

NIGHT MOVES: A MISE-EN-SCÈNE OF A LUMINOUS ECONOMY

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10th August 2020

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ABSTRACT

Since the general electrification of ambient urban lighting in the late nineteenth century, complex arrangements of functional and aesthetic lighting have become increasingly deployed to intensify the capitalization of the city at night. Contemporary solid-state lighting integrated with networked control systems means that scenic effects once contained within theatrical and cinematic production, have infiltrated the built spaces that we occupy. As digital imaging technologies converge with the built environment, the city at night can be considered as a moving image. This research considers the implications of the nocturnal city when it is understood as a manufactured atmosphere, where the distinctions between media interfaces and the construction of urban space are no longer distinguishable as distinct zones of experience.

By employing Bertolt Brecht's and Antonin Artaud's concepts of a *mise-en-scène* of light as a critical and transformational tool, the thesis develops connections between current theories of atmosphere and post-cinematic urbanism. The thesis proposes a practice-based analytical and critical *mise-en-scène* that draws on embodied empirical methods for creating lens, light and sound-based artworks within installation art and the urban environment.

This research explores the effects of light and digital projection on urban subjectivity and its representations. Recent formulations of atmosphere in Gernot Böhme's phenomenological conception of *architectural atmospheres* and Andreas Philippopoulos-Mihalopoulos' theorisation of *lawscape* are integrated into a broader corpus of analysis and theory through empirical, theoretical and historical modes of enquiry.

Together, the written thesis and body of practice provide the framework *phototropia*. This aims to establish a transversal platform for critical thought and practice from which to think and remake the city at night. From the perspective of a material practice this method offers ways of understanding the changing relations between imaging technologies and contemporary urban subjectivity.

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Omitted images to comply with copyright legislation.

Figures: 2, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 23, 25, 26 & 27

ACCOMPANYING MATERIAL

All artworks are included on the USB drive submitted with this thesis. For the video elements I would request that you watch the material in full screen mode. Note that most of the video works, when presented in exhibition, require specialist hardware/software combinations. For the purposes of this submission I have re-rendered them to a more common format, the image quality of the work is degraded by this process.

Infinite duration means that the artwork is created through live rendering, my production algorithms phase-shift the archival material (appropriated or recorded). This means that once started, the initial conditions of the installation will not repeat. Instead, they pulse and layer in unexpected ways. The development of these elements of the practice is akin to tuning the parameters in order to establish a particular intensity in the work. To submit this material, I have run the artworks in a simulation space and recorded the virtual live stream. Unless the sound element of the artwork can be gleaned from a stereo sound space, I have omitted it from this submission. Project documentation is provided in PDF format.

GOLDEN HOUR

Artwork 1 2013-2019, Kingston-Upon-Hull. Project documentation summary.

TEMPORARY LIGHT WORKS

Artwork 2 *Lure*, 2014. Are You OK? Group Show. London.

Artwork 3 *Return*, 2014. Cheriton Light Festival, Kent. Project documentation.

Artwork 4 *Pilgrim*, 2019. Selby 950. Selby, North Yorkshire. Preliminary notations for a major architectural video projection with sound.

EXEMPLAR LIVE FEED VIDEO INSTALLATIONS

Artwork 5 *Veill*, 2016 to present, Chelmsford, Essex. Project description;

Artwork 6 *untitled*, 2014 to present. Studio studies, live feed video capture, digital projection, HD video capture and screens;

- Artwork 7 *Gypsy Version III*, 2016. Video wall installation with live video feedback (configuration varies).¹
- Artwork 8 *Bridge Road*, 2016. Site specific video wall installation with live video feedback.

WORKS FOR SCREENS AND PROJECTION

- Artwork 9 *Gypsy Version II*, 2016. 3x1 screen video wall installation with six channel sound space (stereo compression);²
- Artwork 10 *Killer*, 2016. 3x3 video wall installation, silent, infinite duration (configuration varies);³
- Artwork 11 *untitled*, (gyro), 2016. Single channel video, infinite duration;
- Artwork 12 *Suspended*, 2017. 2x1 video wall installation with six channel sound space, infinite loop (stereo version for this submission). Included in the inaugural Karachi Biennial, 2017.⁴
- Artwork 13 *Power of Attorney*, 2017. Video projection installation with multi-channel sound space, infinite duration (configuration varies);⁵
- Artwork 14 *Black and White Movie*, 2018. 3x4 video wall installation with sixteen-channel sound space. infinite duration (configuration varies);⁶
- Artwork 15 *Urlicht*, 2018. Single channel 4k Video with stereo sound.⁷

¹ Performance from: Mervyn LeRoy, *Gypsy* (Warner Bros., 1962).

² LeRoy.

³ Brain washing sequence from: Vincenzo Natali, *Cypher* (Pandora Cinema, 2002).

⁴ Sound space extract: John Barry, *The Ipccress File (The Original Soundtrack): Alone Blues* (The Rank Organisation, 1965).

⁵ Department of Health, 'Mental Health Act 1983: Chapter 13' (TSO, 2015); Paul Boyer et al., eds., 'Transcription of the Court Records (Salem Witch Trials)' (University of Virginia, 1977), <http://salem.lib.virginia.edu/home.html>; Frank Luttmer, 'The Examination and Confession of Certain Witches at Chelmsford in the County of Essex, before the Queen Majesty's Judges, the 26th Day of July Anno 1566', Chelmsford Witches, accessed 15 May 2017, <http://www.witchtrials.co.uk/exam.html>.

⁶ Night scenes: Leni Riefenstahl, *The Triumph of the Will* (Leni Riefenstahl-Produktion, 1935).

⁷ Music: Gilbert Kaplan, *Mahler Symphony 2 In C Minor: Urlicht* (Deutsche Grammophon, 2003); Sam Mendes, *Skyfall* (20th Century Fox, 2012).

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INTRODUCTION

Lights, Lighting: The lighting equipment now in use in theatres is no longer adequate. The particular action of light upon the mind, the effects of all kinds of luminous vibration must be investigated, along with new ways of spreading the light in waves, in sheets, in fusillades of fiery arrows. The colour gamut of the equipment now in use is to be revised from beginning to end. In order to produce the qualities of particular musical tones, light must recover an element of thinness, density, and opaqueness, with a view to producing the sensations of heat, cold, anger, fear, etc.¹

¹ Antonin Artaud, *The Theatre and Its Double* (New York: Grove Press, 1958), p. 95.

In November 2013 I was approached by URS Infrastructure & Environment Limited to join a multidisciplinary team bid to create a public realm vision and strategy for the city of Kingston-Upon-Hull. My role was to consider a vision for lighting and connect it to an emerging public art strategy, led by curator Andrew Knight. This invitation coincided with the initial stages of this research project. After successfully winning the bid and proposing a vision for lighting, titled *Golden Hour*, I was invited back by the city to join a new design team and tasked with turning the vision into a reality. I was subsequently commissioned to deliver the bespoke elements of the project, coordinate the programming relationships between the ambient and dynamic lighting and extend the project beyond the scope of the *Public Realm Improvements* contract area. This city scale light work will be the result of my vision for a connected lighting infrastructure that enables ambient, accent and architectural lighting to perform in much the same way as a contemporary theatre or cinematic sound stage. Throughout the project I have engaged with many of the political, technical and cultural institutions that constitute Hull's public sector.

Turning a light on in a city is complicated. First it has to be made, then placed, connected, tested, certified and finally energised. Subsequently the light needs to be kept clean and operational. Manufacturing, testing and certification are technical. Placement, political. Energisation a spatial cultural practice. Finally, maintenance is a general phase of the light's absorption into infrastructure.

When perched high on buildings or securely tied to cranes I view of cities from the position of a maintenance engineer (Fig. 1). This is a privileged view, or at least an unusual one. In order to realize art works that occupy urban space these positions provide a platform from which light projection can make images. Production instruments mark my line of sight, the lines between the sources of light and their objects. The radiant moments produced are judgements that I make, predicated on the geometries generated through the contingencies of a spatial pragmatics, what can be done, and the imaginative movement from high

up, the image seen from the point of view of the source, to the image seen from the ground. To make the work is to fold these image spaces together.

The individual elements which form the composition and potential meanings of the city are not homogenous, neither do they arrive in space at the same time. Cities are compiled in layers of time and material. Instances of image making in the city are unable to hide production equipment out of shot in the convenient space of a cinematic sound stage or the fly tower of the Opera House. Instead, framing is constructed spatially, the production equipment de-emphasised with techniques of distraction and camouflage. And, if all else fails, just leave the apparatus in plain sight as it is normally overlooked, remaining presently unobserved.

This research project and written thesis is neither a report on *Golden Hour* nor does it provide evidentiary materials that contribute to 'best practice' methodologies for urban lighting. Instead, this singular lighting project supports a body of speculative heuristic light, video and sonic art practice interlaced with theoretical and historical research. The transversal method I deploy both in writing and practice intends to extend the reach of a *post-cinematic* conception of urbanism through different engagements with the material city at night. I have pursued the research in this way because it closely parallels the processes through which I make artworks, each moment of practice is a movement across diverse aesthetic, technical and conceptual strategies that are brought into alignment by the contingencies of working in a place, usually at night.

Over the six-year duration of this research project new literature on urban lighting, theories of atmosphere and the cinematic dimensions of architecture have inflected and informed this thesis. It is not the current of contemporary theory that has pulled this project along in its wake, rather it is the city and my evolving relationship to it. As China Miéville writes at the opening of his

ambitious urban fantasy *Perdido Street Station*, “it is not the current which pulls us but the city itself, its weight sucks us in.”²

MISE-EN-SCÈNE: A TRANSVERSAL METHOD

Mise-en-scène is generally understood to be the interpretation of theatrical and cinematic style through the analysis of a scene’s contents and its framing.³ In cinematic analysis less attention is brought to bear on what is excluded from the frame, out of shot in the space of the sound stage, it would serve no purpose as it remains outside of the sensible. As an analytic tool it can help us to see beyond the narrative and through the sensually affective forces embedded in the image, to see how it is fabricated, which mechanisms are working and to what ends. The value of a mise-en-scène is that it can include all production items: sets, lighting, framing, actors, the script.

