THE WRITING OF LIGHT:

PHOTOGRAPHY'S APPARATUS AND THE UNREPRESENTABLE

By

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Abstract

This thesis situates aspects of my recent practice by examining photography's apparatus in relation to the idea of the unrepresentable.

In art, awakening the present to the past or memorializing the dead evokes a dense web of cultural practices, aesthetic conventions and social agreements. Photography is unique among them. The act of photography is one of apprehension, for it grasps what is given spatially and temporally then isolates both space and time from a continuum. This rupture caused in space-time is one of photography's most evocative and least understood effects. Spatial immediacy and temporal anteriority, the *here-now* and the *has-been* are, in a photograph, presented simultaneously. I explore this rupture in relation to the dialectic between presence and absence, and to certain subjects that exceed photography.

My own works propose to give form to delicate and nuanced questions concerning invisible subjects or subjects that exceed representation. I explore how the photograph is implicated in its (self) presentation. How can the photographic reflect its own condition while simultaneously representing subjects other than itself? I situate my work alongside early and contemporary photographic works, "zero-degree" painting and examples from conceptual photography and consider these questions as a weaving together of the relations in my artwork: what is the photographic? What exceeds the photographic as the unrepresentable?

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Dedication

Bruce Saul Miller (1929 – 2012)

Introduction

From today, painting is dead![1]

This thesis examines photography's apparatus in relation to the idea of the unrepresentable. I consider the dialectic of presence and absence that is thought to be at the core of photographic representation to help contextualise my work against a backdrop of early and contemporary photography, "zero-degree" painting and conceptual art.

The development and the use of the camera obscura before and up to the advent of photography in the nineteenth century sheds light on how thinkers and artists understood its spectral projections. Examining the manner in which images are formed inside the camera obscura helps to clarify the unique characteristics of photographic images in relation to other forms of two-dimensional image production like painting and printmaking.

In a broader sense, the photographic apparatus admits and records not only the photon-induced impressions within its optical field-of-view but also the underlying, invisible structures that govern its instrumentalization. By invisible structures, I refer to the fundamental technical characteristics of the camera's apparatus (to how images form inside a camera and to the chemical and electronic interactions that are necessary to image formation—both in analogue

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[1] The French painter, Paul Delaroche is frequently cited as making this bold declaration despite there being no compelling evidence to support that he in fact did say it. Apparently, the quote first appears in Tisandier, Gaston. *A History and Handbook of Photography*. Trans. J. Thompson. London: Sampson, Low, Marston, Low and Searle, 1876. 63. It is worth noting that in contrast to this account, Delaroche was the first painter of consequence to embrace the Daguerreotype, to support it publicly and to argue for its relevance to artists. See Gernsheim, Helmut and Alison. *L.J.M. Daguerre: The History of the Diorama and the Daguerreotype*. New York: Dover, 1968. 95.

and in current digital photographic cameras). While integral to photographic production, these structures remain invisible or at least unseen in the photographic image. Invisible structures also point generally to a complex network of institutional, economic, legal, social, linguistic and other historical preconditions and generative contexts that produce, maintain and proliferate photographic objects and effects. A distinction exists between these two senses of the word apparatus: on the one hand, the technical apparatus (the camera as a machine); on the other, the cultural apparatus (photography as a network, a heterogeneous set of cultural practices). My artwork seeks to acknowledge these invisible, underlying conditions of the photographic apparatus while depicting subjects that challenge, exceed or push beyond the limits of representational means.

What may we learn about photography as a form of inscription by looking back upon the medium's origins and to its earliest objects? The writing of light at the core of photography links the medium to other indexical signs and images formed by traces, residues and marks. I examine the conceptual separation of subject and object relations that is thought to occur inside the camera and that was pre-figured by the proto-photographers' conceptualization and naming of their discoveries during the first half of the nineteenth century.

I draw the practice of photography into the fray of representational abstraction of which certain contemporary photographic practices, including my own, appear to engage. Kazimir Malevich's painting, *The Black Square,* from 1915, is examined in relation to the idea of a negative presentation; Yves Klein's *La Vide*, from 1958 is used to underscore the presentation of absence. I also write about two of Jan Dibbets' early conceptual photographic works in relation to the idea of self-reflexivity. An early *Schadograph* by Christian Schad links my own photographic gestures to an early abstract photographic proposition.

Photography

Photographing is a two-way process. When I make a photograph, a reciprocal if also unequal relation joins the referent (that which the photograph represents) to the photographic object. Both the photograph and its referent are acted upon, marked by light in the act of photographic inscription. However, the photograph itself is often obscured, for we see what the photograph depicts and not the photograph itself. In *Camera Lucida*, Roland Barthes alludes to this absence when he writes, "whatever it grants to vision and whatever its manner, a photograph is always invisible: it is not it that we see" (Barthes 6).

This entanglement of subject/object relations, where the subject is turned "as milk does" (Barthes 6) into an object, resides uneasily inside the image.[2] For the photographic image is not reality per se but an emanation of a past reality. In the photograph, both the object and its subject "adhere" (Barthes 6); they join, intersect inside a field of difference or reciprocated exchange. The French philosopher, Gilles Deleuze writes that this "state of infinitely doubled difference (…) resonates to infinity" (Deleuze and Patton 222) and defines difference partly as a "dissemblance in the form of time" (Deleuze and Patton 145). Barthes describes this interpolation more prosaically:

> The Photograph belongs to that class of laminated objects whose two leaves cannot be separated without destroying them both: the windowpane and the landscape, and why not: Good and Evil, desire and its object: dualities we can conceive but not perceive (I didn't yet know that this stubbornness of the

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[2]   Barthes may have been referring to Harold Edgerton's photograph, *Milk Drop Coronet*, 1936. See: http://www.hrc.utexas.edu/exhibitions/permanent/windows/south/harold_edgerton.html

Referent in always being there would produce the essence I was looking for)

(Barthes 6).

If, as Barthes claims, "every photograph is a certificate of presence," (Barthes 87) how can

photographs present absence, as in a person's likeness after death, or an event that has

already transpired, or subjects that are said to exceed representational means altogether—as

when photographs depict limit events (events that are incomprehensible), like the Shoah, or

invisible subjects that we can feel but are not in themselves visible, like the wind or sound?[3] If

unruly or resistant subjects such as those I have listed are, indeed, unrepresentable they may

be authenticated in the photograph. For while, "nothing can prevent the Photograph from

being analogical," Barthes continues, "the important thing is that the photograph possesses an

evidential force." Further, "from a phenomenological viewpoint, in the Photograph, the power

of authentication exceeds the power of representation" (Barthes 89). Absence, as I will show

later, may be confirmed or comprehended—as it is the very condition of the photograph—but

not depicted photographically, not, that is, unless the idea of the *photographic* moves beyond

and encompasses more than what we call Photography. I will return to the notion of the

photographic and its implications for photography when I discuss the apparatus as a cultural

idea.

The "noeme" or essence Barthes seeks in the Photograph, its universal quality, is embodied in

the photograph he holds of his mother, which he chooses not to represent in his intimate

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[3]   Berlin born, American photographer Uta Barth, explores the conventions of photographic presentation by, for example, depicting mid-focal space within a scene; spaces where otherwise no figure is described. In an early interview, the artist explains that, "much of the information in the picture is out of focus because what is depicted in the image lies behind the camera's plane of focus. This has been a device for indicating a foreground, for implying the information not depicted." (Conkelton)

meditation on photography (the photograph of Barthes mother exists only for him).[4] Instead, he

threads reflections about her throughout his writing and reveals a desire to pass beyond the

image:

> I live in the illusion that it suffices to clean the surface of the image in order to
>
> accede to *what is behind*: to scrutinize means to turn the photograph over, to
>
> enter into the paper's depth, to reach its other side…Such is the Photograph: it
>
> cannot say what it lets us see (Barthes 100).

Perhaps the absence Barthes sees in this photograph signals to us how photography may help

us mourn. The camera's shutter closes; the moment passes: Barthes' noeme is precisely "that-

has-been" (80); the photograph's subject becomes an object, and for Barthes, "a museum

object" (13).

Constance Talbot, the spouse of William Henry Fox Talbot, the British polymath and inventor of

the Calotype and the first to record the image of a shadow photographically, affectionately and

ironically called her husband's little wooden cameras "mouse traps" after their size and shape

and because the small negatives they produced resembled a Lilliputian artist's perspective.[5]

The camera obscura that enabled his photographs would immobilize and entrap his subjects in

silver chloride. Significantly, and a point to which I will return later, in Talbot's paper, *Some*

Account of the Art of Photogenic Drawing, or the Process by Which Natural Objects May Be

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[4]   The lack of clear evidence as to the existence of Barthes's *Winter Garden Photograph,* its relation to the idea of presence and absence and its function in his book *Camera Lucida,* is discussed in: Olin, Margaret. "Touching Photographs: Roland Barthes's "Mistaken" Identity," *Photography Degree Zero: Reflections on Roland Barthes's Camera Lucida*. Geoffrey Batchen ed. Cambridge: MIT Press, 2011. 75-89. (*Photography Degree Zero*)

[5]   Concerning his pictures of Lacock Abbey's grounds and buildings, William Henry Fox Talbot wrote, "without great stretch of the imagination might be supposed to be the work of some Lilliputian artist." See: *Fox Talbot and the Invention of Photography*. Metropolitan Museum of Art, New York. Web. 18 Mar. 2012.

Made to Delineate Themselves without the Aid of the Artist's Pencil, read to the Royal Society

in 1837, he claimed that subjects drew themselves or were drawn by "Nature's hand" (Talbot,

Some Account, 120).

> In my first account of "The Art of Photogenic Drawing,"(…) I mentioned this
>
> building as being the first "that was ever yet known to have drawn its own
>
> picture" (Talbot 15).

For Talbot, and for those who followed, capturing shadows was the first step towards

collecting them.

By 1839, the year the French state announced the invention of photography to the world, the

use of the camera and its monocular grasp on visibility was immediately deployed by

governments, industry, and police departments and by scientists to record everything from

social deviance, exotic plant morphologies, far-away geographies, monstrous human

physiognomies and the moon. The camera's capacity to rapidly form images of the presence

of things with astonishing verisimilitude instantaneously found acceptance among those in

positions of power and in search of knowledge. Everything under the sun was (and remains)

available subject matter. Infinity became the cameras' boundless frame.

The Camera Obscura as a "Collecting Place"

Immaterial transmissions consisting only of light, whether of sunlit scenes or the sun itself are received inside specially designed apparatus. The object that permits the regulation and study of this phenomenon is called a camera obscura.[6] Before the name camera obscura took hold, other names were used to describe the device.[7] Among the most evocative of these was the first recorded. Mo Ti, the Chinese philosopher from the fifth century BCE, wrote that he used a "locked treasure room". His ephemeral treasure, the flickering images he witnessed, passed through a small hole or, in Mo Ti's words, a "collecting place" (Hammond 1). Whether prosaically or lyrically, each name invests this apparatus with unique spatial qualities. Camera obscuras are sites to collect and to observe light. Yet, cameras cannot collect. Not light or anything else. People do. The use of the camera obscura by philosophers and other thinkers as a place to observe phenomenon and to temporarily store image-bearing light would become by the seventeenth century, a primary site to exteriorize vision and to separate the human eye from its observations (Crary 47).

The story of how light transforms into an image may begin with Mo Ti when he described that when rays of sunlight converge at a small hole they form an inverted image. Aristotle (384-322 BCE) in his *Problemata physica,* also reflected on this visual phenomenon. Sitting below a tree during an eclipse of the sun the thinker observed that many crescent-shaped images of the sun formed upon the ground. The small gaps between the leaves, he thought, caused this effect to occur (Aristotle). However, the physical effects of the camera obscura as we know

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[6] The German astronomer, Johannes Kepler, first used the term camera obscura in 1604. John Hammond cites the *Encyclopaedia Brittanica* 1910. (Hammond 37).
[7] Before Kepler, the apparatus had different names all of which describe a dark, enclosed room or place: *conclave obscurum, cubiculum tenebricosum, camera clausa, locus obscurus* (Hammond 24).

them today were described much later by the English Franciscan friar, Roger Bacon (1214-94) (Eder 37). Concerning the projection of aerial images Bacon writes, "the images appear at the point of contact of the light rays with the perpendicular plane, and *things appear there, where there was nothing b*efore" (Eder 37; my emphasis). Euclid (300 BCE), Alhazen (965-1040)[8], Giambattista della Porta (1535-1615), Johannes Kepler (1571-1630) and Athanasius Kircher (1602-1680) noted similar effects. The earliest, most accurate and detailed description of the camera obscura, emerges in the Renaissance with Leonardo da Vinci (1452-1519). Leonardo's description from his *Codex Atlanticus*, notes that:

> If the façade of a building, or a place, or a landscape is illuminated by the sun and a small hole is drilled in the wall of a room in a building facing this, which is not directly lighted by the sun, then all objects illuminated by the sun will send their images through this aperture and will appear, upside down, on the wall facing the hole (Eder 39).

In the same work, Leonardo reports on the relationship between the eye and the camera obscura:

> The experience which demonstrates how objects send their reflex images into the eye and into its lucid moisture is exhibited when the images of illuminated objects enter through a small round opening into a very dark room (Eder 39).

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[8]   In 1572 Friedrich Risner, published Alhazen's *Kitab al-Manazir* (*Book of Optics)*, written between 1011 to 1021, as *Opticae thesaurus: Alhazeni Arabis libri septem, nuncprimum editi; Eiusdem liber De Crepusculis et nubium ascensionibus*.

By the sixteenth century, the camera obscura had become a model for human vision. Knowledge of the world outside one's body passed through a kind of camera obscura of the mind.

