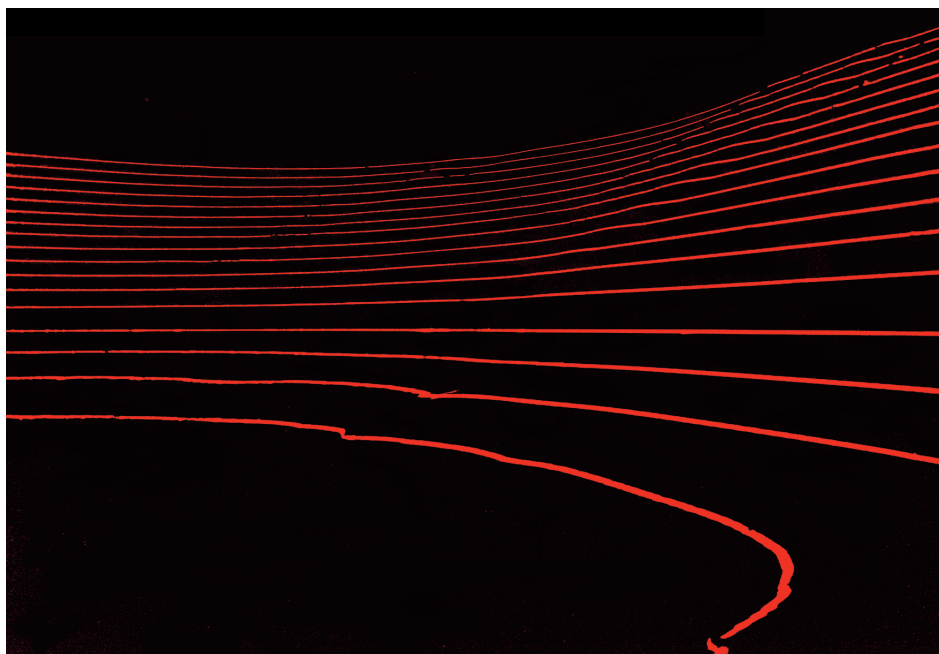


Preface to *Earth as Light*. This text runs parallel to my photographic exhibition entitled *Earth as Light* which was held at the Cullity Gallery, University of Western Australia in September 2000 and at UNESCO's *Man and the Biosphere Programme* headquarters in Paris in July 2001. *Earth as Light* was conceived within the first six months of my PhD candidature and was inspired by writings on 'lightness' by John Rajchman;¹ 'duration' by Paul Virilio;² and 'landscape representation' by James Corner.³ The block quotes that are dispersed within were projected as textual cues at the first exhibition. *Earth as Light* is not a developed argument or foothold, but rather a series of suggestive thoughts and images that are intended to provide a background 'hum' to this thesis.

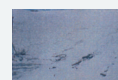
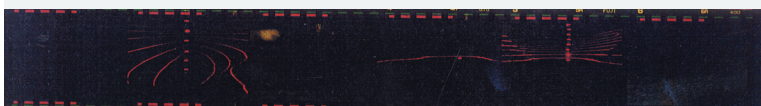


blowout as light with haakon in september

Were it not for light's straightness,
our vision would be muffled, smeared and stunted.
This is a fact of sight, the miracle of which,
in all its expansive plenitude,
depends on the unswerving uniformity
of light's propagation.

Light is, after all, the ultimate geometric instrument.

Robin Evans *The Projective Cast* (1995)



Blowout as Light with Haakon

earth as light

This exhibition investigates the notion of *lightness of earth*: an attempt to lighten our conceptions of the earth through mapping and imaging with light-based mediums. 'Lightness' immediately infers two simple oppositions: the first is the conception which is most familiar to us: *lightness* >< *heaviness*, which implies weight, gravity, and groundedness. The second opposition is less obvious, yet more fecund: *lightness* >< *darkness*.⁴ *Earth as Light* explores this double connotation of 'light'. It sidesteps current perceptions of the earth as heavy, and presents light-based representation as a means by which the earth might be revealed as light, animate and generative.

Earth as Light aims to halt further sedimentation of the idea that the earth is fixed, stable and inert. This sedimentation occurs in landscape representation when attempts are made to enliven the earth through the moving image—whether animation techniques such as sped-up satellite imagery or the frame of the car windscreen. Such augmented imaging precipitates the 'degeneration of our vision' because temporality is brought to our perception of earth by merely mobilising the frame through which we view it.

