory concoctions, now colour is largely pixel based. The demand for colour in various non-art situations, as in house paint and industrial surfaces, saw the creation of new industrial paints and related products. This in turn pushed the nature of art making away from the accurate representation of flesh to the seductive presentation of colour that might somehow compete with the spectacular materials and facades of the modern world. To be a colourist in the 21st century means thinking colour anew, specifically in terms of the ubiquity of coloured plastics and the plasticity of colour on an electronic screen.

As Batchelor points out the tension between these two worlds of colour is symbolised by the difference between the colour wheel and the colour chart. The colour wheel is historically steeped and scientifically justified in its hierarchies of colour, that rationalise the

visible and makes it ready for representation. Whereas the colour chart is a "disposable list of readymade colour" in a "grammarless accumulation of colour units" [9] that strips colour free from colour theory and places it in an entirely autonomous zone ready for abstraction.

We might take a further step from the colour wheel through the colour chart to the colour cell, that is, the picture cell or pixel of the video and computer screen. These are the colours of any screen we might use for domestic entertainment, telephony, global location, gaming platforms, video art or media facades.

The pixel that makes up the LCD screen on a phone or the plasma screen that hangs in a gallery is electronically endowed with a colour more intense than any painting. As Jeremy Gilbert Rolfe puts it, these kinds of screens

make the world more than it is, more colourful and more defined ... offering painting another surface to which to refer ... brighter than any that preceded it, unimaginably thin, a surface without depth. [10]

What permits the impossible brightness and thinness of electronic colour is plastic itself, the plastic of the surface of the monitor and the plastic components that hold the screen elements together. Plastic, the ultimate technological agent has also become the agent provocateur of colour, transmitting a new kind of colour while also challenging painting to find ever new intensities that can match it. In the history of colour, pigments were originally refined by hand from natural materials such as ochre, beetle eggs, flowers and crushed shellfish. Later industrial science and the petrochemical industry produced synthetic pigments that were more intense and not reliant on expensive exotic biomass. Today the colour cell has no origin in material substances at all, shining out from the inte-

rior of electronic light itself. The colours of a digital screen have moved beyond the materiality of pigment towards something like structural color. Structural colour occurs in nature without pigment through optical effects such as interference, refraction, and diffraction. It happens when the arrangement of physical structures interacting with light produce a particular iridescent colour as seen in peacock feathers, mother of pearl shell, beetle shells and butterfly wings.

Many things today aspire to the condition of structural colour whether it is made of plastic or pigment, whether it is material or electronically immaterial. The challenge is taken up in the laboratory where new synthetic chemicals attempt to reach the colour intensity of a data screen through fluorescent paint or the integration of LED technology into wearable fibre and building exteriors.

As such the electronic monitor and painting reach out to each other through the medium of colour and the format of the screen, alternately embracing and exceeding each other.

If Pollock and Newman engaged wide angle cinemascope screens and in response Technicolour film stock aspired to the intensity of painterly expressionism, then contemporary painting refers to the digital monitor in its luminescence and multimodal forms while small digital screens show complex visual presences mimicking miniature painting and postage stamp design.

This change in the nature of colour involves refiguring the presence of paint and the object of painting itself. The matter of paint in this new environment of colour can no longer be constrained by coloured stuff gathered from a tube, but must also include any object that has been invested with colour such as string, clothing, furniture, cars, data screens and build-

ings. Similarly the object of painting can no longer be confined by a flat surface but must include works that spread out across space and time encroaching on other media like sculpture, installation, performance and video. Riffing on painting, mixing colour in different painted materials, some things are left out of the painters repertoire, such as brush and easel, and new things are introduced, such as anodised aluminium, coloured smoke, and architecture. These works are not nameable as painting but nevertheless originate within the differential field of colour.

In the current situation there is nowhere that colour cant go, there are green stripes on toothpaste as it is extruded from the tube, cars and cleaning utensils have an infinite array of tones, human limbs as well as everything plastic can be injected with myriad colour variations. Wherever colour is, in commodities, on screen interfaces, in experiential environments, painting can take a stand, addressing colour as that which is environmentally all around.