The analytical movement from stage and screen to public space is as fluid as turning one’s head away from the action on stage, standing up and walking into the street whilst continuing, in my case, to hold the same question in mind; how is this image I inhabit controlling me? In the ‘sublime liquidity’ of Nick Dunn’s ‘inscriptive [walking] practice’⁴ we might rediscover a nocturnal city where images constantly condense into solid metaphors.⁵ Dunn completes his *Manifesto for the Nocturnal City* with a simple instruction, “go and be.” As a practitioner I cannot simply ‘be’ in the city at night. Dunn’s mode of walking as inscriptive practice is taken from the subject position of one who arrives in light, not the one who makes the light that the subject arrives in. But I too am the subject who arrives, sometimes in the light that I have made. Dunn is able to encounter a ‘sublime liquidity’ where his body and thoughts are free to engage with the

² China Miéville, *Perdido Street Station* (London: Pan Books, 2000), p.2.

³ John Gibbs, *Mise-En-Scène* (London: Short Cuts, 2002).

⁴ Nick Dunn, *Dark Matters: A Manifesto for the Nocturnal City* (London: Zero Books, 2016), p. 11.

⁵ Joachim Schlör, *Nights in the Big City* (London: Reaktion, 1998).

nocturnal city as a stage for an “imagination to be constructed with each step.”⁶ The city is also commodity that, as Jacques Rancière points out, parcels out the “visible and the invisible.”⁷ Even within the anonymity of the suburban street scene, homes are rendered in the soft rhythm of streetlights, stability is assured through maintainability. My practice produces, intercedes in and problematises these urban objects.

The practice submission is also a mode of writing. Making is the rendering of momentary coagulations of thought and possibility, matter and material, body and space. It is worked through in a different manner to a text and calls upon its own logics and techniques. Its thrust is intuitive and brings together materials with contingent effects. For example, in this project the shadow of Nuremburg splits into two moments of writing, one in this text the other placed within a speculative morphology of a studio-based video installation (see; Artwork 14). One rend in the archival materials enables at least two renderings, two re-appropriations.

Turning a light on in the studio is also complicated. I can dial up the affective power of the phenomenal tools at my disposal without the necessary recourse to risk mitigation and the ethical dilemmas of engaging with an unwilling accidental audience. This is a disciplined encounter. It opens up a space within which the occluded devices of sensory control can have another life. In the studio the distinctions between light, sound and video become less important because in the making of a work another is suggested, there is no privileging of material or form, simply a chain of ideas that occasionally become distilled as an artwork that can be experienced by an audience. The audience remains present as a potentiality, rather than as the inevitability of a public work, its presence deferred until the material demands testing.

⁶ Dunn, *Dark Matters: A Manifesto for the Nocturnal City.*, pp. 98-99.

⁷ Jacques Rancière, *The Politics of Aesthetics: The Distribution of the Sensible* (London: Continuum, 2004), p. 19.

Filming in the city at night creates a more fluid relationship with the city. I appropriate the images it produces. For my practice appropriating the city as a found film set is not about documentation. I seek out spaces that, like the fragments I take from films can be put to new kinds of work. In a simple way the practice element of this thesis are all appropriations; film archival material, court transcripts, lighting technologies, music, sound files, camera technologies, software, even the spaces of exhibition. Other than the lighting systems which I do make, each installation, sound or video work takes something from the urban milieu and processes it through the cinematic machines that I assemble in the city and the studio.

Material and techniques converge in digital space. Although screened or spatialised in practice, sound, light and video production are unified through digitisation. The lamps I use in the lights that I make are equivalents to the pixel in video and can be driven by the same programs that coalesce video and sound. In homogenising the outputs of emergent control systems, the spatialization of practice can become a live production, repeatable only in so far as the initial conditions can be renewed. Sound is a product of light, light is a product of image, image the product of sound. The intensity of a work is contingent upon the context of the production - the time of the screen, the time of a gallery, the time of a city at night.

The common factor in all of these works is an initial darkness that enables a rendering, the making of form, communicating in a syntax that starts in the binary of the diode and moves into the meshing of appropriated film material with live video production in a full 24^{BIT} video/sound space, 2^1 to 2^{24} : on/off to an expansive possibility. The first cut is that to black, an absence that is already full. Through Sean Cubitt's research in *The Practice of Light* we are encouraged to think of a black that is always more than simply the total absorption of light, a substance without reflective properties, a black hole, a vortex.⁸ Cubitt asks that

⁸ Sean Cubitt, *The Practice of Light* (London: The MIT Press, 2014), pp. 21-44

we understand black as always layered with meaning, full of texts and material gestures that come forward towards us in space. In light, optical illusion virtualises black into a surface that is read through the relative and the retinal of perceivable contrast ratio. Electronic screen-based representations of black, moving images of darkness, are always relational as dark screens continue to illuminate space.

A transversal movement across spaces of theory and practice is a co-productive movement, a technique of manipulating levers, a material method. This research project is a *mise-en-scène* of the nocturnal city understood as a great churning machine in which human subjects, architectures, digital projection and artificial light fold into moving images. A city where distinctions between subjects and objects, bodies and spaces become internalised and eternalised through phenomena grounded in image making. At night the city is torn out of trivial appearance and made into phantasmagoric objects that are experienced in atmospheres.

This research clarifies and offers an interpretation of nocturnal practices that take a literal, rather than literary, mode of atmospheric inscription. It would seem that at the centre of this matter is the operation of writing with light. The project explores through writing with light if a *mise-en-scène* can open up the relationships between urban atmospheric engineering and the preparation for a withdrawal from the spaces that it produces. I characterise the production of nocturnal atmospheres as a cinematic machine. The preparation of withdrawal is the critical moment, a momentary possibility of redeeming physical reality from the delights of a cinematic city.

CINE-THEATRE

Much of the literature that engages with the construction of the cinematic or phenomenological city characterises the urban context as a stage upon which the effects of capitalism play out. In particular, Gernot Böhme's phenomenological

analysis of atmospheres depends heavily on the model exemplified by Richard Wagner's *Bayreuth* Theatre. Mathew Wilson Smith's analysis in *The Total Work of Art: From Bayreuth to Cyberspace* of the effect of theatrical structure on contemporary subjectivity, argues for a progressive movement from a 'total stage' (*Bayreuth*), then a 'total state' (exemplified by the Nuremburg Rallies),⁹ towards a 'total immersion' in a cybernetic present.¹⁰ Smith's work integrates successive ideological modes of staging into the next, proposing that "its two most important contemporary manifestations may be found, first, in the proliferation and interlocking of themed environments, and, second, in the virtual creations of cyberspace;" a 'total work of art' incarnating both designed urban environments and meshed virtual data spaces.¹¹ This research adds to the critique of a 'total work of art' by developing the interlocking of themed spaces as emergent nocturnal urban space. The research considers urbanism as a meshed system, produced by a cinematic machine. In this theatre a beam of light cast into the darkness of the urban stage is the phantasmagoria, Böhme's 'cleared space' within which a body can appear, and the means through which the light source is presented for critical attention.¹²

A *mise-en-scène* that considers the urban dimensions of stage and cinematic lighting has to account for a dynamic of lighting that is intrinsic to the production and extrinsic to production in respect to framing. This is the use of light within the frame/stage and its setting within the spaces of reception. Changes in the presented images are also changes to the processes through which the images are presented. *Bayreuth* famously sought to conceal the apparatus of production in order to maintain the illusion of a unified theatre, one that sought to reinforce,

⁹ Riefenstahl, *The Triumph of the Will*.

¹⁰ Mathew Wilson Smith, *The Total Work of Art: From Bayreuth to Cyberspace* (London: Routledge, 2007).

¹¹ Smith., pp. 187-188.

¹² Gernot Böhme, *The Aesthetics of Atmospheres*, ed. Jean-Paul Thibaud (London: Routledge, 2017), pp. 205-210.

as Smith puts it, “[an] ideal social body.”¹³ The ideological imperative of the ‘total theatre’ was to present a totality that unified nature and myth into an unfragmented social body. For this magic to work the machines of production had to remain hidden simply because an orchestra or a stage light being present in the image would indicate its mechanical fragments, exposing the spectators to multiple origins from within their own material space. The enveloping darkness of *Bayreuth* enabled this industrial magic to produce an ‘organic’ totality. A cut from the external world, a rend into darkness, tears the subject from the complex social space outside and places them in an image space that can then render an apparent unity. This cut suppresses the spatial optical qualities of production into an image, spatialised in so far as the stage remains at an optical centre outside of the spectator’s body yet rendered as a retinal ‘total image.’¹⁴

Rending space in order to render an organic totality is a morphology, a dynamic material practice that includes the narrative history contained in subjective memories of lived experience and the collective narratives propagated through culture. In *Cine/Scapes* Richard Koeck argues that “the theatre-city is [...] an agent that enables us to have a collective experience of either real or mediated everyday life situations.”¹⁵ The cinematic dimension of his account proposes to us that in the interface of subjective memory and projected narrative the palpable city goes “soft and begins to shape itself around our cinematic memory.”¹⁶ Furthermore, Koeck identifies the paradigmatic shift of new projection technologies and data visualisation, in built architectural space. Here representation in cinema is literally rendered onto urban landscapes but not as a flat screen. Rather, projection mapping promises fully spatialised image systems that can re-skin architectures in moving images. After dark, these systems not only parasitize the

¹³ Smith, *The Total Work of Art: From Bayreuth to Cyberspace*, p. 47.

¹⁴ Smith., p. 187.

¹⁵ Richard Koeck, *Cine/Scapes: Cinematic Spaces in Architecture and Cities* (Abingdon: Routledge, 2013), pp. 157-162.

¹⁶ Koeck., p. 159.

built environment but offer them up to new modes of commercial and cultural exploitation.¹⁷ The new urban paradigm this announces is one of a body moving through an architecture that also moves, and sometimes as a response to that human movement. In this way hard urban surfaces begin a digital dance that is both visual and economic; a dynamic stage for capitalism.