In architecture, much energy is consumed by the technologically savvy avant-garde on attempts to generate so-called 'animate architecture'. Inherent within these pursuits is the conception of the earth itself as a static foil to these free-flowing forms. One commentator on this trend is Michael Sorkin who writes: "If the current architectural avant-garde has a shared obsession, it's with the motility of architecture." Sorkin calls this "[t]he conceit...of frozen motion".⁵ An exemplar of this approach is Greg Lynn, who employs animation and genetic algorithm software to generate what he calls 'animate form'. Lynn writes: "Animation [in architecture] ... implies evolution ... suggests animalism, animism, growth, actuation, vitality and virtuality." Lynn says, "What makes animation so problematic for architects is that they have maintained an ethic of statics in their discipline".⁶

But by opposing the rigid formalism of modernism, the purveyors of animate architecture simply perpetuate the opposition between light-architecture and heavy-earth that modernism established. The path to a light architecture lies instead in re-conceptualising our perceptions of the earth itself.



Figure 1
Dune blowout on Point Henry
35 mm still photograph.

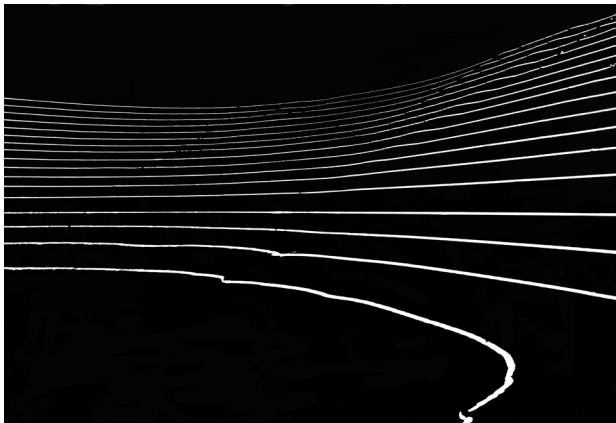


Figure 2
Durational photograph
17 successive exposures of laser light
projected onto the dune surface at night
using a laser leveler and 35 mm SLR
camera. This photograph was taken
from the same position as figure 1.

The question is not 'how do we animate architecture' (or representation for that matter), but 'how do we animate perception?'

*Architects often understand lightness as immateriality.
But can we speak of another kind of lightness
that complicates and displaces this familiar understanding?
Can we talk about a spirit of lightness capable of moving
in even the most "heavy" brute materials and of showing
even the thinnest transparencies to be slow or weighed down?
Can we speak of light materialities and heavy transparencies,
a strange weightlessness of the earth itself??*

John Rajchman

If architecture is to become light then we must first develop a new 'ecology of seeing'⁸—a way of looking that brings forth imaging which is imbued with the earth's own regenerative lightness. After all, *light* is the most fundamental medium through which we represent our understanding of the world as artists and architects: all graphic images represent light; all buildings redistribute light.

A new ecology of seeing can only be developed beyond the conventions of representation. This precondition is acknowledged by James Corner, who writes "...the revitalization of wonderment and poetic value in human relations with nature is... dependent on the ability to strip away the crust of habit and convention that prohibits fresh sight and relationship".⁹

The relationship between representation and our perception of earth is discussed by John Rajchman, who calls upon Martin Heidegger's 1934 essay "The Origin of the work of Art". Heidegger talks of a 'native ground': the ground "on which and in which man bases his dwelling ... We call this ground the earth".¹⁰ Rajchman writes: "According to Heidegger the earth shown in the work of art is shown through a *herstellen* not an *ausstellen*—a setting forth, not a setting up...The earth on which we base our dwelling and from which we come is, as it were, unmovable and 'site-specific'; it has no 'exhibition value'..."¹¹ Meaning that our representations of the earth in which we dwell constitute our act of dwelling: they *are* our earth. These representations are not reflections seen from the 'outside' looking in; they are instead, projections from the 'inside' out. Rajchman concludes: "That is why the Earth matters not only in the origin of the work of art but in the origin of its very concept, and hence in the concept as well as the work of architecture".¹²



Kwongan Lot 103
Stereo photographs

*So the earth must be renamed.
But how did it ever become thought of as so "heavy?"*¹³

John Rajchman

How did the earth ever come to be so inert, so heavy, so hard, so grounded, and so weighed down with *meaning*. Has the earth ever been this heavy?