COLOUR IS

One thing is certain at this stage, colour is, but the nature of its presence has not yet been captured or named [11] since it is essentially resistant to nomination. [12] Colour invokes a series of nested questions, how does it present, how is it experienced and how can it be spoken? Experientially colour rains down from the sky in the warmth of the sun and erupts up out of the earth as raw pigment and the hues of nature. Colour is awesome and ubiquitous in its presence, it is in everything, on everything, everything is shot through with colour, colour shines out from a world of things, and in its shining brings a world into existence. Colour is not a solitary separate thing or event, it is always the colour of something. The whole world is coloured and so to some extent the world is

colour. Everything is in colour, colour emerges from the obscure ground of things, it is all around like air, things are always already coloured. In the everyday we are so immersed in colour that it is taken as granted, it becomes un-thought, a background phenomenon, until a sunset or work of art shocks us into remembering its uncanny way of being surprising, awesome, astounding. As Michel Haar puts it, "[c]olours are all at once the ground, 'the secret soul of what is below', the surface, and what sublimates the surface, 'the ideas', substance, figure, and 'general harmony', 'the life of God'." [13]

Colour is not just seen, it is experienced in depth, through and through. It is an unfolding encapsulation from sensation to perception, to affect, to my sense of being in the world. In this movement from perception to being, "colour cracks open the form-spectacle." [14] Thus colour is not a spectacle or an element of form, but a necessary precondition to both. Colour is more than my affective or sensory experience, it moves me to a place of ecstatic embeddedness. Through the sensation of colour I am of the world.

Colour, like the act of thinking, can be forgotten and at times must be forgotten, so that performance and experience can take place. One way of remembering the forgotten of colour is through painting. In painting, touching colour as a maker, or being touched by colour as a viewer, is much the same thing. It begins with seeing colour, then really seeing colour, then touching colour, then feeling colour, then knowing colour, then being in colour, then in colour, being.

This kind of language is an attempt to find another way of talking colour that honours and justifies the new ways we walk with colour today. I find some help in this process from the German philosopher Martin Heidegger. Heidegger was not known for his chromatic sensibility despite the fact that he was a personal

friend of modern masters such as George Braque and Paul Klee. His writing does briefly mention colour as lighting or shining out, in an ontological sense, without relying on any scientific theory of colour or light.

In "The Origin of the Work of Art" he mentions stone, colour and language as various materials that can be used to set forth a work of art, such that "rock comes to bear and rest; metals come to glitter and shimmer, colours to glow, tones to sing, the word to say. All this comes forth as the work sets itself back into the massiveness and heaviness of stone, into the firmness and pliancy of wood, into the hardness and lustre of metal, into the lighting and darkening of colour, into the clang of tone, and into the naming power of the word." [15]

All these types of work from sculpture, to painting to poetry rest back into a material element. If we try to understand the work by analysing the materiality of stone, metal, colour, tone and word, the material itself simply withdraws. Thus for example "if we attempt a penetration by breaking open the rock, it still does not display in its fragments anything inward that has been opened up. The stone has instantly withdrawn into the same dull pressure and bulk of its fragments." And similarly with colour, "colour shines and wants only to shine... when we analyse it in rational terms by measuring its wavelengths, it is gone. It shows itself only when it remains undisclosed and unexplained." [16]

It is the work of art that allows us to see the shine of colour as opposed to a more direct physiological and scientific understanding of vision. Art, particularly painting reveals an ontology of colour in which shine and radiance is experienced as "showing self-showing." [17] The artwork introduces what is undisclosed about colour into the world, while a scientific grasping of colour simply dims it down as explanation or calculation. The shining of the earth through the material

of colour radiates through the world as a sense of manifest meaning. "The world stands as the medium through which the shining of the earth distributes itself through relations of significance." [18] Colour as an aspect of earth, presents a radiance that penetrates or 'juts' into the world as pure shine or shimmer. Kenneth Maly describes it as a

> shimmering that shines with a certain unsteadiness where it is always at something like a boundary, it can never cross that boundary, even as it is always moving 'across' the boundary. [19]

At that point, colour casts an ontological light rather than an optical presence, moving closer to the movement of thought and away from the physiology of vision.