Light and video projection onto architecture creates a dynamic situation where solid and fluid systems coincide. The fixed becomes mutable in a play of light and image. Esther Leslie's insights into the oscillations between circulation and crystallisation in Karl Marx's formulation of the 'universal equivalent,' the conversation of the particular value of labour or a commodity into the abstraction of money, provide the structure through which to understand this paradigmatic shift in lighting.¹⁸ Leslie's 'dialectical dance' is the dance of liquid crystal, whose material propensity is that of a solid becoming a liquid, a liquid becoming a solid. She argues that "one becomes the other, replaces the other, [...]. The liquid and the crystal merge in the epoch of capital."¹⁹ Liquid crystal can move from its crystal to liquid state at the speed of an electric charge, the speed of the switch, its material time/space is effectively instantaneous. Nevertheless, the mutability of liquid crystal is analogous to the operations of light and video in the contemporary urban milieu, its stages are constantly morphing, circulating between phantasmagoric projection and the inclusion of the projection machines. Liquid crystal, a material with endogenous transformational properties, and the amalgam of lit architectural space both require electrical power to trigger the changes. The molecular lattice of the crystal functions as a model for these new embodied image spaces.

¹⁷ Koeck., p. 179.

¹⁸ Karl Marx, *Grundrisse*, trans. Martin Nicolaus (London: Penguin Books, 1973); Karl Marx, *Capital Volume One*, trans. Ben Fowkes (London: Penguin Books, 1976), pp. 160-163.

¹⁹ Esther Leslie, *Liquid Crystals: The Science and Art of a Fluid Form* (London: Reaktion Books, 2016), p. 61.

If the idealisation of the organic *total work* functions to create a seamless immersive image space of ideology for Wagner and Leni Riefenstahl, where light casts the spell of an unfragmented totality, then for Bertolt Brecht and Antonin Artaud it became recumbent on the critical practitioner to mobilise the machines of idealisation against themselves. Brecht asks;

How can the theatre be both instructive and entertaining? [...] how can the tortured and heroic, abused and ingenious, changeable and world-changing people of this great and ghastly century obtain their own theatre that will help them to master the world and themselves?²⁰

Brecht's approach develops the concept of *verfremdung*, a device that "estranges an incident or character." This *v-effect* seeks to confound the empathic response of an audience as it is swept along by the organic totality, where emotion on stage can be seen "as the most natural thing in the world."²¹ For Brecht, the production of an empathic theatre was a form of hypnosis that prohibited the historicizing of the urban subject. As soon as the subject is historicized, materialised in the present time, the conditions of their existence are rendered ephemeral, the subject able to be grasp these conditions for their own purposes. The mise-en-scène of lighting offered for Brechtian theatre is a twofold *v-effect*; exposing the lighting apparatus and illuminating the audience.²² When artificial lighting is revealed be a production fragment it destroys the illusion of an eternal space, in rendering empathic response it demonstrates that the effects are repeatable and designed to show something. Simultaneously, the light cast onto the audience further distances them from private empathic responses, the presence of the audience dramatized to each other in order to further historicize theatre and estrange the audience from the mystical contents of ideology.

²⁰ Bertolt Brecht, *Brecht on Theatre*, ed. Marc Silberman, Steve Giles, and Tom Kuhn (London: Bloomsbury Revelations, 2018), p. 170.

²¹ Brecht, p. 167.

²² Brecht., pp. 217-218.

In an urban context however, it is Artaud's demands for a *mise-en-scène* of lighting that provides a simpler means to disrupt the relationship between the producer of lighting effects and the subjects upon which they fall. Brecht's *v-effect* is cerebral, a bringing to cognition of the structures of illusion. Artaud's *Theatre of Cruelty* is sensual, where it is the material conditions of production that speak. In this *mise-en-scène* it is through invoking powerful emotional responses that audience can begin to see their 'own reality.'²³ In a shock to the senses,

'by an anarchistic destruction generating a prodigious flight of forms which will constitute the whole spectacle, they succeed in organically re-involving man, his ideas about reality, and his poetic place in reality.'²⁴

the audience is placed at the centre of the performance.²⁵ This movement is through the sensory to the sensual, theatrical action not privileging cognition over the sensual, affect negates empathy and for Artaud provides the revelatory means through which the conditions of repression are incited in "a kind of virtual revolt."²⁶

When brought together in a *mise-en-scène*, Artaud and Brecht can help us to consider transversal means through which to counter the industrial magic of sensory immersion. Brecht seeks to pull the audience out, to tear it from empathic response, in a movement towards a critical collective. Artaud also wants to cut the audience from ordinary illusion, but rather than historicizing, becoming external to the event, the spectacle can be rendered in such a way that the audience is at its centre, their bodies re-rooted in space through a shock. It is this sudden change that brings the construction of urban space to critical attention.

²³ Artaud, *The Theatre and Its Double*, p. 44.

²⁴ Artaud., p. 92.

²⁵ Natasha Tripney, 'Antonin Artaud and the Theatre of Cruelty', The British Library, 2017, <https://www.bl.uk/20th-century-literature/articles/antonin-artaud-and-the-theatre-of-cruelty>.

²⁶ Artaud, *The Theatre and Its Double*, p. 30.

POST-CINEMATIC CITY (SPACE)

The formation of a post-cinematic city is the context for this research and allows us to consider the urban nightscape as Esther Leslie writes of Jules Michelet's sea, as a place "crowded with luminosity, with luminous life. It is [...] a phantasmagoria, an assembly or crowd of fantastic forms, [...], [conjuring] endless variety."²⁷ And as a film set, a city becoming 'the city'; any city through a cinematic imaginary can become a phantasmagoria. For example, Stanley Kubrick's rendering of 'New York' in *Eyes Wide Shut*, took London streets and dressed them (Fig. 2).²⁸ The dressing enabled a cinematographic impressionistic, dreamlike New York to appear on screen where indexicality, even plausibility, were not important. A new image of London slipped into becoming another New York, imagined not lived, written not recorded. At night the city morphed into images written by Kubrick, the cinematic space rendered around a figure moving through a space made in shallow depth of focus. A pin sharp figure in a soft halo of light, the urban context only marginally present.

This figure rendered as a screen in light registers in Jacques Lacan's *scopic field* where;

'an effect of lighting dominates us, if, for example, a beam of light directing our gaze so captivates us that it appears as a milky cone and prevents us from seeing what it illuminates, the mere fact of introducing into this field a small screen, makes the milky light retreat, as it were, into the shadow, and allows the object it concealed to emerge.'²⁹

Lacan's critique of Maurice Merleau-Ponty's phenomenology insists that "the gaze is outside, I am looked at, that is to say, I am a picture."³⁰ This dialectic of

²⁷ Leslie, *Liquid Crystals: The Science and Art of a Fluid Form.*, p. 48.

²⁸ Stanley Kubrick, *Eyes Wide Shut* (Warner Bros., 1999).

²⁹ Jacques Lacan, 'Of the Gaze as Object Petit a', in *Four Fundamental Concepts of Psychoanalysis*, trans. Alan Sheridan (London: Penguin Books, 1994), pp. 107-108.

³⁰ Lacan., p. 106.

appearance “is the triumph of the gaze over the eye.”³¹ Here appearance in its verisimilitude is a seeing of only what the subject wants to see, reality is rendered marginal, the gaze invokes an absence at the centre of the field of vision. In the street filled with ‘luminous life’ we see precisely the gazes of those who are absent, the pedestrian in Lacan’s *communal* stage, sees the power brokers behind the image, those are the gazes that structure pedestrians as *audience*.³²

Then there is also a city remade for the night, streets dressed in stone and light for the purposes of ‘streetscape improvements’ (Fig. 3)(see; Artwork 1). If a filmset can appropriate a street in order to marginalise the reality it renders in the image, then could the same street also marginalise the reality it produces in the quotidian? This is contested terrain of ownerships and uses, and over time it simply wears out, surfaces fail, lights begin to flicker. If the street is an image made through time, its slow reveal is entropic, the daily struggle to maintain its uses into the night written as absences of failure. The basic meter of the street at night is municipal illumination, lamp spacing rendering surfaces in uniform light. The technical logic followed by the engineer seeks to negate difference, dramatic articulations of the street can only be overlaid. The first image projected, and the last to disappear at dawn, is that of an appropriate and equitable platform in light. Every night ‘fantastic forms’ appear only in so far as the basic meter of light is rendered marginal by the gaze, in Lacan’s structuring of desire the subject actively un-sees.³³ The phantasmagoria functions as a lure, where the picture of the street recedes, and figures appear in its partial light.

Steven Shaviro’s research in *Post Cinematic Affect* considers an urban milieu that subsumes distinctions between material, media and their affects into the circulation of capital and its accumulation.³⁴ Shaviro argues that there is “no

³¹ Lacan., p. 103.

³² Lacan., p. 113.

³³ Lacan., p. 104.

³⁴ Steven Shaviro, *Post Cinematic Affect* (Winchester: Zero Books, 2010).

longer any difference between images and sounds on the one hand and the more palpable markers of identity on the other.”³⁵ The post-cinematic city absorbs multiplicity and difference in the logic of capital, manifested as a machine that squeezes heterogeneity into homogeneity.

Michel De Certeau’s critique of a ‘City’ results in a “universal and anonymous subject” which provides relationships between the city as subject, and its practicing subjects.³⁶ The formulation acknowledges that a city’s “totalizing and almost mythical” status develops from the eradication of its founding condition; its historical emergence in space. In this way the complex practices of an urban subject performing in space – in the phenomenal city – are continually absorbed into a ‘concept-city.’ This ‘concept-city’ reforms around often contradictory practices that ‘operate outside the reach of panoptic power.’³⁷

De Certeau’s ‘City’ is particularly useful for this project because it acknowledges the hegemonizing political, legal and strategic programs of the city constituted as a singular administrative object and the transversal force of the very practices that the administrative object is intended to support. After Michel Foucault, this can be considered a reciprocal, even parasitical symbiotic relationship between the specificities of lived practice and its abstraction in governance. Additionally, the ‘City’ and its ‘concept’ posits a co-production between two modes of temporality, administrative time (an eternal always to become fixed in its law), and the temporality of its ‘re-appropriation’ in spatial practice (time in normative experience).

Together the body of practice and written thesis provide the ground for understanding the potential of *phototropia*. Through it I explore the interfaces of artificial light in architecture and the public realm in order to identify the way

³⁵ Shaviro., pp. 131-132.

