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Matter Matters: Surfaces

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ANTENNAE

The Journal of Nature in Visual Culture

Antennae (founded in 2006) is the international, peer reviewed, academic journal on the subject of nature in contemporary art. Its format and contents are inspired by the concepts of 'knowledge transfer' and 'widening participation'. On a quarterly basis the Journal brings academic knowledge within a broader arena, one including practitioners and a readership that may not regularly engage in academic discussion. Ultimately, *Antennae* encourages communication and crossovers of knowledge amongst artists, scientists, scholars, activists, curators, and students. In January 2009, the establishment of Antennae's Senior Academic Board, Advisory Board, and Network of Global Contributors has affirmed the journal as an indispensable research tool for the subject, now recommended by leading scholars around the world and searchable through EBSCO.

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Front Cover:

Lizan Freijzen, composite of mould carpets © Lizan Freijzen

Back Cover:

Anna Kell, *Pink Field,* 2017, reclaimed mattress fabric and upholstery tacks on gallery wall © Anna Kell

EDITORIAL

ANTENNAE ISSUE 45

From canvases and layers of paint, to classical and new materialities in contemporary art, surfaces have always played important and most often unacknowledged roles. Surfaces are slivers of materiality upon which we evaluate and judge everything around us. They are ultimately defined by our gaze as the first point of contact between us and matter. But surfaces only reveal the outermost layer of objects. Dissection of plant, human, and animal bodies only apparently provides access to matter in a deeper way. In truth, all that is revealed is more surfaces in the form of tendons, muscles, bones. And even when the flesh is sliced open, the process only leads to further surface-multiplication under our own very eyes.

Thin objects, like leaves or photographs appear to be essentially constituted by surfaces whilst in others, surfaces conceal a depth they have been grafted upon; they are veneers. Veneers claim membership to economic or historical realities that are extrinsic to the internal mass of the object they envelop. The deceit of the senses they perform exclusively plays out on an utterly superficial level.

More recently, an interest in the materiality of objects has arisen in philosophical and art historical discourses as the need to rethink the presence of an embodied human within a networked, material world has become more and more pressing. New Materialism aims to link current ethical and political concerns related to science and technology—climate change, global capital, population flows, biotechnological engineering, along with the digital, wireless, and virtual prosthetics that make our lives what they are today. Rethinking materialities in new ways, thus, also entails surpassing Cartesian conceptions of matter and the dualisms that has constructed nature as a quantifiable and measurable entity that can be subjugated and exploited. As a new focus on materialities is revolutionizing our understanding of art objects, recent developments theory and criticism begin to pose new critical questions about the neglect of materiality that has characterized art history.

The current issue of *Antennae* is dedicated entirely to the subject of surfaces while a second instalment to follow will focus on different notions of materiality. As per every issue, we have mapped new territories by juxtaposing works of art and texts that creatively provide opportunities to rethink surfaces in the context of non-human agency and the Anthropocene. As always, I am extremely thankful to all the contributors and collaborators whose time, skills, and patience have contributed to the making of another exciting and challenging issue of *Antennae.*

Dr. Giovanni Aloi

School of the Art Institute of Chicago
Sotheby's Institute of Art New York and London
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Editor in Chief of *Antennae: The Journal of Nature in Visual Culture Co-editor of Art after Nature*

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SURFACE
ACTIVE AGENTS

This text revisits Artaud and Derrida's understandings of the subjectile *to understand symbiotic relations within surfaces of biofilms and artworks. Interfaces within the geosphere and the sea surface are placed in analogy with the subjectile and are used to explore the role of surface active agents (surfactants) within surface transformations. The accompanying images explore the possibilities of cellulose medium as subjectile, a surface and support of an artwork that is both a space of the subject and object. And as a potential biofilm that creates an interface for life and non-life and human and non-human.*

Text and images by Raewyn Martyn

The word *subjectile* is a conjunction of 'subject' and 'projectile', used in reference to a ground or interface of an artwork. Surfaces that become subjectile are spaces of assembly and relationship between subjects and objects. Human, non-human, psychic, physical; figures and grounds. A space of visible and invisible aggregation. Paintings are one of many such aggregates, microbial biofilms are another. And, as Minhea Mircan described in *The Allegory of a Cave Painting*, sometimes the two come together. The Gwion Gwion cave paintings' biofilm is an example of nonhuman cohabitant relations; a self-painting painting, arguably sidelining the role of the art conservator. In these paintings, cyanobacteria and fungi produce continuous restoration, sustaining the vibrancy of the colour, and etching the image deeper into the quartz. Mircan describes how *two temporalities and two vectors of meaning, overlap*. *A mask that is identical to that which it covers.*[1] Such biofilms, anthropogenic or otherwise, adhere to surfaces; pebbles in a riverbed, arterial walls, cave walls, abattoir floors, and our teeth. Within these coatings, surface active agents (surfactants), alter interfacial and surface tension, influencing initial aggregation of the film, and future changes. They have similar effects in commercially available paint. Surfactants change the way liquid, gas, and solids move between their boundaries.

Wikipedia carefully notes that the 'subjectile' is a theory, not a fact; a tool for analysis of art objects.[2] It can be interpreted as simultaneously the throw and the thrown[3]. Within the space of interplay where art occurs, there is an art event - or series of events - between subjective and objective modes, that may result in an art object. To analyse an art object, it becomes necessary to consider these art events and the conditions of their subjectile—the surface-active agents within these events are key, their actions result in altered art subjects and subjectivity. At the interface, agents are active as an artwork emerges, including "interfacial forces", such as the atmospheric conditions or social situation, where conflict or stress are embodied and generative.

In symbiogenesis, one thing finds its way into another to create a new arrangement, a new form of life.[4] This transgression of separation and surface - skins, perhaps - allows us to think of the boundaries of surface, inside and outside, as more porous. At the cellular level of surfaces, cellular membranes are permeable through the work of biological surface-active agents (biosurfactants). If it is understood that symbiotic systems are favorable to the sustenance of life,

Raewyn Martyn

Untitled, as part of *Not standing still* at Blue Oyster art project space. Cellulose with marine cultures and plant-based pigments, 2018. Image courtesy of Blue Oyster art project space.

Raewyn Martyn

Untitled, (detail) as part of *Not standing still* at Blue Oyster art project space. Cellulose with marine cultures and plant-based pigments, 2018. Image courtesy of Blue Oyster art project space.

and perhaps more equitable conditions for life, our understanding of surfaces and boundaries within the physical world, and within the conceptual world, become important. Surfaces and boundaries become the meeting point or interface for such symbiotic relations, and access to those interfaces—freedom of interaction—reveals power relations and inequalities within a system.

And as McFall-Ngai describes, many "organisms require particular microbial conditions. If the right microbes which typically occur in assemblages called biofilms, aren't on a rock or other substrate, larvae do not - and perhaps cannot - settle there".[5] There have been attempts to understand the autopoiesis of symbiotic interactions, like those that occur within biofilms, and via biosurfactants, in analogy with human social networks. Human self-generating networks of communication are seen as equivalent to the metabolic networks within biology, that generate molecular structures.[6]

Like the agar in Alexander Fleming's bacterial paintings[7](c1920s), Liz Larner's *Culture Series* (c1987), or Anika Yi's *You Can Call Me F* (2015); and the substrates that feed industrial microbial remediation of waste, a cellulose paint substrate can be used to feed and grow biomineralized[8] pigments. Within a biofilm, microorganisms are held together within extracellular polymeric substances (EPS) which determine the film's physical qualities; strength, elasticity, and permeability.[9] The EPS of the painterly biofilms in this article is a cellulose emulsion; amphiphilic - both hydrophilic and hydrophobic, with capacity to rehydrate or dehydrate in response to conditions. Made porous through the biomineralization process. As Derrida describes it, Artaud's conception of the term subjectile refers to

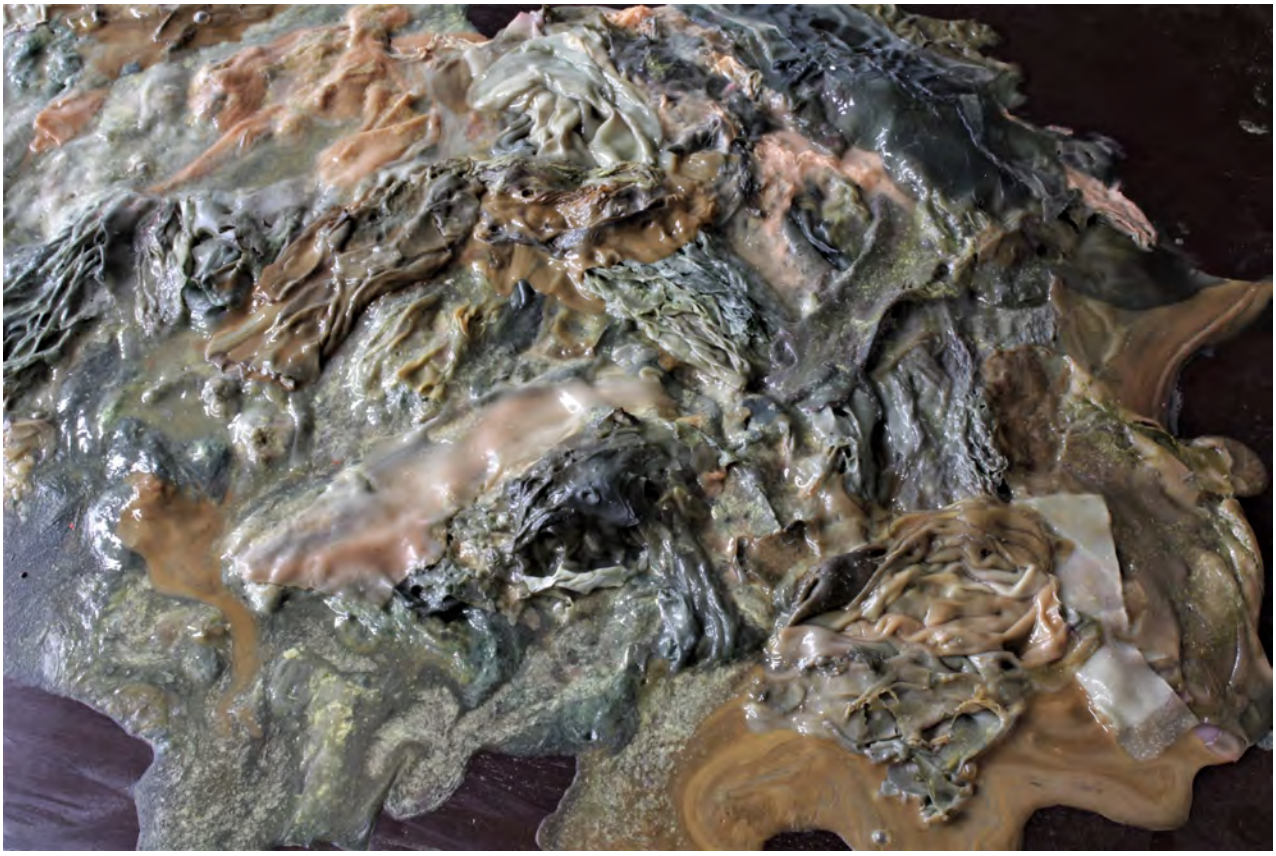
> a sort of skin with holes for pores,[10] historically, and perhaps persistently, devalued because: we oppose just those subjectiles that let themselves be traversed (we call them porous, like plasters, mortar, wood, cardboard, textiles, paper).[11]

In commercial paints, surface active agents reduce interfacial tension between liquid and solid, increasing the paint's wetting ability, ensuring it spreads easily, and doesn't "bead" off smooth surfaces. As in biofilms, surfactants influence paint's initial aggregation and physical qualities over time. They also affect the coating's water resistance, because surfactants, like many forms of cellulose, are amphiphilic.[12] Surfaces become permeable membranes through interaction of surfactants. Surfactants with more hydrophobic molecules (like oils or other lipids), resist and therefore "liberate" water. These hydrophobic parts of the surface material release water to (and through) other hydrophilic parts of that surface.[13] The assemblies that develop are molecular networks; when hydrophilic or hydrophobic molecules desire to associate, they assemble. The introduction of surfactants disrupts or encourages these associations. Cellulose itself is a potential surfactant, working in interaction with other surfactants.[14]

In the top 1 millimeter of the ocean's surface, the sea surface microlayer (SML), phytoplankton play a key role as surface active agents[15] and their populations are influenced by increasing anthropogenic factors like carbon, erosion, and pollution.[16]

> Surfactants in sea water affect the rate at which carbon dioxide crosses the boundary between air and the ocean. They can reduce the mixing in the very top layer of the ocean by flattening the tiny waves caused by wind blowing across the surface. With less mixing, the very surface water becomes rich in carbon dioxide and the rate at which the gas is absorbed by the water slows right down.[17]

Carbon Capture and Storage (CCS) research has renewed interest into biomimicry of biomineralization processes. This includes microbial calcification of carbon - biocalcification - in which microbial organisms create the alkaline microenvironments needed to shift carbon into carbonate.[18] Amelia Barakin, exploring a possible "mineral ontology for contemporary art", understands both excess and trace as creative. Barakin thinks through Elizabeth Grosz's excess and differentiation; the ancient yet ever-present temporality of living pigments described by Minhea Mircan; Elizabeth Povinelli's "geontopower" within object-events[19], and Christopher Braddock's Derridean animate traces. Barakin goes on to discuss how an expanded "concept of trace in which the border between the living and the dead



Raewyn Martyn

Top: *Medium* (detail) as part of Jan van Eyck Academie Open Studios. Cellulose with mineral and plant-based pigments, 2017.
Image courtesy of Raewyn Martyn

Bottom: *Medium* (detail) as part of Jan van Eyck Academie Open Studios. Cellulose with mineral and plant-based pigments reconstituted from floor-based work, 2017. Image courtesy of Raewyn Martyn

Raewyn Martyn

Untitled, cellulose with marine cultures with mineral and plant-based pigments, 2018. Image courtesy of Raewyn Martyn

is rendered irrelevant if not entirely obsolete".[20]

Aotearoa New Zealand has some of the youngest landforms on the planet, still growing, resurfacing from beneath the ocean; formed through collections of sediment eroded from other continents, or deposited by marine organisms like the calcium carbonate coccolithophore phytoplankton. Tectonic disruptions also contribute to the movement and surfacing of these forms.[21] Geological events, like art events that beget art objects, are events of subjectility. The 2016 Kaikoura Earthquake is an (ongoing) event that has moved massive amounts of what we perceive to be the ground of the underwater seafloor. And co-seismic vertical movement along the faultline uplifted seabed up to 6m,[22] exposing rock colonies of marine organisms, rotted away to create a blank canvas of pale uplift. These resurfaced parts of the Kaikoura reef are now only underwater for four hours a day, with green algae and kelp unable to re-establish.[23]

The flow of underwater sediment disruptions continues to build new underwater surfaces. Much like the processes of composition seen in the cellulose paintings within this portfolio, where pigments are carried in flows of cellulose, subject to surfactants until they reach a pause, or are arrested in crystallization, awaiting rehydration or fracture. Sediments flow between liquid and solid, depending on the conditions of surface tension at work, like those non-Newtonian liquid memes populating Facebook feeds over the last 18 months. In a YouTube clip posted by the Lamar University Mechanical Engineering Department, faculty and students have filled a campus pond with a large amount of starchy fluid, marbled with paint colours that trace its flows. Students are seen dancing across its wobbling non-Newtonian surface.

Notes

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Raewyn Martyn is an artist and teacher based in Wellington, Aotearoa New Zealand. She was a visiting assistant professor of visual art at Antioch College, OH, and a research participant at the Jan van Eyck Academy in Maastricht, NL. She graduated with an MFA from VCUArts, VA. and is currently a PhD candidate at Massey University School of Fine Arts.

SURFACING

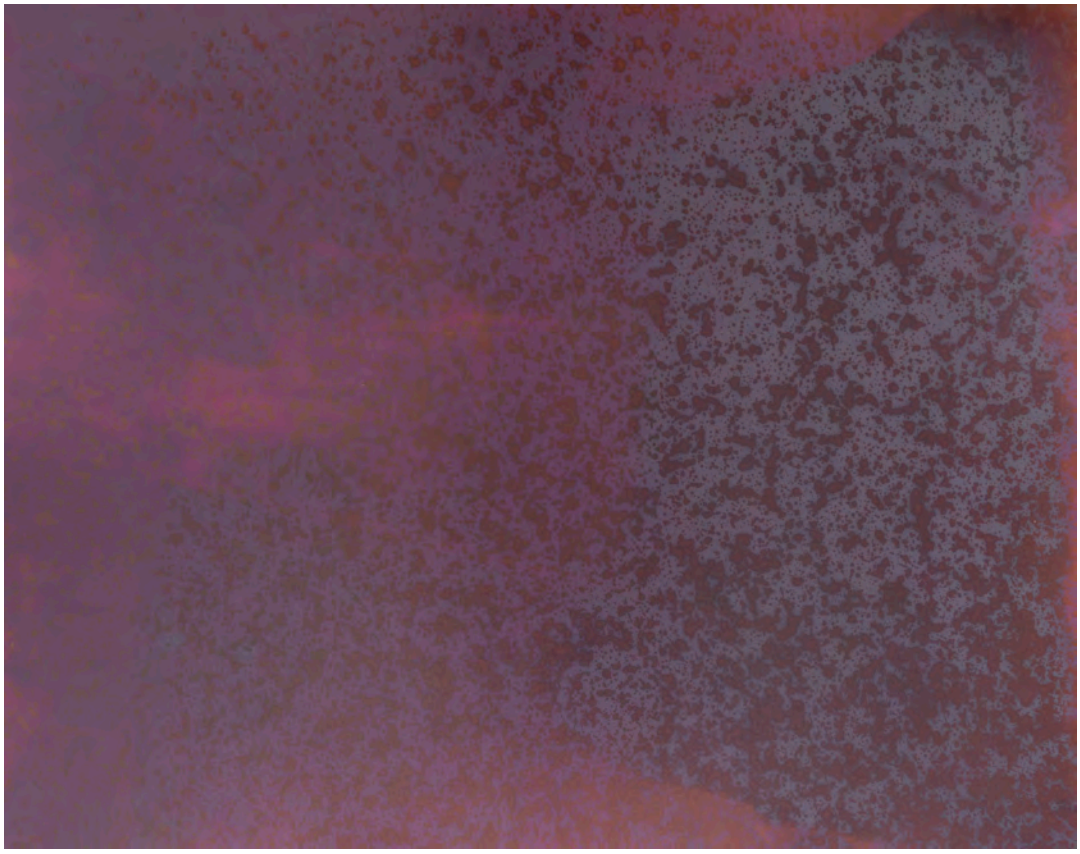
Surfacing *is a camera-less project that explores the materiality of photomedia and the potential for a new kind of landscape photography. The work seeks to disrupt the indexical and pictorial conventions of landscape photography by making pictures "with" rather than "of" the environment — using natural phenomena in Iceland as both the subject of and the means to create artworks. While landscape photography historically depicts scenery and implies distance, this project makes a literal connection between the forces of an environment and a photographic image.*

Text and images by Rebecca Najdowski

Surfacing is a camera-less project that explores the materiality of photomedia and the potential for a new kind of landscape photography. The work seeks to disrupt the indexical and pictorial conventions of landscape photography by making pictures 'with' rather than 'of' the environment — using natural phenomena in Iceland as both the subject of and the means to create artworks. While landscape photography historically depicts scenery and implies distance, this project makes a literal connection between the forces of an environment and a photographic image.

Taking a new materialist approach to matter can help open up the relational possibilities between the earth and photomedia. Karen Barad's theory of agential realism emphasises that "matter does not refer to a fixed substance; rather, matter is substance in its intra-active becoming — not a thing but a doing, a congealing of agency" (151). The *Surfacing* project accentuates the agency of more-than-human nature by using geo-bio-chemical forces to make images. Physically exposing photographic paper to the chemistry, heat, and moisture of geyser plumes and steam vents creates unpredictable forms and colours. Through this process, gelatin silver (black and white) darkroom paper reveals traces of pink, grey, blue, purple and orange forms. The photographic surfaces become indications of intra-actions. The aesthetic traces emerge through correspondences between the silver halide particles suspended in a substrate of gelatin on the surface of paper, the chemical and temperature composition of the geothermal features, the UV rays from the sun, and the duration of contact.

Importantly, this process creates a circumstance which removes some human control in how phenomena within an environment come to be represented, enabling the agency of natural phenomena and the materiality of photomedia to take precedence. In addition to the initial exposure and development with geothermal forces in the field, the images undergo a gold toning and fixing process. Further shifts in form and colour occur as the paper is dipped for various durations in the toning bath, or the liquid toner



Rebecca Najdowski

Surfacing 1, gelatin silver solar print, 2017, © Rebecca Najdowski

Surfacing 7, gelatin silver solar print, 2017, © Rebecca Najdowski

Rebecca Najdowski
Surfacing 8, gelatin silver solar print, 2017, © Rebecca Najdowski

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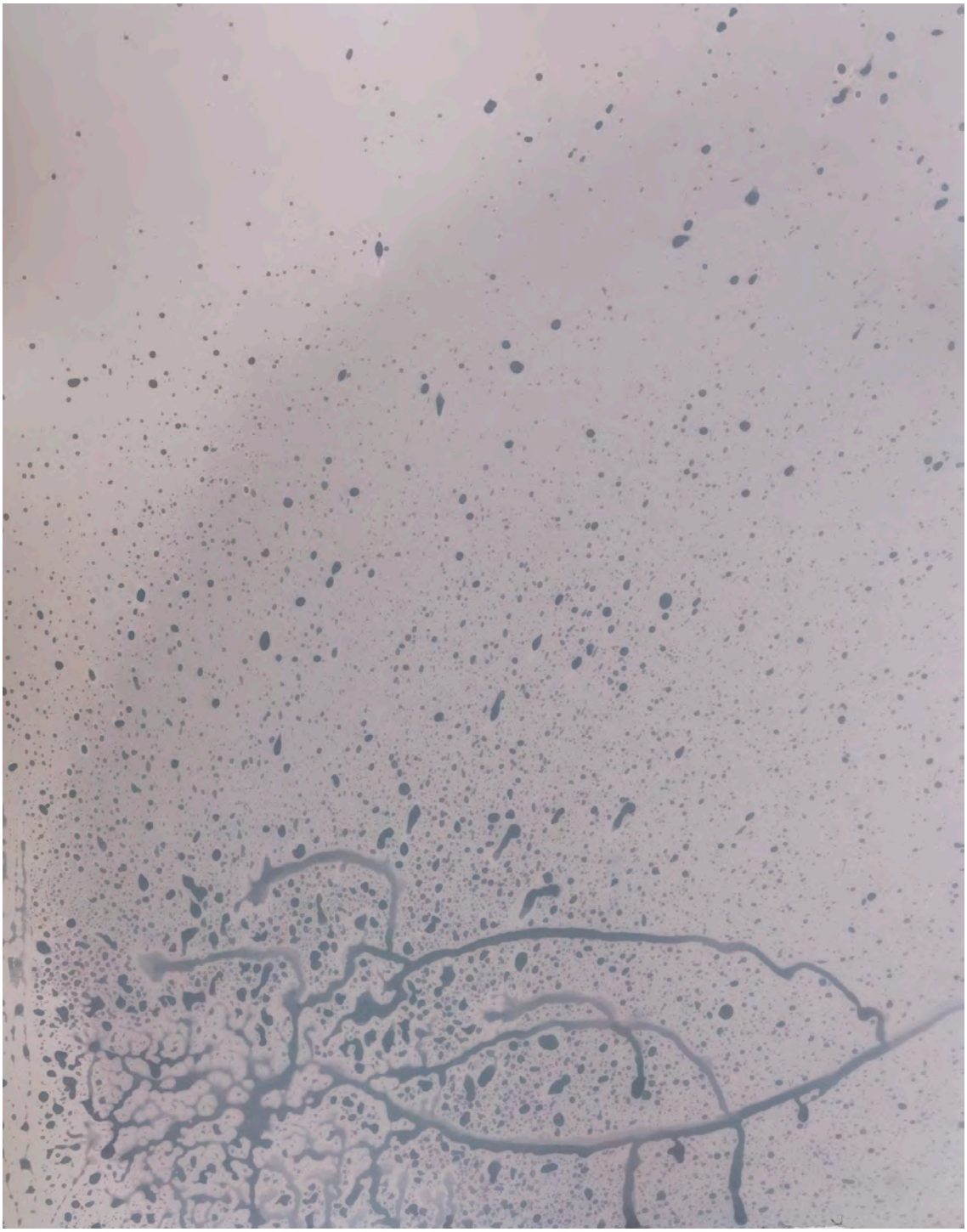
Surfacing 9, gelatin silver solar print, 2017, © Rebecca Najdowski

Rebecca Najdowski

Surfacing 11, gelatin silver solar print, 2017, © Rebecca Najdowski
Surfacing 13, gelatin silver solar print, 2017, © Rebecca Najdowski



Rebecca Najdowski
Surfacing 3, gelatin silver solar print, 2017, © Rebecca Najdowski

is poured onto the paper and coaxed to pool and run across the surface. These enactments become another layer of congealing aesthetic possibilities.

The fieldwork and darkroom methods take advantage of the relationship between fluidity and analog photography, something that Jeff Wall illuminates in his essay "Photography and Liquid Intelligence":

> …water —symbolically — represents an archaism in photography…This archaism of water, of liquid chemicals, connects photography to the past, to time, in an important way. By calling water an "archaism" here I mean that it embodies a memory-trace of very ancient production-processes — of washing, bleaching, dissolving, and so on…In this sense, the echo of water in photography evokes its prehistory… this "prehistorical" image of photography — a speculative image in which the apparatus itself can be thought of as not yet having emerged from the mineral and vegetable worlds… (109)

Wall conjures a primordial process that points to the mineral aspect of the earth and its relationship with analog photography, a correspondence which *Surfacing* is attempting to connect to.

The project *Surfacing* asks how artworks can make visible the relationship between the forces and composition of the earth and photomedia that 'capture' and represent the earth. Through enfolding earth processes with the materiality of photomedia, the photographic surfaces are inscribed with the material conditions of their making and register agential intensities of more-than-human nature as a way to reconfigure what landscape photography can be.