In this moment colour and light become one and the same issue, each resting within the other, neither existing without the other.

ONTOLOGY OF LIGHT

In everyday experience for something to show up as substantially present to our awareness it must be apparent, that is, have some aspect of accessibility. The current understanding of visual access relies on a model of perception based on the laws of representation and the physiology of the eye. However other ages, notably ancient Greece, had no such conceptual structure. For them vision was more laterally democratic in that "the one who looks shows himself and appears" [20] in the act of seeing. Thus objects seen and those who look "emerge in the double sense that the object rises in self showing and the essence of the looker is collected in the look." [21] Looking is then the way humans come into presence with other beings, all sharing the commonality of appearance, each drawing

out and revealing something of the other in the moment of appearing.

By treading around the extreme edges of what is currently understood about the eye, light, and subjectivity, old certainties begin to give way. New possibilities beyond the scientific quantification of light and its lens based metaphors begin to take shape. A significant move in this context is Heidegger's contrast between modern representational looking and pre-modern apprehension of presence:

That which is, does not come into being at all through the fact that man first looks upon it, in the sense of a representing that has the character of subjective perception. Rather man is the one who is looked at by that which is, he is the one who is – in company with itself – gathered towards presencing, by that which opens itself. [22]

At first instance apprehension might seem to be a passive mode requiring only a certain openness and availability on the part of those who look. However Heidegger does go on to define both active and passive poles of apprehension. Passively the looker lets something come to be seen so that what appears can show itself out of itself. On the active side apprehending is a dynamic claiming, similar to the legal understanding of apprehending a witness who is held for detention and interrogation.

Apprehension in this double sense denotes a process of letting things come to oneself ... [and to] take up a position to receive what shows itself. [23]

Thus apprehension is not simply a passive absorption or active consumption by a knowing subject, since it takes place beyond any mode of sensory perception.

Apprehension is not a way of behaving that the human being has as a property; to the contrary, apprehension is the happening that has the human being. [24]

Apprehension actively creates an appropriate receptivity in the moment of looking. It is "fundamentally a de-cision ... and thus a confrontation *with* seeming." [25] The 'de-cision' to be made is not a conscious choice but a separating that establishes the possibility of a new meeting place between self showing and a welcoming invitation. It requires a certain touch since if it is too soft then nothingness reigns as an "unseeing gaping," [26] and if it is too hard then deception rules as a form of self referentiality, seeing the world only as an anthropomorphic mirror. As Merleau Ponty put it,

since the seer is caught up in what he sees it is still himself he sees: there is a fundamental narcissism of all vision. And thus, for the same reason, the vision he exercises, he also undergoes from the things, such that, as many painters have said, I feel myself looked at by the things, my activity is equally passivity – which is the second and more profound sense of the narcissim: not to see in the outside, as the others see it, the contour of a body one inhabits, but especially to be seen by the outside, to exist within it, to emigrate into it, to be seduced, captivated, alienated by the phantom, so that the seer and the visible reciprocate one another and we no longer know which sees and which is seen. [27]

In apprehension the seer is seen by what appears, and what appears settles back into itself through the action of shining out. Apprehension is the moment of shine, a moment of encounter between looking and being seen.