³⁶ Michel De Certeau, *The Practice of Everyday Life* (Berkeley: University of California Press, 2011).

³⁷ De Certeau., pp. 94-95.

they effect and control urban subjectivity. *Phototropia* emerges in the industrial intensification of vision and urbanism of Victorian London. The project then moves from there to the decades before the second European War in Berlin and Paris, and arrives in present-day London, Tokyo and Tokamachi to identify its absorption into a post-cinematic articulation of the present. This present is described by Marxist geographer David Harvey as a condition of “universal alienation” that without resistance will eventually evolve into a fully integrated “social order [of] fascistic mind control.”³⁸ This is a stark warning for the urban practitioner. If Harvey’s diagnosis is correct, then making artworks in the city could unwittingly be complicit in the production of this condition of “fascistic mind control.” Because of this possibility the research project has challenged me to consider to what extent can the *v-effect* and the shock of a *Theatre of Cruelty* contribute to my practice and how can they be mobilised to contribute to the production and critique of an urban milieu that is not only determined by the logic of capitalism?

In 1988 Guy Debord modified, through expansion his two formulations of spectacle in *Society of Spectacle*, by combining the ‘concentrated’ and ‘diffuse’ spectacle into ‘integrated’ spectacle “[that] with carnivalesque gaiety [...] coincides with the generalized disappearance of all real ability, [...] [where spectacular power] now permeates all reality.”³⁹ This provokes the second question for practice, and this too is framed by Brecht’s critical demands, can light, sound and video projection, whilst performing in space, also create the conditions for the reappearance of the devices of control? In other words, can the

³⁸ David Harvey, *Seventeen Contradictions and the Real End of Capitalism* (London: Profile Books, 2017), p.264.

³⁹ Guy Debord, *Comments on the Society of the Spectacle* (London: Radical Thinkers, 1998), pp. 8-10 & pp. 31-33; Concentrated’ spectacle is characterised by Debord as the mode of bureaucratic capitalism that ‘imposes an image which subsumes everything that officially exists, an image [...] concentrated in a single individual, the guarantor of the system’s totalitarian control.’ ‘Diffuse’ spectacle seeks to articulate the ‘undisturbed development of modern capitalism’ in which commodities will always fall short of the ‘qualities attributed to the whole’. Each commodity instance (fragment) is ‘irreconcilable’ with the ‘absolute realisation’ of the ‘general commodity form.’

techniques of urban spectacle become critical through revealing them? If this is the case the practice needs make the conditions of production visible and resist colonising this visibility, resist crystallising them as a work. Following Artaud, a critical mise-en-scène of light needs to open up a space in which a body can flourish and reveal to that body how this flourishing is structured.

THESIS STRUCTURE

This mise-en-scène of the nocturnal city encounters material in diverse time spaces, they do not always change in an instant. Rather, time is encountered in layers of change, differential movements, invisible, sometimes subterranean. The materials are arranged in four movements; 'Luminous Economy,' 'Atmosphere,' 'Night Moves' and 'Phototropia.' There is a loose correlation between elements of practice and this writing, no causation should be inferred. When appropriate in the text I will note particular elements of practice where the correlation could be usefully mobilised.

Occupying the city at night is an engagement with a 'luminous economy.' This element of the mise-en-scène asks what this economy might be doing, how it is doing it and to what ends. I use Henri Lefebvre's theorisation of a 'total body' in order to examine a 'use-economy' that is predicated on the sensory.⁴⁰ An empirical encounter with the artwork *Halo* acts a springboard from which I explore a series of notations on the structuring of vision as an economy through arrangements of optics, light effects and reflective surfaces.⁴¹

I develop another layer of the 'luminous economy' from the perspective of Walter Benjamin's reading of an illuminated advert reflected on a puddle in *One Way Street*.⁴² Taking this as a thread I continue the reading of artificial urban light in

⁴⁰ Henri Lefebvre, *The Production of Space* (London: Blackwell, 1991), pp. 404-405.

⁴¹ Mimi Son and Elliot Woods, *Halo*, 2018, 99 robotic mirrors, mist, sun, wind, 18.5m x 4.8m x 8.1m, 2018.

⁴² Walter Benjamin, 'These Spaces for Rent', in *One Way Street* (London: Harcourt Brace Jovanovich, 1979), 89-90.

order to extract something of its thread. Instead of following Benjamin's logic of the commodity, I trace a movement through security and hygiene, where fragments of light show a locus of inspectability.

Returning to an empirical mode I examine the 2015 production of *Don Giovanni* at the Royal Opera House and Orson Welles' *Citizen Kane* in order to consider a model for cine-theatre and place it in wider economy of image distribution.⁴³ These readings of *projection morphologies* introduces the movement from optical production towards retinal reception and 'reality effect' that I take up in the section atmosphere. A two-fold structure of a cine-theatre emerges that is optically determined and absolutely dependent on the rigorous control of artificial light in the production of images. The structure of the economy provided through these readings is one that manages urban subjectivity by delimiting the potential for a fragmented body to emerge through offering the urban subject opportunities to be transformed through sensory effects. These transformations are consistently aligned to an external force that suspends the sensual outside of experience.

'Atmosphere' considers the implications of atmospheres that are spatial and temporal, constructed and emergent, contingent on an unfixed set of relations between the urban subject and material space. The 'luminous economy' materialises in experience through phenomena. The city is a vortex of complex sensory effects that capture the urban subject in an atmosphere. These atmospheres are co-produced at the interfaces between subjects and spaces, events and contingent urban effects. Often staged, sometimes emergent, the effects of immersive atmospheres are internalised through process of induction. They are not so much read as normalised and rendered invisible through ubiquity.

⁴³ Kasper Holten, 'Don Giovanni' (2015); Orson Welles, *Citizen Kane* (RKO Radio Pictures, 1942).

A close reading of two artefacts provides this chapter with the means to propose an inductive process of atmospheric control. The first reading takes a fragment of Whitehall's public realm in order to examine how geo-politics become manifest as an urban interface producing a particular kind of atmosphere, and the extent to which this process of materialisation renders the underlying forces invisible. This provides an example through which to articulate some of the implications of Andreas Philippopoulos-Mihalopoulos' theorisation of *lawscape*.⁴⁴

I then move to an extended reading of James Turrell's *House of Light* as a means to produce this model of atmospheric induction.⁴⁵ The *House of Light* is both an optical device and a socio-cultural event space.⁴⁶ The installation folds multiple layers of atmospheric production within an economics of experience. Natural and artificial light play significant roles in the progressive stages of its production and retinal reception.

'Atmosphere' concludes by reforming these processes of atmosphere through the cinematic critique offered by Siegfried Kracauer's *Mass Ornament*.⁴⁷ The post-cinematic condition of urbanism emerges as a force that can only be resisted through heightened or altered states of perception. This leads towards a model of atmospheres, a means through which to absorb the urban subject in a bubble of effect inducing them in an empathic space of control.

Engaging explicitly with the structuring of spectacle, 'Phototropia' is a *mise-en-scène* of a post-cinematic urbanism that operates at a fundamental biological level. Throughout this research project I have been constructing cinematic machines, each section of 'Phototropia' reflects the notes and questions that

⁴⁴ Andreas Philippopoulos-Mihalopoulos, *Spatial Justice: Body, Lawscape, Atmosphere* (London: Routledge, 2015).

⁴⁵ James Turrell, *House of Light*, 2000, Architectural Installation, 2000.

⁴⁶ Turrell.

⁴⁷ Siegfried Kracauer, 'The Mass Ornament', in *The Mass Ornament: Weimar Essays* (London: Harvard University Press, 1995).

recurred whilst arranging, connecting, editing and programming. 'Entrainment' establishes the biological determinism of artificial light. An early experiment in bio-power commences a movement through urban spaces that regulates an 'at risk' body. Paul Sharits' artwork *Epileptic Seizure Comparison* establishes a model for structuring physiological control through the effects of media.⁴⁸ Subsequently, through three versions of technologically determined urbanism, the 'at risk' body is articulated as a form of property that needs to be defended.

The imagined walk of 'Optical Street' creates a space for the thesis to examine the relations of optical control in contemporary urban space. Rooted in Jeremy Bentham's 'Panopticon' the walk explores at triangulation between surveillance systems, artificial light and a streetscape. I then problematise the street as a 'total work' through Michel Foucault *Discipline and Punish* and Thomas Mathison's recent critique on urban surveillance in *Towards a Surveillant Society*.⁴⁹ The streetlight is examined as an element integrated into an image of civility that also produces a hidden image space of control.

'Cathedral' and 'Delhi Durbar' are concerned with the structure of two spectacular historical event spaces that ordered communities along an axis of light. This creates a basis through which the thesis folds the mise-en-scène of 'stage craft' into 'trade craft.' 'Phototropia' ends in a 'Bubble' where the thesis problematises the psychedelic processes of depersonalization, dynamization and desynchronization in urban subjectivity. To rend and to render are articulated through architectural and virtual space where light, image and space are conflated in the cinematic machine (see; Artwork 15) (Figs. 5-7).

⁴⁸ Yann Beauvis, 'Paul Sharits', Paul Sharits, accessed 15 April 2015, <https://paulsharits.com/index/https://paulsharits.com/>.

⁴⁹ Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (London: Penguin, 1977); Thomas Mathieson, *Towards A Surveillant Society: The Rise of Surveillance Systems* (London: Waterside Press, 2013).

The irreducible is pleasure and enjoyment combined, undifferentiated, physically given, indestructible, with bodies and their relationships.⁵⁰

In *Towards an Architecture of Enjoyment* Lefebvre demanded that we find or make the irreducible. He challenged us to develop concepts of an irreducible space that is present before, after and inside of capitalism's abstraction. What modes of practice might resist the becoming eternal of the law of the post-cinematic city? Can we, as Lefebvre asked, "... [make] no signs" for a "total body in (space)" producing a mode of critical spatial practice, a consciously lived practice of the city?