Certainly some forms of landscape representation are to blame. Landscape calendar photography, for example, tends to fix the gaze, distance the viewer, and frame the view. Much is written on scenic imagery and its (negative) influence on landscape perception. Malcolm Drysdale proclaims that aesthetics and aesthetic perception are part of the problem of environmental degradation.¹⁴ It could then be said that the degeneration of our vision brings into effect the degeneration of the physical environment. Scenographic photography encourages us to think that colour and intensity are *fixed* upon objects. We forget that rays of light actually travel from the object viewed—through space—to our eyes. We see surfaces where we might otherwise see depths. Like Cezanne we might instead perceive how “nature is more depth than surface. Colours are expressions on the surface of this depth; they rise up from the roots of the world”.¹⁵

*And since all that appears, appears in light –
the visible being merely the reality-effect of the
response of a light emission –
we could say that the formation of a
total image is the result of illumination.*¹⁶

Paul Virilio

The creator of the world’s first photograph—or ‘heliograph’—saw the world not as a fixed surface but “completely bathed in luminous fluid”.¹⁷ Joseph Nicéphore Niépce’s first photosensitive impression, or ‘drawing of the sun’ as he called it, depicts a barely discernable scene from a second storey window.¹⁸ For Paul Virilio the important characteristic of Niépce’s heliograph, which was created from an eight-hour exposure, lays not in what it depicts but its *luminance*. Virilio describes this metallic plate as a “conduction surface of a luminous intensity”. “The main aim of the heliographic plate”, he writes, “is not to reveal the assembled bodies so much as to let itself be ‘impressed’, to capture signals transmitted by the alternation of light and shade, day and night, good weather and bad ...”¹⁹



For the earth is heavy,
But to fly is not to remain above
this heaviness or gravity,
as though we were to live in
houses on stilts.

It is to know how to
lighten the earth itself,
as though we were to
insert oneself into it
like a surfer in a wave.

John Rajchman Constructions (1998)



Pinnacles as Light with Matthew

Virilio writes on the influence of the camera upon human perception. The Renaissance *camera obscura* which only saw from a fixed point of view possibly changed forever our relationship to what was now an external world. We now perceive ourselves separate to a schema which is visually projected *onto* us, rather than as being part of a continuum of dynamic events.²⁰

Eduard Muybridge's stills of frozen motion led to the invention of the moving image, but Auguste Rodin argued that they merely depict the "bizarre look of a man suddenly struck with paralysis". Rodin believed that "It is art that tells the truth and photography that lies. For in reality time does not stand still".²¹ Muybridge apprehended motion by dissecting time, but what Rodin was alluding to was that reality is perceived through *duration*. Duration is an expression of temporality—something happening *through* time—not frozen moments, *in* time.

Michael Snow's 'landscape film' *La Région Centrale* (1971) returns our awareness to the origins of vision.²² Snow mounted a 16 mm camera on a multi-axis gyroscope and installed the assembly on a remote mountain peak in Quebec. By controlling the movement of the gyroscopic camera remotely, Snow captured a distinctly non-anthropocentric recording of the mountain landscape. Snow's camera filmed from every possible angle, all visible things within the sphere of its vision (except for the camera's own central location). To the viewer—a shortened version of the film goes for three hours—the landscape appears in inverted sweeps, vertical pans and spinning rotaries, rarely does one see a conventional horizontal pan. By releasing gravity from vision, Snow's camera records only light. It becomes a mechanical vacuum drawing in light as pure photons. Snow's contribution is to reintroduce the significance of the camera and its role as mediator between ourselves and landscape. *La Région Centrale*, Snow explains, gives "the camera an equal role in the film to what is being photographed...The camera is an instrument which has expressive possibilities in itself".²³ With Snow's animate camera, landscape is stripped of its weight and revealed as pure light. Heavy camera, light earth!

*For the earth is heavy...
But to fly is not to remain above this heaviness or gravity,
as though we were to live in houses on stilts.
It is to know how to lighten the earth itself,
as though we were to insert oneself
into it like a surfer in a wave.*²⁴

John Rajchman



Figure 3
Tourist snapshot of the Pinnacles Desert,
Western Australia.

earth as light : works

Two photographic techniques are employed in *Earth as Light*: durational photography,²⁵ and stereo photogrammetry. All the images were ‘recorded’ with conventional 35 mm SLR cameras. Rather than freeze time through split-second snapshots, durational photographs—with exposures ranging from 1/2 second to 2 hours—receive light over time. They are temporal registrations, sitting on a speed somewhere between the frozen ‘still’ and the cinematic series.