Unusual support for the counter intuitiveness of this idea comes from the world of science, in particular

quantum physics where a reversal of the dynamic relationship between seer and seen has been documented. The Heysenberg uncertainty principle, [28] suggests that by simply looking at something causes it to change its behavior. This was based on the observation that sub atomic particles, beings that do not have sight or emotions, were effected by the act of human inspection regardless of the accuracy of the technology being used. The uncertainty principle was found to be inherent in all wave-like systems of which light is one. The uncertainty principle is one of many theories that shows a fundamental limit to the precision with which certain basic physical properties, like position and momentum, can be known. The more precisely position is known, the more mysterious is its momentum and vice versa. The uncertainty principle in quantum physics is a variation of the observer effect in traditional physics, where simple acts of observation interrupt the phenomenon being observed. For example when I am pumping up the tyre on my bike to the recommended level of 60hpm, as I release the pump a certain amount of air always escapes leaving the precise measure of pressure unknown. However this error can be reduced to almost insignificant levels by using better instruments or different observation techniques. This cannot be done in quantum mechanics because things observed are at a sub atomic level, at the limit point where energy and matter become indistinguishable. Quantum systems are infinitely vulnerable to the presence of observational technology showing that observer and system cannot be separated, that the observer must be considered part of the system being observed.

Even in psychoanalysis the act of looking is made problematic and reversible in a similar manner. Freud initiated this discussion when he identified *Shaulust* (scopophilia), the pleasure of looking, as a major component of human sexuality. [29] Laura Mulvey applied this idea by suggesting that there was a particular kind

of sexualised male looking in modern cinema that subjected women to "a controlling and curious gaze." [30] In this kind of thinking looking is the seer's shoot, a shot of power coming out of the eye that intentionally holds what is seen in a willful and self-serving manner. The cinema became a unique situation for analysing the nature of human looking or the gaze as a kind of extromission theory. [31] Accordingly there are three types of look in the cinema, that of the camera recording the event, the looks between characters on the screen and the viewer watching the completed film. Sitting in the cinema the viewer has little to do but sit still in a seat. There is no need to move their eyes since attention is fixed strait ahead on an immobile screen placed at a convenient distance. The viewers look has been laid down in favour of a screen that looks back at the viewer with the omnipresence of an all seeing eye. "I not only look at the point of fixation (the screen), it looks at me." [32] The same uncanny sense of being looked at by the object of our gaze was an important issue for Jacques Lacan the most important psychoanalytic theorist after Freud. In his discussion of the development of the human ego, looking into mirrors, specularity and the gaze were of paramount importance. For Lacan looking was not a one way street, the look existed in a field of looks whereby what is looked at is also an active looker. "I am not simply that being located at the geometrical point from which perspective is grasped." [33] "In the scopic field [...] I am looked at, that is to say, I am a picture" [34] looked at by the world. Žižek notes that from a common sense point of view Lacan's concept of the gaze is easily misunderstood as indirectly belonging to the subject. However "it is crucial [...] that it involves the reversal of the relationship between subject and object, as Lacan puts it there is an antinomy between the eye and the gaze, ie the gaze is on the side of the object." [35]

Some of this counter intuitive play between human looking and objects that see is played out in the film

work of Andy Warhol. Warhol is most well known for a series of paintings that capture the post war moment of industrial production and mass media through images of movie stars like Marilyn Monroe and consumer culture products like Coca Cola. His personal presence in this work seems driven by a desire to step out of the mundanity of everyday exis- tence into the glowing presence of stardom. Being a 'star' is to generate light and attraction based on the kind of fame associated with success in the world of popular film and music. As Stephen Koch puts it, it is about "the obliteration of the self, the unworkability of ordinary living. Warhol proposes the momentary glow of a presence, an image--anyone's, if only they can leap out of the fade-out of inexistence into the pres- ence of the star." [36] The star in nature shines in the night sky as a source of light and visual fascination. In popular culture the star is a person who has acquired the cultural status of a heavenly body, capturing the look of ordinary consumers who drift and dream un- der a virtual firmament. In shining, the star activates a certain kind of enchanted look that draws the looker towards a phantasmatic presence. The star captures and transforms the look, offering a certain glow as a bestowal on those who look. In this way the star looks back, not with an intentional gaze but through the marvellous shine of a hypnotic presence. Warhol in his own experimental 16mm films, inspired by his love of Hollywood stardom, demonstrates a way of look- ing at the world that is both actively voyeuristic and passively immobile, as if an inert object was initiating or imitating a look. His camera gazes at people and things but refuses to follow the action, it is "an inat- tentive camera […] that will not give the spectacle its full concern." [37] As a director, as an individual with human choice, he absents himself and takes a certain distance, while at the same time drawing out an exhi- bitionistic display from those who appear in front of his camera. Paradoxically it is Warhol who becomes the star, not the performers who strut on his tempo-

rary stage, but Warhol as the one who shines from an untouchable distance.