Simultaneously, *mise-en-scène* is a production of atmospheres and the reproduction of the machine. In order to make an installation or intervention in space its qualities, the immanent contents of the found city, become inculcated in the production, as Tim Ingold puts it 'to describe the properties of materials is to tell the stories of what happens to them as the flow, mix and mutate.'⁵¹ This *mise-en-scène*, a *phototropia*, asks what kind of new media artworks can enrich an understanding of contemporary urban subjectivity? Can it contribute to the discourses of atmosphere? And, can this way of thinking through urban lighting add anything to a critique of capitalism?

⁵⁰ Henri Lefebvre, *Towards an Architecture of Enjoyment* (London: Minnesota, 2014), p. 119.

⁵¹ Tim Ingold, 'Materials Against Materiality', *Archaeological Dialogues* 14, no. 1 (2007): 1-16., p. 14.

FIGURES

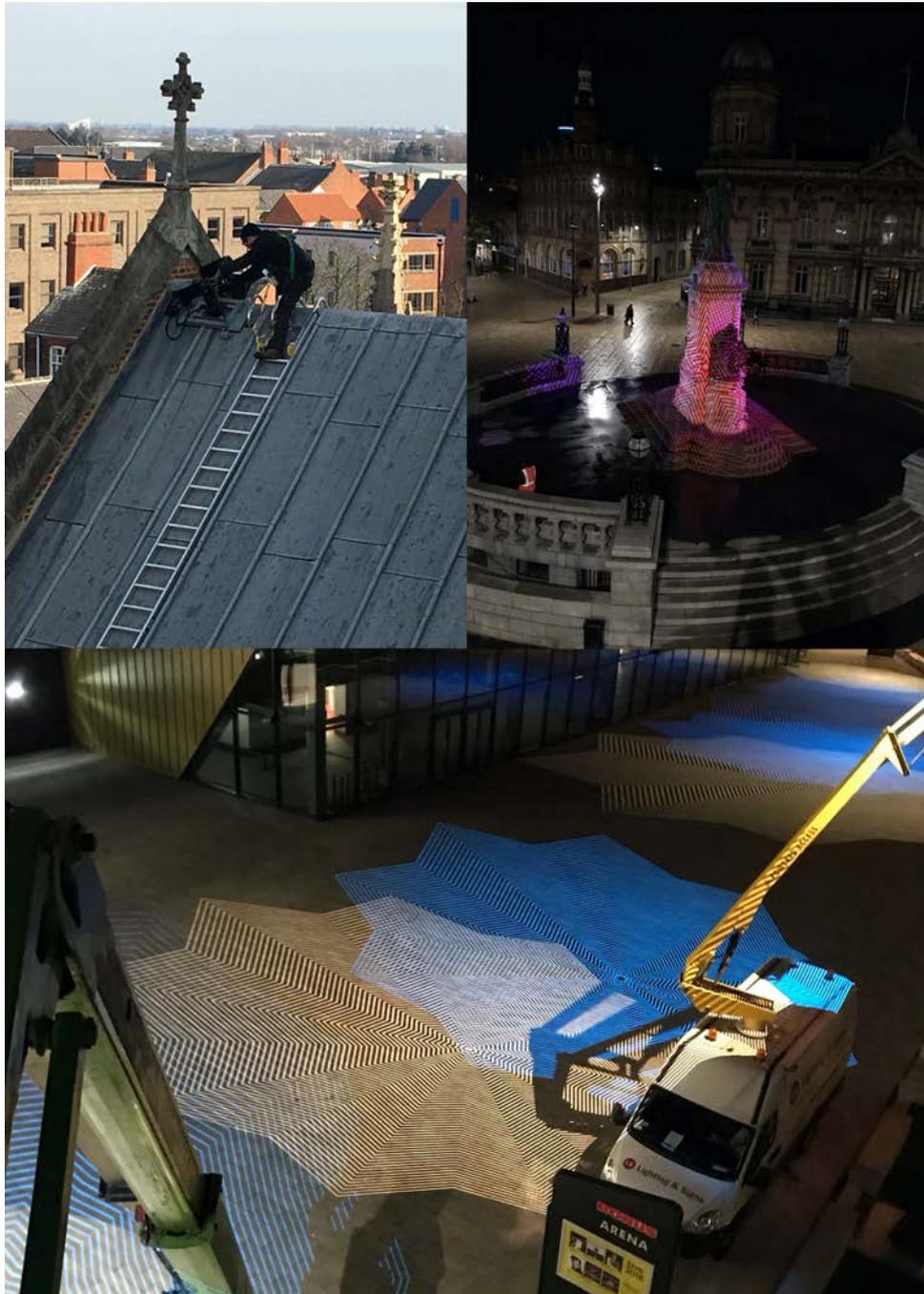


Fig. 1 *Golden Hour* (production)

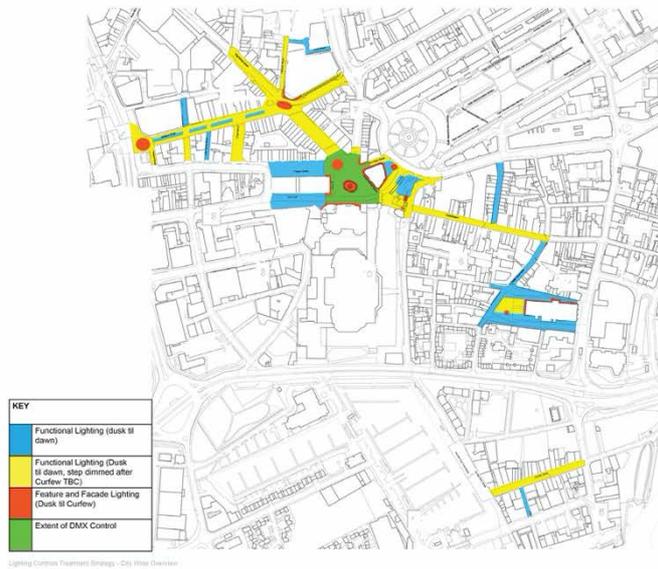
Installation shots, 2017



Fig. 2 *Eyes Wide Shut*, production plans, 1998

(for examination purposes only: UAL The Stanley Kubrick Archive)

IMAGE REMOVED: Shows production stills and location plans from The Stanley Kubrick Archive.



8 City Wide Controls Strategy

All lighting elements will be photocell controlled to ensure that they only operate during the hours of darkness. Elements of the general and decorative facade lighting will be zoned and separately photocell/time clock switched to allow individual control of routes and areas.

Consideration will be given to providing DALI control gear with step dimming functionality, especially within areas of high traffic, and provide capability with a time clock switching to dim to preset levels/one class of lighting lower.

Lighting to dim to lower levels (to be confirmed with HCC) during periods of anticipated low traffic to save energy.

Step-Dim controls will be provided by factory set dimming profiles to dim during early hours of the morning when anticipated traffic flow is low.

The following external elements are considered to be purely functionally fit:

- Pedestrian routes through the city
- Bus stops
- Service Roads
- RGB LED Finials on top of lighting columns
- Trees and soft landscaping
- Sculptures and Artel Works (TBC)
- Building Facades
- Monuments
- Fountains

Decorative lighting will be controlled via time switch and photocell to allow switch on after dark only. Time switch will allow lighting to be turned off at an agreed curfew time (to be agreed with HCC).

Lighting Equipment recently installed by Hull City Council already has DALI gear built in. Any proposed equipment will also have this functionality to ensure consistency across the city and future connection of city wide central management.

Existing decorative RGB in the New Town have DMX gear built in. Proposed equipment within the New Town will also have this functionality and will be connected to a DMX control network to allow potential artist involvement.

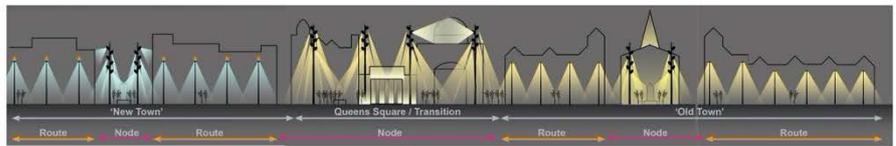
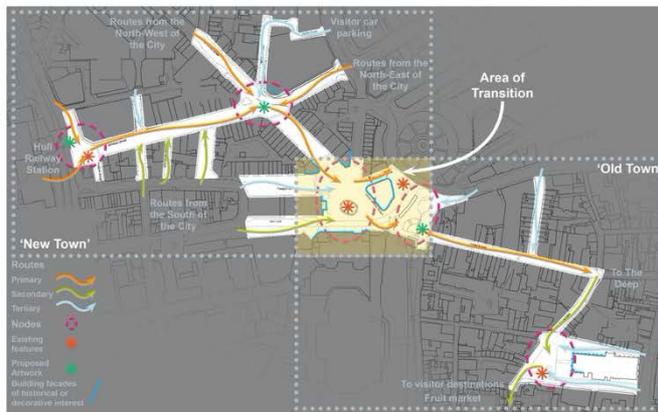


Fig. 3 Hull Public Realm Improvements, lighting plan examples, 2015

(for examination purposes only: ARUP design information)

cinema - city - urbanism
 cinema orders with through miss-on-sense, genre staging, neo-realist staging no
 SPACE (cinematic visualisation) GENRE
 CITY IMAGE (or urban) → IMAGE CITY
 ATTITUDE → regen/dev
 what is the simple network
 CIVITAS
 puptone image production / no-optimism / not production
 polis

regeneration predicated on a possibility of TRANSFORMABILITY T.
 $T_1/T_2 \geq 0$ or 1?
 this is a formal transition
 LATENCY → TRANSFORMATION = TRANSFORMABILITY
 ↓ complexity theory ↓ postivist / agnst political theory
 can there be transformation without a priori latency?
 a latency that is always but may or may not happen
 that is not radical instability
 a site of provocation

the absence in regeneration is the possibility of complexity (complex) emergent possibilities
 what seems to happen is that complicated relationships seek to be distilled into simple structures of urbanism.

What do I mean by a site of provocation?
 Maybe this is about identifying a ~~site~~ the latency of a space and shifting the may or the ~~is~~ is allowing the may not to the may: provocation!