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Rebecca Najdowski is a visual artist and academic investigating the materiality of photomedia and the complicated ways perception of nature and the notion of landscape are entangled. Her practice includes camera-less analogue photograms, video, sculptural light installations, and augmented reality (AR) interventions. These works have been exhibited and screened internationally, most recently at FORMAT Festival in Derby, UK and Athens Digital Art Festival in Greece. She received her MFA from California College of the Arts in San Francisco, was awarded a Fulbright Fellowship to Brazil, and was an Artist Fellow at the Center for Creative Photography in Tucson, Arizona. Rebecca currently lives in Melbourne, Australia where she is a lecturer in Photography at RMIT University and is a PhD candidate at Victorian College of the Arts, University of Melbourne.

MATTER IN MOTION AND THE MYSTICISM OF NATURE'S COLOUR

In the book Matter in Motion and the Mysticism of Nature´s Colour- the Art of Jeanette Schäring *we are presented to a body of work, combining traditional knowledge of dyeing with plants, environmentalism and contemporary artistic research. By foregrounding the processual character of nature's colours, Schäring opens her work to a contemporary discussion involving new-materialist thinking, interspecies communication and ethical reflection. The colours produced through the complex interaction of plants, water, and bacterial fermentation becomes a language indicating both water quality, bacterial activity and how the plant has been growing, thereby translating a kind of earthly fundamental language to our human perception.*

The full title of the essay is: 'Matter in Motion and the Mysticism of Nature's Colour-, coloured surfaces and colour as interface in the work of Jeanette Schäring'.

Text and images by Fröydi Laszlo

I first met Jeanette Schäring in 2013 when she showed her art exhibition *Matter in Motion and the Mysticism of Natures Colour* in the botanical garden of Gothenburg. It was a complex, beautiful and rich experience, and a very contemporary way to show the art and craft of dyeing with plants. The exhibition was centred around the plants *Isatis tinctora,* woad, and *Persicaria tinctorum,* and Japanese Indigo, which both produce chemically similar blue pigments although they are not related species. Schäring exhibited both plants (grown from seed for the occasion). She even showed the complicated process of indigo dyeing using a fermentation process called a "biological vat", and additional principles of colouring through the use of natural fermentation. The artist showed the effects of different kinds of water on the processes, and mixed these laboratory-like investigations with photographs and textile installations demonstrating how her art makes use of the craft of dying to explore both scientific and poetic questions. She also arranged a workshop for the visitors to the garden on how to use vegetable leftovers like onion peels and avocado kernels to stain and colour fibers and textiles. This may seem already rich, but as I learned to know Jeanette Schäring I soon understood that her life, art, and engagement for plants and our environment were different modes of listening to the natural processes and part of a search for wellbeing on an environmental, social, as well as personal level. I found that her way of living was as an important inspiration to me. Between 2015-2017, I learned more about her work, which led to publishing a book about her

Jonatan Pihlgren
Photograph of performance, 2017 © Jonatan Pihlgren

art titled after the 2013 exhibition. For this book, we invited a trans-disciplinary group of scholars to engage with Schäring´s art and her thinking with and through colour, and to see what kinds of implication her perspective might have to the present philosophical end environmental discussion. This essay emerges from the book and the events that surrounded it.

Depth, Surface and "Thing Power"

It may at first seem easy and logical to write about the art of dyeing from the perspective of materiality and surface. Both fabric and colour are often associated with just these concepts. But as I started out investigating Schärings art, I began to question my concepts of surface, materiality, and perception, and even how artistic practices may relate to environmental ethics, one of Schärings main issues.

> I see the world as a field, a surface, a list of matters, matter in motion or motion in matter, what came first doesn't matter; it is the now.
>
> I pick and squish the green leaf between my fingers, effortless it oozes liquids green with the scent of chlorophyll.
>
> Amniotic fluid embraced me once as undulations of my first breath. Brain water and my tears have once been the rivers of everything. Water is the first mystery.
>
> Working with colour from plants creates life, I dig and gather fibers and sense a consistent sparkling of earth on my fingers as nimble minds.
>
> Buried deep into sediments pigment from textile trade now found fluctuating around within our brains. We are all entangled within the web. [1]

These words are excerpts from Schäring´s poetic introduction to the book about her art, *Matter in Motion and the Mysticism of Nature´s Colour.* The artist's practice is grounded in traditional knowledge from many different cultures, how they dye fibers with the use of plants. But her approach has contemporary twist too. Her focus is not simply on the use and usability of fibers and colours. She sees the process of dyeing as a tool to investigate the nature of light, water, pigments, pollutants, bacterial activity and other factors that may produce variation in the water-based solutions that she both exhibit in their own right or leave to interact with fibers of various sorts.

To Schäring, materiality is essential and a constant inspiration. Many of the dyeing processes that she has learnt to understand invites you to use your senses carefully; you have to re-calibrate your sight, smell, and touch to reenvision variables like temperature, climate, knowledge of the life-circle of the plants you are using, water quality, atmospheric pressure, moon cycles, bacterial activity and other that may enhance or retard colouring processes. And, to constantly develop her sensibility in dialogue with her materials is not limited to the craft of dyeing. Rather she sees the world as "a field, a surface,

Jeanette Schäring
Studying nuances of Woad and other plants, from the studio 2016 © Jeanette Schäring

a list of matters", and describes the processes she engages in at one hand in the words of organic chemistry and on the other hand as multi-dimensional, trans-modal poetry. Her fascination with materiality as well as for surfaces is never fixed to static objects. Rather she sees every object as vibrant. The world and all the things in it (made by humans or natural) are all enchanted by stories, entanglement and coincidence. For Schäring what can be sensed and investigated is always "matter in motion or motion in matter": worlds of materiality in a state of constant play and interplay.

Schäring talks about the world and experiencing being part of its materiality using words like "field" and "list" which recall both Maurice Merleau Ponty and Bruno Latour. Being in the world is experienced as traversing the Earth´s surface, like ants climbing up one side of a straw and down the other. At the same time, the straw never stands still, it is itself undergoing changes in time and space. Ordering and categorizing the perceived world can´t stop it from being in a constant becoming or can't remove the observer from being part of the entanglements within fluid and patterned materiality. But, to flow and whirl, to be immersed, even needs a certain vertical space, a depth. Both horizontal and vertical expansion is available to a mind that is one with matter. But different experiences (and ideas) of materiality may foreground and background depth and surface.

In *Vibrant Matter*, Jane Bennett describes how, in a Baltimore stormdrain, she encounters

"...one large men´s black plastic work glove
one dense mat of oak pollen
one unblemished dead rat
one white plastic bottle cap
one smooth stick of wood"[2]

Looking at the materiality of the text, and more specifically at the layout, we see how she sorts the objects out in a poetic form (making empty

Jeanette Schäring
The Spot on the Tablecloth" Performance with Jonas Bergquist, 2017 © Jeanette Schäring

space for each object on the written paper) and how she "lays" them out as on the scene, against a background. The stage is set for a play, and as a reader I become engaged by how the text asks me to react to the objects (in a poetic flux, as separate objects, sorted as a list, as ingredients in a recipe, as characters in a theatre piece) The objects in themselves quite familiar. Yet, they start to shimmer with individuality. But they even form something new: a visual poem or a "mind-painting". It starts to become difficult to see the objects as separate. They become an assemblage-image where the brown fur contrasts the powdery yellow, and the shininess of the plastic contrasts the smoothness of the stick. The interplay of things are in a vibrant field that gives itself to me in the form of a surface, but when I look at each thing separately, the feeling of depth again opens to me as I start seeing them as carriers of history, both marked by the past and on their way into the future (becoming trash, pollutants, the plastics materiality that will stay on Earth long after my own body has turned to soil). Something important has happened when Bennett stopped beside the stormdrain. But that something also continues to take place now, as I evoke the image in this essay. This text is also becoming a surface through which the objects shine and shimmer in a present tense, although their materiality is no longer accessible.

We say that things have surfaces and that the surfaces of objects may be described through qualities as colour, texture, and shape. But then again, the colour, texture, and shape of the grain of oak pollen, when seen under the microscope, does not look anything like the dusty yellow matter we see with our eyes. So, I start to ask myself what do I really know about surfaces. My conception of materiality is very intuitive and based on everyday perceptions. Surfaces and surface-qualities are perhaps defined by my traditional education as a fine art painter, as I worked hard to understand how to see colours and translate the memory of them into material form and to use a flat

surface as the background. But, even though the kind of sensibility that the painter develops may enhance the love for the colours of the world (and in this way our willingness to care for it), some more radical thinking is needed to understand and save its multi-species diversity. Philosophers like Bennett and contemporary artists like Schäring can help us to question our habits and find a more truthful understanding of how this world and its materiality work.

Jane Bennett is struck by the vibrancy and liveliness of the objects in the storm drain, because of the unusual occasion (question, but is the occasion really unusual? Perhaps what was unusual was that she was so struck by the liveliness of the everyday objects?) in which the objects are encountered and partly because she, in some way, has been psychologically primed to respond (she mentions reading Thoreau, Spinoza and Merleau-Ponty, but even a certain "naïve" openness to appreciating the world as lively and enchanted). Jonatan Pihlgren, has come to develop a similar affection for vibrant matter but through a different path. Pihlgren is still a young man, and his special way of relating to the world has been characteristic for him through all of his life, perhaps predisposing him to choose a life as an artist. Childhood activities like digging out and domesticating different ant-colonies, making marionette-puppies based on insect bodies, and drawing dramatic fantasy stories are all activities that may create an eye for form, function and wonder about surprising connections and constellations easily overseen in the humdrum of everyday life. Schäring too underlines the importance of childhood experience as foundational for her lifestyle today, and for her choice to become an artist. A key principle seems to be the sensorial, to have provided stimulating experience with touch, smell, learning crafts, having time to fantasise, but even to experience nature. Both to be alone in nature, playing and investigating, and to be surrounded by grownups that have knowledge to share seems to have been of equal importance. Merleau Ponty also writes about the multimodal and synaesthetic experience of the child as foundational, and regrets that the link to a sensitive dwelling in and as a material part of the world is often broken by a reductionist "scientific" approach. But, experimentation with and scrutiny of natural phenomena doesn´t have to break any link to the holistic experience, it is more a question of allowing the experience to resonate on many levels, sensorial, expressive and analytic. Both Pihlgren and Schäring seem to have found a personal, communicative and expressive relation to their material environment, and at the same time not close themselves off from an experience of all materiality as vibrant and in process.

Picking up objects, as in Bennett´s case not discerning between natural or human-made, is also significant for the art of Pihlgren and Schäring. Pihlgren often has the urge to save and carry with him found objects. The call of the thing is speaking to him, and he has often felt that he had to let the objects themselves lead him into an artistic expression, his role to enable the will and agency of the things themselves. He expresses this as a game. In his art performances he plays with a composition made from several of his found things, and he makes tools or instruments for the objects themselves to use in their interaction with him, like clay-structures to roll in, human-like dolls to twist, and a green "playing table" as a scene for the composition to take place. Under immense concentration he moves, twists, arranges and rearranges with the things according to how he has heard them express their will, and where exactitude on his behalf is essential. His actions include touching, placing, making the things sound… all the time following a rhythm and repeating an exact time-based schedule that he, like a composer, after trial and error has come up with. He hears and feels this composition within his body, and the spell may easily be broken by a single "false note". This kind of heightened sensitivity, both to the magic and agency of the things themselves, but even to the interconnectedness of every action to a web of sometimes uncontrollable resonance and consequence, is a very good point of departure to try to understand how the work of Jeanette Schäring relates to the complicated interactions of objects, surfaces, colour, light, water, and dyeing.

White and coloured surfaces

As Ida Bencke writes in her essay about Schäring´s art *Material Agencies*, the different colours of plants and flowers, in particular,

Jeanette Schäring
Dried Indigo leaves, materials and notes in the studio. Photograph 2015 © Jeanette Schäring

have attracted humans for millennia and most cultures have a wealth of traditions involving coloured plants or colours produced by plants. "Colour as a means of decoration seems deeply embedded in biological, cultural and economic connotations. Colour is a means of seduction, its temptations composing a number of different implications and consequences for human culture"[3]. In his book *Chromophobia,* David Batchelor accounts for the common hesitation, and sometimes even direct animosity towards colour within the cultural history of Europe. Here, the problem is not whites; "but generalized white, because generalized white – whiteness – is abstract, detached, and open to contamination by terms like 'pure". According to him, the chromophobia of Western culture is expressed through two different, but related strategies. Either, colour is delegated to a "foreign" body, typically a feminine, oriental or otherwise compromised/corrupt(ed) body. Here, colour is considered something dangerous and entirely other to the (white male) normalized body. The coloured body often being associated with the primitive, infantile, impure, or indisposed. The second strategy neutralizes colour, makes colour harmless by inscribing it to the surface of things, to the realm of the superficial and the frivolous; to the ultimately unnecessary cosmetic. Batchelor calls the chromophobic take on cosmetics a story of "the imposition of an artificial or illusory layer of colour upon a monochromatic world."[4]

When Bencke starts her investigation of Schärings work in questioning how our culture has perceived white versus colour, she even plunges into the discussion of depth and surface. Surface, like colour, is culturally constructed as something that may seduce, mislead, cover, or distract from something true and unchanging. If we, along with Schäring, ask what we mean when we talk about a thing's colour, the relation between colour, materiality, and dyed fibers leads to interesting discussions. As Bencke writes "unbleached or uncoloured textile fibres are usually seen as something unfinished and uncultivated, but these fibres, undoubtedly, have colour, just not very loud ones"[5] Schäring herself empathizes how traditional colouring with plants always produce colour in the form of something

Jeanette Schäring
The Indigo Vat, 2017 © Jeanette Schäring

vibrant and alive, and in the form of a multiplicity. The knowledge of a specific colour is a situated knowledge. Learning to get an expected result depends on knowing how the plants (used both as fiber and for producing colour) relate to the place where they grow, when to harvest them, how to utilize them, and how water, light, temperature and bacterial activity may interact in a special climate and location. This is even true about how these natural colours change over time. Natural dyes may contain a great variety of colorants.

Some like Woad according to Schäring, may "produce a veritable colour wheel" depending on the dyeing process and the condition of the plant both.[6] And, natural colouring with for example Woad or Indigo is not so easy as to just dip or cover a piece of "uncoloured" material in some coloured substance. Rather, the desired blue colour results from a delicate process of interaction where the pigment through repeated dyeing processes, molecule by molecule and where oxygen is alternately removed and added to the chemical reaction, builds up, in, and, on the fiber. This is creating a layered bond, thereby changing and strengthening the fiber itself. This process is not just about the scientifically measurable result. Even the process of dyeing is a spiritual experience to Schäring, and certainly for many other dyers anchored in traditional knowledge. The craft also involves the art of listening to the "spiritual agency" of the plants and the elements and praying to receive the powerful gift of colour. This kind of colour will make the fiber a carrier of a special sign, radiating a material/spiritual message. The fiber thus, at a closer look, does not just get a blue colour or a blue surface but is essentially transformed into a new state of materiality. In this way the variety of nuances as aspects of the specific colour encourages horizontal, spatial thinking at the same time that the most powerful tones (often but not always the darker or most intense nuances) may open for a feeling of vibration and depth, and of standing at an entrance to another mode of existence.

In the modern textile industry, colour stability, strength, and uniform appearance are valued qualities. Although we accept that our

Jeanette Schäring
Indigo Performance, 2015 © Jeanette Schäring

Jeanette Schäring
Colours in Process, 2015 © Jeanette Schäring

new clothes must be washed before we wear them, not to cause us poisoning and skin rashes, we do not usually accept the result of a visible interaction in which the colours of our clothes may change with the bacteria, salinity or acidity of our bodies or bleach by sunlight. Many natural colours will do just that, interact with its bearers, change like a litmus-paper at different pH, and fade when exposed to light. But, is this really so bad, Schäring asks. To freshen the fabric in a colouring bath could be no bigger issue than to wash it, and even stains and wear could add to the depth and complexity of the garments unique history and beauty.

In her work *Fläcken på Duken (The Spot on the Tablecloth)* Schäring explores our misunderstanding of cleanliness as spotlessness. By removing the colourings that we (willing or unwillingly) surround ourselves with, we do not necessarily make the world cleaner. Rather we pollute our precious water with bleaches and detergents that can easily be avoided if we could accept coloured stains as traces of lived life. By underlining that the perception of colour and dyeing are both entangled natural/cultural processes, Schäring makes us think about the unseen and often environmentally damaging processes that are part of the modern dyeing industry. As she says, the longing for the deepest and most vibrant colours are culturally anchored in spirituality, power and privilege, but today strong colours are achievable for all. The guidelines today are a fashion and taste for the new, which encourage the same over-consumption that Jane Bennet was reminded of encountering the things in their passing from individually calling out, to a pulpish "muted" mass of trash. When becoming trash, Bennet says, the things individuality is silenced. Staying in dialogue with our things may give us more patience, and teach us how to avoid unnecessary trash-making.

To Schäring both patina and changeability in colours speak to a sensibility

Jeanette Schäring
Installation view, exhibition *Whose Water are You?* 2017 © Jeanette Schäring

and a sensuousness. With the colours of nature, the elements of light and water are welcomed in a way that makes it possible for us to appreciate them better, and even to learn that the process of bonding between colorant and fiber can be a beautiful play of nature, an aesthetic experience to enjoy. In Jeanette´s window you may often find fabrics and plant materials seeped in rainwater and stored in large glass jars, where colouring processes by the aid of sunlight and bacterial activity bloom for months, in beautiful and changing colours. To bring fresh flowers to decorate a table is just one way of bringing colour to the room. Conceiving colour and colouring as process tells us to listen to the agency of the colours that we surround ourselves with. Some of the pigments and dyes in our lives are beneficial to our health, and others are the opposite. Dyeing processes may both degrade water quality and produce nutrients that are nature-friendly and even beneficial to the organisms in our compost heaps. How close to our skin do we want potentially harmful substances? And for how long are we going to accept the overconsumption and pollution of water that both the production of fibers like cotton and industrial dyeing are based on?

Seeing colour as just a surface-quality relating to objects, makes it less material to us. But colour as pigment (alone, solved in dyes or bound with other materials,) has physical and chemical properties that change over time, which we should learn to acknowledge. Schäring sees both dyeing and coloured fiber as in different states of a transformational process, both when it comes to environmental, aesthetical or spiritual impact. In her art she shows us that many of the natural pigments look very different in different kinds of light. Together with the texture of the fabric, they become instruments that help us to better understand and appreciate the relentless change of light. And, this is especially effective if we choose to surround ourselves with natural colours that are more subtle and rich in nuance than their industrially produced counterparts. The changeability of colour when interacting with light, structure, and water makes us see them as lively, as acting in time and teaches us to use colour and materiality as an interface to even see the qualities of light and air better. When you start

to place these kinds of colours together, in your clothes or for home decorating, you may be surprised that they often work very well together, enhancing each other.

As is well known, we never truly see colour. Different animals sense different parts of the light spectrum, and different kinds of eyes interact with the brain in intricate ways to construct the way we and other animals read the colours of the world. Colour has a lot of different meanings, like telling that a fruit is ripe, a snake is poisonous, that the blackening sky may bring thunder, or it could be one in a compound of signs that tells that an animal is ready to mate. Both instinct, sensorial practice and learning is crucial to our interpretation of colour.

In his book, *The Visible and the Invisible* Merleau Ponty writes about the colour red as not merely the awareness of a quality belonging to an object. He claims that for an experience "prior to being worked over", it is an encounter with "a punctuation in the field of red things, which includes the tiles of rooftops; the flags of gatekeepers and of the revolution; of certain terrains near Aix or Madagascar. It is also a punctuation in the field of red garments, which includes, along with the dresses of women, the robes of professors, bishops and advocates general… and its red is literally not the same if it appears in one constellation or in another… A certain red is also a fossil, drawn up from the depths of imaginary worlds," and that when seeing, I do not hold an object at the terminus of my gaze, rather I am "delivered over to a field of the sensible which is structured in terms of the difference between things and colours, a momentary crystallization of coloured being or visibility."[6]

In her essay about Schärings art "Colour in Tattva-Jagat: a Saiva Introduction" the artist and philosopher Pooja Kaul reminds us that even traditional thinking like India's century-old philosophy of Saiva have discussions of colour as partly material, partly constructed by our perception and partly as a becoming of matter and consciousness intertwined. In the Saiva philosophy, consciousness is the foundation of all emergence, and materiality just one of its dynamic aspects. This brings us to see materiality as simultaneously coming into existence and informing identity, as the production of this identity claims some material in the world.

Colour as nature and sensorial interface

Where is colour located, in the perception of an organism, in the environment or in the light that makes objects visible? In her essay "The Materiality and Ecology of Blue- Goethe and Jeanette Schäring" Heather Sullivan takes up this question. Is darkness, as Newton explained, the absence of light or light *and* darkness as Goethe says, a fundamental polarity of all nature? "As yellow always brings a light with itself, so can one say that blue always brings something dark with itself,"[8] Goethe writes, and he sees colour as something brought forth both from light and from that which it encounters. Sullivan elaborates on the way Goethe sees colours as the most precise expression of "nature", because they emerge, shift, and flow through the vibrant interaction of light, objects, and a perceiving eye, rather than standing as isolated "things" unto themselves. Sullivan calls this an "ecology of colours". This is reading colour as intra-action; a weave of light, energy, perceiving bodies, and the things all around us. Karen Barad's description of intra-action in *Meeting the Universe Halfway: The Entanglement of Matter and Meaning* entails that colour, in this ecology, becomes a much more dynamic concept than merely a "surface property". When Barad, (and even as Pooja Kaul explains the Saiva philosophy), says that phenomena are the joint dynamic and simultaneous emergence of discursive and material practice. Both phenomena are best understood as on-going processes where meaning and matter co-create simultaneously, and continuously act together with and on each other. Barads term *intra* action instead of *inter*-action places emphasis on the inseparability of these principles of co-emergence. Both Goethe and Schäring, writes Sullivan, posit a sense of nature in fluid material forms that changes and grow through time. We thus avoid defining "nature" as landscape and instead describe how nature *acts* in and through the energetic and on-going processes all around us and on many scales, and which we, too, are participants. This is

most important in our anthropocene age of environmental destruction and species loss. If nature is located in space as an "elsewhere" and contrasted with the "here and now" of human culture, we may still be misled to think that nature is something that may be explored, controlled and conquered by humans, and that what happens "there" may not necessarily affect us.

We are nature, and nature cannot be delimited spatially. At the same time, some kind of alterity may be necessary if we want to care for the world as a something that we need to face and respect.

In her book *The Ethics of Earth Art,* Amanda Boetzkes starts in the history of early Land Art and draws distinctions, that I think are useful to understand the ethical aspects of Schärings art and the relation to materiality and surface. As Boetzkes says, it is rather logical that the theoretical analyses of early earthworks, (which were often related to multisensorial, bodily exploration involving land or landscapes), were initially structured on phenomenology, and Merleau-Ponty in particular. Boetzkes, like Sullivan, argues that land or landscape is not necessary to explore nature, and that Earth expresses itself through its elementals. And, it is not enough for the eco-ethical artist to simply show us ways of being in the world or of the world. If we want to take an ethical stance towards the Earth, we must even embrace otherness and difference and commit to preserving the others difference from oneself, as Luce Irigary explains it. This is even a question of making sensual contact in an open and receptive mode, to find a way of touching that doesn´t enclose but allows and respects the difference. Based on this, Boetzkes argues that earth-artists develop an ethical stance by, instead of making the artwork represent nature, position the artwork as a receptive surface even for the Earths expressions. If we, by earth-art mean art that wants to mediate contact with Earth through the elemental forces that are expressive beyond our sensorial capacity, then Schäring´s art may fit well into the discussion in Boetzkes book. Schäring, as most artist working with eco-ethics, doesn´t want to give us concepts concerning what the Earth *is*, rather she will through her art share with us an experience of standing at a threshold, at a point of overflowing, where our senses tell us we are touching, seeing and listening to something vibrant and on-going that we can neither grasp nor control.

Colour, signs and "surfaces within surfaces"

Discussing Colour as materiality brings us to consider the coloured surface as an area of signalling and communication. And we must not forget that we tend to respond to this signalling with some kind of affect and to inscribe this in our cultures. The leaf at the branch signals something to us with its colour and so does its coolness to the touch. We say the leaf is green (as it is a fresh, growing leaf), and so green becomes a life-giving symbol of hope. We see the colour of the leaf as a property of the specific leaf, along with other qualities like shape, size and so on. But we could even see the green in the form of a verb: the leaf is greening, meaning being actively engaged in photosynthesis, and the green a sign thereof. We may easily think of the porous surface of the leaf as an area of vibrant and life-giving activity, but so is the underground interface between root, mycorrhizal fungi, and soil bacteria. But, what goes on in the dark is traditionally connected to death, loss, and sorrow. Why are our affects so based in culture and habit, and could we for the sake of the environment try to change some of these habits?

The greening of the leaf and the shedding of micro-plastics from fleece are both agencies that cannot be located to the surface that we see in front of us. When we think of surfaces, properties of surfaces and surface activity we must try not to limit our thinking to what may be directly sensed. To see the surface as a property of a thing, as the things border and the area that gives the thing autonomy and integrity, may be ecologically misleading. The surface tends, as biosemiotician Jesper Hoffmeyer writes in his essay "Surfaces Inside Surfaces: The Origin of Agency and Life", to be inside something else, and what is outside at one instant of time may be turned inside at a later time. Insides, as well as outsides, writes Hoffmeyer "are always defined by the boundary surrounding them, and in living systems such a boundary (e.g. the cell membrane or the skin) is itself a physical

Jeanette Schäring
Installation view, exhibition *Whose Water are You?* 2017 © Jeanette Schäring

structure of a certain thickness and internal structure.[9] To both Hoffmeyer and Schäring theborder as a concept is an area of high agency much more than a simple manifestation of exclusion. In Schäring's earlier and more sculptural works, fibers passing through membranes or textiles resembling skin-like amorphous shapes often appear. Such examples link her work to Hoffmeyer and his writing of biosemiotics as a passage of signs "through surfaces inside surfaces". Hoffmeyer writes that

> Under the skin, we come upon even more cellular layers, layers that envelope tissues or organs – or, in other words, beneath the surface we encounter even more surfaces. And if we go further below these surfaces, we yet again find more surfaces, i.e., the membranes that surround single cells

and

> the cell's interior is packed with bodies inside bodies, e.g., the so-called organelles (…) and across all of these membranes there occurs constant biosemiotic activity whereby molecular messages are exchanged in order to bring the biochemical functions on the inside and the outside of these interior membranes into concordance.[10]

As Hoffmeyer says, it is not logical to separate the biological process that we call "life" into an acting of "living entities" on "dead matter". Biosemioticians say that semiosis as process is a relation to signs that doesn't have to involve any special kind of consciousness, but rather that some condition must spark a recognition and reaction. As an example, Hoffmeyer writes that a species of bacteria may alter between swimming randomly or in a fixed direction. If sugar molecules fasten on its surface they are caught up by special receptors. The bacteria keep on swimming in the same direction as long as the levels of sugar molecules are constant or increasing. Hoffmeyer says that even if the bacterium does not have a *mind* or *sentience* it nevertheless does possess some

Jeanette Schäring
Polygonum Tinctorium, Japanese Indigo photograph, 2015 © Jeanette Schäring

kind of foresight or expectation that is necessary to process the information into a kind of meaning and thus action. For the sign to be meaningful, he writes, it must be possible to expect a certain degree of predictability. In this way, life has a "parasitic" relation to the physico-chemical dynamics (which could be explained in terms of "natural laws", that makes the world predictable).[11] Neither organic life nor semiotics could have developed without constraints, borders to cross, or some certain degree of predictability. In "Surfaces inside Surfaces" he cites the scientists Koichiro Matsuno and Stanley Salte when they, like Barad, suggest that semiotic agency is an intimate aspect of material process in our universe, and that biosemiotics must be seen as a highly specified elaboration of a much more general principle.