Blowout as Light with Haakon is a durational photograph which records my projection of light onto the surface of a dune blowout on Point Henry. The light originated from an industrial laser leveling device, which, over a two-hour period, was raised seventeen times by an interval of 200 mm. A three-dimensional topography (with 200 mm vertical intervals) is revealed only when the two-hour single frame exposure is developed. Figure 1 is a photograph taken of the dune during the day from the same location with the same camera,

*Were it not for light's straightness,
our vision would be muffled, smeared, and stunted.
This is a fact of sight, the miracle of which,
in all its expansive plenitude,
depends on the unswerving uniformity of light's propagation.
Light is, after all, the ultimate geometric instrument ...*²⁶

Robin Evans

Pinnacles as light with Matthew is another durational photograph, here recorded in the Pinnacles Desert north of Perth. Figure 3 is a typical scenographic image of the Pinnacles Desert.

Kwongan Lot 103 is a stereo photograph taken with dual 35 mm cameras. This technique is employed for two reasons: First, it creates a ‘reality effect’, wherein the viewer is brought into closer perceptual relationship with the original subject. That is, the viewer perceives the actual three-dimensional depth of the original recorded scene. Second, stereo photogrammetry—in this case terrestrial rather than aerial as it is usually employed—is a cartographic



Pinnacles as Light 1
Stereo, durational photographs

technique which enables three-dimensional space to be measured and mapped. It is technically possible to extract measurements and produce contour maps from these terrestrial images using the same cartographic method applied to stereo aerial photographs.

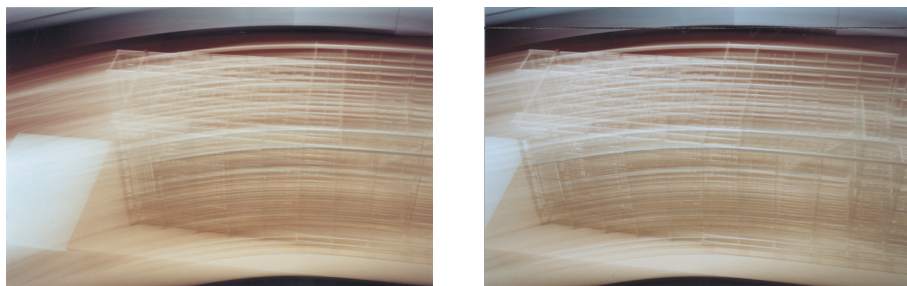
The *Pinnacles as Light* series (1 to 3) was achieved by combining the two techniques: In these *stereo-durational photographs* a new form of image results which appears to rest somewhere between always-dynamic human perception and static mechanical production. The paired images when viewed under a stereoscope reveal a volumetric 'cloud of photons' rather than a flattened surface skin. The outcome is not so much an objectified optic space, but rather a haptic, atmospheric space wherein *light* itself is perceived as the instrument through which the image is realised. The images do not animate the earth simply by moving the camera. Instead the movement of the camera has recorded the durational movement of photons, within space—over time.

The need for an apparatus to view these images leads the viewer to question how they were created. They become aware of the process of the image's making which involves not only the dual 35 mm cameras that recorded the image or the stereoscope which combines them, but their own faculties of stereoscopic vision and cognition. Rather than the passive viewing which typifies the manner in which scenic landscape photographs are viewed, the image here, like Snow's film, must be constructed through effort on the part of the viewer.

Earth as Light.



Pinnacles as Light 2
Stereo, durational photographs



Structure as Light 1
Stereo, durational photographs



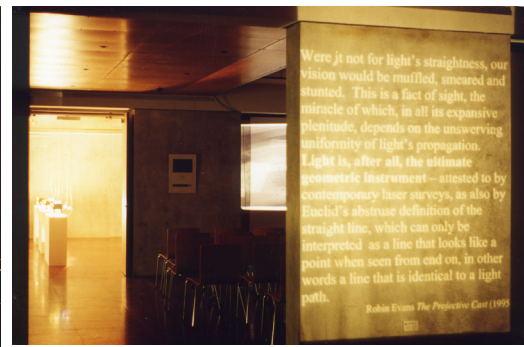
Pinnacles as Light 3
Stereo, durational photographs