A lightroom is a rotating line of light so extended exposure with ~~light~~
 Leaking lights create path and position.
 I am interested in space/body/eye light/death/erd of time
 a soup the greying
dog
 video/film light radicalized, empty of content, image, picture, narrative.
 Spatial Light.
 what are the economies - who of nature - emptied of content
 → TRANSFORMATION TO PRICE MOVING

DIRECT ENGAGEMENT metamatic
 SPECIFIC → ARTIST → ARTWORK → PARTNER
 THEORY - CRITIQUE OR NOT MARKET
 PARTICIPATION → PROCESS OF ART
 COOPERATION TO ME? → DARKER OBSERVATION OF MEDIA
 What machine → art producing object
 work about process/time/document
 technology not uppermost apparatus
 interface
 models of interaction

Fig. 4 extracts from notebooks

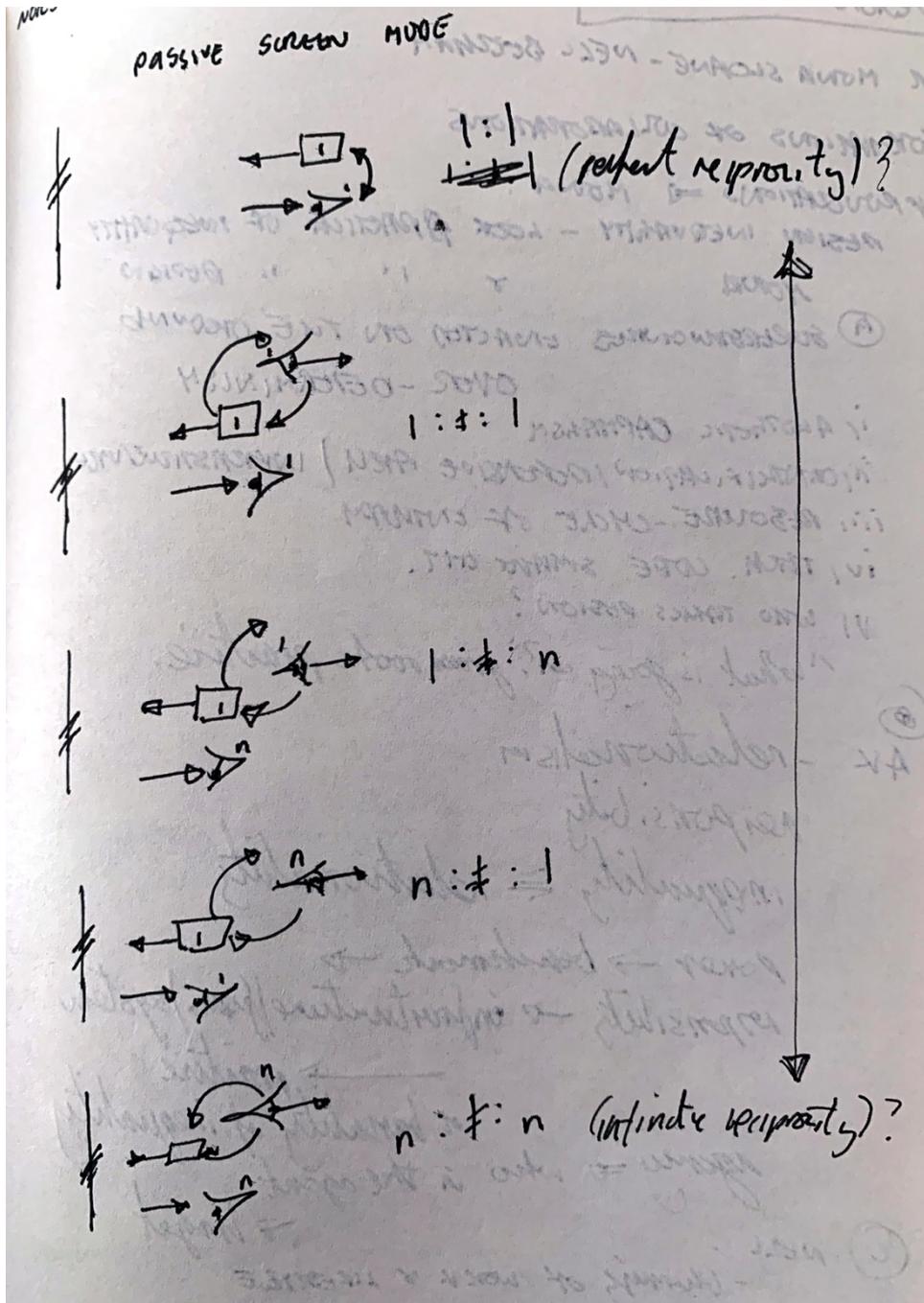


Fig. 5 notes, cinematic machine 1

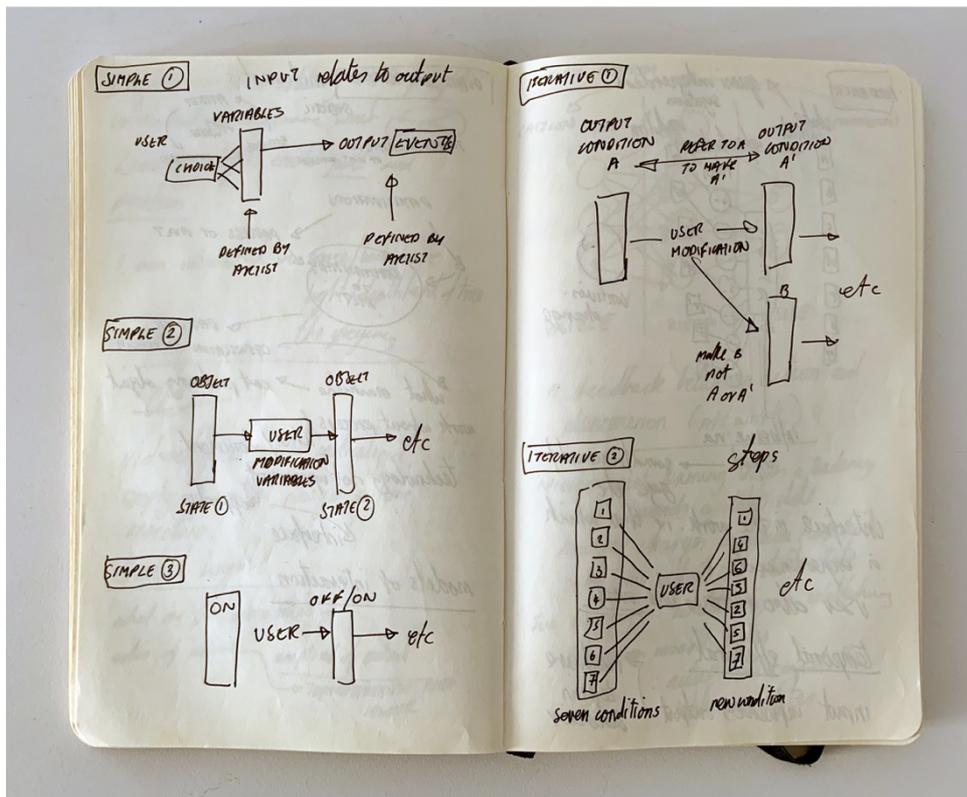


Fig. 6 notes, cinematic machine 2

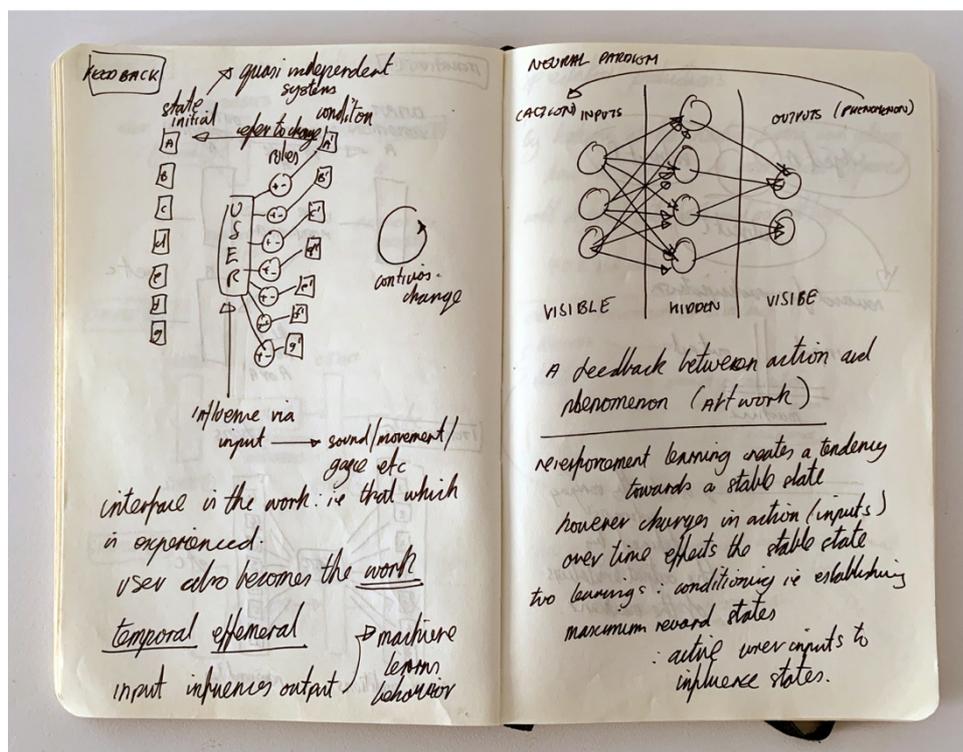


Fig. 7 notes, cinematic machine 3

LUMINOUS ECONOMY

In the act of seeing, of course, light is really transmitted from one thing, the external object, to another thing, the eye. It is a physical relation between physical things. As against this, the commodity-form, and the value-relation of the products of labour within which it appears, have absolutely no connection with the physical nature of the commodity and the material relations arising out of this.¹

¹ Marx, *Capital Volume One*, p. 165.