René Descartes (1596-1650) used the corpulent eye of an ox to demonstrate the hypothesis that when light reflects from a three-dimensional scene it forms a two-dimensional, inverted image upon the back of the eye.
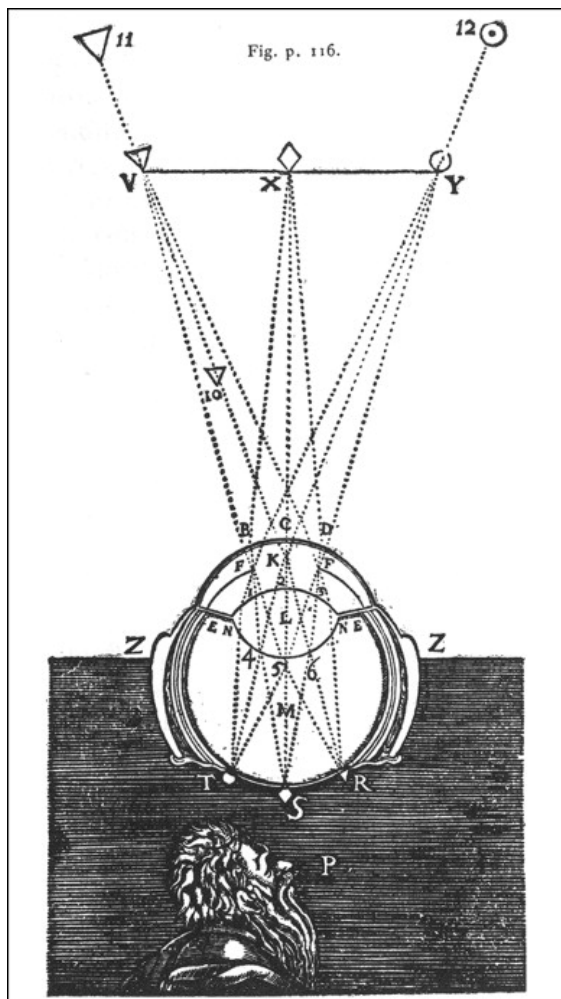
Fig. 1: René Descartes, from *La Dioptrique*, 1637
Man observing retina image by means of prepared ox eye

To do this, he carefully cut and removed a rear section of the sclera, the fibrous, protective tissue surrounding the eye, ensuring that the vitreous gel or humour inside the eye remained undisturbed. He then replaced the sclera with a thin piece of paper tissue so as to observe the projected, inverted image. With Descartes the camera obscura was dissociated from the human body. The mechanical eye assumed an intermediate and mediating position between the observer and the observed. The mind of the observer is prejudicial and subject to physiological and perceptual distortions. In the seventeenth century, as a prosthetic for human vision—and as its metaphor—the camera obscura was thought to present an impersonal, impartial and detached view of things-as-they-are. Therefore, the camera obscura was no longer a model for human vision.

Not surprisingly, the omnipresence and singularity of the monotheistic order was the only construct necessarily situated outside the viewing subject's body, and thus outside of nature. Nature existed and presented itself independently from the world that the camera obscura described. Only from a position that was external to human vision and independent of nature could incontestable truths be collected and harnessed in service of the mind. For Ilya Prigogine and Isabelle Stenger, God provided this immanent, immutability in the form of absolute instrumentality and Wholeness,

> to the extent that the observer is excluded and the description is made from a point lying de jure outside the world, that is from a divine view to which the human soul, created as it was in God's image, had access at the beginning.

Thus classical science still aims at discovering the unique truth about the world, the one language that will decipher the whole of nature[9] (Crary 48).

As a prosthetic instrument of vision and as a time-space-trap, the camera obscura occupied a mediating position between human beings, nature and God. With Descartes, the camera obscura would perform like a cleaver, severing the observer from the thing observed. The sense of sight, therefore, became separated from the human body and the world of appearances outside the body would enter the mind of the observer through the unflinching, aweless camera obscura. In the device of the camera obscura, human vision was positioned outside the world of infallible appearances and enclosed within a body prone to produce perceptual falsifications and distortions that the camera obscura, as an impartial truth machine, would correct.[10]
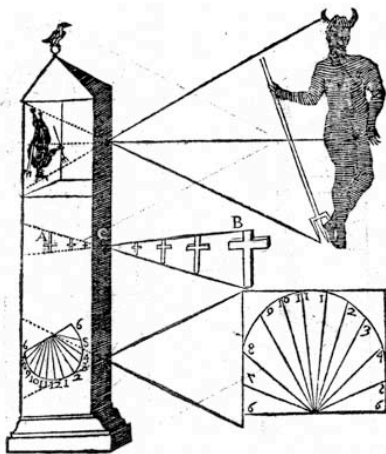
Fig. 2: Athanasius Kircher, from *Ars Magna Lucis et Umbrae*, 1646
In his treatise on light and shadow explaining the principle of the *camera obscura,* the above illustration associates the image and the shadow with the devil.

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[9]   See: "The Camera Obscura and its Subject" in Jonathan Crary's, *Techniques of the Observer* where he cites Prigogine's and Stenger's idea that, in the time of Descartes, Cartesian epistemology radically re-organizes human visuality as a position existing between the world and God.
[10]   For a fuller discussion of this, see Jonathan Crary's, *Techniques of the Observer*, page 38.

Fig. 3: Athanasius Kircher, Title Page, *Ars Magna Lucis et Umbrae*, 1646
Three disembodied hands displaying camera obscura images.

Operators of such devices need only to initiate the acts of gathering and collecting. The

camera, we were promised, will "do the rest"[11]. Yet by the early nineteenth century, and

coincident with photography, a regime of new ideas concerned with subjective vision, with for

example, retinal (binocular) disparity and afterimages, and with their regulation and

measurement, would radically change the discursive role that the camera obscura had

occupied for over two centuries. The stable, immutable truths that the camera obscura once

provided would eventually dissolve into a realm of modern abstractions because "the eye is no

longer what predicates a "real world" (…) the process of perception itself had become, in

various ways, a primary object of vision. For it was this very process that the functioning of the

camera obscura kept invisible" (Crary 138). Whereas before, human perception was separated

and split from the object it perceived, in the nineteenth century the body of the observer

became the locus for a new, interiorized relation to visibility. Vision itself was doubted as the

primary sense governing perception. The organ of ocular truth in the form of a mechanistic eye

opened to other sensual stimuli. Touch and hearing—indeed, all the senses—would join

together to extend visuality inwards, inside the body, and outwards towards an expanding

universe.[12]

If with Kepler, Descartes and others we see the device of the camera obscura used to shield

the human eye from a direct confrontation with the sun, from the very source by which images

of the natural order of things would be drawn, in the mid-nineteenth century we see an

emergent desire in art to reintegrate the human viewer with what the viewer sees. The retinal

image inside the perceiver is drawn together with the natural world it seeks to describe.

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[11]   In 1888, George Eastman coined the advertising slogan, "You press the button. We do the rest."
See: http://www.kodak.com/ek/US/en/Our_Company/History_of_Kodak/George_Eastman.htm
[12]   For a discussion of vision and the history of visuality, see: Jay, Martin. *Downcast Eyes: The
Denigration of Vision in Twentieth-Century French Thought*. Berkeley: University of California Press,
1994. (Martin Jay).

Lawrence Gowing singles out the Romantic landscape painter, J.M.W. Turner (1775-1851) in whose works from the late 1830's he sees "the indefinite transmission and dispersal of light by an infinite series of reflections from an endless variety of surfaces and materials (…) reflected everywhere" (Gowing 21). With Turner, vision is turned inwards towards embodied perception. Vision is no longer, as Crary writes, "subordinated to an exterior image of the true or the right" (as with the image formed by the camera obscura) but now "signals the irrevocable loss of a fixed source of light, the dissolution of a cone of light rays, and the collapse of the distance separating an observer from the site of optical experience" (Crary 138). While Mo Ti's "collecting place" allowed its users to gather the three-dimensional material world outside and to re-inscribe it as a two-dimensional virtual abstraction inside the camera obscura, artists and others would from the nineteenth century onwards explore subjects and phenomenon that had eluded the mechanical device. What was formerly thought to be unrepresentable, like the flickering movement witnessed inside the camera obscura or ocular phenomena known since antiquity—as when the eye would continue to see an object some time after it had passed (known as 'the duration of visual impressions')—would become measured, represented and fixed by optical and other forms of graphic inscriptions.[13]

As mentioned above, despite all that the camera obscura produced and represented to its users, as a tool it nonetheless came with constraints. These limitations (its fixed perspective and single vantage point, its incapacity to figure spatial and temporal dimensions

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[13] The British experimentalist, Michael Faraday and the instrument-maker and inventor of the telegraph, George Wheatstone were friends with William Henry Fox Talbot. They all shared an interest in the study of transience. Talbot's method used chemically prepared, light-sensitive papers. Faraday used a fine plate covered in dust. See, Chitra Ramalingam's "Fixing Transience: Photography and other Images of Time in 1830s London" in, Baetens, Jan; Alexander Stritberger and Hilde Van Gelder eds. *Time and Photography*. Leuven University Press. 2010. (Baetens, Streitberger, and Gelder). For an in-depth history of the work of Etienne-Jules Marey, see Marta Braun's excellent study in, Braun, Marta. *Picturing Time: The Work of Etienne-Jules Marey*. Chicago and London: The University of Chicago Press. 1992. (Braun)

simultaneously) were partly overcome by emergent technologies like Wheatstone's

Kaleidophone (1827), Joseph Plateau's Phenakistoscope (1832) and Simon von Stampfer's

Stroboscopic Disk (1833). Turner's painting from this period dissolved the camera obscura's

"cone of light rays" by producing a kind of phenomenal abstraction based on the artist's

perception and retinal experience. This "cone of light rays" is worth examining in more detail.

After all, today's cameras, optical instruments and even human eyes are still understood as

geometrically analogous to how light forms an image inside a camera obscura.

Conical Geometry and Image Formation

The image stands at the junction of a light which comes from the object and another which comes from the gaze.[14]

What happens as light passes into a camera to form an image? Light moves beyond a

threshold of visibility when it enters inside a camera. The threshold is Mo Ti's "collecting

place", an aperture. On one side of the aperture we have the 'outside'. On the other side we

have the 'inside'. What is figured at the point of the aperture, at the threshold where the light is

neither inside nor outside but is precisely (or geometrically) at a point of equilibrium or

convergence?

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[14]   Jacques Derrida quoting Plato in, Derrida, Jacques. Gerhard Richter ed. *Copy, Archive, Signature: A Conversation on Photography.* Trans. Jeff Fort. Stanford, California: Stanford University Press. 2010.
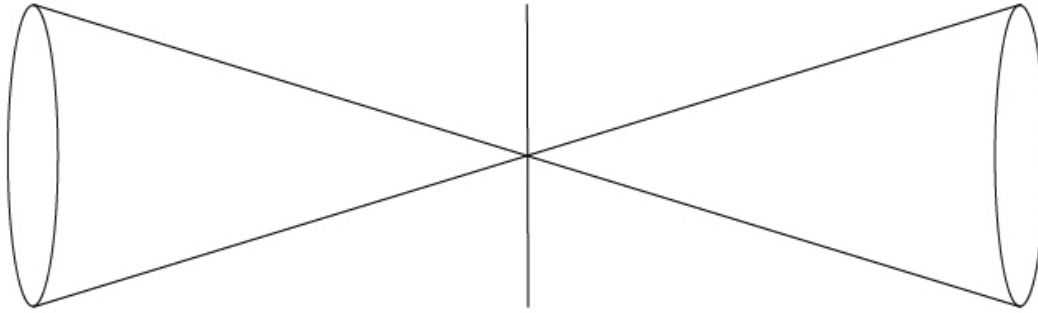
Fig. 4: David Miller, Standard Diagram representing two cones terminating at their apices.

The standard diagram above represents the passage of light through a pinhole or lens, forming

two intersecting cones. If we draw the diagram differently we see the pinhole as a continuous,

open space. Unlike the 'X' shape in the standard diagram that represents the pinhole as

discontinuous or closed, the open ellipse represents a spatial axis that is open and contiguous.
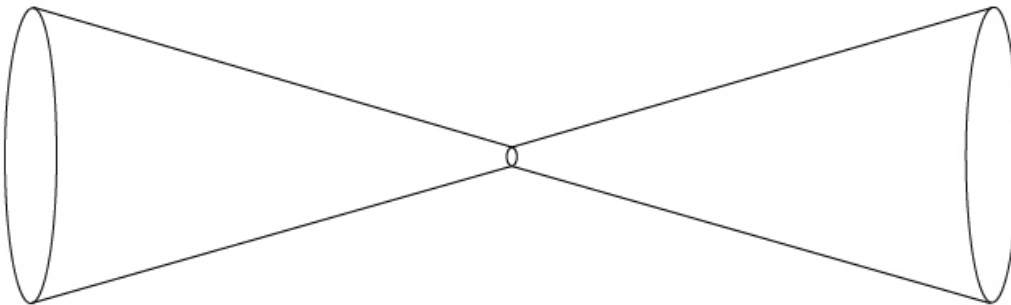
Fig. 5: David Miller, Non-standard Diagram representing two equal conical projections through a
contiguous space, a pinhole.

A thread of light tethers the phenomenal world outside the camera to it's inverted double inside

the camera. A ray of light twins as it passes through an aperture, and together with other rays,

forms a cone of such radial potentiality that if left to pass indefinitely and never to come to rest

upon a surface, would radiate onwards forever. In projective geometry, a cone's apex

terminates at a single point. Outside and inside unite at the narrowest of openings. Whatever

emits or reflects light and exists within the camera's field of view coalesces at infinity.

But whereas in the lesson taught by solid geometry that a foreshortened cylinder's receding

lines eventually terminate, the apex of the camera's *two conic projections* never actually end.