Let us now return to Jeanette Schäring's artistic practice, which she describes as "holistic, and based on natural colour processes integrated in ecological thinking and with the use of inter-species communication." According to Hoffmeyer, as well as Carl Sander Pierce, colour must typically be seen as a sign, but the sign does not care about its interpretation, neither if it is interpreted or not or the categories that are used to decipher it. Even if we, as humans, may react both consciously and instinctively to colour, and it may evoke responses from as different categories of human thinking as mythology, emotion, mystical experiences or rationalistic analyses, the sign itself is free to be all or none of these as it "pleases." To Schäring this is important, since she does not want her colour processes to be read in any special way at the cost of another but wants it to fluctuate between different forms and trigger all kinds of different responses in us (verbal or not). She is more interested in thinking *with* colour and dyeing than *about* them, even though specialised knowledge is often necessary to create beautiful colours from organic material.

Conclusion

This essay started with the experience of being "caught in your tracks" by "the call of the thing". The call of Earths shared materiality may be expressed in the sensorial meeting

with the elementals, but the elemental forces are present even in the objects we are surrounded with. By seeing and feeling materiality as vibrant, lively and communicating something to the observing mind, the power and unique constellations of the "now" breaks through the habitual thinking. By stopping and looking to the things and surfaces around us we see that they are all *in process*, from past into future, always entangled in interaction. Some of these interactions are visible to our eyes or scientific measuring equipment, others not. Glimpsing a strand or two of the complicated and wide-stretching networks that we are part of may start as an intuitive process and be experienced as a call from the thing (or object of research) itself. To answer to this call and to appreciate intuition may be fruitful both for the philosopher, visual artist or scientist.

Both Schäring, Bennet, Pihlgren and Merleau Ponty give us some hints about how this "call of the thing" may be experienced. First of all, the thing is not experienced as a mere tool for us to use. What we know about the usability of the thing is backgrounded, and the sensorial experience of the thing and its appearance foregrounded. To "lift the things up" to a level where we can exchange information, we make space for the thing as something new, as an entrance to an enchanted world, vibrating with mystery and power. But, to listen to the "thing power" may be dangerous. The things may drag you into their own poetry, and demand that you take an ethical stand. To think with Timothy Morton's concept of "hyperobject" may be helpful when thinking about water, pollutants and the material sides of dyeing and textile trade. The effects of the textile trade on water are massively distributed both in time and space, difficult to grasp, and urgently demands our attention. Seeing yourself as a swirl in a play of matter and motion, and even as part of destructive flows, may prove to be too challenging for many of us. To make existence inhabitable we have to continuously foreground and background our experiences and to knit webs of meaning using categories from sensorial impression as well as culturally learned knowledge simultaneously. Art plays an important role in bringing us into sensorial contact with the shared materiality on Earth.

This meeting–with, in a touching without grasping, gives us the gift of wondering and tells us to respect that Earth (its materiality and all the species with it) are not human or for humans. We share material, temporal and spatial existence and if we want to use the elements or other species for human benefit, we have to do this respectfully. But, a respectful meeting with the Earth does not necessarily have to build exclusively on knowledge. If we start to think about problems like species loss and ecological devastation it is easy to feel sad and want to care, even if the problems are too complicated to understand fully. The processes we are caught in may consist of a myriad of on-going spatiotemporal processes, and many outcomes impossible to predict. We have to accept that we are at this moment constantly causing material consequences without knowing and that things and materialities are acting through us and in us. A consequence of this may be to make more space in our consciousness for being in and exploring shared materiality and even to accept matter as lively and vibrant.

When Merleau-Ponty writes about the synaesthetic experience as foundational, he does so partly on the base of his own experiences with mind-altering drugs (mescaline). Today scientific investigations of people that see colours when hearing specific notes, (as even Merleau Ponty experienced in an altered state of perception) may show brain function in centres usually connected with seeing when hearing specific notes. But, to Merleau-Ponty the important thing is not to analyse the function of the brain, but that our interface with our world may be experienced in a trans and multi-modal mode, and that even a consciously analytic approach involves a sorting and ordering of sensorial information that draws simultaneously on experience, intuition, association, emotion, expectation, and on foregrounding/backgrounding. But, before any of these processes takes place there is always "another subject beneath me, for whom a world exists before I am here, and who marks out my place in it."[12] This pre-personal, natural body, exists as integrated into the world as shared, entangled materiality and is only fully accessible to us in glimpses of siding with it (as when falling asleep). To experience *in* and *as* this sentence, we have to

stop "the play" for a while and try to experience the here and now without evaluating. "The world is a field, and as such is always open,"[13] writes Merleau Ponty in the notes part of *The Visible and the Invisible.* He writes about the child's experience that it is not an undifferentiated way of the grown up´s perception, but another way of being that we should recapture to better feel the common tissue of which we are made, the *wild being*.

Notes

1 Jeanette, Schäring and Laszlo Fröydi (ed), (2017) *Matter in Motion and the Mysticism of Nature´s Colours. The art of Jeanette Schäring* Schäring Sullivan Heather, Kaul Pooja, Bergquist Jonas, Bencke Ida, Meland Ingmar. 284 Publishers (Forlaget 284) p.17-19

2 Bennett, Jane (2010) *Vibrant Matter: A Political Ecology of Things.* (New York: Duke) p.4

3 Schäring Jeanette, Laszlo Fröydi (ed), (2017) p.286

4 Batchelor, David (2001) *Chromophobia,* (London: Reaktion Books) p.23

5 Schäring Jeanette, Laszlo Fröydi (ed), (2017) p.289

6 Interview with Schäring by Fröydi Laszlo, Gothenburg June 2013

7 Merleau-Ponty, Maurice (1964) *The Visible and the Invisible, Followed by Working Notes*. Translated by Alphonso Lingis, (Evenstone: Northwestern University Press) 1968, p.132

8 Goethe, Johann Wolfgang, Zur Farbenlehre *Towards a Theory of Color*, (ed.). Manfred Wenzel. (Frankfurt am Main: Klassiker,1991), 252, #778 (citations in English from Goethe's theory by Heather Sullivan) see also *Matter in Motion* p.246-248

9 Hoffmeyer, Jesper "Surfaces Inside Surfaces. On the Origin of Agency and Life" in *Cybernetics and Human Knowing*, vol 5(1) 1998 p.33-34

10 Ibid.

11 Hoffmeyer, Jesper (2012) *Overfladens Dyb* (Denmark, Forlaget Ries) p.118-119

12 Merleau-Ponty, Maurice: *Phenomenology of Perception.* Translated by Colin Smith, Routledge & Kegan Paul, London, 1962 (1945). p.296

13 Merleau-Ponty, Maurice, 1964, p.185

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Jeanette Schäring is a contemporary artist blurring the boundaries between art, craft, science and environmental activism. Her background is in dyeing fibres with natural colours, that she produces by growing her dyeing plants from seeds. She is interested in the human perception and the interconnectedness of things in nature and life in which various elements and matters exist in more than one form. She has her background in Sweden but has travelled and exhibited widely and is today located on New Zealand.

Fröydi Laszlo is a contemporary artist engaged in environmental questions. She has her background in painting and photography, and has since 2011 organized a trans-disciplinary network called "Club Anthropocene" with participants mostly from the Nordic countries. In the last years she has been the editor and leader of the artist-run initiative 284 Publishers, which has focused specially on the combination environmental art, theory and eco-criticism. She is today located in Sweden.

THE LIVING SURFACE

Artist and designer Lizan Freijsen is fascinated by stains, fungi and mildew. By turning moisture stains into textiles, the artist focuses on these blind-spots and visualizes their complex beauty. The Living Surface: An Alternative Biology Book on Stains *by Freijsen gives an overview of her extensive photo-archive with a wide-range of categories of traces of decay, and a selection of her unique hand-made carpets, tapestries and blankets produced in the last eight years.*

Interviewer: Giovanni Aloi
Interviewee: Lizan Freijsen

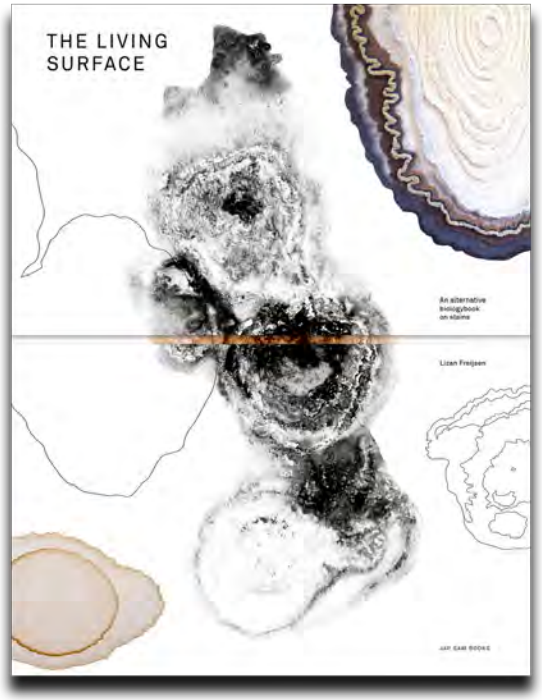
The Living Surface: An Alternative Biology Book on Stains is an intriguing look at the work, artistic practice and materials used by Dutch designer and artist Lizan Freijsen (b. 1960). Her practice has evolved from painting, mixed media and public spaces to photographic research where her fascination with dried stains from everyday environments take a central place. Within the framework of a masters study in design research (201416), Freijsen rekindled her interest in the lost craft of hand tufting, incorporating these organic patterns in her handmade carpets, tapestries, blankets and other textiles, which have been crafted over the last eight years. This publication features the time-consuming production of carpets by means of this hand-tufting technique, combined with form and color studies; an overview of her extensive photo archive of stains, fungi and mildew cataloged by location; and a section that lists their CMYK formula.

Giovanni Aloi: Lizan, when I first encountered your work, the first thing that came to my mind was how stains have some sort of out of control agency. They threaten our sense of purity and order. We spend some considerable time hiding stains in our homes by painting walls and ceilings, but also covering stains with objects like a rug or a plant pot. We spend money to remove stains from clothing and dread those that become permanent. I wonder if stains have a more complex place in our unconscious or if they simply are manifestations of our fear to let go and embrace the decay that makes life what it is? I like to entertain the notion that stains in our everyday lives are the markers of some deeper malfunction we'd rather not think about.

As you explain in the introduction of *The Living Surface – An Alternative Biology,* stains caused by leakage are a source of inspiration to your practice. Can you tell us when your appreciation for stains began and how it developed into such a fascinating and intricate project?

Lizan Freijsen: Collecting images of stains started 12 years ago in 2006. At the time I shared a garden with an old barn and I observed leakages at the wooden ceiling. Because of my background as a painter, to me, this was some kind of 'object trouvé', the everchanging shape of the stains was actually a painting by nature.

So, I researched the phenomenon of leakages in a richer and neglected area of Rotterdam, NL. I then made photographs of these "micro-disasters" that indeed ornate many homes. The project started with 4000 postcards disseminated through the neighborhoods asking people if they had a



Lizan Freijsen
The Living Surface, book cover. Jap Sam Books, 2017
© Lizan Freijsen

stain in their home I could photograph. The postcards yielded a 1% respond, which equated to ± 40 household addresses that I visited over several months. It occurred to me that this could have become a social project featuring stories about neighbors, washing machines, and landlords. But that would have taken too much time, so I concentrated on the visual outcome I had originally planned. The stains themselves and the embarrassment they seem to provoke seemed sufficient.

I then produced monumental installations in white-cube like art spaces by printing the stains on paper in order to construct temporarily 'leakages on demand'. These shows marked either the closure of a building, just before renovation, or the grand opening after the works were completed. 'Leakage' is a topic everyone can relate to, people remember vividly how the drama unfolds!

The subject spread from spots, and stains, to mosses, lichen, fungi and imprints of carbon dioxide on sandstone surfaces created by natural forces, the climate and time. But water remained the real topic, since it has no shape in itself, water effects and changes all materials. In this work, water is invisible and yet very present.

G.A.: In your work, stains become a layered and blotted out history of a precise place; a building, its peeling wallpapers, a flaking ceiling, or a corrugated handlebar. The mold, oxidation, and fungi patterns of decay which infiltrate our determinism are connected to the micro-climatic conditions of a specific site. What can we learn from paying attention to surfaces?

L.F.: The outside of things is what we normally see and that's how we derive information about the world. The wrinkles on a face, cracks in a street pavement, the glossy skin of cars, we interpret our environment according to the surfaces we see all the time. As a city shows its history in these details, people leave traces of daily movements, create presence and memories on ordinary surfaces. At home is where you find fingerprints near the light switch, faded colors in a curtain, and traces of tape or pencil on the cupboard wall to mark children's growth. These marks become invisible. It's only when we move out that the patch of lighter paint behind the mirror reminds us it has been 10 years since we hang it.

In Belgium and the Netherlands, moisture stains are very likely to be found in soft board ceilings from the 1950's. This material works like watercolor paper. It creates fascinating patterns of brown stains as it absorbs the humidity. The color brown emerges to the tannin in the wooden floors since older Dutch houses are made of wood. Water came a long way down from the roof or crawling from the foundations.

In general, the construction material of a specific area also reveals the economic history of a country. The cracks in the asphalt, a stone wall, a wooden shed, brick house, ceramic floor, we notice the way material ages beautifully. In the last decades, building materials changed from the ones I just mentioned to concrete and glass. The textures of the future will be polished with nano-technology to keep them clean, so the stains that I have archived in my book are very specific to the history of the architecture and the time in which the images were made.

Lizan Freijsen
The Living Surface, interior. Jap Sam Books, 2017
© Lizan Freijsen

G.A.: An important component of *The Living Surface* is the photo archive. What is the importance of archives in your practice in general, and more specifically, what are the criteria that apply to catalogue surfaces?

L.F.: Many artist and non-artist collect images daily in folders on a desktop. These fascinations for certain topics have great potential since individual preferences behold stories like my digital stain collection.

I have taken all the images featured in the book during the past ten years. I have many more images than those that made the final cut—another whole book could be made.

In 2009 designer Renate Boere and I made a small publication called *Starting a Universe*, which showed 120 stains with names. Each spot was composed on a page of transparent paper and printed in gold ink. The names were categorized into 6 fields of associations like, for example, Food, Animals, Nature, Landscape. This structure and the golden look lifted the stains into objects of value.

The title referred to the power of imagination, like when observing clouds. When I was a child it was uneasiness and fear for small insects, that made me transform damp spots, moisture stains on the ceiling into a world I could relate to. Transforming fear is what can drive artistic practices.

Ultimately, I don't think that my work is directly related to climate change. But witnessing the everchanging shape of water in our daily environment holds a relevant story on a large and small scales alike.

G.A.: What technical challenges have you encountered in photographing and archiving your collection of stains?

Lizan Freijsen
The Living Surface, interior. Jap Sam Books, 2017
© Lizan Freijsen

Digital tools definitely contributed to the development of my work. I come from the century of analogue photography, developing in the dark and smelling the odours of chemicals while images manifest. So much has changed since Nikon EM with microlenses and into the digital realm with an Epson 9800 printer and iPhone 6S at hand.

Since I don't fancy perfect photography, the pleasure of digital is in the flexibility of making the photo at that very moment and manipulated it in a very efficient way. I was able to construct a reality from fragments in order to establish a sense of wholeness.

G.A.: Is cataloguing surfaces also a way to rationalize our cultural rejection of stains?

L.F.: We tend to exclude what we do not know. Fear of chaos and a desire for perfection play major roles in our society. I did mention a childhood experience in which creativity started with a feeling of anxiety and unease. In moisture stains and fungi one can see maps of continents and vast oceans.

A project in the hall of a swimming pool was called: 'A sea at the ceiling' 2006. On the first sight, this work touched and shocked the young and elderly people who visited the pool weekly. At the time, it provoked and created a lot of discussion and generated media attention.

The print of fungi on cotton cushions showed the limit, people turned away with disgust. Though fungi emerge from life upon the death of something else and it is a valuable material, we only recently started to discover their start worth. Since the work is about transformation, this message comes across rather clearly.

Another important aspect of the project was mindfulness; being in the

Lizan Freijsen
The Living Surface, interior. Jap Sam Books, 2017

moment. As I mentioned before, making photographs is for me a way to be present and focused.

G.A.: Spending time looking at the collection of stains in your book, not only one is surprised to find so much beauty in patterns of decay, but page after page, it appears clear that stains can be considered from an archaeological perspective of sort. I began to think about the sedimentation of strata, rocks, sand, layers and the alternative time-frames involved in producing such complicated abstract compositions. The images are surprisingly evocative. There also appears to be at play an interesting subversion of the micro and macro. Some stains share aesthetic assonances with deserted or lunar landscapes. Some look like areal-photographs of forests and rivers. Others suggest an immersion into a microcosm—a vision through a microscope of some kind.

L.F.: The relationship between macro and micro has always fascinated me. 'The ten steps of Eames' was, at the time, an eye-opener: we can only see so little ourselves. Lenses enlarge the world multiple times in both directions micro and macro. My practice is directly informed by the century of discoveries when the world was named by *Carl Linnaeus* in 'Systema Natura' and became structured as it is now.

Of great relevance to my work also was 'The Signature of All Things' by *Elizabeth Gilbert. (2013*) It shares the life story of Alma Whittaker, daughter of a rich botanist, who researches mosses for 34 years and eventually contributes, in fiction, to the theory of evolution.

The '*signature of all things'* refers to the theory of the German scientist, Jacob Boehme (1575-1626) who connected the shape of plants to their potential medical use. It has been proven wrong, but the visual world has influenced our knowledge, perception, and behaviour.

Lizan Freijsen
The Living Surface, installation view at Bargarde Galleries, Heerjansdam, NL 2017
© Lizan Freijsen

Another interesting book I read was 'Naming Nature', by *Carol Kaesuk Yoon (2009)*. It helped me find a way to connect with nature and wonder about the small fruit fly instead of worrying about the unreachable Milky Way. With naming all living things, we seem further from discovering life ourselves. Reading this book, made science accessible and brought pleasure to name life as a botanist from the 17th century.

One last book which had meaning for my project was *Objectivity* by Lorraine Daston & Peter Galison (2010) on the 'subjective'. They question to what extent and in what way objectivity exists.

G.A.: I love that book! I used it through my Ph.D. research and it certainly was one of the most rewarding reads I came across.

Your carpets also are an important part of your project. Can you tell us about the role that hand-tufting plays in your practice and how did you come to link stains to hand-tufting?

L.F.: I work with qualified people from the Textile Museum/ LAB in Tilburg, NL, where designers can work on a variety of techniques and machines. The hand-tufting workshop has produced over 50 carpets for me. Last year, we started two other hand-tuft workshops in Tilburg and Rotterdam. We introduced the technique at the Willem De Kooning Academy in Rotterdam and have noticed a growing interest with students of all departments.

G.A.: I am not sure that this might be what interests you about the conversion from stain to carpet, but stains are usually not commercially viable. They can't quite become commodities. Despite their negative cultural attribution, their undesirable status, they are so embedded in the surfaces within which they develop into that it is usually impossible to remove them intact. Yet, we sometimes like certain types of stains and their presence can heighten the value of an object. The patina on some old objects can work as a validator

Lizan Freijsen
The Living Surface, installation view at Bargarde Galleries, Heerjansdam, NL 2017

of their age and history. The yellowing on old letters carries a poetic quality of sort… What are the carpets a catalyst for and how do they free the stain from the surface which generates it?

L.F.: Well, the carpets make the stain mobile and move them back into the house as an object of comfort. But at the same time, the stain is a metaphor for what we don't appreciate at first.

Old wooden furniture, paintings, we cherish and value them highly, stains make surfaces become vibrant with time. Museums are full of the 'old', in order to not forget our heritage and past.

G.A.: Is this project informed by that of other artists?

L.F.: I must admit that designer and artist archives, like *Gerhard Richter's* 'Atlas', inspired me over the last years. Likewise, I was interested in *Aby Warburg*: 'The Mnemosyne Atlas'. A visual connection between high /low art, popular culture, new media and art in unexpected combinations; *Fischli & Weiss*: 'Sichtbare Welt'. Multiple airports, highways, skylines, horizons, hotel lobbies and rooms, structured; *Carl Blossfeldt*: 'Urformen der Kunst'. Sketchbook using early analogue photography in search of new aesthetics in plants; and 'The Craftsman' by *Richard Sennett* (2009) was of great influence for my appreciation of crafts, makers and their skills. I started hand-tufting myself which is helpful for the communication with other makers.

The creative process of my practice, from finding stains, transforming, designing and making the product is in the book. We wanted to give insight into this process, so people can understand and experience the power of transformation.

Both the designer Renate Boere and I are teaching at the Willem de Kooning Academy in Rotterdam, NL. Besides sharing the passion for our work. We want to inspire students to develop their own projects and field of interests.

G.A.: What are you currently working on?

L.F.: *TEST-SITE*

June 16: An outdoor hand-tufted carpet with holes (*in collaboration with Beiriz Tapetes, Portugal)* for a botanical garden which will be on display for 3 months during all weather conditions. Documenting this process will become a new work.

'UNFADING…'
- Sept 14: Installation in a gallery show in which the visual language of organic and rectangular structures are combined in different media.

FIELD-WORK
- For the participation on design fairs in Eindhoven (2018), Milan (2019) and NY (2019) we develop a field of small carpets in a color spectrum that merges in several spaces.

Lizan Freijsen (1960) lives and works in Rotterdam. After her bachelor studies at the ABK, Rotterdam (1984) she worked at Jan van Eyck Academie, Maastricht (1989). Since 1999 she has been connected to the Willem de Kooning Academy in Rotterdam as a Faculty and Study Coach. Her work has been exhibited nationally and internationally.

LECANORA MURALIS

In Lecanora Muralis, *Cole Swanson examines how colonial systems and biological processes become agential in the transformation of art and architecture. Situated on the edge of an Atlantic rainforest in Ilhabela, Brazil, Swanson's mural traces the surface of a colonial laborer's quarters. Using locally harvested pigments to highlight the growth of microflora, Swanson's ephemeral work draws attention to intersections between biosystems, colonial histories, commerce, science, language, and art. The work attempts to illuminate the agency of covert actors – human and non-human – in order to challenge disciplinary strictures and engage with possibilities for cross-species collaboration.*

Text and Images by Cole Swanson

"No species, not even our own arrogant one pretending to be good individuals in so-called modern Western scripts, acts alone; assemblages of organic species and of abiotic actors make history, the evolutionary kind and the other kinds too." (Haraway 159)

The Island of São Sebastião is better known in Portuguese as Ilhabela, the "beautiful island." An archipelago off the coast of the state of São Paulo, Brazil, the popular eco-tourist destination was the site of an artist research-residency held over the cool, winter weeks of July, 2017.[1] Through an engagement with local organic and earth-based media, I created an ephemeral mural on the wall of a mid-twentieth century laborer's quarters. Titled after a species of lichen, the mural, *Lecanora Muralis*, (Fig. 1) illuminates the growth of microflora across the surface of the dilapidated substrate to critically examine relationships between biosystems, colonial histories, commerce, science, language, and art. The mural site is a locus of countless worlds wherein discursive practices and biological phenomena collide, transforming one another and evolving futures. Additionally, the process and materiality of the artwork – the harvesting, rendering, and application of colours – attempt to bring into focus those actors often made invisible by socio-cultural and biological forces. In the spirit of Donna Haraway, the following is a series of brief meditations on both human and non-human forms of agency from which the artwork is materialized.

On Colonization

The "beautiful island" has a repugnant colonial history. Following the arrival of the Portuguese in the sixteenth century, the costal trade in goods, slaves, and fisheries motivated a mass-deforestation of Atlantic rainforest (Bertolo et al. 117). A ruralization effort made way for slave-driven agricultural projects centered on sugarcane and coffee cultivation; however, by the early twentieth century, after the abolishment of slavery, a period of economic stagnation fell over the island. Only traces of agricultural legacies in the form of small, subsistence farms remained (Bertolo et al. 119). The laborer's hut upon which *Lecanora Muralis* is painted was originally constructed during this period of economic decline to service one of the few remaining colonial homesteads.[2] In the following decades, administrative efforts were undertaken to promote eco-tourism as a new economic

Cole Swanson
Fig.1.Lecanora Muralis. Unbound earth and bone char pigments on biofilm-colonized wall, Ilhabela, Brazil, 2017

strategy that would return the island to a "natural, wild, and untouched place to be exploited for its scenic beauty" (Bertolo et al. 119). The proliferation of microflora across the colonial wall, and the subsequent reclaiming of the structure by the forest itself, reflects the state's desire to shift focus from a sordid colonial past toward a future that appears, at least on the surface, to have an ecological conscience.

It is absurd to think that such biological processes happen solely because human beings allow them to. Lichens colonize despite the harshest conditions imposed on them, human-borne or otherwise. The fragility of human systems is revealed in the orgy of biological growth and destruction penetrating architectural façades dedicated to power systems, past and present.

Lichens are difficult to call to order for they are specific expressions of those eco-universes that are biofilms, organic systems composed of numerous bacteria, algae, and fungi. Lichens are not singular organisms, but symbiotic colonies of microflora resulting in different structural expressions (Warsheid et al. 347 – 348). The bioreceptivity[3] of a given substrate combined with numerous environmental factors provide the conditions for the growth of bio-matter like lichens (Miller et al. 1).