If a streetlight could be said to make a claim, it claims power over the street and the city. A lamp on a pole is a marker of control, not an eraser of mythology. Thus, the fact of light is a process of power within which the urban subject can securely perform their civil duties.² The luminous economy is the morphology of bodies inhabiting the nocturnal city, it folds them into architectures producing spaces that are palpable, sensual and ephemeral. This economy manages physical and imaginative movement.³

Henri Lefebvre constitutes a body spatially through a split; the 'passive' and the 'active', the sensual and the labouring.⁴ For Lefebvre "the whole of social space proceeds from the body," through his Marxist critique of urban space capitalism is argued to be the generative process that constantly renews this split body to maximise the value extracted through labour. Lefebvre's analysis of the machine of urbanism locates the automation of the body in the automation of production processes. The urban form then begins to resemble the modes of production that it supports. He is careful to argue that capitalism's domination of space, 'non-appropriation', is then subject to the use of the 'social group.' The appropriation of capitalist urban space is then integrated into the sensual as 'second nature'; nature inside of a machine domination.⁵ In *The Production of Space* a 'total body' was his call for the restoration of a unified body that could reconstitute space through use (use-value) by 'appropriating' the abstract space of exchange-value.⁶ In 1973, when Lefebvre extended his notions of a 'total body' as a means to develop a new way of considering 'a use economy' for architecture, it was still

² See: Paul Bogard, *The End of Night: Searching for Natural Darkness in an Age of Artificial Light* (London: Fourth Estate, 2013), pp. 75-85; Schlör, *Nights in the Big City*, pp. 73-91; Time Edensor, *From Light to Dark: Daylight, Illumination and Gloom* (London: University of Minnesota Press, 2017), pp. 81-108; For an entertaining early declaration of a luminous economy see: Photophilos, *Hints for Increasing the Splendour of Illuminations; Securing the Pleasure of the Spectator and the Convenience of the Householder with Some Remarks for the Prevention of Tumult and Disorder*. (London: J.S. Jordon, 1801), pp. 8-13.

³ Economy is rooted in the Greek *oikonomia*, household management. The body is another material resource to be managed in a political economy.

⁴ Lefebvre, *The Production of Space*, pp. 404-405.

⁵ Lefebvre., pp. 343-354 & p. 405.

⁶ Lefebvre., p. 405.

possible to consider architecture and its bounding space, public realm, to be constructed from solid materials: glass, stone, concrete, metal, and wood.⁷ The 'total body' articulates the transition back 'from the sensory to the sensual' in a twofold operation of 'a body occupying a space and a body producing space.'⁸

The sensory are forces that act upon a body (light, sound, smell), the sensual that which is felt within a body.⁹ Social practice is nurtured through affective sensual practices at the level of the content generated by experience, not the effective forms through which experience is generated. The tension between the effective machines and their affects, sensual enjoyment within the body, is crucial in atmospheric spatial production, (re)appropriation internal, not manifest in phenomena.¹⁰ This formulation of 'use-economy' is predicated on the movement towards the sensual. Urban management and its determination of concrete space appropriated in moments that have more to do with rhythm and ambiance than they have to do with the structuring and arrangement of objects in space.

Urban management is not a singular identifiable process or object. Machines for Karl Marx and Lefebvre do not think, they are "instruments of labour [...] they are independent of the workers whom they dominate."¹¹ If there is any machine agency it is ascribed to the abstraction of exchange and its production of surplus-value.¹² Guy Debord also argues that the spectating body has been cut or torn into

⁷ Lefebvre, *Towards an Architecture of Enjoyment*.

⁸ Lefebvre., pp. 128-135, p. 152. Lefebvre's economics are grounded in the classical political economy critiqued by Marx. Here it is an *economics of enjoyment* within which a 'total body' can re-congeal around use. This is profoundly different to the surplus extracted from space in the ground made clear by a bulldozer making an abstract space for growth. David Harvey describes this as a capitalist mode of creative destruction. See: Harvey, *Seventeen Contradictions and the Real End of Capitalism*, pp. 15-24, p. 92, p. 295:6. Also: David Harvey, 'The Art of Rent', in *Spaces of Capital: Towards a Critical Geography* (Edinburgh: Edinburgh, 2001).

⁹ See: Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (London: University of California Press, 1994), pp. 191-209, for an analysis of the body against an eye argued through Bergson. The lived body is not reducible to bodily habits, for Bergson priority was given to 'lived action' producing an 'holistic unity', qua a 'total body.'

¹⁰ Lefebvre, *Towards an Architecture of Enjoyment*, p. 151.

¹¹ Marx, *Capital Volume One*, pp. 1054-1055.

¹² Harvey, *Seventeen Contradictions and the Real End of Capitalism*, pp. 70-78.

incommensurable parts. Now a puppet ‘the individual’s gestures are no longer his own; they are the gestures of someone else who represents them to him.’¹³ The functional management of the political economy splits the body, alienating it from space. As with Marx and Lefebvre, the force of this economy is ascribed as a splitting of the unitary, a cutting of the ‘total body’ into the productive (exploitable) and the sensual (internal). The spectacular urban subject might well move, their temporal spatial trajectory inscribing a body in space, but the movements and their possibilities are strictly delimited by *capital*. Alberto Toscano and Jeff Kinkle also argue a form of puppet critique, where urban subjects are “puppets of value, subjected by abstractions.”¹⁴

Jonathan Beller, taking Debord’s puppetry and its alienation, “the closer their life comes to being their own creation, the more they are excluded from that life,”¹⁵ proposes “that cinema is, in the twentieth century, the emerging paradigm for the total reorganisation of society and (therefore) of the subject.”¹⁶ This ‘new social logic’, *The Cinematic Mode of Production*, calls upon another twofold operation this one the “architecture of the dynamic cage, [...] revealed to us as the dream-life of the world system.”¹⁷ The spectacular reorganisation of society has been subsumed into industrial capitalism and through this ‘a new order of production, and thus domination.’¹⁸ This logic of domination implies that the cinematic city is not simply the movement from the spaces that the urban subject inhabits into its cinematic representations, putatively the cinematic sound stage becoming

¹³ Guy Debord, *Society of the Spectacle*, ed. Ken Knabb (London: Rebel Press, 2003), p. 16. *The Society of the Spectacle* is organised through the production of image spaces of production and consumption, in which the veracity of the subject ‘the real’ is converted into ‘reality effects’; images.

¹⁴ Alberto Toscano and Jeff Kinkle, *Cartographies of the Absolute* (Alresford: Zero Books, 2015), pp. 33-77.

¹⁵ Debord, *Society of the Spectacle*, p. 17.

¹⁶ Jonathan Beller, *The Cinematic Mode of Production* (London: Dartmouth, 2006), p. 1.

¹⁷ Beller., p. 301.

¹⁸ Beller., p. 1., pp. 300-312.

urbanism.¹⁹ Rather, consciousness is alienated, even its dream-life colonised through the industrialisation of vision, all life becomes an image life, spatiality and its syntaxes “now a cybernetic relation between flesh and the materiality of production.”²⁰

Richard Sennett also pointed to this ontological dis-articulation; in *The Fall of Public Man* he describes a general historical movement from 'emotional actions', to do, to act, towards 'emotional states', to be, to actualise.²¹ The social space that Sennett argues in the late 1970's was a new urban paradigm, where the population is alienated from action and propelled towards a realm of self-actualisation in the sensory image spaces of capital.

Functionally artificial lights help to prevent us from falling and enable us to read a book, the street or a city. Marx referred to light as an external object, presumably an incorruptible and natural one.²² Perhaps Marx's reference would not work so well if applied to the gas lamp that supported his systematic penning, even then this source was implicated in technological production and its circulation as realizable value.²³ This artificial light was productive and enabled Marx and his peers to continue to labour into the night with more comfort and clarity than had been afforded by the candle's trembling illumination.²⁴

A revolution issues from the automatization of the domestic light switch, a predictive porch light.²⁵ Geolocation notifies this device of the householder's

¹⁹ The metaphor for the city as a stage, cinema screen or film set recurs throughout literature.

²⁰ Beller, *The Cinematic Mode of Production*, p. 249.

²¹ Richard Sennett, *The Fall of Public Man* (New York: Knopf, 1977).

²² Marx, *Capital Volume One*, p. 164.

²³ Marx, p. 279. In Marx's notes on coal mining 'the money-owner buys everything necessary for this process,' the artificial light enables more productive labour. The distribution of this technological means of production, the gas lamp and its connection to a gas supply infrastructure.

²⁴ Any notion of a 'right to light' is now bound to the right to labour into the night. Prescription Act 1832; to maintain a level of illumination.

²⁵ 'The lighting in our buildings and cities is set to become the backbone of a digital network which will engage and inform on an unprecedented scale. This revolution is transforming light fittings into smart devices which can monitor and control our environment. It's the next

impending arrival and in turn this 'predictive switch' notifies the energy supplier of its imminent demand for power. The power supply infrastructure makes an almost imperceptible adjustment to its output; copper coils spin a little faster, a new entry is made in a ledger, another data set expands. As this light turns on, the vernacular architecture of a suburban residential street engages in global networks and whilst whispering to a remote platform it informs the street of a resident's arrival with the sign of light. When the diode begins to glow, a new channel is established in order to monitor its performance, piggybacked on this channel is another, one that is routed to the manufacturer's research and development hub; efficacy, reliability, maintainability, repeatability. A lamp begins to do a lot more work than was ever demanded of its antecedents. This lamp acts.

The lamp does not act alone. As a meshed infrastructure the machine of luminal production, a system comprised of multiple nodes, connections and management systems, can be characterised as an assemblage; an ecology. As Jane Bennett argues it operates in a 'volatile mix' of actants.²⁶ Her *vital material* captures the crucial characteristic of the luminous economy, the continuous dissimulation of its ecological dimensions towards the appearance of an effective machine.²⁷ Learning to see this *agentic swarm* is to parse a transversal temporality of cause and effect. Nominally, the emergent properties of its ecology are seen to be effective when the will to illuminate is realised in light. In this normal mode, the ecology is a passive conduit, a machine that realises the political will to manage and maintain the city at night. This is the trajectory of an effective, goal orientated causality whose intentionality resides outside of the assemblage, where the input

revolution in lighting and you can see it for yourself at Europe's biggest annual lighting event' (Lux Live, October 2017).

²⁶ Jane Bennet, *Vibrant Matter* (London: Duke University Press, 2010), pp. 25.