The pupil-like hole of the aperture connects both radial proximities to the other as two conical

bodies attached at their eye.
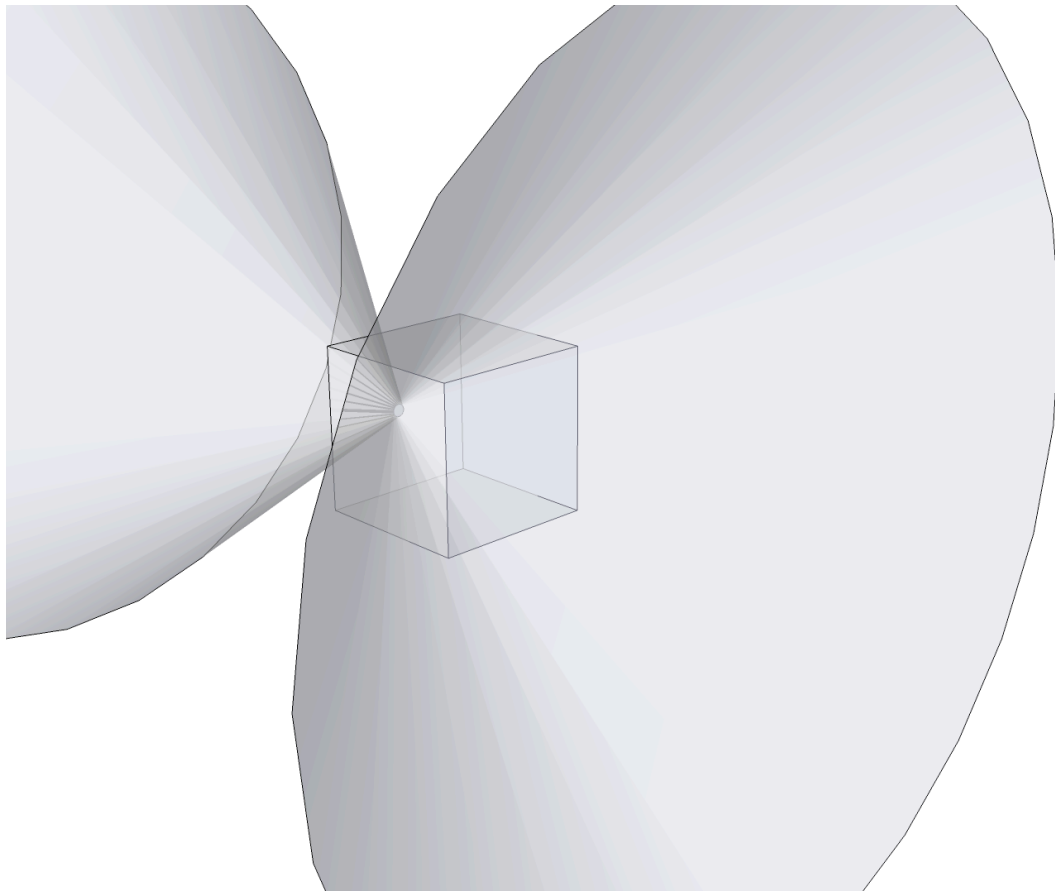
Fig. 6: David Miller, Diagram representing two, contiguous conical projections of light joined at a pinhole, with one cone extending inside and geometrically beyond a camera.

Photographs made with a camera rely upon this Euclidean certainty to enact flat, planar appearances of things. The passage of light through an aperture ensures that these appearances are first transmitted then, in near perfect symmetry, inscribed upon a receptive surface. The receptor, a two-dimensional plane or image-bearing matrix, functions like a surrogate skin. The sensitive surfaces of, for example, silver emulsion on glass, metal or paper, or sensor arrays on today's more common electronic CCD devices that exchange photons for electrons, are the epidermis and body of the image. However, neither wholly virtual nor purely actual, the results of these physical interactions of light upon a receptive surface form heterogeneous amalgams that are part real and part virtual, "emanations of *past reality: a magic* not an art" (Barthes 88) i.e. "photography".

The aperture is the site at which the inside and outside, time and space converge. In language, opposing terms like inside/outside, open/closed, here/there and so on form binaries. These binary relations may be produced (replicated) and reinforced by photographing. If the two conical projections that form at the "collecting place" of a camera are two contiguous, spatial and temporal proximities, perhaps a single, heterogeneous spatial/temporal depth forms from their intersection. In his book "I and Thou" from 1937, Martin Buber writes that, "all real living is meeting".[15] Reflecting on how images form from light leads me to reflect on the intersubjective nature of images. Conical image formation provides compelling evidence that light-bearing images join the opposing realms of inside/outside, I/You. The problem for those of us who use cameras to make images is that we cannot see or photograph this relation. The cone of light that extends from inside the camera to the outside of the camera's aperture is invisible. Even Athanasius Kircher's (1602–1680) invention of a counter-apparatus, a projector that casts

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[15]   The French philosopher, Emmanuel Levinas developed a philosophy based on a concept of intersubjective difference, the relations between the "the face to face". Levinas partly conceived his philosophy on the work of Martin Buber's "I and Thou" (Buber, 1956).

images from inside the camera to the outside could not solve this dilemma. While invisible,

these relations are nonetheless, comprehensible. A third (discontinuous) unity is created from

the combination and intersection of two joined cones of light. A new (third) term forms between

two binary concepts. This possibility bears on more than our relationship with instruments and

casts a long shadow on the cultural significance of apparatuses themselves. It suggests an

ethical relation between the photographer and her/his subject. Buber again:

> The primary word *I-Thou* can be spoken only with the whole being.
>
> Concentration and fusion into the whole being can never take place through my
>
> agency, nor can it ever take place without me. I become through my relation to
>
> the *Thou*; as I become *I,* I say *Thou.* (…) For the real (…) boundary runs neither
>
> between experience and non-experience, nor between what is given and what is
>
> not given (Buber 18).

The Apparatus as Cultural Idea

We know that a camera obscura is a dark, enclosed space in which light passes through an opening to form an image. As both a subject of wonder and as an object for philosophical speculation, the camera obscura produces and displays images from light's photonic essence. While enabling images to form from light (images that are otherwise invisible to the naked eye), the camera obscura simultaneously produces visibility itself.[16] Marx, Freud and Nietzsche each used the metaphor of the camera obscura in their work. For Marx, the inverted image formed inside the camera obscura was analogous to the inversion necessary to the process of ideology. For Freud, the camera obscura became a metaphor for the unconscious. The photographic relations of negative and positive, latency and development acted for him as analogies for perversion, desire and neurosis. Nietzsche thought that the camera obscura as a "dark chamber is (…) the metaphor for forgetting, for a forgetting necessary to life" (Kofman 29-30).[17] The idea and functional aspects of the camera obscura informed and inspired philosophers, scientists and artists. "There is no eye without its camera obscura" (Kofman 18).

The two-dimensional image produced inside a camera obscura retains the colour as well as the movement of the three-dimensional scene it inscribes. Today's imaging apparatuses—cine, photography and video cameras, even synthetic holography, computational graphics and multispectral sensors—owe a debt to the camera obscura and its spectral effects. Further, representational practices (whether nascent, long established or antiquated) emerge from and

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[16]   In *Techniques of the Observer*, Jonathan Crary greatly expands the historical tautology of photography by distinguishing the photographic apparatus from the historical and socially inscribed impulses motivating their use.

[17]   For a discussion of the camera obscura as a metaphor in texts by Marx, Freud, Nietzsche and Descartes see: Kofman, Sarah. *Camera Obscura of Ideology*. Ithica, N.Y.: Cornell University Press. 1998.

are partly indistinguishable from what Michel Foucault refers to as the "apparatus" (Foucault

194–228). Giorgio Agamben summarizes Foucault's idea as:

> a heterogeneous set that includes virtually anything (…): discourses, institutions,
>
> buildings, laws, police measures, philosophical propositions, and so on. The
>
> apparatus itself is the network that is established between these elements (…)
>
> As such it appears at the intersection of power relations and relations of
>
> knowledge (Agamben 2–3).

This sense of apparatus locates photography within heterogeneous regimes of knowledge and

power that on their own yield little of their own outlines. Vilém Flusser defines photographs as

"technical images (…) produced by apparatuses" (Flusser 21). Further, that "apparatuses

themselves are products of applied scientific texts" (Flusser 14). By situating the technical

image within the productive effects of science and scientific texts, Flusser is able to position

photography as a third order abstraction:

> Ontologically, traditional images are abstractions of the first order insofar as
>
> they abstract from the concrete world while technical images are abstractions of
>
> the third order: They abstract from texts which abstract from traditional images
>
> which themselves abstract from the concrete world (Flusser 14).

The photographic abstractions Flusser describes are based on texts. Photography abstracts

from existing abstractions that are, he tells us, already abstractions of abstractions. Inscription

upon inscription, the photograph "reproduces to infinity what has occurred only once" (Barthes

4). As a third order abstraction photography inscribes itself upon existing images (texts). If this

is the case, how is it possible to see (to read) these inscriptions upon inscriptions? Like a

palimpsest, perhaps each instance of abstraction erases or marks over the image that

precedes it? If we could peel back the layers of Flusser's third order abstractions would we

find the apparatus that Foucault and Agamben describe? Are the underlying matrices of the

apparatus representable? Are they transparent, invisible?[18] In his essay, "Concerning the

Photographic", French writer and curator, Raymond Bellour describes *the photographic* as

something that "exists somewhere in-between; it is a state of 'in-between-ness': in movement,

it is that which interrupts, that paralyzes; in immobility, it perhaps bespeaks its relative

impossibility" (Bellour 253). Bellour's expanded sense of the photographic echoes another

contemporary writer, George Baker, who in his essay, "Photography's Expanded Field"

theorizes the lamentable condition of today's so-called post-photographic condition (i.e. the

loss of the index as a condition of digital encoding) while describing the dispersal of the

photographic across other cultural practices like cinema (Jeff Wall, Cindy Sherman), the

museum archive (Akram Zaatari and The Arab Image Foundation), advertising (Barbara Kruger)

and the slide presentation (James Coleman).[19] These artists and many others approach their

work reflexively to expose the apparatus to its own regulating effects.

Several artists explore the camera obscura itself or exploit fundamental properties of the

apparatus in unexpected and often provocative ways. Among them, Vera Lutter's large-scale

photographic negatives are produced in room-size pinhole cameras. She uses lengthy

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[18]   For his thesis on the transparency effect in photographs, the idea that what we see in a photograph
is the actual thing itself, see Kendall Walton's, *Transparent Pictures: On the Nature of Photographic
Realism* in Walton, Kendall L. *Marvelous Images: On Values and the Arts.* Oxford University Press, 2008.
79-116. For a critique of Walton's thesis, see Cohen, Jonathan and Aaron Meskin. "On the Epistemic
Value of Photographs", *Journal of Aesthetics and Art Criticism* 62 2 (2004): 197–210.
[19]   Citing Rosalind Krauss, George Baker also asserts photographs as theoretical objects "the
submission of artistic objects to photography's logic of the copy, (…) it's stubborn referentiality" in,
Baker, George. "Photography's Expanded Field", *October* No. 114 (2005): 120–140.

exposures and large sheets of paper to capture images of large things like skyscrapers in Manhattan, and airplanes undergoing maintenance. Abelardo Morell constructs camera obscuras inside hotel rooms and other interiors around the world. He then photographs the projection, the upturned view outside the window as it spreads upon and illuminates the room's interior furnishings using a large format view camera. His photographs reveal the image forming operation of the camera together with superimposed interior and exterior views of his locations.

Figure 7 has been removed due to copyright restrictions.

See: http://www.gasworks.org.uk/exhibitions/images.php?id=695

Fig. 7: Allan Sekula, *School is a Factory*, 1978-80

Allan Sekula addresses the documentary, evidential force of photography while underscoring the discursive effects photographs exert upon subjects reorganized by the economic conditions of capitalism and globalization. The development and deployment of institutionalized inscription practices upon the human subject is analyzed in his 1986 essay, *The Body and the Archive*. His early series, *School is a Factory*, 1978-80, uses graphic illustrations (and photographs) to represent how institutions of learning are complicit with state apparatuses, with industry and with militarism. In this work, schools are factories (reification machines) for the production (the abstraction) of human potential as labourers. Whether technical or cultural, the photographic apparatus leaves its ("intractable") trace upon everything it touches. Artistic responses to this condition vary across media and in discursive intent. Reflexive, critical practices often establish footholds at the margins of media-specificity. In the

process of doing so these practices hybridize and borrow from other spheres of cultural

production in order to reflect upon their means of production.

Fig. 8: Rodney Graham, *Millennial Time Machine*, 2003
A Landau Carriage Converted into a Mobile Camera Obscura
Collection of the Morris and Helen Belkin Art Gallery, The University of British Columbia. Gift of the artist with the support of the Canada Council for the Arts Millennium Fund, The Morris and Helen Belkin Foundation, 2000 Recognition Plan, and The University of British Columbia, 2003. Photo: Tim Newton

Fig. 9: Detail showing image of a tree inside the camera obscura.
Rodney Graham, *Millennial Time Machine*, 2003
A Landau Carriage Converted into a Mobile Camera Obscura
Collection of the Morris and Helen Belkin Art Gallery, The University of British Columbia. Gift of the artist with the support of the Canada Council for the Arts Millennium Fund, The Morris and Helen Belkin Foundation, 2000 Recognition Plan, and The University of British Columbia, 2003.
Photo: Howard Ursuliak

Rodney Graham's *Millennial Time Machine*: *A Landau Carriage Converted to a Mobile Camera Obscura*, from 2003, is a rich example as to how an artist situates the photographic within a frame of reference larger than the canonical histories of photography would previously have allowed. The artist converted a nineteenth century, horse-drawn (landau) carriage into a camera obscura and housed it inside a glass-walled, modern-style pavilion located on the campus of the University of British Columbia. Graham positioned the ensemble to overlook the landscaped area that the camera obscura's lens focuses on: a sequoia tree that will grow to maturity. By virtue of their presence, the tree and location are drawn into the representational frame of the artwork. Questions may be raised concerning the construction of ideas about knowledge (the university), technology (architecture, the camera obscura, obsolescence, transportation) and history (procession of style, anachronism, narrative, duration and time). The work reveals the interlacing of nature with culture, that these interdependent constructs may be perceived through the hybrid frame of Graham's device.

As with Mo Ti's "collecting place", and all camera obscuras, Graham's artwork is predicated upon enigmatic temporal relations: the past, the present and the future. In Graham's configuration, time occurs as an intersection of temporal proximities; between the past (the destabilizing, upside-down image projected inside the landau carriage) and the present (the viewer's consciousness of this specular vicissitude), viewers inside the carriage face forward, their backs towards the lens, and may orient themselves by the receding, virtual abstraction projected before them. The future simultaneously lies ahead of and behind the viewer in the figure of the treed landscape that continues to grow. *Millennial Time Machine* sustains the paradox observed by Mo Ti in his "locked treasure room" (between the real and the virtual) and frames this enigma within an envelope of contemporaneity. The artist writes,

"to realize this 'philosophical toy' in a post-cinema age is to fabricate a kind of time-machine in which the spectators, looking forward, may see backwards and upside-down, that which is forever receding behind them."[20]

I am reminded of what Paul Klee's "Angelus Novus" stares at as he is blown backwards into the future. In his *Theses on the Philosophy of History*, Walter Benjamin writes:

> This is how one pictures the angel of history. His face is turned toward the past. Where we perceive a chain of events, he sees one single catastrophe which keeps piling wreckage upon wreckage and hurls it in front of his feet. The angel would like to stay, awaken the dead, and make whole what has been smashed. But a storm is blowing from Paradise; it has got caught in his wings with such violence that the angel can no longer close them. This storm irresistibly propels him into the future to which his back is turned, while the pile of debris before him grows skyward. This storm is what we call progress (Benjamin 257-258).