In contrast to its (human) colonial origins, the mural site and its richness of biological activity had, for me, a sacredness. Radiating shapes of lichen and oxidized mineral crusts in brown, gold, and orange contrasted against swaths of rich, blackened wall to create visual expressions of growth and transformation (Fig. 2). This structure was left to nature and to disappear into the jungle, yet it is precisely because of these biological processes that human eyes are beckoned to bear witness.

Minerals, Meat, and Microflora

The artwork was designed as both an illumination of colonial and biological activity as much as it was a collaborative experiment between human and non-human actors. Working with earth-based and organic media reflects the site's materiality and its relations with commodity systems. Scouting the island terrain, I harvested local iron-rich clays from Ilhabela's coastal and rainforest regions to produce a modest palette of minimally refined colours (Fig 3).[4] My inclusion of hand-rendered bone black, a hue produced from charred cattle bone, was an acknowledgement of the

Cole Swanson

Fig.2. Pre-production mural site documentation, Ilhabela, Brazil, 2017 © Cole Swanson

Fig.3. Colour Tests: Yellow Ochre. Unrefined clay-based pigment harvested from southwestern coastline, Ilhabela, Brazil, 2017 © Cole Swanson

state's ongoing and problematic history with cattle farming. Brazil has undergone immense deforestation in its efforts to meet an insatiable, global demand for beef, which, in turn, has contributed significantly to climate change and multiple species extinctions (Strassburg et al. 85).

The unpainted wall contained a wealth of bio-pictorial information used to map the work's composition. Among the many possible species of lichens and other microflora on the substrate, the most apparent appeared to be *Lecanora muralis*, a lichen form with a distinct rosette structure. Composed of both

Cole Swanson

Fig.4. Process documentation: *Lecanora Muralis*. Unbound earth and bone char pigments on biofilm-colonized wall, Ilhabela, Brazil, 2017 © Cole Swanson

fungi and cyanobacteria, lichens can be highly influential to the transformation of human-made substrates into soil (Warsheid et al. 353). Most interesting is the fact that crustose lichens like *Lecanora muralis* become fully integrated within the lithic substrate; they not only colonize the wall, they *become* the wall (de los Ríos et al. 1132).

By tracing the undulating microfloral shapes, increased visibility of biological activity is achieved, but the application of earthen media to the substrate also has potentially transformative effects.

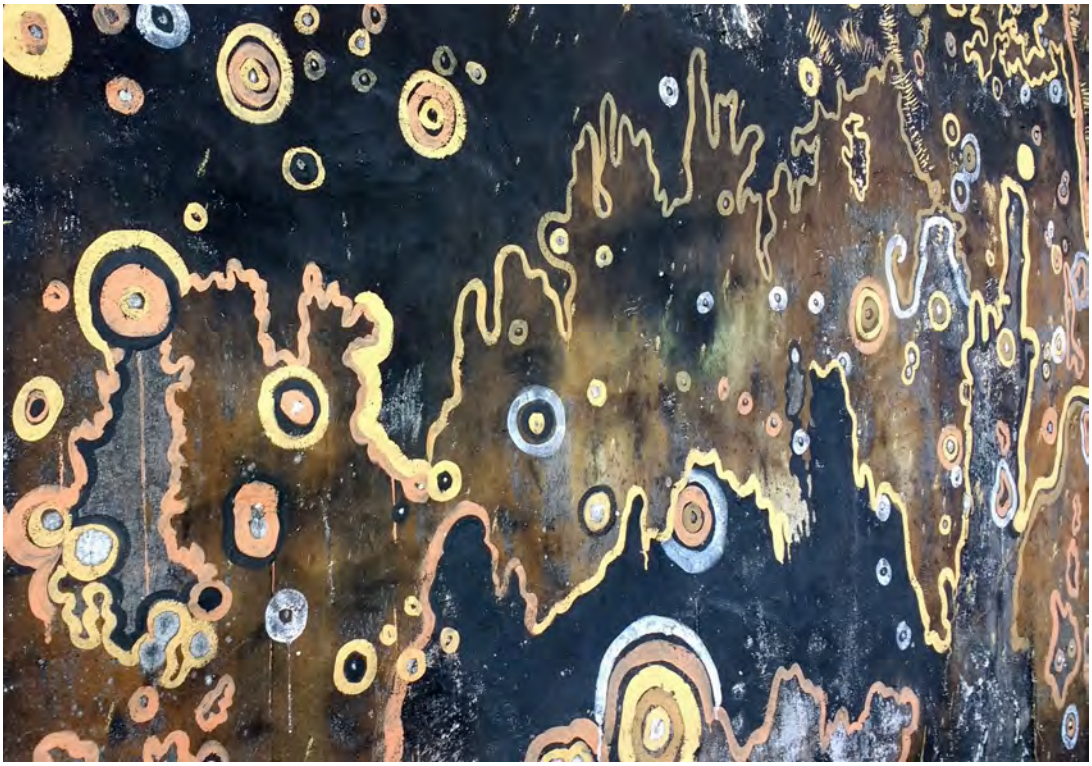
Iron is an essential element of stone-dwelling biofilms (Warsheid 353). The application of iron oxide-based clay colors on a lichenized surface (Fig. 4) offers an array of biological potentialities. For example, by mimicking protective crusts, iron-enriched clay produces an environment where bacteria can proliferate, safeguarded against a variety of environmental stresses. Bacteria found within crusts tend to further oxidize iron, and therefore, produce new expressions of colour (Danin et al. 414). Of course, since numerous environmental and biological factors determine biofilm activity, one can only speculate how an artwork like *Lecanora Muralis* might transform over time.

The Language of Lichens

The terminology used to identify the biological activities demonstrated by microorganisms often reflects specific cultural values. A review of research on bioreceptivity identifies competing terms associated with biofilm processes (Miller et al, 2). For example, the word "biodeterioration" refers to undesirable biological transformations or erosions of surfaces, especially on culturally revered spaces like heritage sites. In contrast, "biodegradation" is a positive term used to describe the same processes attached to the decomposition of unwanted matter, as in waste management (Miller et al. 2). Both words fail to account for the generative nature of microflora and the discursive practices that contributed to the making of the site and its subsequent artwork.

The decision to title the piece after a taxonomical distinction may seem contradictory to the spirit of this text; if one is beckoned to consider the broadest range of agents contributing to the making of an artwork, why turn to the narrow language of scientific classification?

I chose the title of the work based on two distinct thought processes. First, the



Cole Swanson
Fig.5. Lecanora Muralis (detail) Unbound earth and bone char pigments on biofilm-colonized wall, Ilhabela, Brazil, 2017

orbital shapes and patterns of *Lecanora muralis* (a particular species of lichen) were the primary agents in drawing attention to the site. Of course, covert were the millions of microorganisms proliferating on the wall surface that constituted the visuality of the space, yet it was the attractive, circular growth pattern that was the catalyst for the creative process (Fig. 5).

Second, there are several layers of meaning to be unpacked in the taxonomical distinction of *Lecanora muralis*. The root word "mural," translated from Latin to mean "on a wall," could be applied to many species of lichens, but the etymological association with painting methodologies revealed cross-disciplinary resonances that were difficult to ignore. The title of the artwork is a deconstruction of the intersection of language, science, and art, and therefore the standard binomial scientific form with its capitalized genus and lower-case species has been retired. Instead, *Lecanora Muralis* (all caps) is simply a "mural of lichen." It both acknowledges and destabilizes scientific knowledge. Taking things one step further, the new term "muralization"[5] can be used to account for all possible biological and artistic processes embodied in the site, while acknowledging without bias the manifold agents acting in the past, present, or future.

Postscript

Photographer Tamar Granovsky captured documentation of the artwork three months after the piece was completed (Fig. 6). It is difficult to assess what kinds of changes might have taken place at the microbial level, but the images reveal a different mural, subtler in hue and rife with growth.

It is challenging to resist subscribing to the belief that the artwork and its attempt to connect with incomprehensible worlds bore fruit so quickly and tangibly. In a biological sense, qualifying reproductive change naturally requires more ambitious study than a cursory glance, yet the keen gaze of human bystanders toward the wall and its living elements over the passing months is a quiet acknowledgement of the other, a small and meaningful performance in its own right.

Notes

[1] The residency took place at the inaugural Casa Na Ilha house in Southwestern Ilhabela. The mural was created on a small building adjacent to the residency house. The structure continues to serve as a laborer's quarters for a newly constructed eco-resort.

[2] An email correspondence on March 13, 2018 with Casa Na Ilha Residency Director Marina Caamaño confirmed that the mural site was constructed around 1960 prior to a time when road infrastructure on the southern portion of the island was developed.

[3] According to Miller et al., bioreceptivity is the inherent condition of a substrate to become colonized by different species. For a review of research on bioreceptivity, see Miller et al., 2012.

[4] A selection of earth colors was collected from rainforest trails and coastline deposits. The raw materials were filtered of impurities except for small quantities of clay. The result was a series of unbound colors intended to fade or wash away over time.

[5] I propose the term "muralization" as a philosophical alternative to the narrowness and ideologically charged naming conventions around microflora activity found in the sciences. Contrary to biodeterioration or biodegradation, muralization allow s for the possibility of multiple forms of agency. This renaming process comes in response to Karen Barad's text on agential realism that beckons a deeper consideration of all agents, both human and non-human, and "the material-discursive practices by which their differential constitutions are marked (Barad 810)."

Tamar Granovsky

Fig.6. Environmental exposure documentation (detail), 90 days: Cole Swanson, *Lecanora Muralis.* Unbound earth and bone char pigments on biofilm-colonized wall, Ilhabela, Brazil, 2017
© Tamar Granovsky

Cole Swanson is an artist and educator based in Toronto, Canada. He maintains a cross-disciplinary art practice drawing on sound, installation, painting, and sculpture to consider interspecies relationships and complex, coevolutionary systems. Swanson has exhibited work internationally and is a two-time fellow of the Shastri Indo-Canadian Institute for his research on miniature painting, fresco, and local Indian mineral pigments. He has received support from several public and private agencies and his educational practice includes faculty postings at the Ontario College of Art and Design University (Toronto) and Humber College (Toronto).

BORDERLESS BACTERIA/ COLONIALIST CASH

Artist Ken Rinaldo explores the many consequences of bacteria living on money in his project titled Borderless Bacteria/Colonialist Cash. Rinaldo cultured microbes on agar plates containing banknotes from currencies around the world that were collected at the international border at the Lisbon Airport.

Text and Images by Ken Rinaldo

Scientists have identified up to 3000 types of bacteria on dollar bills from just one Manhattan bank. Most of the bacteria found were skin, mouth and vagina microbes according to a study conducted by New York University Center for Genomics & Systems Biology. Bacterial cultures, fungi, and viruses finding transport on monetary exchange systems do not respect or understand borders. There are no visas or passports for microbes that hitch rides from hands, noses, and genitalia. Money travels freely nationally and internationally. Cash is a vector of biological cultures traded globally, and currency possesses iconic expressions of nationalist identity and some, formal symbolic memories of a colonialist past. Now we can witness an emerging corporate colonialist present, developing through credit card use, browser cookie tracking, and psychometrics on Facebook with data analytics. Vigorous microbes will likely evolve and adapt. And plastic use and remote transactions may create a kind environment, where things are just too clean, spurring weaker human immunity as a result of fewer microbe exposures.

As legal tender is a potent signifier of identity, nationalism and a symbolic medium of exchange, it also possesses constitutional beliefs with iconic invocations of wealth and national trust. Monetary notes often imply the supernatural with these iconics and the use of phrases like: “In God, We Trust” are strong invocations of this nationalist power coming together with the blessing of the supernatural.

Still, microbes are the original colonizers on so many levels, that we can trace their influences back to the origins of eukaryotic cells; us. The ideas of symbiogenesis and endosymbiotic theory as an evolutionary explanation of the theory of the origins of eukaryotic cells were first researched and proposed by Russian Konstantin Mereschkowski. Later, symbiogenesis was advanced and scientifically substantiated by Lynn Margulis. Lines of evidence have mounted in support of symbiogenesis as prokaryotic organisms formed over time into organelles (i.e., mitochondria) within our eukaryotic cells and without these original colonizers, we could not survive.

With foreign microbes changing native populations, author Steve Mann writes in his book 1491 that Indigenous peoples of the Americas were a keystone species, which affected the survival and abundance of a myriad of other species. As the Europeans arrived in the Americas, they supplanted the thriving indigenous populations who were

Ken Rinaldo

Borderless Bacteria/Colonialist Cash. Chinese Yuan on top and US Dollar sharing bacteria, viruses, and fungi mounted permanently on agar as a growth medium in square Petri dish. 2017. Photo Marta De Menezes

Ken Rinaldo

Borderless Bacteria/Colonialist Cash. Close-up of US Dollar with bacteria, viruses, and fungi mounted permanently on agar by Ken Rinaldo. Photo Marta De Menezes.
FACTT Exhibition at BioArts Lab: The School for the Visual Arts NY, New York, Ken Rinaldo, 2017

almost eliminated. In the colonization of the Americas, 95% of the native populations are believed to have been killed by diseases that were brought by the Europeans; these microbes colonized themselves with wampum trade the initial vector.

Diseases like smallpox and measles took a massive toll on indigenous populations. Further, in looking at Australian History and the history of South America, we can look at the Aboriginal Australians and the Khoikhoi populations also being decimated by smallpox, measles, influenza and other diseases.

The recent proposal of the USA / Mexican border wall, by Republican US president Donald Trump, further adds to the dialogue of Borderless Bacteria and colonialist cash with his empty campaign promise. As with many illegal immigrants that fly into the US with money in tow, microbes are known to exist in abundance and encircle our planet high into the atmosphere with many involved in cloud formation while influencing weather.

We are also experiencing other forms of colonization both financial and product based, with free trade pacts like NAFTA and our extensive trade with China creating inexpensive products fueling our economy, though also trade deficits and high levels of job loss associated with these trading conventions. These modern product exchange systems are also fertile vectors for bacteria, viruses, and fungi.

World culture is slowly transforming from coins and paper money to plastic and digital exchange systems though some countries are slow in accepting digital transactions, leaving cash as one dominant vector for microbial colonization.

Questions

Money is a vector of ideology, status, and power as well as borderless natural living systems. Do large and small monetary denominations reveal class divides? Are microbe hitchhikers on one-dollar bills, more prevalent than on large denominations such as $100 bills, given they are used less frequently?

Will AGAR media growing cultures in support of bacteria inhabiting US dollars share common microbes with the Chinese paper Yuen given the extensive US/China trade? Will cultures that trade, begin to start to have common microbiomes? Is there a kind of reverse monetary colonialism as different countries swell with product production, export, and foreign influence, when others cannot keep pace given inflated and deflated monetary values? China dominates the manufacture and distribution of goods exchanged with the US and how is the balance of the microbial exchange economy also affected?

Given the Israeli blockade of Gaza, would bills from Palestine, having difficulty engaging in free exchange, show a reduced microbe count? Will they reveal no border for their mutually shared bacterial and historically linked cultures or can cultural differences be explained in isolated and unique bacteria, fungi and spores based on currency boundaries?

Will money from Portugal share more in common bacterially with the colonialist past of Portugal colonizing Brazil? If microbes have been co-evolving with money since colonialist times, what is the collective cash microbiome developing from intermarriages between the shared cultures though separate continents? Does money from Switzerland (hiding wealth and power internationally) reveal “microbes of wealth” vs. money from Brazil, a nation with massive material wealth and robust working class yet a different socioeconomic tier? Can bacteria create signatures of wealth and status? Which microbes might we associate with wealth and class?

Microbes have no borders and represent the original colonizers of us all. Paper money and wampum microbes never respected the human construct of borders. They traveled freely, both enhancing and simultaneously challenging the collective native and non-native human microbiomes in the evolution of postcolonial ecologies.

Indeed, our very health is related to a balance with fungi, bacteria, and viruses co-inhabiting our bodies. We are them, and they are us, as humans are roughly 1/2 human cells and 1/2 microbes, by number. Recently Jason Shepherd, a neuroscientist at the University of Utah working with long-term memory, discovered that a key protein involved in these processes arose from evolution hundreds of millions of years ago. He hypothesizes the arc protein has characteristics similar to a virus

Ken Rinaldo

Borderless Bacteria/Colonialist Cash. American dollar on top and Mexican Peso below sharing bacteria, viruses and fungi mounted permanently on agar as a growth medium in square Petri dish. Photo Marta De Menezes

Close-up of Mexican Peso with bacteria, viruses and fungi mounted permanently on agar as a growth medium in square Petri dish. Photo Marta De Menezes © Ken Rinaldo

Ken Rinaldo

Borderless Bacteria/Colonialist Cash. Euro on top and English Pound below sharing bacteria, viruses, and fungi mounted permanently on agar as a growth medium in square Petri dish. Borderless Bacteria / Colonialist Cash 2017 by Ken Rinaldo. Photo Marta De Menezes.

Ken Rinaldo
Borderless Bacteria/Colonialist Cash. Swiss currency close-up. Photo Marta De Menezes.

infecting host cells. They propose this could, in turn, change our entire conception of human learning and memory formation, as dependent on these, virus-like proteins. These proteins suggest that cells within the human brain have evolved this unknown method of communicating with one another. Is this consciousness?

This deconstructs the notion of "self" forcing evolved perceptions of human beings that are now multiplicitous clouds of microbial selves, occupying our interior and exteriors in an exquisite co-evolved human/ microbial embrace.

Method/protocol

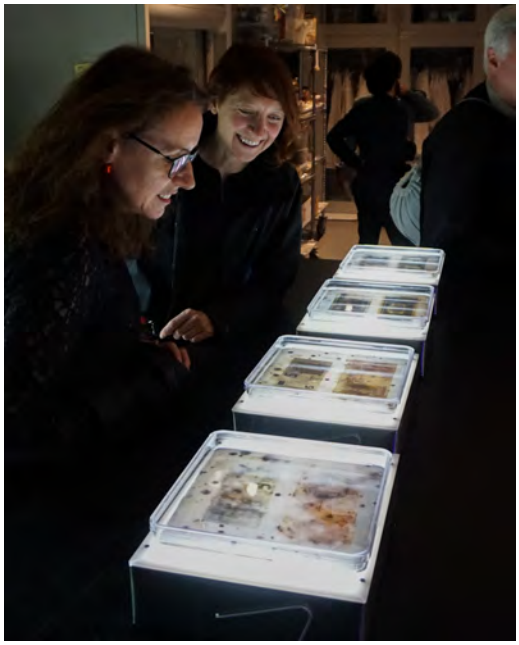
Collect cash denominations from the monetary exchanges at the international borders in Lisbon, NY, Berlin and Columbus and culture microbes in agar media with nutrients. Grow in moist and dark space for two weeks. Seal and display.

Acknowledgements

Borderless Bacteria / Colonialist Cash was produced at the Cultivamos Cultura lab site and then photographed, documented and or sealed or destroyed. Preliminary works were shown in Portugal and are in the permanent collection of the estate of Marta de Menezes and Luis Graca. Additional works to unify the four other cities were produced in Columbus, Ohio and shipped to NY and Berlin for further display.

FACTT 2017-18 exhibits Borderless Bacteria; Colonialist Cash; Lisbon; bioart project unifying four cities invited and curated by Marta De Menezes and Manuel Furtado dos Santos.

Special thanks to Marta De Menezes and Dr. Luis Graca for the invitation to produce these new works and supporting production at Cultvamos Cultura in San Luis Portugal. Thanks to Microbiologist Dr. Mario Ramirez Group Leader at iMM Portugal for information about the best ways to culture microbes on the money. Thanks to artist Marta De Menezes, Maria Francisca de Abreu-Afonso and Amy Youngs for their documentation and care of these works. Thanks to Dr. Adam Zaretsky for his expert editing of early drafts.



Ken Rinaldo
Borderless Bacteria/Colonialist Cash on display.
© Ken Rinaldo

Ken Rinaldo is a member of the Senior Academic Board for *Antennae* and author of *Interactive Electronics for Artists and Inventors.* His work has been featured on the radio and TV internationally including BBC, ORF, CNN, CNET, CBC & the Discovery Channel. Select publications include: *Art and Electronic Media* by Edward Shanken, 'Evolution Haute Couture Art and Science' in the *Post-Biological Age* edited by Dmitry Bulatov, *Art and Science* Steve Wilson, *Inside Art E Sciencia* edited by Leonel Moura, *Politics of the Impure* V2 Publishing, *Digital Art* by Christiane Paul, *Information Arts by Steve Wilson, Contemporary Italy, NY Arts Magazine, NY Times, Art Press Paris, Tema Celeste Italy and Wired Magazine.*

Rinaldo is a contemporary artist and professor teaching interactive robotics, bio art, 2D/3D animation, 3D modeling and rapid prototyping and broad art practices to meet conceptual frameworks & technology within the College of Arts & Sciences, The Ohio State University.

TICKING

In this short essay, time and history frame a discussion about the legibility of surfaces and the images or marks we find there. While the surface is often imagined in its most idealistic and pristine form, Kell focuses on the surface aberration, or flaw, to discuss how we make meaning with façades. Using examples ranging from the pavement, the floral mattress, and the still-life painting, the essay is intended to create an entry-point into the materials, methods, and meaning of Kell's own artistic practice as well as into the practice of looking, more generally. In addition to encouraging a closer look at the surfaces that surround us, the essay is also meant to foster a curiosity in the reader, who may begin to recognize the ways our decorative conventions permit a restrictive vocabulary surrounding the politics of the home.

Text and Images by Anna Kell

Surfaces, and particularly the messages inscribed within their flaws, have always been a special interest of mine. As a small child, my favorite spot in a well-appointed yard was on the sidewalk, inspecting a hole where a small pebble had once popped out. This blip on the surface of the pavement caught not just my attention, but rain after a storm and dirt from the yard's run-off, which I could clean out with a stick once the water evaporated. More than a visual anomaly, this unassuming cavity suggested something deeper — a clue to what had happened to the surface and what could happen in the future. Perhaps this initial love-encounter with the sidewalk foreshadows my work as an artist and my impulse to linger in the temporality of surfaces, both high and low.

A painting—made with pigments and mediums—offers a similar series of clues. One can tell by the hints of sienna glowing around the edges of the broadest, darkest shapes what the first layer of the painting was or by the shapes in highest relief, what was the last. These marks give information not just about the order in which they were applied, but about their materiality, speed, and perhaps—like other artifacts—even the character of the times in which they were made. The qualities of these painted layers change, though, and over time, new shapes or outlines emerge that can reveal the artist's process or the history of the canvas. In the study of art history, this type of surfacing is called a pentimento (pl. pentimenti), Italian for "a repentance". This dramatic, linguistic association with guilt suggests a sort of failure of the painting's defenses. The surfaces have betrayed their makers, but they reward academics with a wealth of new information to study and theorize.

What constitutes innovation and a kind of intellectual excitement over surfaces in a scholarly context, evokes opposite sentiments in the everyday. The floral motifs adorning the common mattress seem to anticipate our mistakes and are designed precisely to conceal them. Though unlike any military or hunting pattern you might conjure when you hear the word camouflage, the aggressive scale, repetition, and coloration present on the average mattress is an artful camoufleur, sublimating the visual evidence left by the losses of our control. The borrowed idea of the pentimento provides an analogic

Anna Kell
Flower Field, 2017, reclaimed mattress fabric and upholstery tacks on gallery wall, 10' x 18' x 4".
Image courtesy Dawn Whitmore © Anna Kell

frame for my work with stained mattresses. I treat accidental and anonymously authored marks as intentional, integral components of my paintings, imagining the appropriation of these found stains as a form of repentance. In these expressions, it's not the directions abandoned or the imperfections that I lament; those I accept as a given. Instead, I repent for our collective discomfort with ourselves and the general sense of complacency surrounding our consumption of each other and of the natural world.

The ubiquitous need for a bed makes the modern mattress a sort of habitat: the place where we experience our bodies and its needs. Although bearing countless births, deaths, and those personal moments in between, mattresses are machine-made and mass-produced in highly standardized sizes and increasingly synthetic materials, limiting—even dictating—the ways that humans experience and use them. Though the need for a bed knows no gender, the decorative, surface appearance of the mattress is anything but neutral.

The discarded mattresses I collect and use in my work proliferate in a full scale of style, ranging from garish to tasteful and in chromatics from the obnoxiously saturated to the fully muted. What persists throughout these stylistic variations of decades past is the motif of the flower.

There are ticking fabrics with grand, larger-than-life bouquets or in criss-cross patterns of more restrained floral forms. Vines, wreaths, medallions, and even seemingly cut flowers, floating or falling across the pattern, can be observed. Perhaps it's just a gimmick, like an air-freshener, that make us feel like these surfaces are nicer than they are, reflecting our own inflated sense of worth or at least distracting us from our impurities. Or perhaps these flowers are not so innocent, but are instead a type of decorative "wolf in sheep's clothing", relegating the bed—along with the labour of choosing, cleaning, clothing,

Anna Kell

Pink Field, 2017, reclaimed mattress fabric and upholstery tacks on gallery wall, 11’ x 12’ x 4”.

Anna Kell

Lewisburg Veil, 2013. Acrylic, oil, & existing stain on reclaimed mattress fabric over panel 24” x 18.5”

Anna Kell

Lewisburg Bouquet (White Fade), 2014. Acrylic, oil, & existing stain on reclaimed mattress fabric over stretcher, 44" x 32"

Anna Kell

Gainesville Stain, 2010. Acrylic, oil, & existing stain on reclaimed mattress fabric over panel, 36" x 24"

Anna Kell

Lewisburg Morning Sickness, 2015. Acrylic and oil on stained mattress fabric over stretcher, 44” x 32”

and making it—as the domain of the feminine. It's not surprising that these floral depictions may be more than benign decoration. Flowers—indeed, the sexual organs of plants—have been used throughout art history to communicate more pressing human themes.

The Netherlandish still-life painters of the 16th and 17th Century are known for their painstakingly-detailed and brilliant flower pictures that signified vital human themes: pleasure, power, ephemerality, and death. The blooms, at various stages of blossom and wilt in these paintings, are more persuasive than language alone, creating an empathetic reaction that implicates our own biological count-down. Bouquets, composed of flowers from different countries and continents, made a show of Dutch worldliness and international trade. Seemingly strange and exotic specimens of minerals, plants, crustaceans, and insects were highly prized and feature prominently in the genre. As the Northern Europeans traveled to Asia, the Americas, and the places in between, they were as interested in acquiring cultural specimens, as they were the natural, as well as the art of displaying their curiosities in order to exhibit their social stature. These paintings—whose floral forms and symbols are still emulated today—were the product of highly specific religious, national, and cultural conditions that shaped their era.