In separate ways, from vastly different disciplines, Hey- senberg, Lacan and Warhol, take us out of subjective gazing into a primordial encounter with shining light, where there is a loss of the division between subject and object, where "looking is the primordial way of coming into the light." [38]

MOMENT OF VISION

Human beings are intrinsically oriented towards sight and visibility as way of knowing the world. "All human beings strive to see, …. to existence there belongs a pursuit of seeing, of being familiar with." [39] Any ac- tion in the world requires a moment of deliberation and decision in the face of the unknown, an orien- tation toward the unknown for the sake of future familiarity. In the moment of action, such as taking a journey, conducting an experiment, making a work of art, a view ahead is established. It is suddenly seen as a "catching sight of the here and now." [40] Something is determined in "that moment at which talking and deliberation come to a standstill." [41] In that moment the doctor makes a prognosis, the craftsmen picks up a tool, and the artist makes a mark. Something has been sighted, it is now in view and all action is aimed towards it. Yet it is also the moment of having been looked upon. That which has been sighted has the looker in its hold and guides them towards its light. It is the moment of apprehension, "the moment of having-seen, in the sense of having been looked upon […] removing any […] connotations (of) an 'active' or 'perceptive' seeing that would belong […] to (an indi- vidual's) own originating accomplishment." [42] It falls outside the contemporary understanding of "modern looking in which we direct ourselves to an object of representation and thereby 'grasp' it." [43] In being

looked at, an ability to look is activated, and in the act of looking I show myself as engaged and orientated towards the world and all its possibilities. Thus it is "only because we are already addressed, looked upon by beings themselves, can we respond to them in the manner of looking 'at' them." A grasping look is a fallen kind of looking that crushes what is seen with a predetermined intention, while apprehending is "not yet a 'looking at' but is a more subliminal and pre- discursive 'catching sight' of something." [44] In the mo- ment of apprehending the seer is no longer the one who sees and knows, "in having seen there is always something else at play other than the completion of an optical process. From there […] seeing is not deter- mined by the eye." [45]

Various modes of looking, not determined by a physi- ological eye, can be found in the historical records. Modern theories of sight and understanding date back to classical Greece in particular Plato's allegory of the cave that sets up a division between shadows and reality. However even further back in the age of Homer there is a different and more primal sense of non-visual radiance. This is demonstrated in a passage from the Odyssey where the goddess Athena appears in the form of a beautiful woman. Ulysses sees her but his son Telemachus does not, "for it is not to all that the gods appear *enargeis*." [46] Under Plato's influ- ence the Romans translated *enargeis* into *evidentia*, a mode of becoming visible, literally visual evidence in the form of an outward appearance. However for Homer *enargeis* meant "a brilliance, a shining, a light- ing up, a radiance proceeding from things themselves as they presence." [47] This kind of etymology detects a double valence of light, lost in layers of historical us- age and translation, latent with potential for strategic reactivation. Since Ulysses saw and Telemachus did not, *enargeia* and radiance need not have a neces- sary relationship to light or outward appearance. This aspect remains latent in the English word 'light' and its