As a 'philosophical toy'[21] Rodney Graham's *Millennial Time Machine* locates the spectator's experience at the threshold between a technologically obsolescent past and an uncertain, indefinite future, which by definition is a period for which the existence of a past guarantees its inevitability.

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[20]   I thank Reid Shier for sending me this quote by Rodney Graham (October 2012).
[21]   Philosophical toys were popular amusements in the 19th century and "instruments designed to examine phenomena experimentally, rather than by naturalistic observation alone." They included anorthoscopes, chronoscopes, phenakistoscopes, stereoscopes, stroboscopes, tachistoscopes and thaumatropes. Philosophical toys were especially popular when combined with photography (Wade 1).

Fig. 10: David Miller, *Jupiter / 1891*, 1989
Anna Leonowens Gallery, Halifax (exterior view), paint on window glass

My installation, *Jupiter / 1891* from 1989, transformed an art gallery into a visionary and self-declaring apparatus. The gallery's street-facing room had all the features of a functioning camera obscura with the exception of one—a smaller aperture that would form a perceivable image. I painted the large windows matte-black on their street-facing, exterior side. Painted this way, the windows were covered and withheld light from the interior room. Where normally one places light-sensitive film or a receptive surface inside a darkened camera to receive specular projections of light, I reversed this relation and applied a dull surface of paint to the outer surface of the building's windows. As does skin enclose a body, my application of paint figured the room not as a shrouded corpse (wrapped as they are in white linen) but rather, as a black hole to absorb the sun's energy, as an expansive density produced by the absence of

light that continued inside the gallery. The gallery's normal function, to produce visibility, was momentarily suspended as the room's interior was cast in darkness, obstructed, eclipsed by its own shadow.[22]

Fig. 11: David Miller, *Jupiter / 1891*, 1989, Anna Leonowens Gallery, Halifax (interior with projections)

Windows are solid planes that in art locate, frame and transform three-dimensional space as a two-dimensional, flat image. Symbolically, they form a membrane between inside and outside, thus constituting an aesthetic system of binary relations, an influencing machine that

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[22]   In his essay, "Positively White Cube Revisited", the critic and curator, Simon Sheikh reminds us that Brian O'Doherty's much loved essay, "Studio and Cube", showed us that modernism's white spaces are not neutral containers, but are historical constructs, "that galleries are…spaces for producing surplus value, not use value—and as such, the modern gallery employs the formula of the white cube for an architectonics of transcendence in which the specificities of time and of place are replaced by the eternal. In other words, the white cube establishes a crucial dichotomy between that which is to be kept outside (the social and the political) and that which is inside (the staying value of art)" (Sheikh).

paradoxically demarcates and joins inside and outside, flatness and depth, public visibility with private experience. Brian O'Doherty writes about the doubling of the viewer's gaze in Caspar David Friedrich's painting, *Woman at the Window*, 1822, "inside, the thinking studio; outside the quotidian world going about its business" (O'Doherty 25).

My inversion of the gallery's light-filled, whitewashed (neutralized) space sought to re-inscribe the gallery's production of visibility with its counterpart in an equally dazzling invisibility.[23] If throughout modernism the gallery's function was to frame historical and cultural differences, to situate local or regional specificities (as reflected in art) inside eternal, stable boundaries, with the installation, *Jupiter / 1891*, I sought to redress the gallery, to expose it to the contingencies of everyday experience. As a pre-determined envelope that positions the observer simultaneously inside and outside, partly in the driver's seat of the gallery's influencing machine–the place of the observer would, I hoped, become visible and allow the observer to look *at*, look *through* and to look *with* the artwork.

Briefly but tangibly, formerly discreet relations, like 'here' and 'there', the past and the present, were re-animated, imbricated, acted upon and physically connected not "by the action of light alone", but by people and by two conical projections. One made visible, the other intimated. As Jacques Derrida explains regarding deconstruction and its relation to memory work:

> The very condition of a deconstruction may be at work, in the work, within the system to be deconstructed; it may already be located there, already at work…participating in the construction of what it at the same time threatens to

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23   Theodor Adorno and Max Horkheimer write, "The naïve devotee of absolutes, however universally active he may be, is a victim of the *dazzling power of false immediacy*. But this *dazzle* is a constitutive element of all judgment, a necessary illusion." (Adorno and Horkheimer 194; my emphasis).

deconstruct. One might then be inclined to reach this conclusion:

deconstruction is not an operation that supervenes afterwards, from the outside,

one fine day; it is always already at work in the work…Since the disruptive force

of deconstruction is always already contained within the architecture of the

work, all one would finally have to do to be able to deconstruct, given this

always already, is to do memory work" (Derrida 73).

The paint denied the transparency of the architectural glass by asserting and revealing the

windows' material solidity. The immaculate, black surface seduced passersby to touch, to

prick and eventually to wound its voided transparent expanse and, to open apertures.

In this work the room's rectilinear volume is geometrically re-configured as a conical projection

of light, made to unfold itself, opening its architecturally enclosed proportions to the outside, to

its opposite but necessary exterior relation. What occurs inside the camera (Latin for room) is

projected outside but imperceptibly. What occurs outside the gallery does so twice: once as

the real and once as a transcription of the real inside its own image (the virtual). As a direct

result of apertures being scratched into the painted glass, of people acting on some impulse to

engage with the room's exterior surface (perhaps to restore transparency to the opaqued

window), its ceiling and floor became flooded with image-bearing projections of the 'room's

view'. The unruly world outside the gallery threatened to unseat the timelessness within,

replacing the vaunted subject of art with contemporaneity and the experience of the

everyday.[24] The architectural interior was 'touched' and enveloped by light, by fugitive,

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[24]   See John Dewey's, "Art as Experience" where in 1934 the philosopher conceptualized a new dialectical relation between the observer and the observed, an aesthetic of experience in contrast to self-contained objects harbouring immutable significance. "Experience occurs continuously, because

sweeping projections in radiant colour. Light joins what was formerly discreet. Between one

place and another, a conduit of light joins time and space.

The Unrepresentable

> *Whatever it grants to vision and whatever its manner, a photograph is always invisible: it is not it that we see.*[25]

Here, I briefly outline the idea of the unrepresentable as it has been formulated in relation to

works of art.[26] I then identify ways in which the unrepresentable has been approached by

artists to help situate my own practice within a larger field of activity concerned with

photography, the capacity to record, reproduce and transmit subjects that are thought to be

unrepresentable.

As the extreme limit of mimetic or representational practice the idea of the unrepresentable

gives rise to correspondingly extreme aesthetic responses. Jean-François Lyotard writes, that

the avante-gardes learn "to present that there is something that is not presentable" (Lyotard,

The Inhuman 125). According to Lyotard's analysis, (postmodern) artists are charged with the

impossible task to present the unpresentable. While no single methodology exists to do this,

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the interaction of live creature and environing conditions is involved in the very process of living" (Dewey 36).
[25]   Barthes, Roland. *Camera Lucida, Reflections on Photography*. Trans. Richard Howard. New York: Hill and Wang, 1981. P6.
[26]   Several philosophers have written about the unrepresentable. Among them, Jean-François Lyotard, Jacques Rancière, Jean-Luc Nancy, Georges Didi-Huberman and Giorgio Agamben. See, "Answering the Question: What Is Postmodernism?" in Lyotard, Jean-François, *The Postmodern Condition: A Report on Knowledge*. Trans. Geoff Bennington and Frederic Jameson. Minneapolis: University of Minnesota Press, 1984. 71-82; Rancière, Jacques. *The Future of the Image*. London, New York: Verso, 2009; Nancy, Jean-Luc. *The Ground of the Image*. New York: Fordham University Press. 2005; Didi-Huberman, Georges. *Images in Spite of All: Four Photographs from Auschwitz.* Chicago: University of Chicago Press. 2008; Agamben, Giorgio. *Remnants of Auschwitz, The Witness and the Archive*. Trans. Daniel Heller-Roazen. New York: Zone Books, 2002.

Lyotard suggests that artistic responses to the unpresentable rely on a formulation of the sublime. Unlike the presentation of the beautiful, the sublime knows no bounds. Formlessness, as with unboundedness, incomprehensiveness and limitlessness are among the central characteristics of the sublime. Bob Zunjic suggests that "the object of the sublime feeling resists representation by renouncing form"[27] The sublime, therefore, is not locatable in any *thing*. Rather, the sublime is a sensation, a feeling, a "negative pleasure" (Kant's phrase) that arises in us when we recognize that something is incommensurable with our experience. For Lyotard, the sublime marks a conflict between reason and the imagination. This conflict (Lyotard's "differend") is "to be found at the heart of sublime feeling: at the encounter of the two 'absolutes' equally 'present' to thought, the absolute whole when it conceives, the absolutely measured when it presents" (Lyotard, *Lessons* 123). In his essay, *Postmodern Thinking of Transcendence*, Richard Brons writes, "the best example of this is the Idea of reality itself, which is thinkable but infinite and therefore unrepresentable" (Silverman et al. 182).

Whether through practices that make use of montage (and bricolage or collage) or through an anti-representational art—two methods that may circumvent (or perhaps short-circuit) pictorial and symbolic logic by summoning discontinuous relations of time and space (as with montage) or by replacing classical and perspectival figuration with non-figurative abstraction (as in colour field painting)—the "unpresentable" exists but does so between two opposing terms (Lyotard's "phrasings"). Lyotard's analysis allows him to conceptualize a notion of complete Otherness, an absolute alterity that exists between relations but cannot be presented. Taking his cue from Immanuel Kant's idea that the beautiful is bounded and the sublime is boundless, formless and

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[27]   For a synopsis of Immanuel Kant's *Analytic of the Sublime* see, Dr. Bob Zunjic's, *Outline*:
http://www.uri.edu/personal/szunjic/philos/subl.htm

incompatible with reason, Lyotard is able to align the idea of the unrepresentable with the idea

of an absolute, unrepresentable Other. This is precisely where Jacques Rancière's critique of

Lyotard's notion of the sublime begins and where he raises the question of unrepresentability

in his essay, *Are Some Things Unrepresentable?*

Considering the unrepresentable, we discover a burgeoning "constellation of allied notions: the

unthinkable, the untreatable, the irredeemable" (Rancière, *Future* 109) and, to add to this list,

the boundless, the forbidden, the impossible, the invisible, the unpresentable and the

inexhaustible. Certain subjects exceed the camera's mechanical eye, perhaps of

representability and our own capacity to comprehend them. Jacques Rancière delivers a tightly

argued articulation in favour of representability with regards subjects that are said to exceed

the technical and moral compass of artistic means. He writes that when something is said to

be unrepresentable by means of art, two things are being said:

> First, that it is impossible to make the essential character of the thing in question
>
> present. It cannot be brought before our eyes…This first impossibility thus
>
> posits an incapacity on the part of art". Rancière continues, "the second, by
>
> contrast, challenges art's exercise of its power. It says that a thing cannot be
>
> represented by artistic means on account of the very nature of those means, of
>
> three characteristic properties of artistic presentation. Firstly, (artistic
>
> presentation) is characterized by its surplus of presence (…). Secondly, this
>
> surplus of material presence has (…) a status of unreality, which removes from
>
> the thing represented its weight of existence. Finally, the interplay of surplus and
>
> subtraction operates according to a specific mode of address that delivers the
>
> thing represented over to effects of pleasure, play or distance which are

incompatible with the gravity of the experience it contains (Rancière, *Future*

110).

Rancière identifies in Lyotard an "inflated usage" of the notion of unrepresentablilty and its

allied notions. Rancière's critique seeks to identify the conditions under which claims for

unrepresentability can be made and when this claim cannot be made. To do this, he

distinguishes and elaborates two regimes that he charges Lyotard with problematically

conflating: the representational and the aesthetic regimes in art. In the representational regime,

certain events, entities and phenomena cannot be represented due to the lack of a categorical,

discursive space for them. There is, in other words, no accepted genre for these subjects and

therefore no appropriate artistic form to present them. Rancière suggests that since

Romanticism another regime has taken hold. He calls it the aesthetic regime. Unlike the

representational regime, the aesthetic regime is not characterized by rules of inclusion and

exclusion, nor is it populated with proper subjects. In the words of Anat Ascher, with the

aesthetic regime "there is, no longer any demand for compatibility between subject matters

and ways of artistic expression" (Ascher).[28]

In "The Critique of Judgment" (1790), Immanuel Kant distinguishes four reflective judgments:

the sublime (alterity), the beautiful (consensus), the good (ethics), and the agreeable (taste). The

sublime is that which is boundless; the beautiful is that which is bound. Boundless subjects

evoke limitlessness, an infinite space where representation falters. For Kant, and in traditional

metaphysics, the concept of a transcendent absolute (as in God or the divine) was thought to

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[28]   For a discussion of Rancière's critique of Lyotard and the notion of unrepresentability see: Ascher,
Anat. "Thinking the Unthinkable as a Form of *Dissensus*: The Case of the Witness." *Transformations*;
Issue No. 19, 2011. http://www.transformationsjournal.org/journal/issue_19/article_01.shtml

be unrepresentable.[29] Paradoxically, the unrepresentable is defined by what it is not—that is, by that which is representable. For Kant, the world of phenomena, of appearances, is representable. Kant's solution to the unrepresentability of the transcendental was to establish a dialectical corollary to phenomena and he designated this by the term "neumena". Phenomena, he claimed, is representable while neumena is not. Neumena exists but does so beyond the categories of the representable. The French philosopher Georges Didi-Huberman writes,

> Kant, pertinently, spoke to us of limits. He drew, as from within, the contours of a net—a strange, opaque net whose every mesh is made only of mirrors. It is a device of enclosure, extendable as nets sometimes are, certainly, but as closed as a box: the *box of representation* within which every subject will throw himself at the walls as at reflections of himself. Here then is the subject of knowledge: it is speculative and specular at the same time, and the recovering of the speculative by the specular—of intellectual reflection by imaginary self-capitation—is precisely wherein lies this *magical* character of the box, its character as resolvent enclosure, as self-satisfying suture. How then to get out of this box of magic circle, this box of mirrors, when this circle defines our own limits as knowing subjects (Didi-Huberman 139)?