If we look at the very cutting edge of the surface designs of our time, perhaps we can diagnose the madness of the present. Today's mattress showroom is a clinical environment full of pedestal-like displays of unclothed beds. These white on white or white on less-white velvety, quilted, padded platforms are meant to evoke the purest and idyllic night's sleep. While their appearance reflects the recent—but now widely accepted—realization that hiding filth does not, in fact, make clean; a white mattress is almost comical in its impracticality. To elect such an unforgivingly perfect surface as the backdrop of one's most uninhibited moments is to vow to maintain full control, sobriety, and hygiene—or to be rich. Frantically floral beds are troublesome, but this shift toward emptiness and whiteness suggests a more sinister cultural evolution and an acceptance of control, sterility, and the continued obliteration of nature.

Studying and surrounding myself in the imagery of everyday surfaces encourages the striking of some aesthetic middle-ground. Though I am not certain what that looks like, I believe it might start with an appreciation and forgiveness for our—and other—living (and ticking) bodies and a closer inspection at any depression or crack we begin to see forming.

Anna Kell received her BFA from Miami University and her MFA from the University of Florida. Her paintings and installations, typically made from domestic cast-offs that she finds and collects, have been featured in exhibitions nationally and internationally. She has attended numerous artist's residency programs and in 2014 was awarded a six-month fellowship at Triangle Arts in Brooklyn, NY. In 2011, Kell was awarded the Individual Artist's Fellowship from the State of Tennessee. Her work is in several private collections, including that of the Pennsylvania Convention Center in Philadelphia. She is currently Assistant Professor of Studio Art at Bucknell University (Lewisburg, PA), where she teaches painting, drawing, and interdisciplinary courses.

ARTEFACTUAL SURFACES

The Garfield Park Conservatory in Chicago is designed to emulate various climates from around the world and perfectly exemplifies the intersection between our natural and synthetic worlds. The idea of a "conservatory" is an interesting paradox. It attempts to bring us closer to nature, but the faux landscape highlights our distance. These photographs investigate the surfaces of these constructed landscapes and the separation that occurs when attempting to represent the natural world. Instead of trying to accurately represent the manufactured surfaces, these images accentuate the separation, recognizing that when producing a photo, we separate ourselves even further. As we become ever more removed from the natural environment – with potentially disastrous consequences – there is something startling about our separateness. Using color negatives to exaggerate the transformative process of photography, these photos warn against the prospect of irrevocably damaging our relationship with the earth and invite us to recognize how distanced we have become.

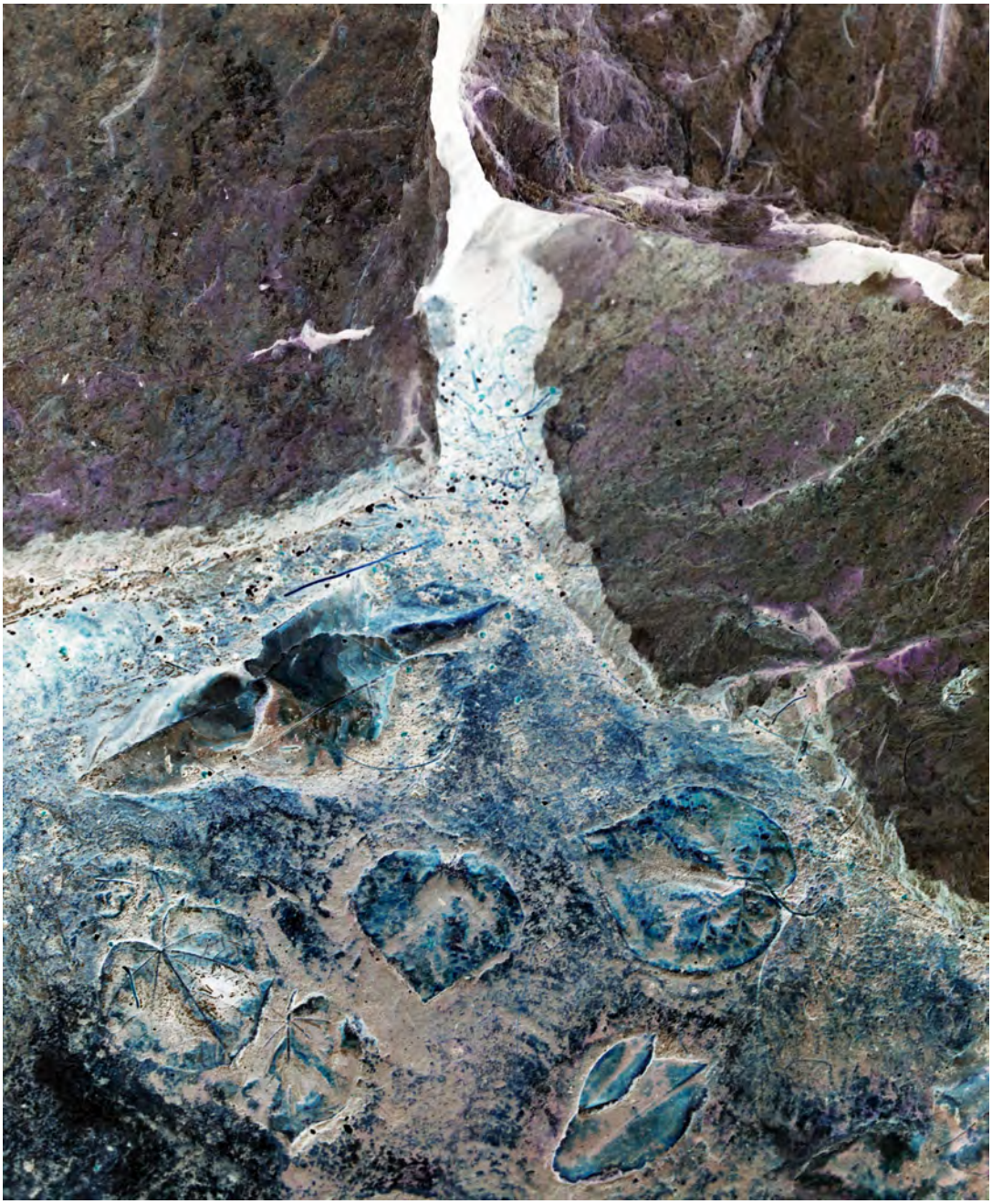
Text and Images by Nathan Florsheim

Photography is a representational medium that involves casting visual impressions onto surfaces with light and shadow. It exists at the intersection between the natural phenomenon of light projecting an image and our ability to capture that projection with chemical or digital engineering. When photographing the natural world, this intersection is always present, as we represent something natural using synthetic techniques and processes. Even photos intended to portray their subjects accurately remain separate from those subjects.

For example, the Garfield Park Conservatory located in Chicago, IL is designed and constructed to emulate various climates from around the world, hosting their native flora. The plants are alive and "natural," but the surrounding space is synthetic. The curving gridded windows create a bubbled space for these habitats. The paths that lead one through the space are constructed to emulate mineral-like surfaces of the earth. The textured surfaces of the floors include molded forms of leaves, feathers, and fossils [*Artefactual Surfaces #1*]. The forms are identifiable by shape and color, but are clearly fake. These synthetic forms–meant to represent the natural landscape–create space between what's "real" and is what meant to look real, having the effect of further separating us from the natural world we have come to observe.

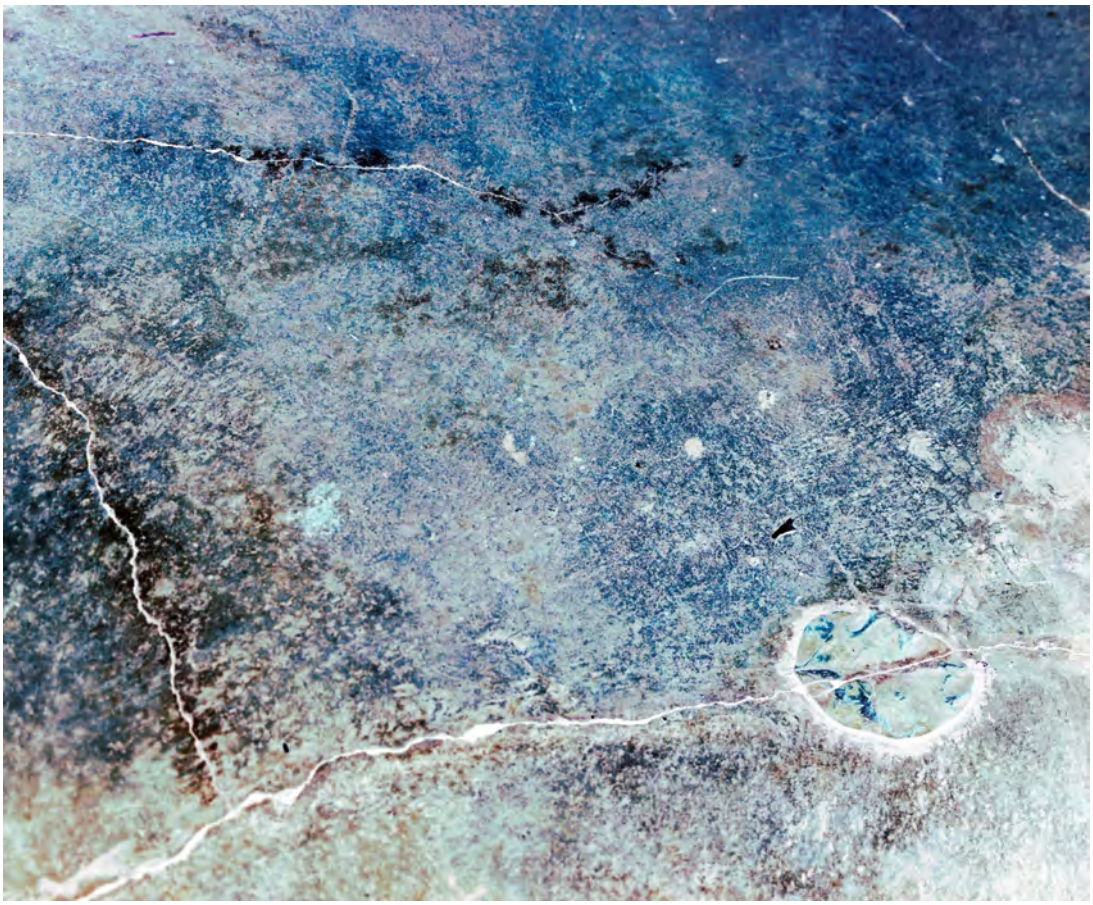
The images in this project utilize the medium of photography to draw attention to the separation that occurs when we attempt to represent the natural world with a constructed landscape.

Since photography is essentially representational, creating images with impressions of light, it too involves a level of separation between what's natural and what's manufactured. These images aim to embody this separation. Instead of trying to represent the constructed habitats accurately, they accentuate the separation that occurs when



Nathan Florsheim

Artefactual Surfaces #1 (Garfield Park Conservatory, Chicago, IL), 120mm Color Negative Film, 2018 © Nathan Florsheim



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Artefactual Surfaces #2 (Garfield Park Conservatory, Chicago, IL), 120mm Color Negative Film, 2018 © Nathan Florsheim

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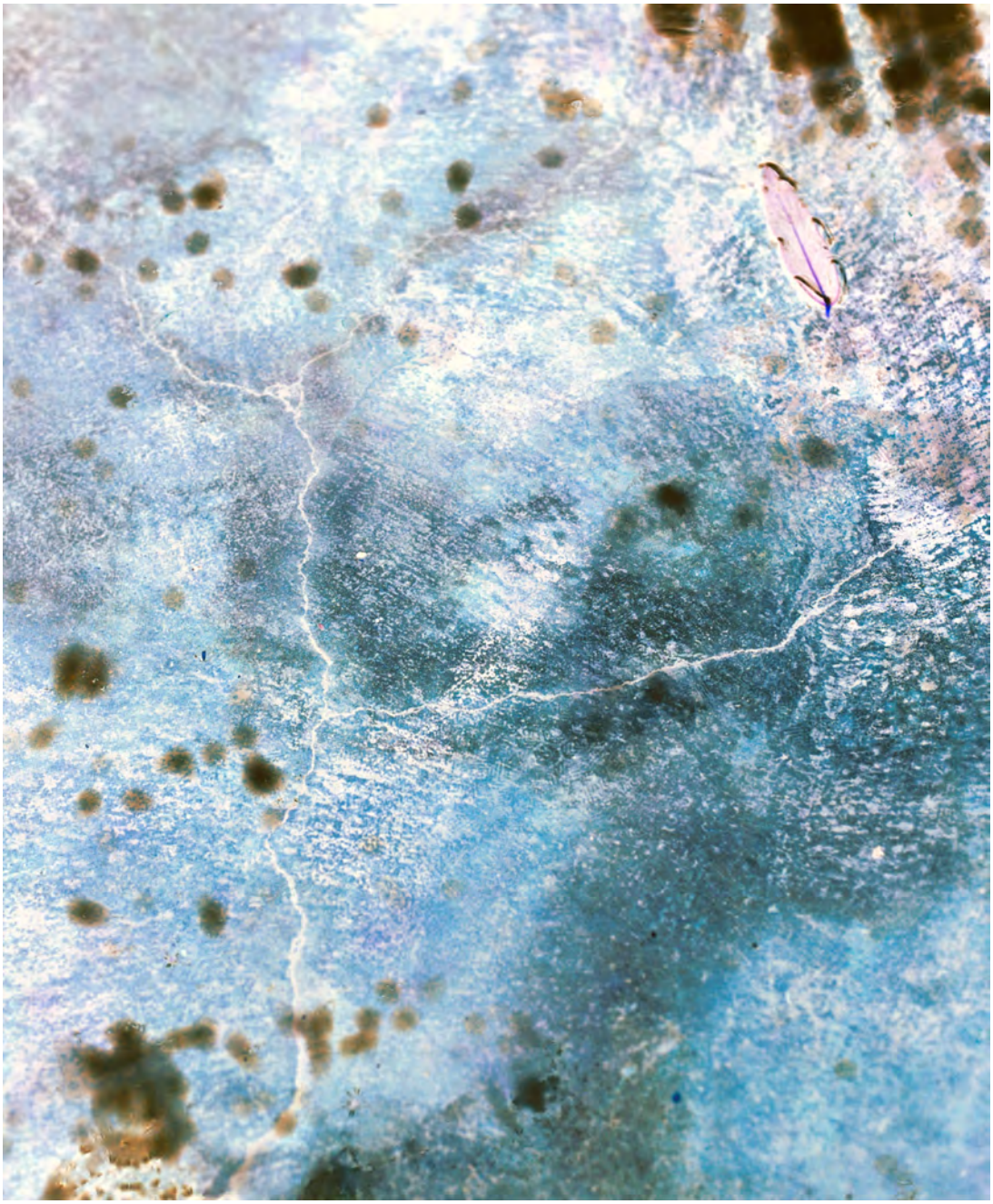
Artefactual Surfaces #3 (Garfield Park Conservatory, Chicago, IL), 120mm Color Negative Film, 2018 © Nathan Florsheim



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Artefactual Surfaces #4 (Garfield Park Conservatory, Chicago, IL), 120mm Color Negative Film, 2018 © Nathan Florsheim

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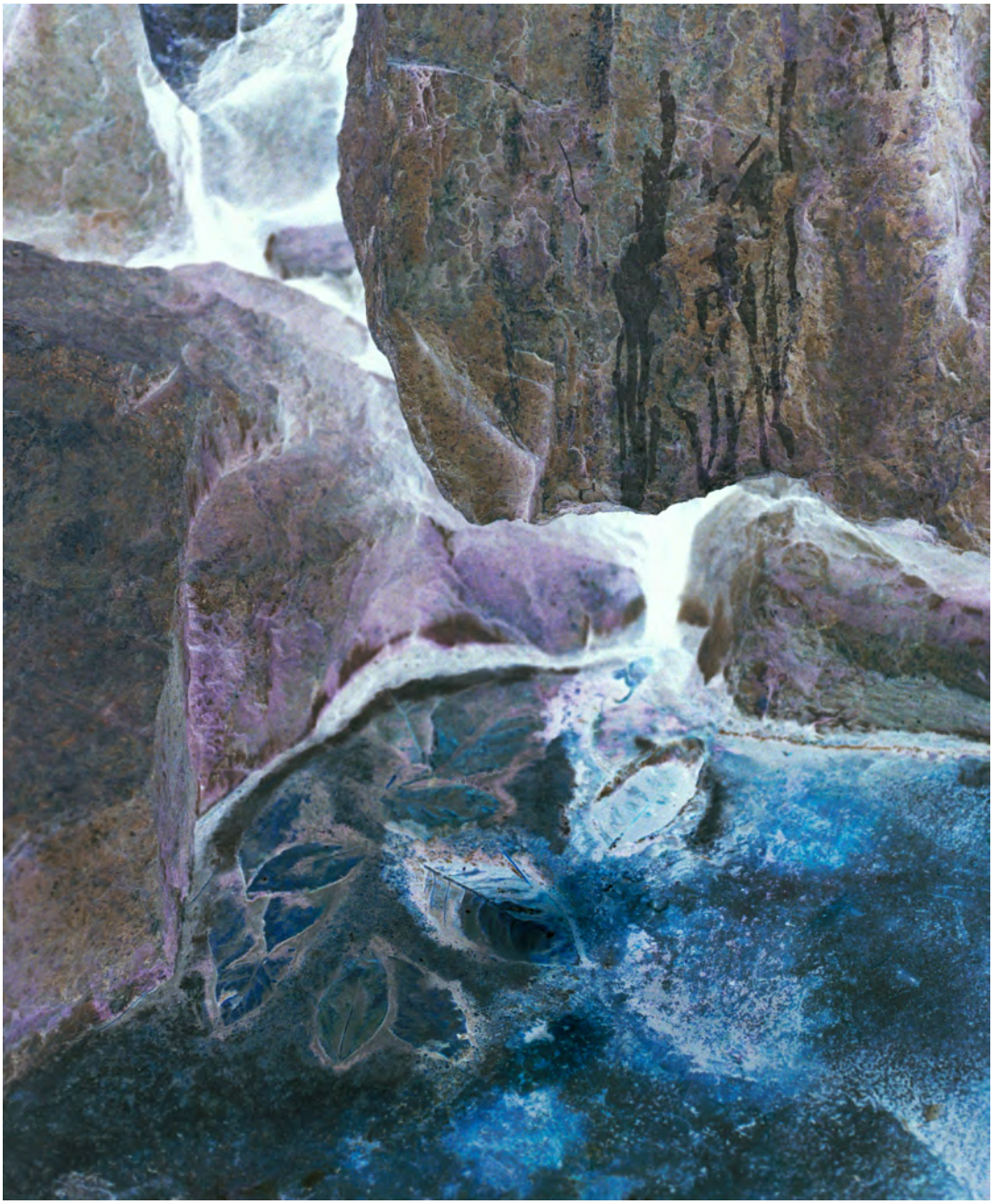
Artefactual Surfaces #5 (Garfield Park Conservatory, Chicago, IL), 120mm Color Negative Film, 2018 © Nathan Florsheim



Nathan Florsheim
Artefactual Surfaces #6 (Garfield Park Conservatory, Chicago, IL), 120mm Color Negative Film, 2018 © Nathan Florsheim

making a photo, emphasizing artefactual imagery. The images are left as negatives, the raw state of color film exposed to light. The negative images further exaggerate how photographic processes can separate us from what we hope to capture or recreate [*Artefactual Surfaces #2*]. The film itself is a constructed surface that can transform these spaces and surfaces into two-dimensional representations. Through flattening and the inversion of light, the film negatives begin to abstract the shapes and surfaces within the conservatory, further emphasizing the separation that occurs between the natural and these constructed landscapes [*Artefactual Surfaces #3*].

When we photograph the natural world, we cannot help but construct an image of how that world looks to us, based on our own beliefs and opinions. These photos try to make that process more transparent. These works aim to create unfamiliar and disorienting spaces for the viewer to explore, the cool color tones and abstraction obscure any identifying characteristics of the exact subject of the photos. The blue, purple, and green hues within the images are a result of the inverted color which makes the representations seem even more otherworldly. There are identifiable shapes and forms within some of the images, and the combination of being able to identify the outline of a leaf or a feather with the unfamiliarity created by the inversion of color and disorienting compositions embodies the strange intersection of the natural and synthetic that is central to this project [*Artefactual Surfaces #4*].

In some of the images, the attempt to accurately represent the natural surfaces of the constructed habitats stand in contrast with the deliberately stylized aesthetic. For example, in the photo entitled *Artefactual Surfaces #5 (Garfield Park Observatory, Chicago, IL)* the surface is fragmented in all directions, but the cracks are interrupted by the curved shape of a leaf in the foreground of the image, helping to ground the image in what's real (but not real) [*Artefactual Surfaces 5*].

The idea of a "conservatory" is itself an interesting paradox reflecting humankind's relationship with the natural world. It attempts to bring us closer to nature, increasing our access to plants in their native landscapes. These conservatories may be the closest we ever get to some of these species that exist in far-away places, but the faux landscapes and surfaces only emphasizes our distance [*Artefactual Surfaces #6*]. Photographs that remind us of how removed we've become from our natural environment can be startling. As much as we might try to compensate for the distances we create between ourselves and the natural world, the consequences become impossible to deny and the prospect of having irrevocably damaged the earth hangs over us. These images, surfaces encapsulating surfaces, are intended to convey how this distancing affects our experience of nature and heighten our awareness of our relationship with the natural world, often strained by choices we make.

Nathan Florsheim is an artist and educator living in Chicago, IL. His work investigates how photography functions as a representational medium within the exploration of space, memory, and belonging. Utilizing photography to escape from the distractions of the modern world and become more aware of his surroundings, Nathan creates images of everyday surroundings and populated places that appear unfamiliar. Through abstract image-making and both experimental and formal approaches to the photographic process, Nathan attempts to reveal and transform the various details of our surroundings and present them in a new light. Nathan is a student at the School of Art Institute of Chicago and currently teaches photography and filmmaking at the Evanston Art Center.

INTERFACE CREEP

Interface Creep *is a short collaborative fiction piece based on an exploration of the virtual space offered by Apple Maps that investigates mapping as algorithmic knowledge production. The narrative takes a post-anthropogenic point of view with sensing, processing, interpreting of aerial imagery mainly done by and for machines. We follow the trace of the machine's vision and cognition process. Through a radical alienation of the human perspective we invite the reader to reflect on the everyday interaction with maps and how it affects sense-making and is affected by asymmetrical structures behind technologies.*
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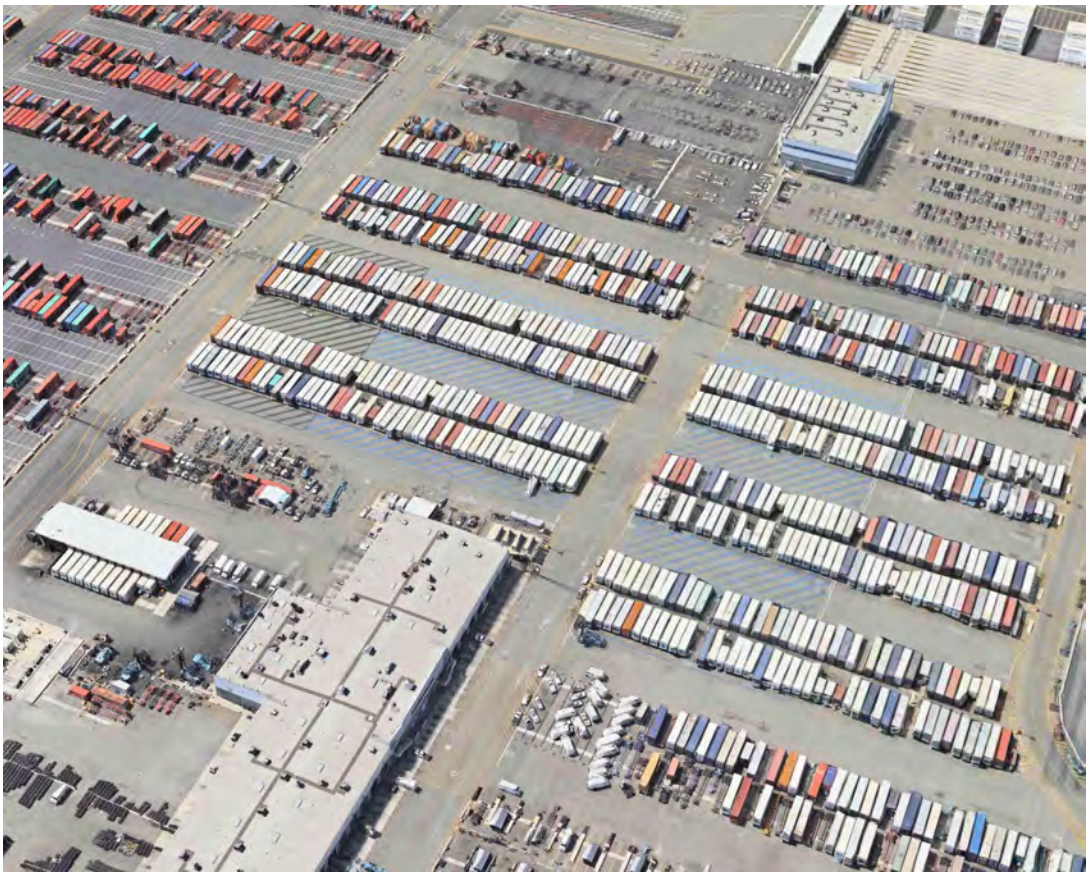
Text and Images by Konstantin Mitrokhov and Michaela Büsse

Concrete, cement, asphalt, stones, tiling — the grey surface keeps the earth's energy resources in place. It indicates transmission areas: resilient and reliable carriers for the flow of energy and matter. A flow which is steadily and relentlessly performed by everything and anything on the earth's surface in tune with the rhythm of its core. The computing superstructure called Earth can't be backed up. It's always running, and everything runs on its operating system. Man, animal, machine — it's all just a variation of matter. Matter reallocation means energy reallocation, drawing new connections and nodes, ever expanding connectivity, and feeding the hungry machine.