two contemporary usages. Light's primary meaning re- fers to the registration of brightness and optical pres- ence. It has a secondary meaning to lessen a burden or lighten a load, that is "to push aside whatever resists, to bring it into a realm without resistance, into a free realm." [48] The free realm is radiant in the sense that it liberates the eye and all the senses in a moment of self-showing presence. It is the simultaneous moment of seeing, enacting the bodily capability of seeing and being seen. It suggests a brief experience, where there is sight, insight and something out of sight, something that has not been created by the actions or thoughts of any individual. In this way the visible world has us rather then we having it. Consequently the so called primacy of perception is made secondary to the open- ing of presence. [49] Perception is no longer an original relation to being or things since it already "presuppos- es a world to be given and understood." [50] The sense of the world, is not created through an accumulation of perception nor a totality of sensible impressions. "Perception, although it seems to arise at first glance, is late-born, derived." [51] What we mistakenly call per- ception is the concretion of a world whose essence is to appear, in it "the visible has a relation to itself which traverses me and constitutes me in seeing." [52] Once again arriving at a situation where "I can feel looked at by things." [53]

Even at the most basic level of biology we under- stand photosynthesis as a kind of non human looking, whereby the look of the sun as perceived by plants generates the building blocks of life. The sunflower, an aptly named representative of plant life, returns a look without eyes by orienting itself towards the compel- ling gaze of the sun. The result is the transformation of light into energy and the dehiscence of seeds into new generations of life. From here it seems no co- incidence that the birth of human vision is linked to photosynthesis in the earliest forms of life on earth. Four billion years ago, microscopic single cell organ-

isms, had no eyes but photoreceptors, that were receptive only to light direction and intensity. They had no vision for objects, they could not see each other, but they sensed the light from the sky. In the middle of the day, the light was too harsh so they swam down, while at twilight they swam to the surface to turn light into energy. The same molecule that was used in their body to photosynthesise, to give them life, is the same one that facilitates vision in creatures with developed eyes. [54]

The sun, as the source of light grants the possibility of sight as a donation from one that does not see to those who cannot yet see. The sun in its generous looking attracts the gaze of the sunflower and the dehiscent splitting open of the seed pod, returning the gaze as the movement of life from one generation to the next. In the light and warmth of the sun humans are open to a similar process of looking as dehiscence. "Dehiscence opens my body in two, […] between my body looked at and my body looking, […] there is overlapping and encroachment." [55]

This kind of thinking about looking and light momentarily disturbs the current understanding of a self sufficient subject who grasps the world through a calculating gaze. It is no longer possible to say "we […] have on the one hand, things identical to themselves which would afterwards give themselves to sight and on the other hand, a vision, at first empty, which would then open itself to the visible." [56] Something more primordial than an optical mechanism enables an encounter with things in the form of a shining out, where the one who looks is more correctly looked upon by what is seen. What shines comes into sight by virtue of an opening, where presencing, can take place. The seer can only see what appears because they have already gotten out of the way to some extent. The seer, in the moment of shine, has laid down a nominal subjectivity for the sake of a captivating absence, namely the im-

mediate withdrawal of that which appears in favour of a shining out. "It is the prevailing absence in which the seer is held […] responding to that which presences in its very withdrawal, in its unfathomable and multiple concealments." [57] It is literally and metaphorically a hole in vision, a blindness that is a pre-condition to sight, occurring at the point where the optic nerve connects with the retina, requiring a second sight to occult its absence. [58] The withdrawal from opticality coincides with the flash of radiance, occurring in that brief instant before presence is dulled down to a functional availability. It remains only as a lingering hint, an after image, that is strangely fascinating and 'enchanting.' As such, it "comes to radiance (Schein) in the fullness of its enchantment." [59] It is as enchanting as the twilight glow is for a single cell organism, holding the promise of the fullness of life. Further down the human evolutionary chain, but in the same lambent glow, it shimmers and irridesces, constantly showing different facets of appearing and being. [60]

As such light has the character of excess and unknowing, moving beyond scientific readability into the realm of the incalculable. It is both the light of our understanding and the shadow that surrounds us as an unthinkable limit, that defies being pictured. Art and expanded painting in particular, indicates this in its apprehensiveness, in the apprehension of being looked at by colour, caught up in its shine, shining out in the midst of being, an open place where colour, light and meaning occur.