In a portrait photograph of a person, regardless how dignifying in pose or skilfully executed it may be, we agree that our subject has merely been portrayed once. In *Camera Lucida*, Roland

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[29]   Aniconism in Judaism, for example, strongly discourages the portrayal of the deity. The following injunction is from the second of the Ten Commandments, "Do not represent gods by any carved statue or picture of anything in the heaven above, on the earth below, or in the water below the land". See: http://en.wikipedia.org/wiki/Aniconism_in_Judaism

Barthes writes, "what the Photograph reproduces to infinity has occurred only once: the Photograph mechanically repeats what could never be repeated existentially" (4). As soon as the camera's shutter closes, the moment recorded passes; Barthes "emanation", the "this-has-been", the photograph's subject becomes present as an object, and for Barthes, "a museum object" (13). But "presence", in this instance, goes hand in hand with death (4). When we look at a photograph of ourselves or of others, we witness the return of the dead. "Death is the *eidos* of the Photograph" (15).

Fig. 12: Two memorial cabinet photographs. Left: Woman, (motif: scroll with pins), Muncie, Indiana c. 1890. Right: Man, (motif: aerial view of earthen grave with footprint and plants), Montréal, Québec c.1890. Photographs, courtesy of the author.

The unrepresentable is figured across a broad spectrum of artistic works. In Kazimir Malevich's

famously intractable squares, in John Cage's performing of silence, in contemporary works by

Alfredo Jaar and in Rachel Whiteread's castings of voids found in bounded physical volumes.[30]

Rather than a contradiction of terms, only through forms of display, that which cannot be

shown (the unrepresentable) may be comprehended. In the case of photography, because its

technical means are bound to the idea of presence and absence and the problem of

unrepresentability, the challenge posed to photographic depictions are uniquely magnified.

The Void & The Invisible

> *My paintings are now invisible.*[31]

In the spring of 1958, Parisian devotees to modern art were abuzz about *nothing*. Yves Klein,

French painter of intensely chromatic saturations of pigment called monochrome paintings, the

same figure we see famously depicted leaping into thin air in a startling photographic montage

he printed on the front page of his self-published newspaper,[32] removed everything from inside

a storefront gallery space—except for a single display cabinet that he also emptied and

painted white—and he replaced the contents of the gallery with an invisible presence of "pure

sensibility". Widely regarded as the first work of art consisting of an empty gallery space, this

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[30]   Whiteread's *Judenplatz Holocaust Memorial* (2000) in Vienna commemorates the 65,000 Austrian Jewish victims of Nazi terror. The Shoah is often thought to be unrepresentable. As a limit event, it exemplifies what Theodor Adorno decried in his essay, "Cultural Criticism and Society", "to write poetry after Auschwitz is barbaric" (Adorno 34). Adorno's later addendum to his original dictum states, "it may have been wrong to say that after Auschwitz you could no longer write poems." See: Adorno, Theodor W. *Negative Dialectics.* Trans. E.B. Ashton. New York: Seabury Press, 1973. 362-363.
[31]   Yves Klein as quoted in, Stich, Sidra. *Yves Klein.* Stuttgart: Cantz Verlag.1994. 133.
[32]   *Dimanche. Le Journal d'un seul jour*, 27th of November, 1960

work, now appropriately called "Le Vide" (The Void),[33] updated the practice of depicting

invisible subjects as a mainstay in the visual arts. From lacuna in the earliest scripture to the

ephemeral works realized by contemporary artists such as Michael Asher, Art & Language,

Robert Irwin, Laurie Parsons, Robert Barry, Simon Pope and many others, notions of the

invisible and the void, like monochromatic abstraction in painting, have become lasting tropes

in contemporary art.

Figure 13 has been removed due to copyright restrictions.

See: http://www.yveskleinarchives.org/documents/bio_us.html

Fig. 13: Yves Klein in the *Salle due Vide* (Void Room), Museum Haus Lange, Krefeld, January, 1961

Photographs provide a crucial link for Klein's negation of perspective in painting. Used as an

impartial witness, like a dispassionate eye surveying from behind the artist but located within

the same space, one photograph apprehends the artist as if in mid-stride about to enter 'the

void'. While this photograph helps to establish Klein's work as canonical by documenting the

artists' gesture, it also underscores the use and reception of photographs (all photographs that

rely on similar reality effects) as transparent windows. The artist's participation in and staging

of the performance (for the camera) could well be read as ironic if the photograph were not

also an abstraction. The artist is seen within the image, caught within a temporal lamination

that binds one moment (the past) to another (the present) and to a third (the future) in which the

artist dissolves into the void.

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[33]   The exhibition held at Galerie Iris Clert was entitled *The Specialization of Sensibility in the Raw Material State of Stabilized Pictorial Sensibility* and presented Yves Klein's research into his monochromes as pure sensibility.

Before I continue with photography, I will consider representations of the void in early

abstraction and in an example of recent monumental art. Of the many modern precedents for

the negative display of visuality in art, including the extreme reduction of the image from our

field of view, and the absenting of perspective and figuration from painting, Kazimir Malevich's

Black Square from 1915 and his later *White Square* from 1918 are considered pivotal turning

points in the revolutionary efforts made by Russian artists just prior to and especially following

the first World War. While it's impossible to disentangle Malevich's motivations from the new

demands placed on art by Bolshevism, or from the impulse towards spiritual transcendence

that motivated some artists, or the will to participate concretely in a renewal of political and

social realities that motivated others, Malevich's aims remained acutely and resolutely

aesthetic. For Malevich painting was the zero degree of form but would still reflect concepts

like the fourth-dimension all the while eliding naturalism in his effort to establish a new Realism

rooted in geometry. Malevich's critique of academic Realism heralds a new art of abstraction

and the degree zero of painting by erasing the figure of nature and supplanting it with a black

void. Astrit Schmidt-Burkhardt characterizes Malevich's gesture as a "black hole into which

academic Realism would disappear"[34] (Copeland et al. 293). As a figure of abstract surplus in

art, the void is never merely a simple end game but rather an infinity machine capable of

limitless transmission and receptivity.

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[34]   Kazimir Malevich is quoted from his manifesto, "From Cubism to Suprematism in Art: To the New
Realism of Painting, to Absolute Creation, 1915" in *Malevich on Suprematism: Six Essays: 1915 to 1926*,
ed. Particia Railling (Iowa, 1999): 17-25, here 24; in *Voids: A Retrospective*, Centre Pompidou, JRP
Ringier, Zurich, 2009.
While Malevich's *White Square* was painted in 1918, the Russian artist painted his famous *Black Square*
three years earlier, in 1915. Of special interest to me is that Malevich's *Black Square* is the result of over-
painting an earlier Suprematist painting of his own. He transgresses not only what he perceived
as normative aesthetics but also his own painting in his move to achieve the zero degree of form he
sought. His over-painting, and the subsequent crackle and entropic transformation of the painting's
surface, behaves as do palimpsests, as a removal of his earlier painting and, ironically, as the revised
gesture that so radicalized the history of modernism. As well, because the existing version began to
crack on its surface Malevich produced copies in order to preserve his initial intention.
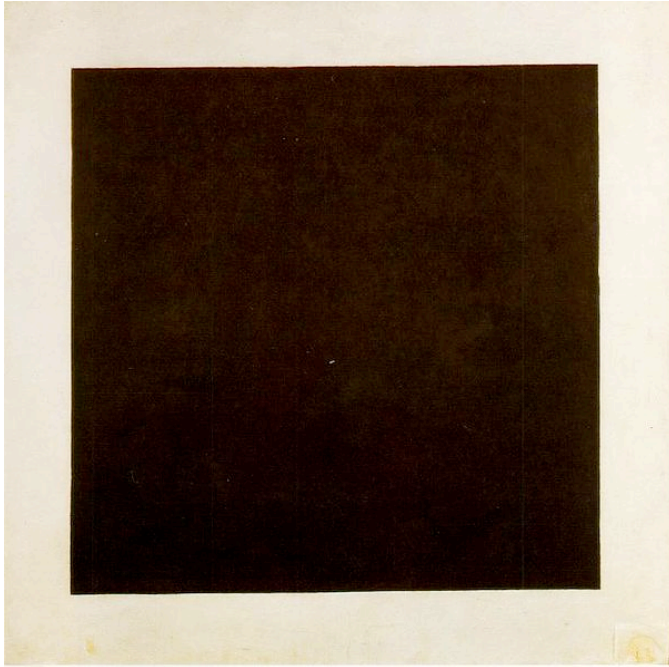
Fig. 14: Kazimir Malevich, *Black Square*, 1915; State Russian Museum, Saint Petersburg, Russia

Rachel Whiteread's monument to the 65,000 murdered Austrian Jews of the Shoah (*Mahnmal für die 65.000 ermordeten österreichischen Juden und Jüdinnen der Shoah*) in Vienna, also known as the *Nameless Library*, unveiled in 2000, may well be an example of the expanded terms of what Bellour calls the "photographic" and Baker, photography's "expanded field". Whiteread cast the voids between books. By doing so the artist rendered invisible space. The space between her "books" form volumes in concrete. Mute and stalwart, the monument presents an index of absent form. She turned a library inside out. The exterior of the memorial consists in cast shelves of books rendering their voids solid and visible. Whiteread said she wants to "invert people's perception of the world and to reveal the unexpected."[35]

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[35] As quoted in The Guardian newspaper, October 26, 2000. See:
http://www.guardian.co.uk/world/2000/oct/26/kateconnolly

Fig. 15: Christian Schad, *Schadograph*, 1918
Gelatin silver printing-out-paper print, (irregular): 2 5/16 x 3 1/4" (5.9 x 8.3 cm)

In 1918, Christian Schad, the German Dadaist, discovered abstractions in light. He placed bits

of torn paper ephemera on light sensitive silver printing-out paper and made small photograms

he called *Schadographs*. These are among the first photographs ever produced as abstract art.

One example from the Museum of Modern Art in New York measures 2 5/16" x 3 1/4" (5.9 x

8.3 cm).[36] Schad's image is a telling counterpoint to Malevich's *Black Square* of 1915 and his

later *White Square* made in 1918. The irregular borders of this *Schadograph*, the artist

explained, were "to free them from the convention of the square." Where Malevich celebrated

absolute squares, circles and rectangles, Schad, on the other hand, renounced pure geometry

in favor of irregular and seemingly irrational borders. He used the collage techniques being

used by colleagues, Marcel Duchamp, Tristan Tzara, Max Ernst, Hans Arp and others; Schad's

photographic images produce a two-fold abstraction. First, they flatten and project three-

dimensional matter upon a two-dimensional plane. Secondly, his *Schadographs* are negative

impressions. His tonally reversed negatives invert light and time; motionless, Schad's everyday

materials became abstract art. While the first artist to consciously make an abstract

photograph, Schad was not the first to use the photogram method.

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[36]   Schad, Christian. "Schadograph, 1918." Museum of Modern Art. Web. March 14, 2012. See:
http://www.moma.org/collection/browse_results.php?criteria=O%3AAD%3AE%3A5200%7CA%3AAR%3AE%3A1&page_number=2&template_id=1&sort_order=1
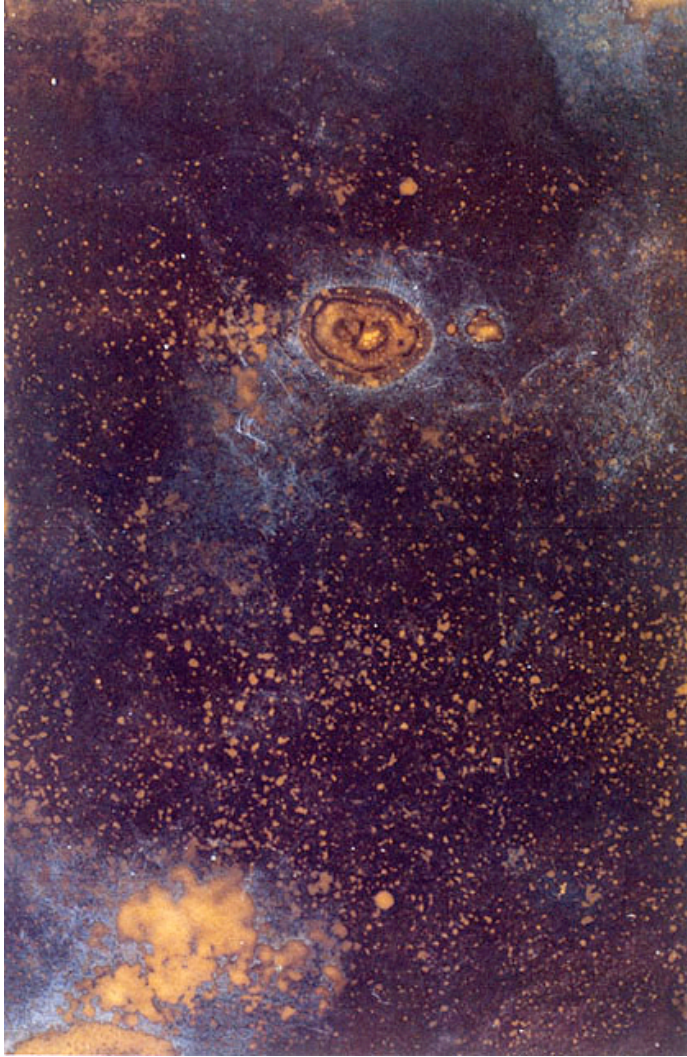
Fig. 16: August Strindberg, *Celestograph*, 1894
Photographic paper, 4 3/4 x 3 1/8 in (12 x 8 cm)
The Royal Library, National Library of Sweden, Stockholm
See: http://www.iwm.at/index.php?option=com_content&task=view&id=432&Itemid=125

Twenty-five years before Christian Schad produced his proto-pop, Dadaist abstractions, the

Swedish, Symbolist writer and artist, August Strindberg made a remarkable series of

photographs called *Celestographs*. Relying on chance and insisting that his art "imitate (…)

nature's way of creating"[37] the artist exposed photographic plates directly to the night sky

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[37]   Strindberg's text, "Chance in Artistic Creation", 1894, is available in English in Feuk, Douglas. *August Strindberg: Inferno Painting and Pictures of Paradise*. Copenhagen: Edition Bløndal, 1991.

without the aid of a camera. Abstract in result if not by intent, Strindberg's images appear atmospheric and somewhat like a night sky. As if the pictures were really of starlight, small, cloud-like forms and tinier pinpoints of light punctuate areas of darkness. Strindberg hoped his images would offer science evidential proofs. Despite the absence of objective realism (he did not use a lens or a pinhole) and the rejection of his photographs' evidential value by a scientist colleague, his images have become regarded as more than a curious footnote in the history of artistic photography. Metaphoric, poetic, his Celestographs do indeed summon for the viewer optical images or impressions of the night sky. Strindberg's symbolic photographs assert their materiality as chemical inscriptions without sacrificing their representational intent as images of the celestial sphere.