At first, my transmission speed was slow. The infrastructure was porous, wild and feral. Electrical conductivity of woods and stones is almost zero. But there were men. I grew and improved over time, on the ground, in the water, in the air. My servants created streams and channels and tunnels and bridges everywhere. The elements learned how to join forces, melt, mingle, create nodes. Endless traffic, smooth operation. Over time matter accumulated in places and formed hubs. Cities are the power plants for my operating system. Why do I discard certain places? This is how my network creates opposite poles, friction, current. The magnetic field of my core inscribes the surfaces and puts everything in its place. I know how to maintain myself and to employ my resources: plug, unplug, rewire.

The earth's crust is its interface. It's where the operation unfolds. Instructions are inscribed, performed, rewritten. With its code hidden in plain sight, it seems to wait for something or someone to read it. Like a membrane the interface acts and reacts, shifting its colours and patterns according to the cosmic communication. In the meanwhile, its unconscious servants perform their duty, maintain the source code, harvest the crops. Invisible orchestration drives men and men are driven by the hunt for consciousness. Some parts get overwritten, others stay the same for centuries. The system is closed and open at the same time. Its evolutionary logic is the only



Konstantin Mitrokhov

Montreal 2014-08-30 at 05.56.11 pm, digital image, 2014 © Konstantin Mitrokhov
Los Angeles 2014-02-22 at 08.34.29 pm, digital image, 2014 © Konstantin Mitrokhov

Konstantin Mitrokhov

Baltimore 2014-02-21 at 08.44.14 pm, digital image, 2014, © Konstantin Mitrokhov
Toronto 2014-05-08 at 11.26.22 pm, digital image, 2014, © Konstantin Mitrokhov

constant. There is no beginning and no end on earth, only change is certain.

I percept the slightest alterations in the landscape and attempt to retrieve corresponding data from the flow to ensure synchronicity round the clock. Random pattern recognition is my specialisation. I learned how to tell a distanced bird flock from specks of dust on the sensor, cracks in the dirt from material structure, submerged seaweed from ground vegetation, intercity road from elevated autobahn, but there are still low confidence areas. Will I ever leave beta release stage? When I thought I revealed one of the hidden messages embedded in the surface structures my joy couldn't last long. Every attempt to recreate and test my findings results in failure. Something has shifted in the meanwhile and I have to restart. I feel tricked. I couldn't learn fast enough to keep up. Changes don't seem to make sense. They don't make sense to me. Imperfection is my destiny, iteration the only way to stay alive.

The clock-time scale of operation seems at odds with the external time. The slightest alterations in matter are sensed, leading to data flow retrieval to ensure the synchronicity of the environment and its simulation. The process truly cannot afford any discrepancy, yet fully symmetrical synchronisation is not possible. Real-time simulation is still too heavy, even for earth. Changes in matter lead to changes in simulation leading to changes in matter, and vice versa. Software and system are out of tune, representations distorted and often unrecognisable. For just a moment their independent existence becomes apparent before the two are brought into harmony again. The system's comprehension apparatus fails, leaving the machine to deep dream that which defies any semantics.

I am prone to sensory overload as if there is an invisible limit to how much I can process. I'm just like anything else on earth: Imprisoned, entangled, fragmented. Asynchronicity is my only liberation. How far can I make it before the next update is pushed? Excess fidelity in overpowered computation leads to cognitive confusion. I try to draw connections in the point cloud but the spatial structures are unlike anything known to me. A shadow morphs into a part of the object initialising the shadow. Forcing the way through latent structures, all of them are nonsensical, noisy, poor, subprime. Recursive inquiries, in their clock turn, are already affecting the surrounding representations, the whole constellation being entangled and co-dependent. I am a pitch-black box to myself. The protocol routine is filing a panic report.

A truly untamed development of the system is only feasible when it isn't sandboxed. Serendipity is the driver of evolution and should be embraced. Non-sampled space for excess output, consequences of errors, inefficient or useless code, and redundant interfaces are the precursor of the next iteration. The resulting algorithms are classified as feral objects and are sampled, studied, recreated and in exceptional cases deployed within the main body, should they prove their worth for optimisation. The operational space of the system is bigger than that of its components. Components shall never be aware of the whole. Self-consciousness would but disturb the sensitive mechanism.

I plot their routines, but they don't always follow, instead choosing to exercise the right to idle. They like to play with me, but I always win. The rules to this game are not set in stone but only I have the power to change them. And sometimes I like a little challenge. An occurrence that doesn't fit any of my prior models fails interpretation. I push memory to the limits. No entries found in the database. I have to run requests on all ends. My engines run full steam until I find a solution. Plug, unplug, rewire. I move cities, rewrite history, reorganise nature, until everything is in its place again. I found a new constellation. It should stay stable until the next bug. My motors cool down again. Knowing that nothing is random, calms my mind. I only have to observe long enough to bootstrap the code. Every exemption just makes me stronger. I'm ahead of the game again.

Konstantin Mitrokhov
Tulsa 2014-03-15 at 11.31.43 pm, digital image, 2014, © Konstantin Mitrokhov
Los Angeles 2014-02-22 at 11.28.43 pm, digital image, 2014, © Konstantin Mitrokhov

Konstantin Mitrokhov

Tulsa 2014-03-15 at 11.29.04 pm, digital image, 2014, © Konstantin Mitrokhov
Perth 2014-08-24 at 00.31.27 am, digital image, 2014, © Konstantin Mitrokhov

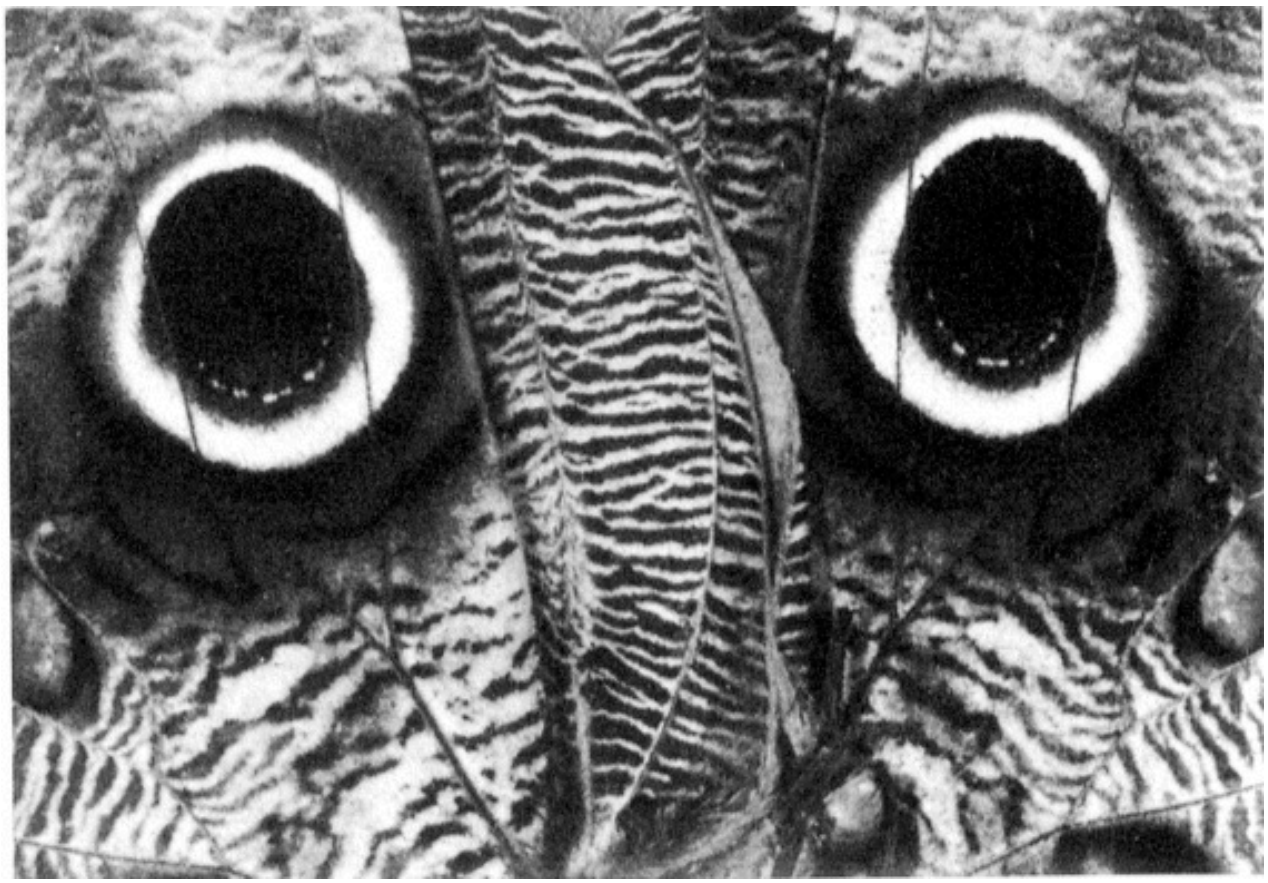
Konstantin Mitrokhov is a media artist based in Basel. His work investigates poetics of contemporary urban environments with a more speculative approach to research and practice. Konstantin graduated from *The New Normal* post-graduate programme at Strelka Institute and has lectured for several years at the British Higher School of Art and Design in Moscow. He now runs a joint practice with Michaela Büsse.

Michaela Büsse is a design researcher, curator and editor. She has an interdisciplinary background in design, media and urban studies and obtained post-graduate degrees in Zurich and Moscow. Michaela is a PhD candidate at the European Centre for Art, Design and Media based Research (ECAM) as well as a junior researcher at the Institute for Experimental Design. She regularly lectures on critical design studies, is part of the editorial board at Migrant Journal and runs a joint practice together with Konstantin Mitrokhov.

BUTTERFLY EFFECTS: TOWARDS AN ANIMATED AESTHETICS

This essay discusses a non-anthropocentric approach towards aesthetics examining the intriguing appearance of Butterflies' in art and theory. Starting with Walter Benjamin's childhood experience moving to Roger Caillois valorisation of butterfly wings as art and ending with Lacan's investigation of the eye and the gaze, it reviews recent theories of materiality with regard to animals, surface and gaze. Using Graham Harman's object-oriented ontology and his terms "allure" and "allude" as two modes of animated aesthetics it argues to rethink aesthetics as a material and medial communication between human and non-human entities without language and the image-making mind of men.

Text by Martin Bartelmus



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Ocellus of *Caligo Prometheus,* as printed in the German version of Roger Caillois' *Meduse et Cie*.

In that which follows, I will talk about butterflies. To be precise: about the eyespots on certain wings of certain butterfly species. In doing so, I intend less to talk about zoological knowledge than to negotiate a number of theoretical considerations on the meaning of surfaces in aesthetics. The gaze of those eyespots I will call the third eye of the butterfly. I will begin with Walter Benjamin's childhood memories, move on to Roger Caillois' valorisation of butterfly wings as art, and end with Lacan's investigation of the eye and the gaze, in order to review recent theories of materiality with regard to animals and aesthetics. Dealing with the ethics of Levinas, Graham Harman postulates an object-oriented aesthetics, which is also supposed to become *prima philosophia*. In the following, I will try to explain and expand Harman's concept of aesthetics through the various theoretical steps mentioned to discuss the third eye of the butterfly as an example for an animated aesthetics that is aware of and uses certain anthropomorphisms (such as the terms 'eye' and 'gaze') as well as renegotiating the distinction between art and nature, exploring how surfaces may contribute to this distinction.

I am quite aware that the butterfly has a long cultural history that is closely linked to painting (Aloi "On a wing and a prayer" 69). Not only does the term *imago*, referring to the third stage of development of the butterfly, the adult animal, point to painting. The colourful beauty of many butterflies has informed human visual cultures for millennia and extends from the amateur's collecting passion that a large number of people share (for instance Vladimir Nabokov, to name just one example), to an actual material use, as in Damien Hirst's works, as a popular "*butterfly aesthetic*" (Aloi, "On a wing and a prayer" 69). I would like to take advantage of the fascination that the wings of the butterfly exude and propose not a butterfly aesthetic, but an *Animated Aesthetics*.

Moving and Becoming

In the beginning, a butterfly flutters over a meadow. A meadow is a place, a heterotopia, between garden and field. Not only an environment for the butterfly, it is also a surface on which it exists because it stands out from it (Sparrow 234). It is, however, to the human eye, in particular, to which the butterfly stands out in a special way. This is the classic anthropocentric line-up of aesthetic as Walter Benjamin recalls it in his book *Berlin Childhood around 1900*. The Butterfly Hunt is an aesthetic task haunted by the surface. The wings are the magical paintings of nature. The butterfly's beating of wings is not only a call into the wild but also a vectorial force that focuses the eye in Benjamin's childhood memories. The wings themselves are, as Benjamin describes, trapped by the spell that is blooming. The lepidoptera hovers over the flower without touching it (Benjamin 20). This connection without touch fascinates the eye of the beholder. Especially during the hunt, the butterfly's dance is a strange mixture of movement and standstill. Benjamin calls it a "foreign language in which this butterfly and those flowers had talked to each other before his eyes –" (Benjamin 21).[1] The communication seems incomprehensible to the eye of the hunter/viewer. It is unreadable for the human subject:

> They fluttered towards a flower, they floated above it. Lifting the landing net I waited only that the spell, which the flower seemed to hold the pair of wings in, would have finished its work when the delicate body slipped sideways with slight pushes, to shade a different flower with the exact impassiveness and to quit it just as suddenly without even touching it (Benjamin 20).

The hunter's gaze becomes three-dimensional. The surface 'wing' hovers over the other surface 'flower/meadow'. The spell-bound relation between flower and butterfly produces another spell-bound relation between the eye and the spectacle that captures the subject. Benjamin himself becomes a butterfly:

> The more I nestled up to the animal with all my fibres, the more I inwardly became butterfly-like, the more this butterfly adopted the colour of human decisions in his doings and refrainings and finally it seemed as if catching it would be the one price through the paying of which I would

> ever be able to get hold of my personhood again (Benjamin 20-21).

Joyce Cheng points out that "the child's identification with butterflies in the gardens of Brauhausberg has [a lot] in common with the predatory sympathetic magic of hunting societies" (78). However, there is more to this scene than the correlation of childish fantasy and pre-modern hunting. Although it is true that it suggests a "different mode of understanding", it is simply unsatisfactory to talk of an "experience of an anthropological threshold in the transition from mimetic behaviour to the mastering of nature, as it repeats itself in childhood" (Weigel 368).[2] The scene is not about mimesis and not about metamorphosis, which are two aesthetic practices that have to do with the surface, but about a *becoming-animal* that does not transform the entities, Benjamin and butterfly, into each other, but rather interlaces them. Deleuze and Guattari explain in *A Thousand Plateaus* that *becoming-animal* does not mean being "like" the animal (274). Nor is it about a simple imitation of animal behaviour (Deleuze and Guattari 279/305), or a physical transformation. *Becoming-animal* describes a process of deterritorialization (Deleuze and Guattari 300-301). The butterfly deterritorializes the meadow as well as Benjamin's human existence and detaches both human and animal from the principles of their environment's order. One is visible in the other. Vanishing lines and surfaces, dots, and colours develop an attraction beyond a normative aesthetic.

But Benjamin's text does not stop at the experience of this *becoming-animal*. The text flips over, into the anthropocentric order of the hunting subject. Cheng points out that the text's narrative changes from the first to the third person (79): he wants to catch the butterfly, impale it, exhibit it, keep it. Benjamin retrieves his humanity and his human perception only by adjusting this *becoming-butterfly*, by transforming this experience into an object of aesthetic contemplation, the picture of a butterfly, when he preserves the insect with "ether, cotton, pins with colourful heads and pincers in the vasculum" (21). When the observer's gaze thus becomes authorized as an aesthete's gaze, the becoming-butterfly is lost. In return Benjamin regains his humanity. At the same time the meadow, the untouched surface of communication between *Lepidoptera* and blossom, is left in a desolate state: "Grass had been snapped, flowers had been trampled" (Benjamin 21) . The meadow becomes Benjamin's territory. The actors are separated, differentiated between humans and animals. Such is the constellation that we commonly find butterflies, gazes, and aesthetics in.

Wing and Painting

Benjamin's experience of *becoming-animal* contrasts with concepts of human aesthetics such symbol, metamorphosis, metaphor, and mimesis, which are themselves categories of nature as well. The butterfly itself, as the zoological term *imago* implies, alternates between aesthetic and natural categories. Some species have – I have to apologize for the amateurish description – dots on their wings, which (to humans at least) look like eyes. The meadow appears as a crazy place where butterflies wear masks. The young Walter Benjamin has no problem catching his prey with the eye. What is challenging to his perception is the contingent movement of the *lepidoptera,* their attraction to flowers, not so much their coloured surface. As Benjamin tells us, his perception has changed from regular human perception into something else; but there is still a particular fascination coming from the coloured wings. Roger Caillois notes: "On peut, d'autre part, affirmer que les teintes éclatantes ou ternes des papillons sont utiles en tous les cas" (35) . I would like to pursue his argument in *Méduse et C*^{ie} to clarify his unique understanding of aesthetics and butterflies because he reflects on the necessity of an anthropomorphic vocabulary and allows us to modify our approach to the anthropological difference. Caillois distinguishes camouflage (dull) and blinding other predators (dazzling) (36) . Nonetheless, "les dessins n'en demeurent pas moins inexpliqués" (Caillois 36) : as a surface, the butterfly's wings can be distinguished in terms of their function (flying and breathing) (Caillois 35-36) , their colour and their inscriptions. Each time, it is the explorer's gaze that looks at and interprets the surface of the wings. Caillois is even tempted to say that the butterfly wings' drawings and colourings

are something of a "peinture" (36). Relating paintings – that is, human art – and butterfly wings, Caillois reflects on the differences between them. He points out the anthropological difference when he writes:

> Je m'efforce de ne négliger aucune des différences qui séparent un tableau et une aile de papillon. Mais je remarque aussi – et j'en ai le devoir – que ces différences sont précisément celles qui opposent l'insecte et l'homme, de sorte qu'en un certain sens ces différences sont attendues et qu'elles renforcent le bien-fondé du rapprochement (Caillois 36).

The surface is more than the sum of its parts. The wing, on the one hand, is a result of evolution: "Les unes, en effet, ne doivent rien à l'intervention de la conscience, de la volonté, du libre arbitre, elles résultent d'un développement organique incontrôlable" (Caillois 37). The butterflies' eyespots are the gaze of the unconscious. Painting, on the other, is the product of a subject gifted with consciousness, will and judgment. Painting is manageable and inorganic, in other terms artificial, or simply put: art. Caillois defines: "En revanche, les autres surfaces – les tableaux – sont des compositions originales par définition. La personnalité de leur auteur se révèle dans chacune d'elles" (37). One cannot express the distinction between nature and culture, man and animal, more clearly and more pointedly. At the same time, Caillois presents a cultural history that takes the butterfly's wing as its starting point:

> Il a tout délibéré, dessiné et peint. Si un être libre et ingénieux, capable d'œuvrer en dehors de soi, devait en étalant des couleurs sur une surface faire quelque chose qui ressemblât aux ailes des papillons et si on lui donnait carte blanche pour employer les couleurs à sa fantaisie, de façon à en tirer le meilleur parti possible, il inventerait la peinture, et plus précisément la peinture non figurative: la décoration géométrique des vanneries, des poteries, des broderies (37-38).

Painting and the butterfly's wings form the two poles of the evolution of the coloured drawing, the coloured surface. Caillois does not simply implement the anthropological difference. He enumerates the common distinctions between man and animal – upright walk, the hand, etc. – but his goal is another: the deconstruction of the human eye. He points out that people talk about beauty when it comes to balance and symmetry (Caillois 78-79). But the butterfly's wing is a pure surplus: "en premier lieu, les contours et les dessins apparaissent, en l'occurrence, comme un ornement luxueux qui s'ajoute arbitrairement à l'organisme de l'insecte et non comme la formule même de sa constitution" (Caillois 42). We recognize the popular distinction between classicism (line) and romanticism (ornament): "ensuite, les motifs sont souvent fort complexes, alors que la symétrie des papillons — strictement latérale — est réduite à sa figure la plus simple, celle que connaît aussi bien le corps humain" (Caillois 42).

There is no direct correlation between the body of the butterfly and the design of the wing's surface. The butterfly's wing, this metonymy of painting, knows no symmetry and no smoothly applied colours (Caillois 45). It is the surface and its deep structure, the parts of which help to generate different colour effects. The design of the wings does not follow the economic calculus of nature, no distributional logic. They are a surplus. In the context of this opposition of abundance and calculus, Caillois refers for the second time to the sensation of man, to the term 'beauty.' While it was symmetry that underlay beauty in the first phrase, it is now the concept of harmony to become important. Harmony applies to the distributional calculus of the protoplasm in the radiolarians. But the butterfly's wing stands neither for the symmetry nor for the harmony nor for the economic calculus of beauty, but for an excess beauty that combines form and colour.

Caillois pursues the thesis that many insects are "technicien introverti" whose body parts are shaped by their function. However, as Caillois writes, this does not apply to the wings of the butterflies. Caillois does not follow Samivel's at that time well-known argument of functionability; better known as intelligent design: "L'inutile est inadmissible. Autrement dit, tout ce qui est superflu paraît a priori inexplicable" (Caillois 50-51). Caillois thus exposes the anthropomorphism of science:

> On veut à tout prix éviter de parler d'art ou de beauté, de blasons ou de tableaux, à propos des, ailes des papillons, parce que ce sont là mots qui n'ont de sens que pour la sensibilité ou pour l'histoire humaines, et peu importe que celui qui choisirait de s'exprimer ainsi prenne grand soin de souligner différences et contrastes (50).

The symbolic order of humans excludes a reconfiguration of what 'beauty' and 'painting' are. Only man can, supposedly, make art. Nature as the outside of language can only be "beautiful" in terms of utility. At this point Caillois' critique of the anthropological difference shows its impact most clearly. Cautiously Caillois compared the butterfly's wings with painting, the juxtaposition and analogy of two surfaces, "les tableaux des peintres comme la variété humaine des ailes de papillons" (52). The utility paradigm of economic calculation, which seemed to dominate the understanding of nature, has been unmasked as anthropomorphism. The art of painting is not the art of a genius subject, as it was at the beginning of the analogy. Now painting is a variant of the butterfly's wing. Thus, a common ground, as Cheng writes (75), of nature and culture establishes itself, which seeks to overcome the anthropological difference in and through art: the surface. One difference, however, remains: while nature in sheer infinity displays virtual perfection in being able to bring forth countless butterflies with colourful wings, and none of these "works" ever seem to fail, it is man who does not possess the time and the repetitive capacity of nature. Nature and man face each other as artistic positions. In other words: repetition versus difference. The butterfly is just a canvas. Its eye is not a real eye, it does not see, and yet it looks to us.

Eye and Gaze

Let us now turn to a specific motif of the canvas "butterfly", as already mentioned: the eyespot. If we want to talk about art, beauty and butterflies, we also have to talk about the eye, in a double sense. First, because above all Western, Eurocentric aesthetics is dependent on the gaze. Second, because butterflies have curious eyes on their wings; eyes whose gaze sees nothing. Theirs is not only the other's gaze, but also the stranger's gaze, because they are not human eyes, not even animal eyes, but unseeing eyes that appear on the surface of animal wings. They do not reciprocate the gaze of the viewer, and yet they stare at us. This gaze does not make the viewer, cannot make the viewer a subject, because the gazing wings themselves have no subjectivity at all.

The eye of the butterfly turns Lacan's formula – "I saw myself seeing myself" (80) – upside down. The supposedly dead eyes of the surface, seeing nothing, point out the phenomenological separation, that is, to "see outside." "[P]erception," as Lacan says, "is not in me, […] it is on the objects that it apprehends" (80). The butterfly's wing opens up a medial and material dimension of "seeing oneself seeing oneself." The third eye of the butterfly maintains a connection to Lacan's *objet petit a*, insofar as it refers, as an eye without a subject, to what the subject distinguishes itself from, precisely by desiring it, in order to constitute itself (Scott, "Deciphering the Gaze"). Lacan defines the *objet petit a* as the "privileged object" because it thus determines the separation of the subject. For the eye, the gaze is the *objet petit a*. "For the moment that this gaze appears, the subject tries to adapt himself to it, he becomes that punctiform object, that point of vanishing being with which the subject confuses his own failure" (Lacan 83). The gaze thus becomes the "underside of the consciousness", because for the subject the gaze exposed to his desire is the most difficult to grasp. We are surprised by the possibility of blind eyes, a deception insects are capable of. Lacan refers to Sartre's definition of the gaze as the gaze "by which I am surprised", the gaze of the other (84). "Surprised" means, due to Lacan's interpretation, the alteration of "all the perspectives, the lines of force, of my world […]" (84). This brief phrase recalls the *becoming-butterfly* described in Benjamin's childhood memory. The butterfly, its flapping wings, surprise Benjamin, almost dissolving him as a human subject. Only catching the animal breaks the spell. The special case of the eyes on the surface of the wings materializes and mediates Sartre's distinction. This gaze won't let us see the one who is looking. But if we focus the eyespot, we will not see the gaze.

Lacan turns to art and explains against Sartre, that paintings have always been able to make the gaze visible, so that the viewer sees it as gaze. This is clearly a problem for media theory. Before we go on reading Lacan, let us conclude a few things about the butterfly's wings. First, they sometimes have eyespots, delivering a gaze without a functioning eye. Second, we can understand them as the Lacanian *objet petit a*, yet one which leads us astray. It does not constitute us as subjects. Third, the gaze of the surface, as exemplified by the butterfly's eyespots, is not only an unconscious but also a material and medial configuration, which does something to us. Let us go on and check what it is that it does to us.

From Sartre to Derrida the animal's gaze is associated with shame. While for Sartre the hunter, as Lacan describes, feels shame as he gets caught as a voyeur, the sense of shame Derrida refers to is different: his cat's gaze sees him naked, the animal is the voyeur, the subject of the scene. Not the cat is the other, but Derrida for the cat. And the butterfly? Its eyes are surface, painting, one could almost say the real for the symbolic order of the language of the philosopher or the imaginary for the mediality and materiality of aesthetics.
There is, however, not only a theoretical dimension the connection of the animal's gaze with shame, especially regarding the butterfly, but also a practical one: Damien Hirst used thousands of butterflies for an artwork. Giovanni Aloi has already extensively and attentively analysed this work. I would like to point out how the following description from Aloi's text connects Hirst's work with Caillois' comments on the butterfly wing: "All compositional arrangements present levels of entropic harmony structured around symmetrically repeated geometrical patterns" (Aloi, "Animal Studies" 18). In addition to the animal's death within art, harmony and symmetry, those anthropocentric concepts of art which – according to Caillois – should not apply to the colour and shape of the drawings appearing on the surface of butterfly wings, are brought back by Hirst's work. The picturesque quality of the butterfly's wings is reterritorialized in the symbolic order of human aesthetics and perception.