CONCLUSION

The enduring mystery of colour has led to a scientific muddle, a linguistic aporia and an unspoken prejudice against its apparent excessiveness. Just in case it should overwhelm us in its elemental effusiveness colour is restricted by good taste that equates cultural

maturity with a limited palette. Yet colour continues to break free of its constraints, it bursts out of the earth and sky in an audacious display of autopoiesis, tempting poets and painters to reveal, but not capture, its power. The science of colour based on image, mimesis, physiology of the eye and individual subjectivity has somehow missed the phenomenon of colour altogether. Colour rather than being seen and calculated, shines out, shimmers and reveals a world in much the same way that thinking does. This new understanding of what colour 'is' is exemplified by shifts in emphasis from the colour wheel in its rationality, to the colour chart in its availability, to the pixel in its shimmering intensity.

The ontology of colour and the phenomenon of shine stand apart and are incommensurate with the science of light, the psychology of seeing and the subject of vision. Understood phenomenologically colour makes things manifest by revealing them in their unique presence rather than merely facilitating communication, representation or spectacle. Before colour is seen, before colour can be looked at, colour looks at us in such a way that looking and seeing are provoked. In its ordinariness colour is captured and quantified by the grasp of scientific technical rationality. In its extraordinariness colour demands a certain attentiveness, a responsive lingering on the edge of the visible and invisible.

All of these ways of being with colour are enabled by a formal evolution in painting whereby expanded painting addresses everything in the everyday world that carries colour. Expanded Painting, unlike painting, no longer addresses an audience directly, an audience that might validate it through critical and financial response. Instead Expanded Painting addresses a non-human respondent, the medium of painting itself. By analogy, the medium of painting however deconstructed or expanded, has become the entity to 'whom' the work of colour is addressed. ∎

REFERENCES AND NOTES

1. David Batchelor, *Chromophobia* (London: Reaktion Books, 2000).
2. Ibid., 21.
3. Ibid., 22.
4. Ibid., 29.
5. Ibid., 85-86.
6. Ibid., 86.
7. Umberto Eco, "How Culture conditions the Colours we See," in *Colour*, ed. David Batchelor (Cambridge, MA: MIT Press, 2008), 178.
8. Jacques Ranciere, *Aesthetics and it Discontents* (Cambridge: Polity Press, 2009), 71.
9. David Batchelor, *Chromophobia,* 104-105.
10. Jeremy Gilbert-Rolfe, "Cabbages, Raspberries and Video's Thin Brightness," in *Painting in the Age of Artificial Intelligence, Art and Design* 11, no. 5-6 (1996): 14.
11. Jacques Derrida, *The Truth in Painting* (Chicago: University of Chicago Press, 1987), 169.
12. Stephen Melville, "Color Has Not Yet Been Named: Objectivity in Deconstruction," in *Deconstruction and the Visual Arts,* ed. P. Brunette and D. Wills (Cambridge: Cambridge University Press, 1994), 33-48.
13. Michel Haar, "Painting, Perception, Affectivity," in *Merleau-Ponty: Difference, Materiality, Painting*, ed. Veronique Foti (Atlantic Highlands, NJ: Humanities Press, 1996), 185.
14. Ibid., 188.
15. Martin Heidegger, "The Origin of the Work of Art", in *Basic Writings* (New York: Harper & Row, 1977), 171.
16. Ibid., 172.
17. Kenneth Maly, "Imaging, Hinting, Showing," in *Kunst und Technik: Gedächtnisschrift zum 100 Geburtstag von Martin Heidegger* (Frankfurt: Klosterman, 1989), 201.
18. A. J. Mitchell, *Heidegger Among the Sculptors* (Stanford: Stanford University Press, 2010), 12.
19. Kenneth Maly, "Imaging, Hinting, Showing," 197.
20. Martin Heidegger, *Parmenides* (Bloomingtom, IN: Indiana University Press, 1992), 103.
21. Ibid.

22. Martin Heidegger, "The Age of the World Picture," in *The Question Concerning Technology and Other Essays* (London and New York: Harper & Row, 1977), 131.