Fig. 17: David Miller, *Earth (from mother's grave)*, 1997
Selenium toned, fibre-based gelatin silver paper, 24" x 20" (60.96cm x 50.8cm)
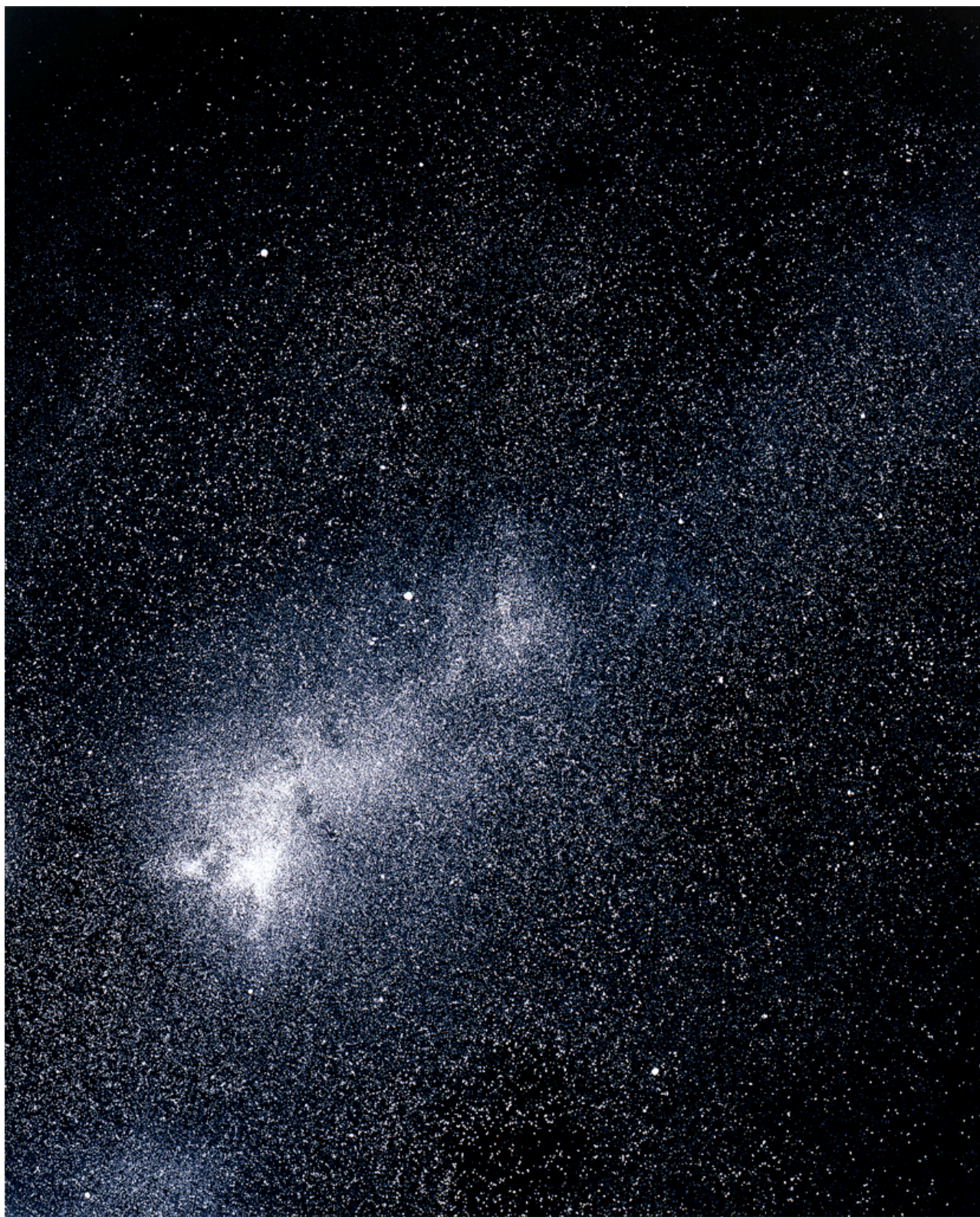
Fig. 18: David Miller, *Ron*, 2001
Selenium toned, fibre-based, gelatin silver paper, 60" x 40" (152.4cm x 101.6cm)

Night, an on-going series of works I began in 1995, are photograms of earth or cremation remains. Each work is titled after the subject represented. In *Ron*, illustrated above, I represent the cremated remains of a friend of mine. Unlike deep sky photographs produced using telescopes, *Ron* is an approximation of the night sky and not an image of the night sky itself. Initially, the impulse for these works did not include an explicit memorial function. Rather, I was interested in developing artistic means for representing complex histories of a place. The earliest of these were modeled on optical photographs of the Milky Way but were in fact representations of shadows, of soil from a moonlit farmer's field in East Germany. My first work in relation to an individual, titled *Earth (from mother's grave),* is also a picture of shadows and light, of earth collected from my mother's gravesite.

Paradox and symbolic inversion characterize the works' relations to portraiture, landscape, to presence and absence and to memory. Photographic negatives reverse the tonality of things as they are. In the prints, points of light are actually formed by the absence of light (by shadow). Areas of darkness record the presence (in excess) of light. Dissolved, absent silver marks the print's surface as a stark, absolute, paper-base white. Even still, the works evoke for me the light from distant stars, the light of the past. The action of light on the developed paper forms areas of apparent solidity, a blackness that belies a symbolic claim to absence. Each image presents a unique person or place by combining and contrasting indexical with metaphorical relations. The artistic conceit to represent a subject in its entirety, as an indefatigable whole, is achieved through dissolution; a fragmentary, colourless particulate helps me formulate an idea of infinity. The dust I place on the paper is unequivocally specific; a type of 'Big Bang' of seemingly randomly distributed bodies in space, celestial, vast and unquantifiable.

Dutch artist, Jan Dibbets' early *Perspective Corrections* are also instances of self-revealing in

photography (not counter-illusionism, as the Albertian perspectival illusion of receding space is

maintained). Dibbets' "Corrections" quietly shatter the presumed transparency effect of

photographs by asserting the picture plane as an abstraction; a type of recoding of the

photographic image that undoes itself, deconstructs itself reflexively by foregrounding the

invisible picture plane from within the picture itself, from inside the illusionistic construction

formed by the single point perspective of the camera's lens.

Figure 19 has been removed due to copyright restrictions.

See: http://phomul.canalblog.com/archives/p77-7.html

Fig. 19: Jan Dibbets, *Perspective Correction, Square in Grass*, Vancouver, 1969
© Jan Dibbets and the Van Abbemuseum, Eindhoven

Dibbets' conceptual photographs of this period (1967 – 1971), including his system-based

works like *The Shortest Day at the Van Abbemuseum, Eindhoven,* 1970[38] mirror the deep pre-

history of photography: on the one hand, he uses the camera as a time machine; on the other,

he recalls (and inverts) the camera obscuras' inside-out, ethereal projections of cosmic light by

photographing the light-letting window illumination from the inside of the museum. Dibbets'

'museum' is realigned towards the outside, recalibrated as a machine for seeing.[39]

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[38]   A description of Dibbets' piece from the Museum of Modern Art: "Initially conceived as a slide
projection, *The Shortest Day at the Van Abbemuseum, Eindhoven* consists of eight rows of ten
photographs, shot at ten-minute intervals through a window of the museum, registering the winter
solstice from the dimmest light of sunrise to the end of sunset. This serial format records the passage of
time as well as light, while the viewer's position is inverted from that of one who comes into a museum
to see what is inside to that of one who comes inside to see what is outside."
See: http://www.moma.org/interactives/exhibitions/1999/muse/artist_pages/dibbets_shortestday.html
[39]   In *Camera Lucida*, Roland Barthes writes, "For me the *noise of Time* is not sad: I love bells, clocks,
watches--and I recall that at first photographic implements were related to the techniques of
cabinetmaking and the machinery of precision: cameras, in short, were *clocks for seeing*, and perhaps in

Fig. 20: Jan Dibbets, *The Shortest Day at the Van Abbemuseum, Eindhoven*. 1970
Color photographs mounted on aluminum, 69.75" x 67.33" (177 x 171 cm)

My work *Exits,* from 2010-12, depicts individuals walking out from inside the former Gas

Chamber and Crematorium #1 at Auschwitz. To make this work I positioned myself in front of

the building's door at 3:40pm. This is the only time of day (in late August) that the sun rakes the

façade at an angle such that light illuminates the building's surface without entering the door

and without causing a shadow on the paving stones before the door. Photography was

possible for approximately 20 minutes on any given sunny day before this quality of light

significantly changed.

When people step outside from inside the former gas chamber they cross a number of

thresholds. They leave darkness and enter light; they pass from the inside to the outside.

These movements occur twice. When entering the building, people move from the sunlit

exterior to a dark interior, from outside to inside. I saw these movements and photographed

them. A photograph I made at Auschwitz in 2008 depicts a man walking into then outside the

chamber. As with *Exits*, the site of the gas chamber and crematoria is depicted but unlike *Exits*

the person depicted is seen entering the chamber.

Fig. 21: David Miller, *Exits (Gas Chamber and Crematorium 1, Auschwitz, August 24, 2010),* 2010-12

me someone very old still hears in the photographic mechanism the living sound of the wood. (Barthes
15; emphasis added).

Fig. 22: David Miller, *Man Walking Into Then Out of Gas Chamber, Crematoria 1, Auschwitz*, 2008

Like a camera's aperture, the door to Gas Chamber and Crematoria 1 admits light; like a camera's curtain shutter, the door and its threshold regulate movement. I photographed awkwardly, pensively; at times an individuals' eyes found mine.

The finished work is organized as a series of twenty-four frames arranged as a continuous, unbroken line. Each frame depicts a single individual. Private moments assume a scale of commonality when each frame is seen together. Though one may experience the works' entire span in a single glance, interesting details reward if one looks closely: the door's circular hole positioned at approximate eye level; the unlit lamp above the entrance; the aphotic deep space beyond the door's threshold; the headphones that the absorbed looking, grey-haired man wears; an unruly shoelace; the girls nametag, with "Greta" handwritten in purple; the locked padlock hanging on the door jam; a woman's gaze directed skyward.

I photographed each person in mid-stride. One foot is firmly planted on the ground while their other foot is raised and in motion. In contrast to a state of limbo (a Christian theologism), this betweenness balances each figure and suspends them inside of time. More precisely, the work represents layers of duration simultaneously. The 'ground' of the picture (and of each frame) is

the same moment. Each individual or 'figure' resides there set within—and against—the memory space of the gas chamber and crematorium. Individuals, therefore, are depicted in their own time and, simultaneously, in another time. Layers of discrete, heterogeneous moments are montaged as a continuum. I represented the gas chamber and crematorium as one moment in time (before) while each person is represented at another moment in time (after). Both sets of durations, the figures and the ground, exist simultaneously and represent a hybrid temporality, a digitally 'laminated' procession of moments. The past is represented twice. One past is displaced onto another. The present is 'now', marked by the beholder. I wonder if I will see on their faces, or see in their body's countenances, that which I am blind to. In any case, I have not denied them hope. For I have shown them to be mobile and free.

Fig 23: David Miller, *Exits (Gas Chamber and Crematorium 1, Auschwitz, August 24, 2010),* 2010-12
Installation view, Charles H. Scott Gallery, Vancouver, July 2012
LightJet print mounted on aluminum, 16" x 24' (40.64cm x 731.52cm)

Fig 24: David Miller, *Exits (Gas Chamber and Crematorium 1, Auschwitz, August 24, 2010),* 2010-12
Installation view, Charles H. Scott Gallery, Vancouver, July 2012; LightJet print mounted on aluminum,
16" x 24' (40.64cm x 731.52cm)

Fig 25: David Miller, *Exits (Gas Chamber and Crematorium 1, Auschwitz, August 24, 2010),* 2010-12
Detail, panel 1; LightJet print mounted on aluminum, 16" x 6' (40.64cm x 182.88cm)

Fig 26: David Miller, *Exits (Gas Chamber and Crematorium 1, Auschwitz, August 24, 2010),* 2010-12
Detail, panel 1; LightJet print mounted on aluminum, 16" x 12" (40.64cm x 30.48cm)

Fig 27: David Miller, *Exits (Gas Chamber and Crematorium 1, Auschwitz, August 24, 2010),* 2010-12
Installation view, Charles H. Scott Gallery, Vancouver, July 2012
LightJet print mounted on aluminum, 16" x 24' (40.64cm x 731.52cm)

Fig 28: David Miller, *Exits (Gas Chamber and Crematorium 1, Auschwitz, August 24, 2010),* 2010-12
Installation view, Charles H. Scott Gallery, Vancouver, July 2012
LightJet print mounted on aluminum, 16" x 24' (40.64cm x 731.52cm)

There is this huge gap between reality and its possible representations.[40]

Chilean-born artist Alfredo Jaar produces installations and interventions that raise questions concerning the moral efficacies of photographic production, circulation and reception. Whether in outdoor public spaces or in galleries and museums, Jaar's conception and use of photographs and the photographic attempts to bridge the chasm of comprehension that he feels distances us from understanding human suffering and from acting compassionately against the political violence his works seek to represent.