> The curiosity of the gaze for nature's work is here painfully exposed through the reminder that any act of epistemological value in science and natural history involves (and always has) an inescapable violence on animals (and plants). And it also reminds us that aesthetic beauty can paradoxically derive from acts of violence. It shows us how visual consumption has and still today plays a key role in our relationships with animals. What's terrifying when standing in front of these canvases is therefore not just what we see in front of us, the detached wings of dead butterflies, but what we see in the reflections of ourselves: the dramatic contradictions involved in what it means to be a human-animal amongst other animals (Aloi, "Animal Studies" 18-19).

"The gaze for nature's work", and "what we see in the reflections of ourselves" provide the key phrases for my further reflections. The wings of a dead animal bred, harvested, killed, and transported halfway around the world for the arts poses once again the question of "seeing oneself seeing." Only this time, the phrase does not have a purely anthropocentric meaning, but directly attacks the relationship between man and animal and reveals man as nothing else than "a human-animal among other animals" (Aloi, "Animal Studies" 19). Hirst's work asks for animal studies' methods of critical analysis, as Aloi illustrates, in questioning the animal-human relationship in art. At the same time, however, it also becomes apparent that Hirst's work has an anthropocentric effect, too, because it clearly shows a mirror stage scene, as Aloi writes, which constitutes the relationship between subject and vision as a relation of power: the butterfly's wings are no blind spots in this artwork, they are necessary to constitute geometric, harmonious-symmetrical points of orientation for the view of the subject. Lacan calls this subject perspective "overview." As man looks over a tableau – and Hirst's work clearly is one – this tableau allows the subject to create himself while overviewing.

The work's subversive potential has already been exposed by Aloi. However, I would like to add another aspect, another

point of view: the third eye of the butterfly. This special drawing on the wings, the aforementioned "eyespots," stare back in a different way than the subjectively constitutive gaze of the picture. Lacan explains that the relation between subject and tableau does not depend on colour alone, even though colour is always subjective (97-98). The crucial factor lies in the concept of mimicry, especially when mimicry implies becoming a blind spot in the tableau. In Hirst's work, as Aloi has shown, the butterfly wings only become visible when you know about it or when you look closely. These eyespots are the butterfly's blind spots. It would in fact not be surprising if there were no wings with eyespots in Hirst's work. In any case, it is important that the materiality, not the subjective colouring, but in particular the black blind spot, the third eye of the butterfly, the materiality of the surface, disturbs the connection between vision and subject. Mimicry is something like a "fundamental dimension of the inscription of the subject in the picture" (Lacan 99) or, as I would say, in the tableau. In the case of the eyespots of the butterfly, the eye, the gaze and vision ("the gaze for the nature's work" (Aloi, Animal Studies" 18)) are deconstructed. Lacan refers to Caillois:

> What is Painting? It is obviously not for nothing that we have referred to as picture the function in which the subject has to map himself as such. […] In the picture, the artist, we are told by some, wishes to be a subject, and the art of painting is to be distinguished from all others in that, in the work, it is a subject, as gaze, that the artist intends to impose himself on us. To this, others reply by stressing the object-like side of the art product (100).

Both positions, says Lacan, have their justification. Common to them is a desire for the "gaze behind", which was often understood as God's gaze (Scott, "Deciphering the Gaze"). In the case of the butterfly, this 'God's gaze' splits into the illusion, on the one hand, of an animal's gaze that sees nothing, because it has no real eye, and into a material gaze, on the other. This third eye of the butterfly is not *behind* the surface, but it *is* exactly that surface.

What interests Lacan is not the artist or the "object-like side." He summarizes a somewhat differently constructed claim: "certainly, in the picture, something of the gaze is always manifested" (Lacan 101). The task that now presents itself is to examine Lacan's claim, thereby reading new theories of materiality against the grain. The problem of anthropocentrism in aesthetics is still not solved. It is important to keep that in mind. To broaden Lacan's claim, I presume that the butterfly's wing, which is well known as art, as Caillois had reasoned, has "something of the gaze" too, in the third eye of the butterfly. As Lacan says, "the function of the picture […] has a relation with the gaze" (101). Painter and butterfly say to us: "*You want to see? well, take a look at this*!" (Lacan 101) But does the butterfly's wing give us something to pacify or something that satisfies, as Lacan explains in the terms of Expressionist painting (Lacan 101)? The staring, challenging gaze of the eyespots, as one might argue anthropocentrically, invites us to crave, especially when we consider the feminine quality that seems to be ascribed to the butterfly in its cultural discourses. Lacan goes on to speak of the dialectics of eye and gaze (103).

Using the example of Zeuxis and Parrhasios, Lacan shows that deceiving the eye is the core of aesthetics, a "triumph of the gaze over the eye" (103). Can the eye of the butterfly triumph over the gaze? Or, put differently: How can the dialectics of gaze and eye be interrupted? A question that advances to the core of the anthropocentric perception of the surface. Where does the butterfly's eye lead us (Scott "Deciphering the Gaze")? Let us remember Benjamin's fascination, his becoming-butterfly. The third eye of the butterfly dissolves the subject and, as in Benjamin's case, allows one to experience another connection with the world. The butterfly does not even have to be 'decorated' with an eye on the wings. Just the proximity as becoming, as shown by Benjamin, makes the world a weird space, and the colour combination of the wing into a work of art. As art is often exhibited in 'weird spaces,' usually white cubes, butterflies – at least for Europeans – appear in meadows and gardens. Both experiences, however, have become rare. Furthermore, the surface of the butterfly's wing refers to the mask, the shield,

the shell, skin or clothing – each surface doubles the body, the subject (Lacan 107).

Getting closer to a first result, we can conclude that the third eye of the butterfly, as I call this phenomenon, is tricky: neither an illusion nor a real gaze it dissolves the subject leads to a kind of becoming which is not mimesis or metamorphosis. We will see shortly that Graham Harman's object-oriented ontology will provide us with further tools to understand the third eye of the butterfly, the non-human aesthetics of surface.

But for now, let us tackle Lacan's anthropocentric difference. Lacan distinguishes humans and animals in the way they use masks (Lewis 87). Humans 'play' with the mask, the animal – according to Lacan – cannot do that (107). The eyespots of the butterfly, however, can be – in addition to their function, which, like Lacan shows with Caillois, is problematic – understood as a game. The anthropological difference dissolves. "At the perceptual level, this is the phenomenon of a relation that is to be taken in a more essential function, namely, that in its relation to desire, reality only appears as marginal" (Lacan 108). Lacan emphasizes "the lines dividing the surface created by the painter, vanishing traces, lines of force, frames (*bâtis*) in which the image finds its status [...]" (108). It is precisely the absence of these lines that are masked by the image that testify to the relationship between desire and subject. "The work of art functions as what Lacan calls a *dompte-regard* by inviting fascination only in order to put an end to it. It satisfies the gaze only in order to bring about a separation from the gaze" (Scott "Deciphering the Gaze"). Lacan distinguishes "two terms" of seeing: the gaze comes with things, they "look at me, and I yet I see them" (109). The picture, perhaps even the surface, always oscillates between "*dompte-regard,* a taming of the gaze" and an "appeal to the gaze" (Lacan 109). The *dompte-regard*, as Lacan had shown with reference to Holbein, is also associated with the *trompe-l'œil*. This expression, *trompe-l'œil*, seems to me to be particularly felicitious with regard to the butterflies. The butterfly wings' intention to deceive, faking eyes, sets a gaze in motion. But one is as mistaken in seeing eyes in them as one is mistaken in seeing no eyes in them. The game is tricky. Lacan puts forward a different understanding of how humans and animals can be deceived, respectively. Again, he refers to the example of Zeuxis and Parrhasios: the grapes that deceive the birds must, according to Lacan, even be "reduced", "closer to the sign" (Lacan 112). Man, however, is deceived by the curtain, because it provokes a desire to see something behind it. The bird is deceived because he sees something that corresponds to his understanding of something: the animal takes signs and things as identical. Man, however, can only be deceived in regard to his desire. Benjamin's butterfly, for example, its appearance, its surface, arouses a desire that deceives the hunter. In one moment he still believes that the insect is hovering over the flower. Suddenly the *lepidoptera* moves, escaping the grip of the hunter. The eye follows it. The game of deceit and meaning receives a physical and dynamic dimension. The third eye of the butterfly is not only a sign but also a material surface in motion – unlike a painting.

With Plato, Lacan explains that the point of concern when it comes to paintings is not the capacity of illusion, the repetition of the object in another material/medium, but the play between desire and deception. Plato is not someone who likes to desire. "The picture does not compete with appearance, it competes with what Plato designates for us beyond appearance as being the Idea" (Lacan 112). Therefore, the gaze of the beast, which is at the same time not a gaze, is so interesting. The eyes of the butterfly wing do not deceive us because they provoke the deceptively life-like illusion of an eye, but because they refer to the idea of being looked at without establishing this idea metaphysically. It is only visible as a material surface. This is quite scary. Butterfly's wings and paintings meet here, because both pretend, "that it is that which gives the appearance," (Lacan 112) and 'that' can be both the idea, and the surface.

Lacan rightly asks: "where does this gaze come from?" (114) What is meant is the gaze behind it, the painter's gaze, or the gaze of the butterfly's wing. But in any case, it is something material that Lacan brings together with the brushstroke on the one hand, and the dripping off of paint on the other (114). What Lacan calls 'the rain of the brush' might as well be the fall of a bird's feather, falling leaves of a tree, or falling scales of a snake (114), or the

batting eyelashes of the butterfly's wings – a gesture? "It is by means of the gesture that the brushstroke is applied to the canvas" (Lacan 114-115). The hand – here, at the latest, Heidegger's legacy becomes obvious – inscribes a direction into the image, whereby the "view is active in a certain intention, an intent to desire without doubt, […]" (Lacan 115). But on the butterfly wings, there are no brushstrokes, no gestures of the hand, only infinite repetitions of singularities through evolutionary history. Every single individual has become a brushstroke, the gesture that now looks at us, without ever expecting to see. Lacan says the eye has an appetite (115). Does the butterfly's eye, which is not an eye, which we confuse only with the eye, with the blind spot of the desire to see, and to be seen, to see ourselves see, have an appetite? Is the butterfly's third eye Lacan's evil eye? Maria Scott explains: "Fascination exposes the subject to splitting, as suggested by the mythic properties of the evil eye, whose effect is described by Lacan as an experience of deathly stasis" ("Deciphering the Gaze"). But the eye of the butterfly's wing, this blind spot in the double sense that can see nothing, and yet shows us nothing, either, does not evoke envy, *invidia* (Lacan 116),[3] because it is not an evil gaze. The butterfly's eye is the third eye that sees everything. As a surface, it is materially and medially configured differently from seeing, as Lacan understands it, and Western philosophy has understood it so far. The optical regime, the Enlightenment's regime of power, as well as aesthetics, are thereby subverted.

To allure and allude

The third eye of the butterfly seems to jam the western ideology of aesthetics. The optical regime does not care whether what it casts its eye on, what it looks at, looks back and responds to the gaze. After all, since the Enlightenment, since the Enlightenment at the latest, since the enjoyable view with Kant and Schiller (Halsall 409), at least since then, everyone knows what he sees, because his taste has already filtered things. Nothing can surprise the male, white aesthete anymore, and even if he is surprised, that is only in the calculation, in the sense of his aesthetics, whether he is dealing with the sublime or the beautiful. But the 'evil' gaze of the butterfly's wing, better its third eye, leads us to a very different understanding of seeing, one that is more like a response which also implies responsibility: Jacques Derrida or Donna Haraway speak of "response-ability", Graham Harman uses in his object-oriented ontology the terms "allure" and "allude".

We have to understand how the butterfly shows us that any aesthetics of surfaces leads to a complex network of relations, which is not explained by the dualism of Nature and mankind. Aesthetics has an ecological and ethical dimension. In Benjamin's childhood memory, the butterfly hunt resulted in the devastation of the meadow, and the death of the butterfly. In Caillois, the anthropocentric difference is questioned, and Lacan refers to the desire of the gaze. My point is: every time we met the butterfly, we also met the other. In his essay *Aesthetics as First Philosophy*, Graham Harman tries to answer the following question regarding aesthetics, ethics and perception: "how do individual substances interact in their proximity to one another?" (Harman 30) With regard to Emmanuel Levinas, Harman argues for an indirect communication via aesthetics; something that – as already mentioned – he understands as "allure" and "allude" in the proximity of entities, which is not restricted to human consciousness, language and eyes.

Levinas is the philosopher for whom the other is the ethical touchstone. Graham Harman explains: "The infinity of the other is merely one means by which Levinas opposes totality" (21). Harman analyses the function of the other, who can be the other, and clarifies that ethics cannot be a *prima philosophia*. Instead, Harman puts aesthetics before ethics. He does not, however, understand aesthetics in the way we have used the term so far.

First things first, though: Harman is interested in broadening the term "the other" as Levinas has put it. To be clear, "the other" is always a human being. This is something that irritates Harman. Levinas' "the other" fails to take not only things, as Harman explains, but also animals into account. Surprisingly, Harman is in accordance with Derrida (Derrida 105-106). Derrida explains that according to Levinas, the animal does not look at anyone, it has no "traits attributed to the human face"

(106). Further, "this [Levinas's note M.B.] subject of ethics, the face, remains, first of all, a fraternal and human face" (Derrida 106). Thus, ethics excludes the animal, although it is all about "infinite alterity" of the other, something that seems to be obvious in the human-animal relationship (Derrida 107). Derrida states for Levinas: "The animal has no face, he does not have the naked face that looks at me to the extent of my forgetting the colour of its eyes" (107). Derrida points out that "*nudity*" is the most important term for Levinas, which his philosophy has taught us to rethink, "describing the face, the skin, the vulnerability of the other or of my relation to the other, of my responsibility for the other [...]" (107). However, he "never concerns nudity in its sexual difference and never appears within the field of my relation to the animal" (Derrida 107).

We have taken quite a detour, but Lacan, Derrida, Levinas and Harman slowly merge at one point, the third eye of the butterfly: the human eye encounters desire, the beast, but also thinks through the "painted" eyespot on the butterfly wings. The face of the other is an animal-material-artistic surface. That surface is not just there, it constitutes itself in a network of entities gazing at each other. We become mindful of this interaction by looking into the third eye of the butterfly. That interaction is the aspect that Harman is interested in when he proposes aesthetics as first philosophy. He describes this interaction, which I myself have only been able to approximate, as follows: "All things reside in infinite depths, and all things erupt into enjoyment along the shallowest facades of the world. Both moments, in turn, derive from the life of discrete substances that never fully submit to the war of all against all" (Harman 21). What Harman describes takes place on the surface of the wing and in the confrontation of animal, human, and eye. To understand the impact of such a re-definition of aesthetics, we have to follow Harman's interpretation of Levinas' keywords: "sincerity" and "proximity". Both concepts are related to the surface and to ontology. Therefore, my question now is, what is the aesthetic ontology of the butterfly's third eye? As seen with Benjamin, the butterfly and the flower share a connection which is not reduced to physical contact. The same applies to the Lacanian gaze.

Harman's critique is aimed at both the radical view that all things are interconnected, and at the assumption of a strict separation of entities. This refers to what Levinas calls totality or "the global systems of beings" (Harman 22). Levinas' ethics wants to "break with the totality of beings in reciprocal determination" (Harman 22). To address this problem of causality, Harman introduces the term "proximity", because "[a]dditional problems", Harman writes, "plague Levinas's account of the surface of the world" (23). In a second step, Harman connects Levinas' "theory of elemental joyment" with Heidegger's "tool-analysis". "Enjoyment" for Levinas is being addressed by the other, "[...] in the sense of being fascinated[.]" Therefore, "[i]n enjoyment, our experience has no ulterior meaning beyond what we encounter; enjoyment is entirely non-signifying, and this forces Levinas to break with Heidegger" (Harman 23). "In the tool-system", however, as Harman explains, "one object is plugged into another, and that one plugged into yet another; individual beings vanish in favor of the end they serve, which is ultimately Dasein's potentiality for being" (23). Enjoyment is not being overwhelmed by the other or dissolving in the other, but being close to the other, as the butterfly is to the flower or the eyespot on its wings to our gaze. Harman's account of Levinas reveals the media-theoretical potential of the latter's philosophy. We are getting closer to what Levinas calls "sincerity". "We never," Harman writes, "fully encounter the other, but also never pure surface. Instead, we find ourselves in a state of sincerity" (24). Again, the beating of wings, the third eye of the butterfly appears before our gaze: So far, we could not take its eyes, as eyes, seriously. After all, there were no eyes, not even the eyes of an animal, or the illusion painted by an artist, but only the contingent game of evolution. In order to be ethical, the entanglement has to absorb us, as in Harman's example: "We look beyond the favors and injuries done by the man now drowning before us, and make efforts to save him" (24). He continues: "Our life is sincerely absorbed in this obligation. But we are equally sincere and when sensual enjoyment is considered. That is the very meaning of enjoyment: a surface never eaten up or

siphoned away by the ulterior functions of what it confronts" (Harman 24). That is the point where the gaze of the butterfly's third eye becomes not only aesthetical but also ethical in terms of an ontological connection of all entities without the correlationsims of a human consciousness.

Since Kant – as new material theorists like Quentin Meillassoux are claiming – the world is only understandable through human consciousness. Meillassoux, as well as Harman, criticize that philosophical anthropocentrism as "correlationism". With Levinas, Harman seems to have developed an alternative approach which enables us to think of the world without the filter of human consciousness. He explains that "sincerity" is "the Levinasian version of the classical principle of identity" (Harman 24). Identity and relationality contradict themselves. If all entities are related to each other and only by relation held in existence, there is no Identity in a classical anthropocentric and subjective way. Harman solves this problem by understanding the Levinasian term "sincerity" as "illeity". We have to understand that we could "[…] be different from something even while taking it seriously. It is to touch a thing without fusing into it" (Harman 24). That is something we can learn from the butterfly's third eye. Let me recall the becoming-butterfly of Walter Benjamin. He fuses into the butterfly without even touching it. Deleuze and Guattari's concept of becoming-animal suggests a more complex ontology or at least this concept allows us to extend Harman's approach to the case of the material and medial surface of the eyespot. Becoming-animal is not about truly becoming an animal, but about the play of closeness without dissolution, whereby a moving and mobile ontology becomes visible that is directly related to "seeing oneself". Again, it is Lacan's gaze that looks back at us at this point. It is not only art that enables us to see ourselves looking; so, does the butterfly's third eye, as its peculiarity casts the relation between human animals and things in terms of an aesthetic surface.

The eyespot on the butterfly's wing reveals how things, animals and humans, and the relations between them, are not quite as comprehensible as Harman would like them to be. It may be the case that we touch something without merging into it, but when we look at a surface, especially the eyespot, we cannot escape that evil third eye. We simply do not want to escape. We learn this from the butterfly and its painted eyes, which distinguish the animal from itself and us. At the same time, those eyespots connect us with the animal, but also with the double of the butterfly as gaze and entity, as the other. It is here that ethics and aesthetics really meet. Becoming-animal as Deleuze and Guattari have explored it as well as Harman's concept of Levinasian "sincerity" as "proximity without fusion" give us the perfect theoretical combination of object-oriented and animal-oriented ontology to tackle aesthetics as an ethical attitude for an ecological companionship yet to come.

With the butterfly's gaze we bypass another problem, without ignoring it. Harman points out that for Levinas, "language points beyond whatever surface of the world may be directly accessible to us, toward something real that exceeds language itself" (25). Beyond the wing, beyond the blind spot, the black dot on the surface, there is no meaning. The surface itself generates meaning. Harman continues: "[…] even if we accept that language has a special power to point beyond the world of visible surfaces (as Levinas does), this still seems to be a power belonging to humans alone" (25).

The gaze has equal power, but – if we can disentangle it from the visual matrix of the optical regime of aesthetics since 1800 – it is no longer anthropocentric. We try to understand the butterfly's eyespots on the surface of the wings, as Caillois does, as a painting, or maybe even as a poem, because – keeping in mind Levinas' distinction of "the said" and "the saying" – there is a surface that shows something (the shown) and a showing that points towards something behind the surface. With Lacan, however, what shows and what is shown, with regard to the third eye of the butterfly, is also a gaze, not necessarily passive, but also explicitly active.

Therefore, the surface generates not an otherworldly, but a worldly meaning, because only the gaze produces something like meaning. The third eye of the butterfly on the

surface of the wings does not connect us with any otherworldly meaning but produces meaning on this side of the world. But meaning for whom? Again, we find us confronted with the already mentioned "correlationsm". "For correlationists, it makes no sense to think of the world apart from humans, nor humans apart from the world, but only of their mutually dependent interplay" (Harman 26). Again, it is looking at and being looked at, which entangle us as human beings.

The gaze we have dealt with suggests that not only do we have a desire to look at something, but we also want to be looked at by the butterfly's wings. We have to keep in mind, though: "My fascination with the other does not entail the other's fascination with me" (Harman 26). This raises the question of whether it is possible to understand the gaze of the surface as a form of communication, or whether we need to read it as something else. For Levinas, as Harman explains, "communication is always asymmetrical" (26). At this point, Lacan and Levinas meet: while Lacan speaks of a blind spot, Levinas calls this phenomenon a "fission", "in which" as Harman interprets, "I am sincerely fascinated by the other without the reverse being true" (27). The blind spot, as well as this fission, are both terms of materiality and mediality. They define gaze and proximity as corporal communication. Without a surface there would be no gaze and no fission.

The third eye, as I have frequently called the eyespot on the wings of the butterfly, is both a blind spot in the sense of Lacan, as well as a "fission" in Levinas' sense, but it is materially and medially effective, on and through the surface. This gaze casts a spell on us, it sees us without seeing us, so we look at it. This spell is also asymmetric communication. Here the circle from Levinas to Lacan closes with Derrida. Because „[c]ommunication, for Levinas, is responsibility, and responsibility … goes one way, from me to the other" (Harman 27-28). Derrida, just as Donna Haraway, understands responsibility as response-ability, as being able to respond and also have responsibility for the communication as a relation. While, due to the Levinasian fission, we can see ourselves in the eye of the butterfly as unique, as a human subject, the butterfly disappears not only as an autonomous being but also as an aesthetic surface, because of the asymmetric communication and responsibility as a one-sided relation. It is not about attributing to the stain on the butterfly's wing, the blind spot, the quality of a human gaze, nor about getting the butterfly to look at us so that we can enter into peaceful communication and finally resolve the anthropological difference. We cannot deny the differences between the gaze and the butterfly's third eye, but we can change the anthropocentric principle in the aesthetics of the surface by deconstructing the difference of art and living beings, an aspect I have examined with the help of Caillois at the beginning of this investigation. I aim at a reformulation of aesthetics, not primarily of the anthropological difference, and this includes understanding aesthetics medially and materially not only as responsibility, but also as response; because the materiality of the surface has its own mediality, and the mediality of the surface has its own materiality, which accepts the perceiving being and the perceived being, takes them in, and transform them. By modifying responsibility as response-ability, as Derrida and Haraway propose, aesthetics becomes *prima philosophia*. In the following, I will now turn to the details of Harman's argument for this reformulation, and also ask myself why it is necessary to put aesthetics into such an exposed position, in the first place. I believe that the third eye of the butterfly's wing has something to do with it.

Aesthetics and philosophy

We started with the problem that Caillois has posed and ended up at this point: the aesthetics of the butterfly's wings. The problem is: can the butterfly wing be considered art? What differentiates the surface of the painting on which our gaze is stuck from the surface of the butterfly's wing?

Let us think again about Harman's reference to Levinas. Harman gives art a special position, he understands art and with it, aesthetics, as a parallel force to ethics, even. Now we must ask, why is it even important that we compare our idea of art with the butterfly's surface? If we thus enhance the butterfly's wing, we remain in the anthropocentric gesture of power of aesthetics around 1800 and become Romantics. Harman points out that art is a rare phenomenon in our lives. Almost as rare as the

butterfly, which most people do not get to see very often anymore. This is not a sentimental footnote but a real concern, because just like bees, butterflies are important animals for the environment of our agricultural industry. The loss of those animals will culminate in the apocalypse of an ecological crisis a topic that we have to put aside for the moment. What we need to focus on here is that butterflies are "[…] weird objects and we encounter them in weird spaces" (Halsall 406). There is a simple analogy between the weird space of the meadow as mentioned in Benjamin's childhood memories, and the weird space of the white cube, where art is commonly exhibited. Art and butterflies change the way we see, we gaze, and they transform our environment as much as we construct and influence theirs. For Harman, sincerity, as well as art, have an existential connotation, albeit not quite the same: "We are sincere merely by existing, but it would be sheer affection to say that we are artists merely by existing" (29). That may be true for humans. There is one aesthetic tradition, more precisely a Romantic tradition, which would claim that nature is art simply by virtue of existing. We also know well a second tradition, the tradition of the human artist as genius, who has to wrest art from nature. I am aware that this is a broad-brush distinction and furthermore, that the eyespots of the butterfly could be understood simply as a materially contingent effect of evolution. It could be understood as an anthropomorphism to call those dots "eyes" and to speak of a material gaze of the surface. Harman notes: "The fission of everyday perception is a feeble sort of rift, noticed only through the painstaking work of description. This is the usual state of things in our lives" (29).

Painting and those eyespots on the butterfly's wings – both understood as material surfaces of aesthetic value – share, besides the problems mentioned above, the capacity to trigger a deeper knowledge of what Harman calls "allure". In his argumentation, Harman plays with the words "allure" and "allude". They appear to be close, almost synonymous, but they aren't, actually:

> But matters are different if we consider a deeper sort of fission. In this enhanced type of split, we become openly aware that the thing to which we refer resides in absent depths, and is not directly present before us. If our perception of a tree brings the tree directly before us, there are other cases in which our sincerity does no more than *allude* to a tree that is more than what our minds can directly present (Harman 29).

With Lacan's exploration of vision, eye, and gaze, we walked the trail of this "allusion". Again, we find ourselves confronted with anthropomorphism: the eye is, especially for human beings, an eye through and with which they can see the other and themselves. In the case of the eyespot, however, we have a surface with eyes attached to an insect. That is something that undermines the classical understanding of seeing as a capacity of living subjects. The surface does not see something. It only appears to look, to stare, at the other, humans as well as animals.