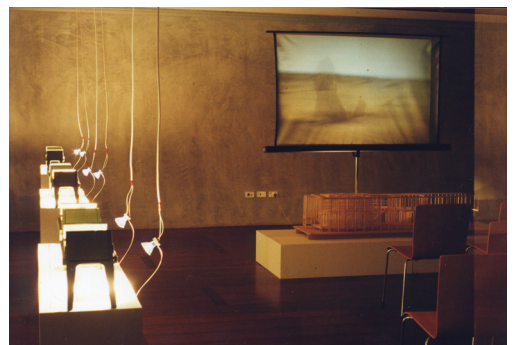
Notes

- ¹ J Rajchman, *Constructions*, MIT Press, Cambridge, Mass., 1998.
- ² P Virilio, *The vision machine*, trans. J Rose, British Film Institute, Indiana University Press, London; Bloomington, Ind, 1994.
- ³ J Corner, 'Ecology and landscape as agents of creativity' in G Thompson & F Steiner (eds), *Ecological design and planning*, John Wiley & Sons, New York, 1997; 'A Discourse in theory I: sounding the depths—origins, theory, and representation', *Landscape Journal*, Vol. 9, no. 2, 1990, pp. 60-78; 'Eidetic operations in new landscapes' in J Corner (ed), *Recovering landscape*, Princeton Architectural Press, New York, 1999.
- ⁴ For example, the theme of the 2001 *Doors of Perception* conference in Amsterdam was 'Lightness' yet the focus was solely upon light's opposition to 'weight'. Light in the context of illumination was not addressed.
- ⁵ M Sorkin, 'Frozen Motion', in M Friedman (ed), *Gehry talks: architecture and process*, Rizzoli, New York, 1999. p. 32.
- ⁶ G Lynn, *Animate form*, Princeton Architectural Press, New York, 1999, p. 9.
- ⁷ Rajchman, p. 49.
- ⁸ The term 'new ecology of seeing' courtesy of Grant Revell, University of Western Australia.
- ⁹ J Corner, 'Ecology and landscape as agents of creativity', in GF Thomson & FR Steiner (eds), *Ecological design and planning*, John Wiley & Sons, New York, 1997, p. 98.
- ¹⁰ M Heidegger, 'The origin of the work of art', in *Poetry, language and thought*, Harper & Row, New York, 1971, p. 42.
- ¹¹ Rajchman, p. 44.
- ¹² Rajchman, pp. 44-45.
- ¹³ Rajchman, p. 48.
- ¹⁴ M Drysdale, 'Green pornography' in (ed), J Lee, *Cappuccino Papers No. 1*, Imagine the Future (forum transcripts), Arena Publications, Melbourne, 1995, p. 5.
- ¹⁵ W Haftmann, *Painting in the twentieth century*, Percy Lund, Humphries & Company Ltd, London 1960, p. 34.
- ¹⁶ Virilio, p. 33.
- ¹⁷ Virilio, p. 20.

- 18 *View from the window at Le Gras*, 1826, by Joseph Nicéphore Niépce, held at the Harry Ransom Humanities Research Centre, University of Texas.
- 19 Virilio, p. 19.
- 20 Virilio
- 21 Conversations between Rodin and the sculptor Paul Gsell from: P Gsell, *Auguste Rodin. L'Art: Entretiens réunis par Gsell*, Grasset/Faquelle, Paris, 1911, cited in P Virilio, *The vision machine*, Indiana University Press, Bloomington, 1994, pp. 1-2.
- 22 M Snow, *La Région Centrale*, Canada, 180 mins, 16mm, c1970.
- 23 M Snow, *The collected writings of Michael Snow*, Wilfrid Laurier University Press, Waterloo (Can.), 1994, p. 53.
- 24 Rajchman, p. 47.
- 25 Futurist photographers called this technique 'photodynamism'.
- 26 R Evans, *The projective cast*, MIT Press, Massachusetts Institute of Technology, 1995, p. 108.

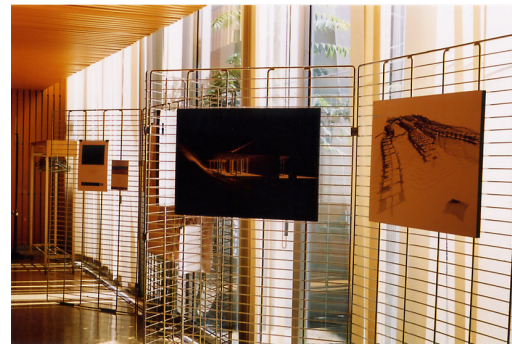


Earth as Light exhibition.
Cullity Gallery, University of Western Australia, August 2000





Earth as Light exhibition.
Cullity Gallery, University of Western Australia, August 2000



Earth as Light exhibition.
United Nations Educational, Scientific and Cultural Organisation
Paris, June 2001.

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