In 2010, Jaar unveiled his memorial to the victims of Pinochet's oppressive and violent military dictatorship. Called *The Geometry of Conscience,* the installation is sited permanently at the Museum of History of Human Rights in Santiago de Chile. The artist designed a powerfully immersive, subterranean space where visitors may experience a seemingly vast number of portraits. He uses a tonally reversed silhouette photograph (a white figure against a black ground) that is stylistically similar to *Likeness*, a series of portraits I began in 2008 and continued to produce in Vancouver in the summer of 2011. As with *Likeness*, Jaar's portraits are of specific individuals but Jaar's portraits derive from an archive of the dead (the many victims of officially sanctioned violence); mine, on the other hand, are of an emergent, embodied archive of the living and rely on my subject's naked presence. Another significant though perhaps imperceptible difference is Jaar's use of digital media. He 'drops-out' identifying features to effect a blank white, luminant flatness. I use the analogue technique of "photogenic drawing", otherwise known as photograms. My apparatus directly casts shadows of my subjects while they face towards and, significantly, compose their own image. My

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[40]   Alfredo Jaar in an interview with PBS, *Art in the Twenty-First Century*, 2007. See:
http://www.pbs.org/art21/artists/alfredo-jaar

subjects participate in their transfiguration onto a flat plane. My photographs require working

with willing bodies in a specially contrived, darkened work space; Jaar's portraits are images of

the missing first and remain images of the missing to the end while my images begin as

immanent presence, a physically induced shadow that relies on participatory exchange.

Fig. 29: Alfredo Jaar, *The Geometry of Conscience*, 2010

Light is a powerful agent in both works. Jaar's beautiful use of rear illumination, timed with

sensors to increase and decrease in luminance, lend physicality to his images. His images

perform. Liminal and poetic, his metaphorical couplings of loss and blindness with redemption

and memory evoke an eye of calm in the narrative storm of horror his work seeks to address.

Fig. 30: David Miller, Detail, *Likeness*, 2008 – 2012
22 of 100+ gelatin silver prints, each 24" x 20" (60.96cm x 50.8cm)

Fig. 31: David Miller, *Isabelle* (detail from *Likeness*), 2008 – 2012
1 of 100+ gelatin silver prints, 24" x 20" (60.96cm x 50.8cm)

In an earlier installation by Alfredo Jaar, *The Eyes of Gutete Emerita,* from 1996, viewers may be reminded that to see is to believe. The installation shows us the photographed eyes of someone who saw what we could not and cannot see; her eyes stare back at ours. Here, Jaar relies upon photography's most intoxicating elixir to administer an ontological truth serum to his audience. However suspect or fractured its status is today, photography's claim to truth, and Jaar's emotional gambit, is anchored to the indexical relationship photographs form with the subject they depict.

> I'm interested in the eyes of the audience being only one centimeter away from the eyes of Gutete Emerita. I am suggesting here that her eyes acted as a camera [that] saw something that we could not see. The question here is: How do we bridge the gap between our eyes and her eyes?[41]

A mountainous mass of one million slides[42] rests atop a large, luminous light-table. The slides form a graven-like pile, a central mound around which are scattered others, made more accessible by their placement at the perimeter of the tables' glowing surface. Magnifying loupes provided by the artist enable close inspection. Each slide is identical and each depicts the eyes of one individual. Her name is Gutete Emerita. This is the woman the artist met and photographed in 1996 while conducting research in Rwanda, fact finding in the aftermath of the genocide there. Jaar retells Gutete Emerita's tragic story by inscribing a text at roughly

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[41]   Alfredo Jaar speaking at the lecture series, "La Generazione delle Immagini." See: http://www.undo.net/cgi-bin/openframe.pl?x=/Pinto/Eng/fjarr.htm

[42]   The Museum of Fine Arts, Houston, owns this work and claims that it is comprised of 100,000 slides. David Levi Strauss, however, contends that the work is made up of 1,000,000 slides, "one million of them, in fact. A million slides for a million deaths." See his essay, "A Sea of Griefs is Not a Proscenium" in, Strauss, David Levi. *Between the Eyes, Essays on Photography* and Politcs. New York: Aperture, 2003: 98. Different versions of this work have been exhibited, for example in the USA, Germany and in Australia. Alfredo Jaar produced a similar piece in 1997 called, *The Silence of Nduwayezu* where the artist uses one million slides and narrates the story of Nduwayezu, a male refugee who witnessed the slaughter of his mother and father.

eyelevel on a length of darkened wall. The witness' voice is mediated through Jaar's. While

narrating the bare facts of the Rwandan genocide, the artist introduces viewers to what Gutete

Emerita saw with her own eyes. An admission, perhaps, that an image alone can never tell or

show us the truth on its own. Illuminated and illuminating, the full backlit text reads:

> Over a five-month period in 1994, more than one million Rwandans, mostly
>
> members of the Tutsi minority, were systematically slaughtered as the world
>
> closed its eyes to genocide. The killings were largely carried out by Hutu militias
>
> who had been armed and trained by the Rwandan military. As a consequence of
>
> this genocide, millions of Tutsis and Hutus fled to Zaire (now Congo), Burundi,
>
> Tanzania and Uganda. Many still remain in refugee camps, fearing renewed
>
> violence upon their return home. One Sunday morning at a church in Ntarama,
>
> four hundred Tutsis were murdered by a Hutu death squad. Gutete Emerita, 30
>
> years old, was attending mass with her family when the massacre began.
>
> Gutete's husband, Tito Kahinamura, and her two young sons Muhoza and
>
> Matirigari, were killed with machetes before her eyes. Somehow, Gutete was
>
> able to escape with her daughter Marie-Louise Unumararunga. After weeks of
>
> hiding, Gutete has returned to the church in the woods. When she speaks about
>
> her lost family, she gestures to corpses on the ground, rotting in the sun. I
>
> remember her eyes. The eyes of Gutete Emerita.[43]

Moving beyond the text, past the voice of the witness/narrator of the atrocity, we enter the

monumental installation of mournful, trenchant eyes. Gutete Emerita witnessed the murder of

her husband and two sons—and somehow survived to tell her story. The artist presents a

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[43]   See Alfredo Jaar's website: http://www.alfredojaar.net

single image. Again and again and again, the eyes of Gutete Emerita stare back at us. One individual stands for one million others, and she confronts us head-on. Our eyes confront her eyes; face-to-face, her eyes are immobilized, unblinking in the photographs' implacable silence.

The Writing of Light

I, too, have been seeking the impossible.[44]

In his essay, "Photography, or Light-Writing: Literalness of the Image," Jean Baudrillard writes: "Whatever the set-up, one thing is always present in photography: light. 'Photography': light-writing".[45] The idea that photography is writing already formed with the proto-photographers. As is well known, the etymology of the word "photo-graphy" contains two ideas. From the Greek words for light and for writing we have photo/graphy. A conceptual thread, then, connects a proper name to the inscription work I am presently doing using a CNC (digitally driven) router. The etymology of the word Photography yields the following:[46]

> *photo-*
>
> comb. form meaning "light" or "photographic," from Gk. photo-, comb. form of
>
> phos (gen. photos) "light," from PIE root *bha- "to shine", phantasm.
>
> *-graphy*
>
> comb. form meaning "process of writing or recording" or "a writing, recording,
>
> or description," from Fr. or Ger. -graphie, from Gk. -graphia "description of,"
>
> from graphein "write, express by written characters," earlier "to draw, represent

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[44]   Louis-Jacques-Mandé Daguerre, in his first letter to Nicéphore Niépce dated 1826. See Geoffrey Batchen, 1999: 64.

[45]   See: Baudrillard, Jean. *Impossible Exchange*. Trans. Chris Turner. New York: Verso, 2001. 141.

[46]   See: http://www.etymonline.com/index.php?term=photo-(-graphy)

by lines drawn," originally "to scrape, scratch" (on clay tablets with a stylus),

from PIE root *gerbh- "to scratch, carve".

Fig. 32: David Miller, *i*, 2011, CNC routed gelatin silver print, 24" x 20" (60.96cm x 50.8cm)

I find it is a curious fact that William Henry Fox Talbot did not feel the need to include the word

photography in his 1847 book "English Etymologies", since the polymath invented the process

of receiving "sun pictures" nearly ten years before publishing his English lexicon (W. H. F.

Talbot, *English Etymologies* vii). Talbot's wide-ranging scientific and intellectual pursuits,

however, not only included inventing the negative/positive process (the Calotype) but also in

deciphering cuneiform writing. This has led me to think of my CNC photographs as being

epigraphic, as inscriptions physically cut into and carved upon the paper's light sensitive

surface. [47] The example above, the letter 'I', was carved at a sufficient depth to remove the

uppermost lamination but not deep enough to rupture the paper support itself. The subtractive

process of cutting and carving yields a negative impression—as does a shadow cast by an

object in the making of a photogram. One difference between the two methods of negative

image formation is that the latter is smooth while the former is rough. My epigraphic

photographs begin as digital files. A relief image forms inside the material support. There is no

mistaking a virtual presence for an actual one.

The earliest recorded use of the word 'photography' is attributed to Hércules Florence, the

French-Brazilian painter and one of the least known inventors of another negative/positive

photographic process. He named his technique for "drawings made by nature" in French as

"Photographie".[48] According to the art historian, Geoffrey Batchen, "the etymology of the word

photography reveals a conjunction formed by "two Greek components—*phos* (light) and

graphie (writing, drawing, and delineation)." Batchen continues, that the act of naming

photography "posits a paradoxical coalition of "light" (sun, God, nature) and "writing" (history,

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[47]   Talbot, in addition to his invention of the Calotype, was jointly responsible for deciphering cuneiform writing from which epigraphy as a science of inscription and translation developed. Taking Talbot's manifold enterprise as a whole, his research into deciphering cuneiform inscriptions and his development of photography as a form of writing with light, I understand these carved photographs as being inscribed not by light alone but grow from a process of translation and re-inscription—of prior images and of prior experience in the form of memory (from information stored digitally).

[48]   Hércules Florence coined this French word, *photographie* four years before Sir John Herschel used *photography* in English. For a fuller discussion of the metaphorical significance of the word photography, and its implications for an understanding of photography's identity, see Geoffrey Batchen's, "The Naming of Photography: A Mass of Metaphor", *History of Photography* 17, no. 1 (Spring 1993): 22-32.

humankind, culture), an impossible binary opposition "fixed" in uneasy conjunction only by the

artifice of language" (Batchen 101). The writing of light at the centre of photography is not only

bound in the word itself (photo/graphy or light/writing) but also has a tangential though relevant

and real connection to the other scientific activities that occupied its most learned inventor.[49]

The naming of the process locates the method's identity in a state of linguistic and

metaphorical restlessness, between two oppositions at the heart of language and of

representation. On the one hand, culture, on the other, nature. With the concepts of culture

and nature joined as they are in photography, "the nature of photography could only be

properly represented by way of a sustained paradox" (Batchen 64).

This dialectical intransigence inside the term 'photography'—being neither culture nor nature

but rather an entirely new and indeterminate term that borrows from both categories—has

characterized the medium's paradoxical, quasi-specific identity from its inception. Negatives

yield positives; the outside is figured inside (the camera); temporal flux and duration is

rendered immobile; both the device of the camera obscura and the light that it admits are

simultaneously active and passive: the camera obscura gives form to light as a projected

image; light freely, passively moves through the camera's aperture and then actively exposes,

transforms silver compounds or electrons into a latent image. Used either as a verb or as a

noun, we may wonder why photography was first conceived as an optical-chemical language

akin to writing. The idea, that photography is a form of writing, situates photography alongside

other inscription technologies such as drawing, etching and the closely related technique of

lithography which, invented by the German actor and playwright Aloys Senefelder in 1796,

---

[49] His colleague, the scientist and fellow member of the Royal Society, Sir John Herschel, was intimately acquainted with Talbot's activities and his attempts to fix the fleeting impressions given in the camera obscura. Herschel coined the words 'photography', 'negative' and 'positive' and 'fix'—a method he discovered that employs sodium thiosulfate to dissolve (to fix) silver halides thus rendering photographs stabile.

became the technical basis for Nicéphore Niépce and his brothers' experiments to induce images from light (Batchen 63). Literally and metaphorically, the conception of photography as a form of writing, and the camera as an inscription machine linked by its natural stylus, the sun, to written language, is based on the desire of its inventors to find a mechanical means to record images but also to reproduce existing texts and to extend visibility without limit and to do so profitably.[50]

The Sun: Helios

Figure 33 has been removed due to copyright restrictions.

See: http://www.hrc.utexas.edu/exhibitions/permanent/wfp/

Fig. 33: Harry Ransom Center and J. Paul Getty Museum, Color digital print reproduction of Joseph Nicéphore Niépce's *View from the Window at Le Gras* (1826), June 2002. 20.3 x 25.4 cm.

In 1826, the French inventor Nicéphore Niépce, became the first of many to successfully record and chemically preserve the image formed in a camera obscura. He named his process Héliographie after the Greek words "helio" (for sun) and "graphie" (for writing or drawing). By doing so, Niépce too acknowledged the significance and the centrality of light to his process. Niépce likened his process to writing, as did Hércules Florence and Sir John Herschel a few

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[50]   Much of the impetus behind the conception of photography was generated by a desire to produce mechanically what would otherwise have been produced by hand—by artists and by scientists. In his book *The Making of British Photography: Allegories*, author and art historian Steve Edwards writes, "[p]hotography reinforced the commercialization of the sketch while redefining a masculine space for its use" (Edwards 28).
It is important to acknowledge, as Jean-Louis Comolli has in his essay "Machines of the Visible", that by the second half of the nineteenth century the proliferation of photographs effected "something of a geographical extension of the field of the visible and the representable: by journeys, explorations, colonizations, the whole world becomes visible at the same time that it becomes appropriable" (Comolli, 1980: 122–3).

years later.[51] The earliest photographic images, whether on ceramic or metal plates or on

coated paper, were understood by their creators as a "natural magic", miraculous nature-

induced images.[52] As both representation *and* reality, as the subject of Nature *and* its object,

the image formed by light and fixed by a chemical process confirmed natural laws and that

Nature (the "wonderful Whole") exceeded comprehension.