23. Martin Heidegger, *Introduction to Metaphysics* (London: Yale University Press, 2000), 147.

24. Ibid., 150.

25. Ibid., 179.

26. Sophocles, quoted in Martin Heidegger, *Introduction to Metaphysics*, 185.

27. Maurice Merleau-Ponty, "The Visible and the Invisible," in *Basic Writings*, ed. Thomas Baldwin (London and New York: Routledge: 2004), 256.

28. Werner Heisenberg, "The Physical Content of Quantum Kinematics and Mechanics (1927)," in *Quantum Theory and Measurement*, ed. J. A. Wheeler and W. H. Zurek (New Jersey: Princeton University Press, 1983), 62-84.

29. Sigmund Freud, *On Sexuality: Three Essays on the Theory of Sexuality and Other Works* (London: Penguin, 1991), 109.

30. Laura Mulvey, "Visual Pleasure and Narrative Cinema," *Screen* 16, no. 3 (1975): 8.

31. First proposed by Empedocles that light is emitted by the eye, as opposed to modern intromission theory that shows that vision is based on light entering the eye.

32. Claude Bailble, "Programming the Look," *Screen Education*, no. 32-33 (1979): 102.

33. Jacques Lacan, *Four Fundamental Concepts of Psychoanalysis*, (London: Penguin, 1979), 96.

34. Ibid., 106.

35. Slavoj Zizek, *The Fright of Real Tears* (London: BFI, 2001), 34.

36. Stephen Koch, *Stargazer* (New York: Praeger, 1974), 12.

37. Ibid., 77.

38. Martin Heidegger, *Parmenides*, 107.

39. Martin Heidegger, quoted in William McNeill in *The Glance of the Eye* (Albany: SUNY, 1999), 21.

40. William McNeill, *The Glance of the Eye*, 44.

41. Ibid., 46.

42. Ibid., 301.

43. Ibid., 307.

44. Ibid., 311.

45. Ibid., 320.

46. Homer, quoted in William McNeill, *The Glance of the Eye*, 332.

47. William McNeill, *The Glance of the Eye*, 332.

48. Martin Heidegger, quoted in William McNeill, *The Glance of the Eye*, 334.

49. Michel Haar, "Late Merleau-Ponty's Proximity to and Distance from Heidegger," in *Merleau-Ponty* , vol. 1, ed. Ted Toadvine (London and New York: Routledge, 2006), 353.

50. Ibid., 354.

51. Ibid., 355.

52. Ibid., 356.

53. Maurice Merleau-Ponty, quoted in Michel Haar, "Late Merleau-Ponty's Proximity to and Distance from Heidegger," 356.

54. Simon Schaffer, "Let There Be Light," *The Light Fantastic*, episode 1 (London: BBC, 2004), DVD.

55. Maurice Merleau-Ponty, quoted in JacquesTaminiaux, "Phenomnelogy in Merleau-Ponty's Late Work," in *Merleau-Ponty*, vol. 1, ed. Ted Toadvine (London and New York: Routledge, 2006), 289.

56. Jacques Taminiaux, "Phenomenology in Merleau-Ponty's Late Work," 289.

57. William McNeill, *The Glance of the Eye*, 326.

58. Martin Jay, *Downcast Eyes* (Berkeley: University of California Press, 1993), 8.

59. Martin Heidegger, quoted in Veronique Foti, *Heidegger and the Poets* (London: Humanities Press, 1992), 11.

60. Jeff Malpas, *Heidegger's Topology* (Cambridge, MA: MIT Press, 2008), 37, 249.

OCR
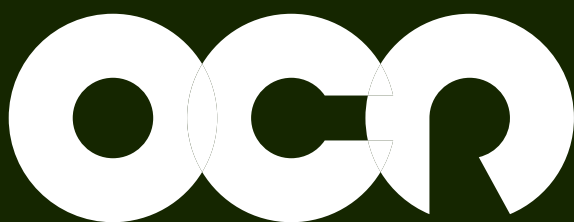
**Operational &
Curatorial Research** in
Contemporary Art, Design,
Science & Technology

ocradst.org