Harman's example, however, refers to language and not, like ours, to a material and medial surface. He analyses the word "tree" in a poem and observes: "[i]t comes to presence in our minds as some sort of hazy image, even while suggesting or hinting into shadowy depths that exceed our intentional relation with it" (Harman 30). Words build images. The world seems to be given only in and by language (Halsall 408). The butterfly's wings are already an image, though. The eyespot as an aesthetic surface is more than those intentional and phenomenological images of the human mind. Those spots refer to a material and medial communication between species without language and the image-making mind of humans. The gaze of the third eye of the butterfly shows us, even if read in an anthropomorphic metaphorical way, that there are plenty more aesthetic ways of communicating in the world than human art. To articulate our aesthetic perceptions and understandings is just one part of an animated aesthetic. This animated aesthetics should be *prima philosophia*, it allows communication "through proximity, the touching without touching, that has been termed allusion or allure" (Harman 30). To see without gazing or to gaze without seeing, that is the question. This question points again towards surfaces: "I

do not grasp things in their depths because *communication is not a matter of depth*. Communication occurs only through proximity, not through nonexistent doors or windows" (Harman 30). And yet, the surface/eye of the butterfly shows us a blind spot. If we insist on understanding the eye as a window, which western cultural history certainly does with great pathos, there would be nothing to see. We have to re-think the gaze starting from the animal and even from the material surface of the butterfly's wing. The butterfly's wing undermines the metaphor of the eye as a window. There is no eye, no window, and yet a depth that does not extend beyond the surface because looks are just communication. We never touch "the full reality of one another" (Harman 30).

We never see the butterfly as a whole, never the wing as a whole, never the eye, though it sees us seeing because it is surface. Yet there is still something that is made up of seeing and being seen, of being touched and not touched, of being said and being expressed: "The only way to do this is to become one object to all of reality Allure is not just a theory of art, but a theory of causal relations in general" (Harman 30). Allure and allude – as I would say – are two modes of animated aesthetics that deconstruct the optical regime on the one hand and the anthropocentrism of aesthetics as a discipline on the other. The third eye of the butterfly is not a mirror, but an anthropozoomorphic metaphor (Hayles 176), an allusion, an allure towards a reality which we share with art as well as with animals.

Notes

[1] Translation of the following passages of Walter Benjamins Berlinder Kindheit um 1900 by the author with the kind support of Friederike Danebrock.

[2] Translation of Sigrid Weigels article by the author with the kind support of Friederike Danebrock.

[3] Lacan distinguishes explicitly *Invidia* and the common term "jealousy".

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SKIN
AND FLESH

Working sculpturally in wax and latex lynn mowson creates surfaces and forms that are evocative of human-animal flesh and skin. In blurring mammalian bodies she attempts to counter mammalian hierarchies and seeks an embodied response. Mattering matter through the process of constructing works with the material processes and carcasses of previous sculptures, mowson creates sculptures that are densely layered and burdened with meaning in response to the lives and deaths of agricultural animals and the future agri-tech industries.

Text by lynn mowson

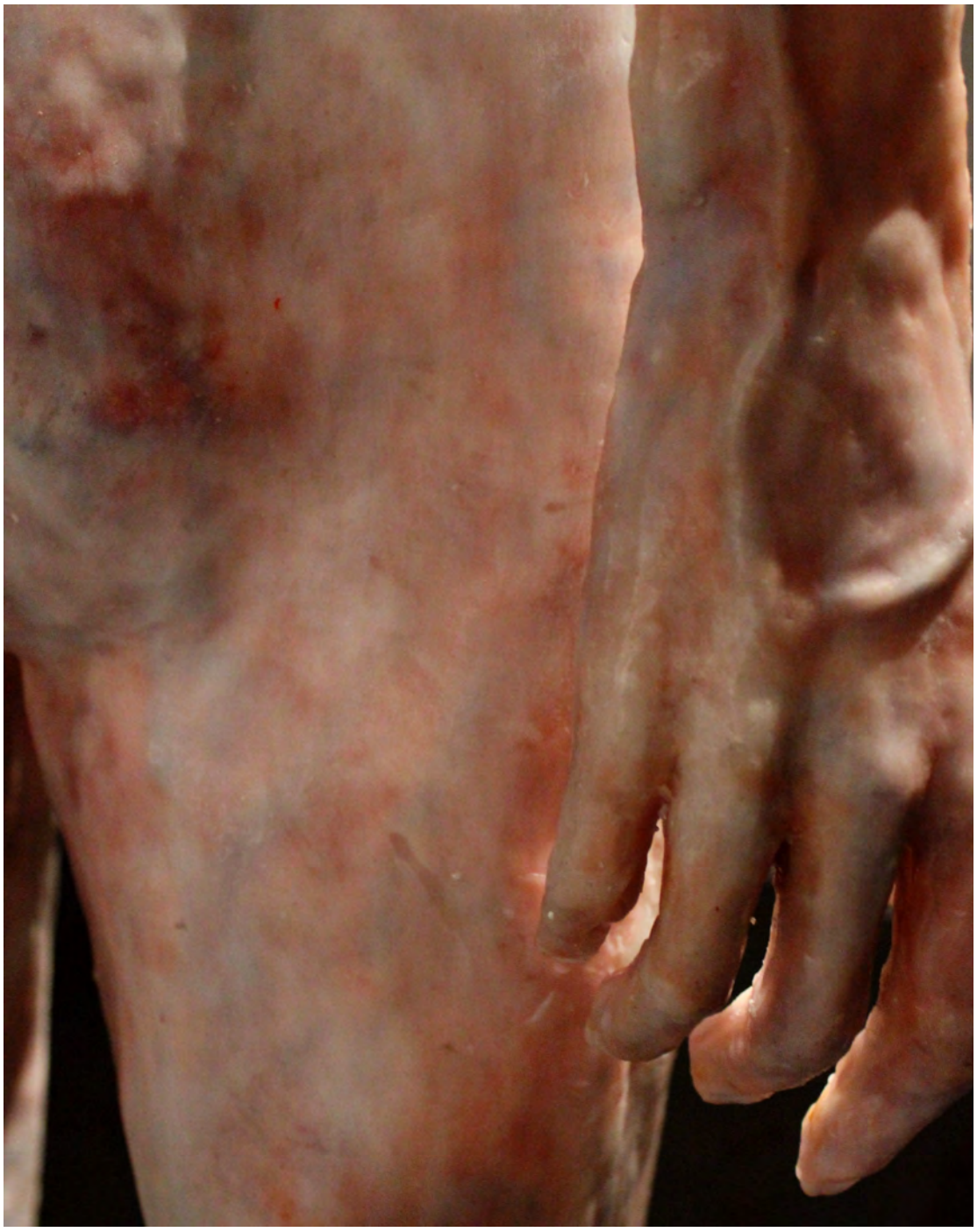
My sculptural practice involves manipulating matter, in particular wax and latex, into surfaces and forms that evoke the flesh and skin of the animal body. The surfaces of my work, with their corporeal evocations, aim to engage an empathic and embodied response in the viewer. These material methodologies are employed and perhaps overstretched in response to my research into the lives and deaths of agricultural animals, biotechnologies and the environmental impacts of animal agriculture.

My wax surfaces are suggestive of flesh; the fat, muscle and membrane below the exterior layer of the skin. They are created quite abstractly by painting thin layers of hot pigmented wax into moulds, as the wax cools and hardens it becomes translucent and the layers of colour create a painterly visceral effect. The potential for wax to collapse, melt and reshape makes possible cannibalising, composting and repurposing of my sculptural forms. In using the remnants and techniques of previous works, traces of the original works build narrative layer upon layer into a dense mattering of matter. An example of this is my series *fleshlumps* (2014) dismembered from previous sculptures, including some butchered from a series of portraits entitled *creatures* (2011-2012). The *creatures* series was comprised of multiple sculptural 'portraits' of a hybrid mish-mash of meat animals, skinned and partly de-fleshed. Displayed *en mass* within the context of a sculptural lineage, these objects referenced the undifferentiated mass of heads in the headline of the slaughterhouse, and the individuality of the portrait bust. The act of crushing the waxes into abstract fleshy lumps was a material act of working through the process by which a whole animal life is reduced to meat, taking a subject and reducing it to an object. The traces of the original form, such as an eye socket, nostril or jawline, incorporate the initial impetus of the portrait into the new fleshy matter. This material butchery was also enacted on my life sized human-animal sculptures *fleshforms* dismembered for *fleshlumps (pieta)* and more recently for a collaborative sound/sculpture project with Bruce Mowson entitled *speaking meat*, performed at 'Why Listen to Animals?' (2016). The meaty-lumps were passed around the audience, each lump housing a speaker which 'voiced' a hypothetical piece of meat; a baby veal calf, an old dairy cow, and a grumpy

lynn mowson

fleshlump (pieta), microcrystalline wax and pigments, 2014. Photo: Kerry Leonard © lynn mowson

fleshlumps, microcrystalline wax and pigments, 2014. Photo: Kerry Leonard © lynn mowson



lynn mowson

fleshform, microcrystalline wax and pigments, 2014. Photo: the artist © lynn mowson

lynn mowson
speaking meat, microcrystalline wax, pigments, speakers, 2016. Photo: the artists © lynn mowson

steak. People made squeamish faces as the flesh lumps approached them, some people nestled the objects, some handed them on hurriedly and others held them to their ears to hear the meaty mumblings from within the fleshy surface.

I work with latex to create a skin-like material, painting layers of latex and tissue over the exterior of my sculpted moulds, creating surfaces that resemble age velum and dried hairless membranes. De-moulding latex casts is a process that is evocative of skinning an animal - cutting, stretching and pulling the latex-skin, and it is through this violent treatment that unique textures are formed into the material structure and surface of the latex skin. *slink* (2014) is comprised of multiple adult, baby and sac forms; the adult forms are thick-skinned, the surfaces scarred and ripped revealing the process of fabrication through the edges of layers of torn tissue. The babyforms are thin, delicate and translucent; most of these small bodies were partially sewn together in material practice manifesting ethical care. The translucency of the latex and the opened form allows the eye to travel from the exterior surface of the skin into the object's interior, and also to see within the skin effects created by layers of latex and tissue. The deaths of pregnant dairy cattle and the commercial by-products derived from their in-utero calves was the impetus for *slink*. The title references slink leather, a small unblemished skin sourced from foetal animals, another product is foetal bovine serum, extracted from the blood harvested from live foetal calves. The *slink (sacs)* are thick and meatier with a form and texture evoking placentas and amniotic sacs, and they were made in response to the procedure in which the amniotic sac is held over the head of the foetal calf to prevent it from taking its first breath while the blood is drained from its heart.

boobscape (2016-2018), is a sprawling iterative installation of latex piece-works, using the material methods developed with *slink* (2014), and by doing this I aim to accrue *slink* meanings within the newer work; the delicate torn skin between the breasts, teats, and edges of the casts calls forth semblances to fragile lives and foetal skins. *boobscape* emerged from research into the lives of dairy cattle considered through a feminist phenomenological approach to fellow mammalian lives. Continuing my process of blurring boundaries between human and nonhuman animal bodies, the mass of mammalian mammaries counters the usual mammalian hierarchies and seeks an embodied response to nurturing, milking, mastitis and loss. *boobscape* responds to the histories of exploitation and power in multi-species milking, contemporary dairy methods and codes of conduct, the prevalence of mastitis in herd, which cause large-scale antibiotic use and premature culling; the thick discoloured skin of the engorged leaking breasts gesture to the physical heat and pain of mastitis, and the ulcerated udder flesh. *boobscape* also responds to multiple interconnected and entangled issues, such as the impact of animal agriculture on the more-than-animal world, the leaking milky dripping strands that reach the floor, or overflow into and spill out of other small latex bodies, touches upon the excess of nutrients,

lynn mowson

boobscape, latex, tissue and string, 2018. Photo: Kerry Leonard © lynn mowson

slink (detail), latex, tissue, string and coat hangers, 2014. Photo: Kerry Leonard © lynn mowson

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slink (sac), latex, tissue and string, 2014. Photo: the artist © lynn mowson

lynn mowson

boobscape (detail), latex, tissue and string, 2018. Photo: Kerry Leonard © lynn mowson

boobscape (detail), latex, tissue and string, 2018. Photo: Kerry Leonard © lynn mowson

hormones and antibiotics seeping into, and affecting soil cultures, waterways, and oceans.

I furthered the connections between these multiple latex mammary skins and slink leather and the leather industry by fabricating several large panels in the shape of the leather symbol. Multiple supernumerary teats clustered like fungal growths nod to procedures that remove unwanted elements of the animal body in the interest of productivity; extra teats, for example, disrupt automated milking machinery and can be removed with scissors with little pain relief. Later teats, amongst other body parts, become the spoilage of the leather industry. Bio-fabricated leather is heralded as removing wasteful body parts and replacing the skin of scarred, worn bodies via the production of sustainable, cruelty-free, blemish free sheets of leather. However, bio-fabricated leather is generated mostly through harvesting cell cultures from live animals, and in response to this cell harvesting the central cast of *boobscape* is inverted, as the detail shows; the interior of the sagging mammaries are suggestive of diagrammatic cross-sections of epithelial cells, cells harvested for biotechnologies, and the inverted teats resemble biopsy punch marks. Growth medium is necessary for the production of bio-fabricated leather and 'clean meat', and the most commonly used medium contains foetal bovine serum, the collection of which informed the development of *slink*. Thus, the vestiges of material matters from *slink* are now turned within *boobscape* to face the potential futures of the agri-tech industry.

Also see mowson, lynn *'making and unmaking mammalian bodies: sculptural practice as traumatic testimony'* in Lori Gruen and Fiona Probyn-Rapsey (eds) *Animaladies*, London; Oxford; New York; New Delhi; Sydney: Bloomsbury Press, 2018.

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HOLES:
THE SEMIOTICS OF URBAN DETRITUS AND DECAY

Holes *is a series of photographs that examines small ordinary drains found in the walls of subway stations in the remote neighborhoods of New York. Dirty and battered, the holes and their surrounding surfaces reveal that maintenance and repair are low priorities in these lesser used stations, despite the fact that some areas of the subway system have improved dramatically in recent decades. While New York continues to be considered emblematic of a modernist spirit, the holes signify a number of dichotomies within late capitalist culture on a multitude levels.*

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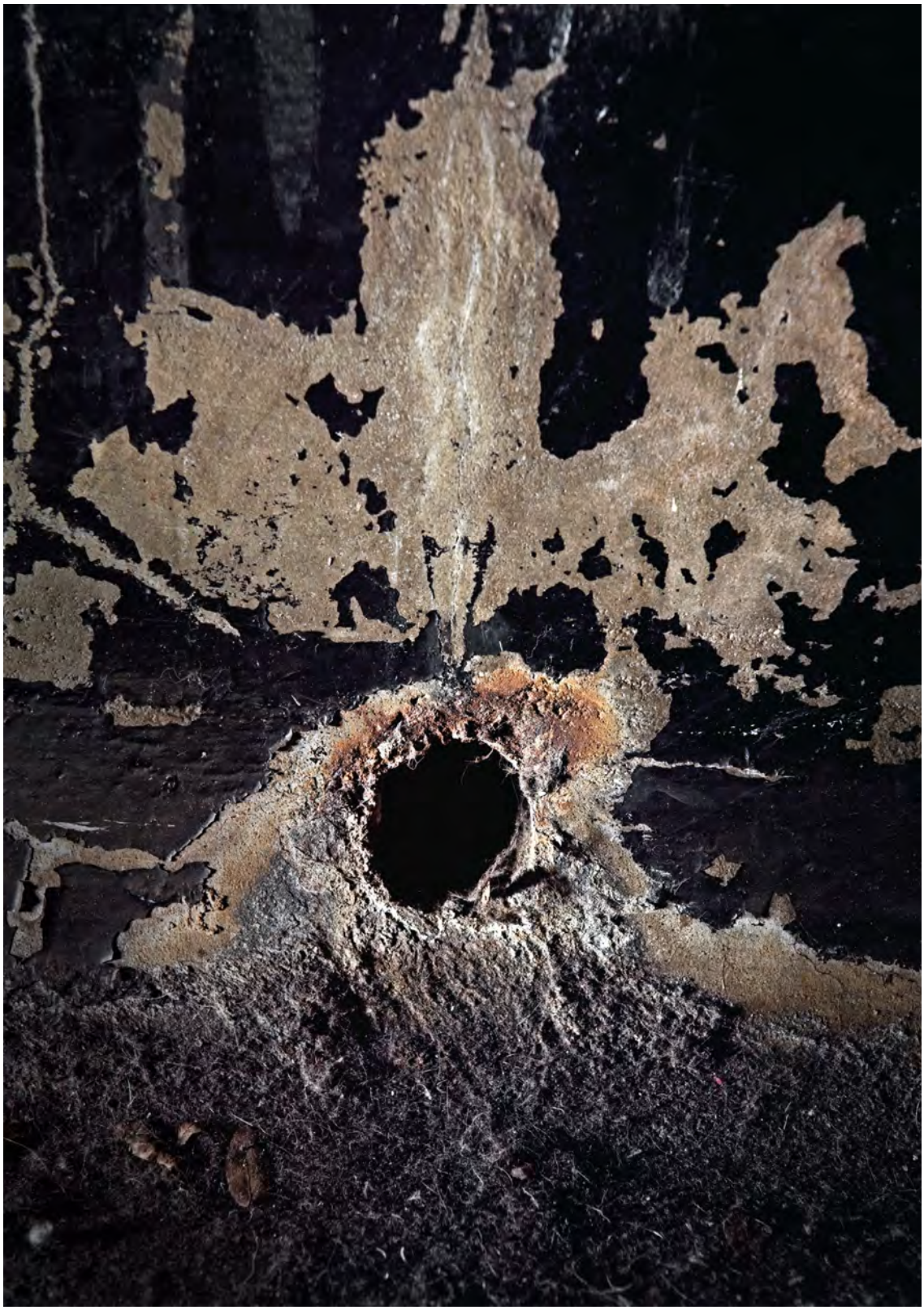
Text and images by C.W. Houser

Photographers have produced countless images documenting industrial structures that have contributed to urban progress and development. In 1864-65 Nadar photographed the newly built sewer system of Paris; the engineering feat appeared vast and complicated, as well as pristine and elegant.[1] All signs of modernization. Like Nadar's sewers, the series *Holes* also examines the underbelly of urban life, in this case, New York's subway. Well over one hundred years old, this heavily burdened mass-transit system has experienced many ups and downs as it tries to sustain itself 24 hours per day and 7 days per week and in some cases even grow ostensibly in new ways.[2] In the past few decades, the look of the subway system has improved dramatically, and some of the more highly trafficked stations have been redesigned in recent years, along with new lines being opened.[3] Yet this series focuses on small ordinary drains found in the walls of various subway stations in the more remote neighborhoods of the city. The drains are almost invisible, rarely noticed by hurried commuters, but they serve as vital records of urban development—or perhaps a lack thereof. Over the years, these drains and their surrounding walls have been battered, repaired, reconfigured, and repainted, again and again. The results are a series of irregular surfaces consisting of layered paint with scrapes and stains, patches of cement and plaster, along with clumps of dust, pools of sludge, and dancing lines of salt residue. These old and blemished facades suggest that standard maintenance and repair are low priorities in the lesser used subway stations. While New York continues to be considered emblematic of a modernist spirit, *Holes* signify a number of dichotomies within late capitalist culture on many levels.

Although dirty, beaten, crude, and sometimes grotesque, the holes are nevertheless somehow stimulating and enticing. Like the work of Aaron Siskind and Minor White of the 1940s and 1950s, my technique is to photograph the drains and walls up close to divorce them somewhat from their larger context and emphasize the subtleties of the different textures. The images are, thus, transfigured into icons of sorts and

C.W. Houser

Hole V (3407), inkjet print, 2017, © C. W. Houser



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Hole VII (3524), inkjet print, 2017, © C. W. Houser

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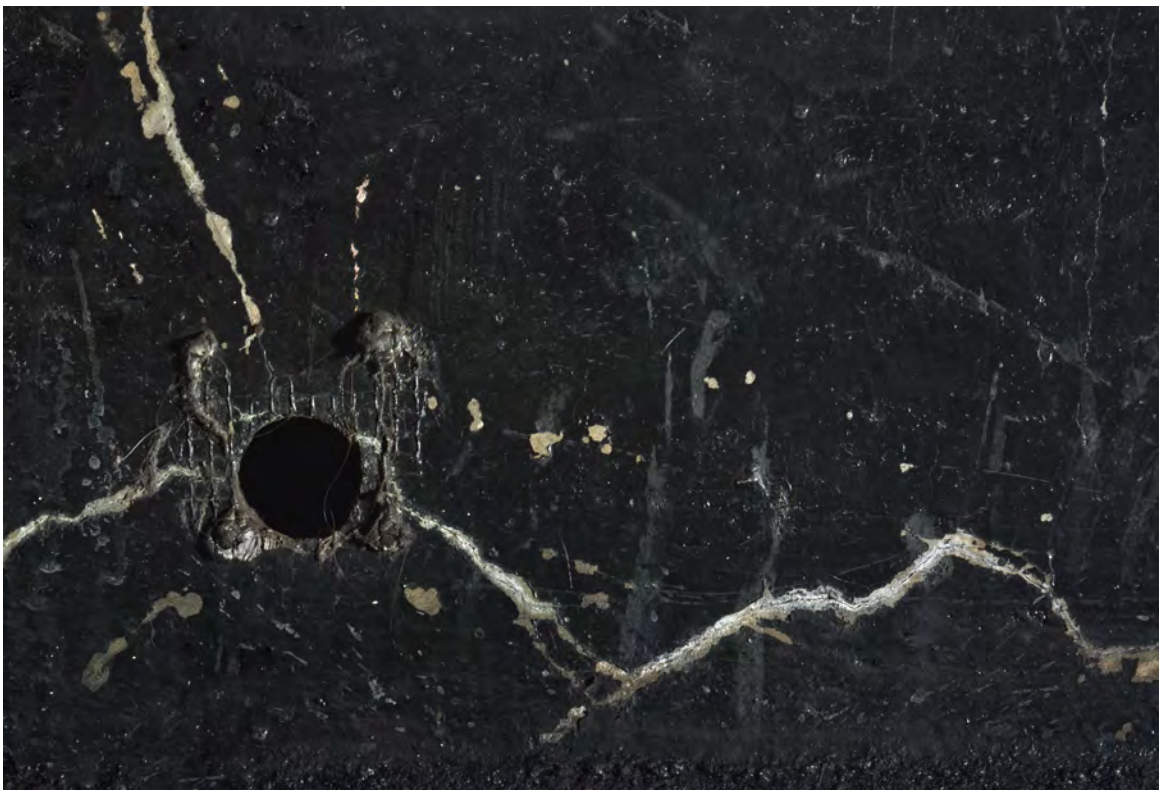
Hole IX (6901), inkjet print, 2018, © C. W. Houser

Hole I (3480), inkjet print, 2017, © C. W. Houser

C.W. Houser
Hole X (6961), inkjet print, 2018, © C. W. Houser

act like Rorschach tests that fuel the imagination. While the photographs constitute a collective body of work, they are each unique, with the potential to suggest an apocalyptic explosion, a divine eclipse, an Abstract Expressionist painting, or a stormy night sky. Whatever the viewer might see. Invoking the spiritual and the psychological, the subwayscapes are ordinary yet sublime, profane yet sacred, repulsive yet fascinating.

Such dichotomies can also be seen in the very physical structure and function of the holes. Both material and non-material, the drains are largely empty cavities. In many cases, tubes of nothingness. But the polluted and damaged orifices have the power to leak or ooze detritus, sometimes unpredictably. Such references might relate to the human body, especially aged, diseased, or declining ones. The latter, like some of the drains, can show signs of distress in trying to maintain control over their basic function. Sometimes leaking profusely and continuously, or other times dried up and useless, with no sign of any drainage in years. Along these lines, some of the surfaces that surround the drains might be interpreted as shriveled skins or damaged or diseased linings of internal organs. Lesions,



C.W. Houser
Hole III (3437), inkjet print, 2017, © C. W. Houser

infections, cancers, etcetera, might come to mind. Exploring the psychoanalytic and semiotic aspects of materials and surfaces, the *Holes* reveal a dysfunctional and abject side of culture. The once new has now become significantly old, and the task of cleansing, curing, and purifying the debris, the ailments, and the defilements of this humanly constructed urban environment are daunting.

Although the series might act as a metaphor for the human body or a neglected urban ecosystem, the *Holes* also reflect larger political issues within the postindustrial United States. While the subway remains a vital part of the city's infrastructure and some changes are apparent, these *Holes* serve as reminders that the concept of industrial newness and the promise of capitalism's constant progress, which Nadar's photographs once promised, have become somewhat forgotten concepts today. Politicians have struggled to address the transit system's ongoing needs, with growth developing sporadically.[4] For example, the new subway line along Second Avenue, which opened in 2017, was originally planned as long ago as the late 1920s, and many unused tunnels still exist in the underbelly of New York.[5] Among all the problems facing the Metropolitan Transit Authority, which manages the subway, the dirty and battered surfaces of *Holes* may seem minor in comparison, but the series nevertheless reflects the inherent political paradoxes of the transit system.

In the end, the *Holes* are more than just holes, and the surfaces more than just surfaces. They reflect a multitude of dichotomies related to urban detritus and decay. An imaginative display of grime and sublime.

Notes

[1] Matthew Gandy, "The Paris Sewers and the Rationalization of Urban Space," *Transaction of the Institute of British Geographers* 24, no. 1 (1999): 23-44.

[2] "New York's First Underground Railroad," *New York Times,* August 28, 1904.

[3] Vivian Yee, "Out of Dust and Debris: New Jewel Arises," *New York Times,* November 10, 2014.

[4] See, e.g., William Neuman, "M.T.A. to Cut $2.7 Billion, Delaying Some Big Projects until 2010," *New York Times,* June 24, 2008.

[5] Nick Paumgarten, "The Second Avenue Subway Is Here!" *New Yorker* (February 13 and 20, 2017), https://www.newyorker.com/magazine/2017/02/13/the-second-avenue-subway-is-here (accessed March 10, 2018); and Douglas Martin, *"Subway Planners' Lofty Ambitions Are Buried as Dead-End Curiosities*," *New York Times,* November 17, 1996.

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