Niépce's *View from the Window at Le Gras,* from 1826 (the first known photograph) displays a

remarkable surface. I can only speculate as to what caused the protrusions, the raised areas

on the plate.[53] The pewter plate's surface appears to have been stressed from behind. This

object and Barthes' comment about lamination, the inseparability of the landscape and the

windowpane, seem related:

> Photographs belong to that class of laminated objects whose two leaves cannot
>
> be pulled apart without destroying them both: the windowpane and the
>
> landscape, and why not: Good and Evil, desire and its object: dualities we can
>
> conceive but not perceive (Barthes 6).

Recent work of my own, called *Helios* and *Versos*, explores lamination, heat and pressure in

addition to light.

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[51]   According to Geoffrey Batchen, Niépce's conceptual dilemma with regards naming his technique is evident in a page from his notebook from 1836 where he toys with several combinations of prefixes and suffixes before settling uneasily with héliographie. Some of these include: "nature, itself, writing, painting, picture, sign, imprint, trace, image, effigy, model, figure, representation, description, portrait, show, representing, showing, true, real" (Batchen, 1980: 64).

[52]   There is a long and interesting history of nature self-printing that has yet to be written. See: Kittler, Friedrich Adolf. *Optische Medien*. Merve, Berlin. 2002.

[53]   I wrote the head curator of the Harry Ransom Center. As of this writing I have yet to receive a reply.

Fig. 34: David Miller, *Helio 1*, 2012
Exposing, undeveloped gelatin silver paper, 10" x 10" (25.4 cm x 25.4cm)

Fig. 35: David Miller, *Helio 2*, 2012
Exposing, undeveloped gelatin silver paper, 10" x 10" (25.4 cm x 25.4cm)

Fig. 36: David Miller, *Helio 3*, 2012
Exposing, undeveloped gelatin silver paper, 10" x 10" (25.4 cm x 25.4cm)

Helios refer to images I make using natural light and light sensitive papers. I do not develop

them.[54] I place light sensitive papers in relation to something specific, beneath books, next to

familiar views. I expose them for extended periods (months) partly to explore the phenomena

of exposure latency and the self-development or growth of the silver compounds.

In *Versos*, I laminate photographic papers to substrates like other sheets of photosensitive

paper or to museum board, metal and so on. I also place things between supports. The two

examples illustrated here show one of a book and a strip of 35mm film negatives.

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[54]   I first made one of these in 1985 and exhibited it that same year in the Ecphore Exhibition, Halifax. I positioned the photographic sheet opposite a room's small window. I left it to expose for the duration of the exhibition. Then, I put it away (forever) to protect it from additional exposure to light.

Fig. 37: David Miller, *Death of a Salesman*, (from the series *Versos*), 2012
Exposing, undeveloped, gelatin silver paper, heat-mounted to museum board, book, 9" x 13" x .75" (22.86 x 33.02cm x 1.905cm)
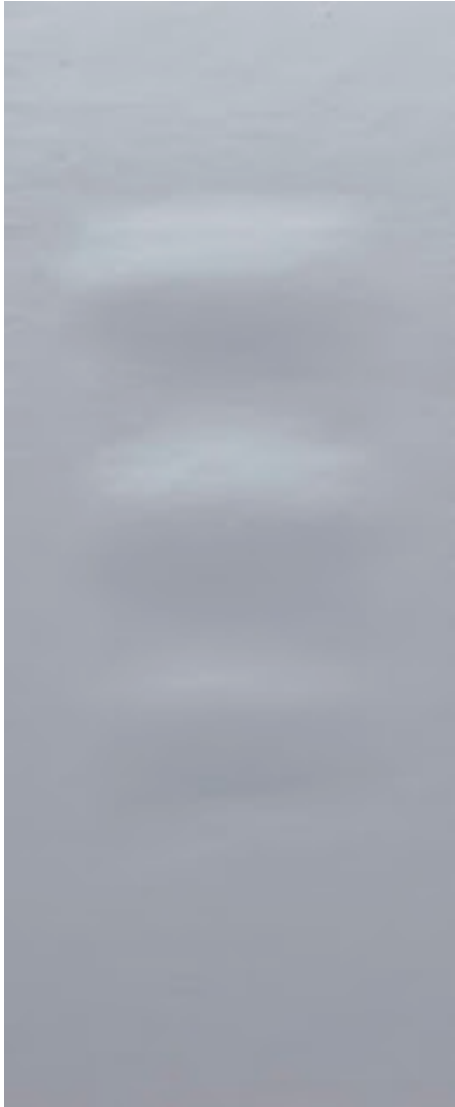
Fig. 38: David Miller, *Three Negatives,* (from the series *Versos*), 2012
Exposing, undeveloped, gelatin silver paper, heat-mounted to museum board, 9" x 4" (23cm x 10cm)

In his essay, "Photography and Abstraction", from 2008, George Baker quotes Oliver Wendell

Holmes writing on photography in 1859:

> Form is henceforth divorced from matter. In fact matter as a visible object is of
>
> no great use any longer, except as the mould on which form is shaped. Give us

a few negatives of a thing worth seeing, taken from different points of view, and

that is all we want of it (Baker, Words Without Pictures 358).

Death of a Salesman and *Three Negatives*, seen above, are engaged with matter, with light and with the imperceptible—or, the invisible—*reason* that marks their irregular surfaces as objects and as images.[55]

Shadows

Jacques Derrida rejected the idea that an immutable, stable core of meaning exists within texts. By examining inscriptions, and by translating and re-inscribing them into new texts, Derrida revealed structures of difference that form inside language and around texts. Like a sound wave that reverberates, oscillates between one term and another, between one binary relation and its opposing counterpart, Derrida reads in photography (photo-graphy), the writing-of-light, a potential for a complex phenomenology of perception. He discusses this in, *Copy, Archive, Signature,* by way of recalling the legend of Dibutade, who in flickering candlelight, observes then draws the outline of her departing lover's shadow on the wall:

What I attempted to say about this a long time ago, about writing, also

concerned photography. Retrospectively, looking into this techno-historical

---

[55]   My cameraless pictures, explorations of light and photographic materials, may be linked to the recent upsurge in abstract photography and to the work of Wolfgang Tillmans, James Welling, Walead Beshty, Marco Breuer and Uta Barth among others. See: Eichler, Dominic. *Wolfgang Tillmans: Abstract Pictures.* Hatje Cantz, 2011*.* (Eichler 2011*).* For an overview of primarily USA based artists working with "antiquated" photographic processes and with abstraction, see Lyle Rexer's books, *Photography's Antiquarian Avant-Garde: The New Wave in Old Processes,* (Rexer, 2002) and *The Edge of Vision: The Rise of Abstraction in Photography,* (Rexer, 2009).

rearview mirror, we would therefore have to recomplicate the analysis or

description of what was supposed to have preceded technology or what is

called photographic technology. We would have to go back along this path all

the way to Platonic *skiagraphia*, and to all shadow writing—before the modern

technology summarily named "photography". What is described as a play of

shadow and light is already a form of writing (…) with this difference in terms of

naturality, namely, the shadow in light, the white-black, appears thus as the first

technical possibility in perception itself. The difference in *light…* (Derrida 15).

For Derrida, images written by light are also images written by the absence of light—by

shadows. This interplay between a subject's shimmering presence in light and the subject's

opposite and contrasting relation as a dark absence of light, forms two poles around which the

photograph is thought to contain and yield its inscriptions. What is literally inscribed (light and

shadow) supports what the photograph metaphorically transmits. What a photograph depicts

and what it represents depends on a dialectical interplay of signification. Without elaborating

on the complex semiotic nature of a photograph, it is important to note that a photograph,

unlike written or spoken language, and unlike a painting or a drawing, is "a message without a

code". In "The Photographic Message" (1961), Roland Barthes writes:

Certainly the image is not the reality but at least it is the perfect analogon and it

is exactly this analogical perfection which, to common sense, defines the

photograph. Thus can be seen the special status of the photographic image: it is

a message without a code; from which proposition an important corollary must

immediately be drawn: the photographic message is a continuous message

(Barthes 196).

As a sign, the photograph joins the signifier with the signified in a direct ("perfectly" analogical, indexical) relation. As a lamination joins two formerly discreet entities, the subject and object "adhere" inside the photographic image (Barthes 6).

> The photographic paradox can then be seen as the co-existence of two messages, the one without a code (the photographic analogue), the other with a code (the "art", or treatment, or the "writing", or the rhetoric, of the photograph); structurally, the paradox is clearly not the collusion of a denoted message and a connoted message (which is the—probably inevitable—status of all the forms of mass communication), it is that here the connoted (or coded) message develops on the basis of a message *without a code* (Barthes 199).

The analogue photograph is a continuous message. As I understand Barthes, by "continuous" he means contiguous. Embedded inside the photographic sign are both the signifier and the signified, subject and object. Further, as a message without a code, the photograph is, according to Barthes, pure denotation. However, the way a photograph conveys meaning is through a paradoxical transaction between an object without a code (the photograph) and a message with a code (connotation). This direct indexical relation between the subject and the object, between Barthes' message without a code (the photograph) and its analogue in the photograph's subject is depicted as both denotation and connotation. These two semiotic poles attract and resist each other. Between the metaphoric connotation and its literal denotation lies inscription—the intractable relation between the referent (the thing depicted) and its representation.

Skiagraphy, the writing of shadows, joins its counterpart, the writing of light in photography. Presence and absence are joined in photographs, especially in photograms. By understanding one thing through the terms of something else—the writing of light through the writing of shadows—oppositional structures inside of language begin to crack open and reveal intermediary terms that remain fluid and open to reinterpretation.

The uncertainty as to whether photography is nature or culture, light or shadow, presence or absence or a hybridity of all these relations points productively to an expansive identity for photography. This is the sense of the photographic I see. A necessary though paradoxical interplay between related linguistic oppositions that characterize photography today as much as it did in its nascent, early stages. Derrida again:

> The light of photography remains proper to the image. Photographic light is not "realistic" or "natural." It is not artificial either. Rather, this light is the very imagination of the image, its own thought. It does not emanate from one single source, but from two different, dual ones: the object and the gaze (Derrida 5).

In his book, "Words of Light: Theses on the Philosophy of History," the American critical thinker, Eduardo Cadava claims "that there has never been a time without the photograph, without the residue and writing of light" (Cadava 5). Cadava, in a remarkable metaphorical leap, establishes the genesis of the photographic image within the Judeo-Christian creation myth; he links the historicity of photography to the beginning of time, its teleology to the sun, by aligning history, writing and light with the Bible, by summoning the passage from the third verse in "The

Book of Genesis" (1:3), where on the third day, God said, "let there be light". Some pertinent

extracts from Cadava's theses called "Heliotropism":[56]

> If in the beginning we find the Word, this Word has always been a Word of light,
>
> the "let there be light" without which there would be no history. In the ancient
>
> correspondence between photography and philosophy, the photograph, relayed
>
> by a trope of light, becomes a figure of knowledge as well as of nature, *a solar*
>
> *language* of cognition that gives the mind and the senses access to the invisible.
>
> The first days of creation bring to light a universe of photons whose
>
> transmissions within time require the photographic fix (Cadava 5, my emphasis).

Conclusion

In this thesis, I have examined the concept of the photographic in relation to the

unrepresentable. I have tried to show how the camera obscura and its light-bearing images

have contributed to a rupture. This rupture can be understood on the level of experience and

resides inside language and even inside the name Photography.

Michael Foucault, Giorgio Agamben and Vilém Flusser link photography to broader cultural

formations that have been theorized and described as apparatuses. Apparatuses are

heterogeneous fields or sets that include institutions, discourses, buildings and cameras,

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[56]   Heliotropic is a conjunction between the Greek word 'helios' (sun) and 'tropic' (to turn; to be affected by). Heliotropism is a diurnal motion (a happening during daylight) of a plant or something else in relation to the sun. This is closely related to 'phototropism', referring to growth towards or in relation to the sun.

philosophical propositions, laws and so on. The apparatus itself is the organizing structure that is established between these elements. As such, apparatuses appear at the intersection of power relations and relations of knowledge. Photography participates in both these relations and in virtually every sphere of human activity. Photography's apparatuses consist in tools and techniques, but also in discourses and a dazzling array of visual practices.

As technical images, photographs are linked to abstraction. Flusser describes photographs as third-order abstractions: inscriptions predicated upon existing inscriptions—by a factor of three. The abstract character of the photograph is partly due to its windowpane-like transparency, its invisibility—to what the photograph denotes (what it points towards; its referential value). Abstraction in the photograph also occurs as a result of what the photograph connotes—what it represents beyond its referent.

Photographs re-figure lived time as duration, as discrete, measurable moments and locatable spaces. This rupturing of what I experience as continuity, as a flow may be illusionary. But its effects are felt and may be visualized though only partially represented in the correspondence between optical, perspectival space and abstraction. Lived duration is a part of an unrepresented whole. Open and changing, the complex relations between the past, present and future, are not fixed. Illusory temporalities and spatial proximities may, however, be produced and suspended, albeit momentarily.

Time and space appear and seem to reside within the flat surface of the photograph. Temporal and spatial effects in photographic media collapse upon and are embedded inside a two dimensional plane. Regardless of the sign's recalcitrance, the surface of a photographic image presents a window onto an illusionary space. In this way, the image is presented within itself,

which is to say that the image resides somewhere, in its own space, apart from and outside the

observing viewer's subjectivity. The encountering of a photographic image, whether it moves

or does not move, forms a perceptual bond between what is brought to the viewer's senses by

the image and, conversely, what the viewer's perceptual senses bring to bare upon the image.

If we consider this formation as a two-fold projection, where the observer and the observed

enter into a phenomenal contract with each other, where what is beholden by the viewer is in

fact a double or reciprocated image, part of which is seen and part of which is not seen—but

may well be comprehended—we may begin to understand the nature of technical images.

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Appendix: Visual Documentation of Artwork

Visual documentation of my artwork exhibited in July 2012 at the Charles H. Scott Gallery, Vancouver, in the context of the inaugural Low Residency MAA thesis exhibition +*Here* was submitted on a CD.

Title of work and Caption

Exits (Gas Chamber and Crematorium 1, Auschwitz, August 24, 2010), 2010-12

LightJet print mounted on aluminum, 16" x 24' (40.64cm x 731.52cm)