²⁷ For an alternative to Bennett's *vital materialism*, see: Ash Amin and Nigel Thrift, *Seeing Like a City* (Cambridge: Polity, 2017), pp. 82-91., notwithstanding their different terminology, they too identify the ecological dimension of meshed infrastructures populated with non-human actors that are equal, rather than opposite, to human actors.

to output requirements deny the ecology any form of agency.²⁸ Bennett, through Hannah Arendt's discussion on the totalitarian, constructs a retroactive model where the contingent events, a "distributive notion of agency," are inferred from what has been 'crystalized', the evidentiary materials used to construct a causal intentionality.²⁹ These back and forth movements are not transversal and construct (or reconstruct) an intentionality that is outside of the assemblage and maintain human centred sovereignty to be the bearer of power. Bennett's transversal approach proposes a 'confederate agency' where the vitality of the ecology is distributed. Rather than pinning intentionality, responsibility (culpability), on a line of intentionality where the cause of the effect has an origin, a locus of inspectability. 'Confederate agency' emphasises the "ensemble nature of action" within an ecology where full responsibility for its effects are shared.³⁰

Space can be (re)appropriated through its use.³¹ The *luminous economy* is a twofold operation, domination and enjoyment, the reification of space towards exchange-value and its appropriation in use; an enjoyment of control. As artificial light illuminates certain spaces it also makes them into images; images rendered with force. This is a force that imposes an alternative order to space. The light creates images by surrendering a form of flat ubiquity into a theatre of chiaroscuro, a rendering which privileges and excludes.³² In one place it might cover up, and in others dispense with the imperfections that can be seen in the daylight. It does this through masking them in contrast using cinematic and theatrical techniques.

²⁸ Bennet, *Vibrant Matter*, p. 33.

²⁹ Bennet, p. 34.

³⁰ Bennet, pp. 36-38, Atmosphere will also pick up on this ensemble or confederate agency, using different terms.

³¹ See David Harvey, 'Reclaiming the City for Anti-Capitalist Struggle', in *Rebel Cities: From the Right to the City to the Urban Revolution* (London: Verso, 2012), 115-154., p. 117.

³² See the clear example of glare producing urban masking in, a banal figure of fear hiding in the light:: Bogard, *The End of Night: Searching for Natural Darkness in an Age of Artificial Light*, p. 78.

STAGE

'There is a definite social relation between men, that assumes in their eyes the fantastic form of a relation between things', (dies phantasmagorische Form)³³

I did not intend to see *Halo* by Kimchi and Chips (Fig. 8). As I entered Somerset House's courtyard from the Strand an installation came into view. It was comprised of an apparatus positioned at the centre of the space reminiscent of a solar power station, a framework supported an array of mirrors that were attached on spigots to small steel boxes. In front (to the north) of the array was a curious steel assembly that formed a horizontal cross with thin columns at each corner. This steel cross and mirror array were separated from the visitors by a discrete low guard wire. Trailing into a slot drain was an umbilical cable that appeared to carry both electrical power and water. The paved surface was damp, mirrors pointing randomly; I had come across the work in an advanced state of preparation. Although unfinished, the arrangement of elements provided enough clues to deduce what it might produce. As it was clear that the installation was oriented towards the sun, I suspected that by reflecting sunlight off a tightly controlled array of mirrors an image of some kind would appear in a curtain of mist.

As it turned out to be sunny the next day, I returned to experience the installation. Clouds were moving and as they shifted from the sun's path a circle of light shimmered in a fulgurant coincidence of light reflected from the mirror array through the volume of mist generated by water nozzles installed in the columns supported by the cross. This was all tightly choreographed by a hidden machine. Furthermore, the artwork surrounded by the courtyard's Neoclassical façades doubled the proscenium arrangement of the space. It was an architecture that positioned the viewer's body on a primary axis (north/south); the spectator on one side of a line, the performance of the artwork on the other. The viewer's eyes

³³ Marx, *Capital Volume One*, p. 165., in many translations *phantasmagoric form* is replaced with *fantastic form* thus decoupling illusion and its morphological spatial qualities, it produces 'false perception.'

completed the circuit that folded architecture into the fleeting event of an image. Small crowds gathered awaiting the moment of revelation as the clouds capriciously veiled and unveiled the circle of light.

For the Jesuits, a stage play is not an illusionist entertainment but a place where truth is shown, where the invisible is made visible and explicit. They made a strict distinction between *imago* (true image) and *idola* (false images, showing something that is not there; an aberration or deformity). On the stage it is possible to present a true image that counters the illusionism of many plays. They gave a more explicit interpretation of worldly phenomena, and made an invisible order, action or meaning visible and comprehensible for the public. The play of the world is repeated and re-presented with symbolical hints.³⁴

Halo's geometry is reminiscent of the frontispiece to Athanasius Kircher's *Ars Magna Lucis et Umbrae* brought to our attention by Koen Vermeir in his studies of early imaging devices (Fig. 9). He summarises Kircher's metaphysics of light as the structure of divine origin and its mediation towards a perceiving human subject.³⁵ According to Vermeir the sun constituted the absolute light, God symbolised as a source, described by the technical term *lux* (SI term for emittance) that can only be received as a secondary mediated light *lumen*; the SI term is a derivative of *luxo*, light that can be usefully perceived. This diagram's optical gymnastics describes the multiple mediations the divine figure needs to prevent the human subjects' immolation in a direct transcendental communication.

In the first of Plato's three similes 'The Sun' he sets out this *divine economy* mobilising light as a rhetorical device through analogy:³⁶

³⁴ Koen Vermier, 'The Magic of the Magic Lantern (1660-1700)', *The British Journal for the History of Science* 39, no. 2 (2005): 127-159., p. 131.

³⁵ Vermier., p. 131.

³⁶ Where the ultimate goal is that of attaining 'Mystical Knowledge.' See: Peter Kreeft, 'An Introduction to Plato (Lecture 1)', October 2016, <http://youtu.be/RxFe9FYlbtg>.

'Then what gives the objects of knowledge their truth and the knower's mind the power of knowing is the form of the good. It is the cause of knowledge and truth, and you will be right to think of it as being itself known, and yet as being something other than, and even more splendid than, knowledge and truth, splendid as they are. And just as it was right to think of light and sight as being like the sun, but wrong to think of them as being the sun itself, so here again it is right to think of knowledge and truth as being like the good, but wrong to think of either of them as being the good, whose position must be ranked still higher.'³⁷

The figure at the centre of *Halo's* machine is of the order of *imago*, a true image of the sun and its doubles paradoxically claimed by the artists to have the intensity of '100 suns - the 99 reflections plus the sun itself directly' and that, according to the artists, 'the project creates an image of the sun brought down to earth.' Unmediated light (*imago*) rendered through reflection and refraction in mist appears as an image (*idola*), the radically external source, the primary emanation of God is brought to the human subject's attention. Vermeir identifies Kircher's deviation from a strictly Neoplatonist reading of light in that he is "asserting that knowledge is always informed by the senses and by the shadowy world [...]. Man is thus at home in a cloudy, distorted and shadowy world, some paces away from the original light, and if he aspires to see this light he is blinded."³⁸

In this economy value is produced through the exchange. Simply put, wisdom is generated as a primary emanation from the cosmic unknowable other (God), its value is extracted through institutional mediation which converts *lux* into *lumen*, it is then realized in the transfer of an unknowable content to the subject, the control of this 'unknowable' is centred in the techniques of institutional reflection.³⁹ The reception and production of knowledge can only function when

³⁷ Plato, *The Republic* (London: Penguin Classics, 2007), pp. 231-235: 508a – 509a.

³⁸ Koen Vermier, 'Athanasius Kircher's Magical Instruments: An Essay on Science, Religion and Applied Metaphysics (1602-1680)', *Studies in History and Philosophy of Science* 38 (2007): 363-400, p. 140.

³⁹ In this sense wisdom is knowledge crystallised as value.

the subject is properly and precisely spatially positioned. Kircher insists that knowledge is transmitted through 'symbolic hints' folded in 'worldly phenomena.' *Halo's* halo may or may not appear. What is certain is that the artwork could only function 'properly' during daylight. From dusk until dawn it stood dormant. Despite this, the technical apparatus continued to position the viewer within a proscenium, in the double frame of the neoclassical façade and the artworks own mechanisms. In this sense the installation continued to perform into the night where the diagram was made explicit, no spectral image was required for an image to appear. A source is converted into an image through mirrors and refraction in the water droplets, smoke and mirrors; without a source the mechanism itself becomes the image. The viewers body continued to be spatio-optically positioned in the diagram whether or not the sun was above the horizon.

This laying bare of the device echoes the handheld Victorian optical entertainment of the *phenakistiscope* (Fig. 10). According to Jonathan Crary the phenakistiscope "bespeaks a confounding of the three modes: an individual body that is at once a spectator, a subject of empirical research and observation, and an element of machine production."⁴⁰ Rehearsing the constancy of image in cinematic photography, the phenakistiscope produced the appearance of animation (a moving image) through viewing a rotating disk of still pictures through a narrow aperture. This stop frame animation provides its entertainment by aligning a body to an image that is mechanically produced by the viewer turning the wheel to see it dance. The pleasure of the phenakistiscope is that of a domestic toy, the hand-held device is willingly operated by the spectator who maintains the optical entertainment, as long as they spin the wheel the image dances; the payment is a constant investment of bodily energy.

In the encounter with *Halo* the viewer was passive, the entertainment subject to an occluded control system that tracked the sun and in doing so revealed the

⁴⁰ Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (London: The MIT Press, 1992), p. 112.

environmental contingencies of the sky. There was little to be gained on a heavily clouded day. This diagrammatical artwork would seem to correlate more closely with the structure of the diorama or phantasmagoria. Although quite different optical devices, they both arrange images and spectators in a precise arrangement of the body, as Crary puts it a “predefined temporal unfolding of optical experience.”⁴¹ The diorama mechanically moved the spectator through an image that skinned the inside of an architecture, and “by light manipulation on and through a flat surface the spectators could be convinced they were seeing a life-size three-dimensional scene changing with time.”⁴² The experiential logic of the diorama is that of a double movement, a physically mobilised spectator and a transforming image. In order to produce an illusion of the ‘real’ a diorama combines two modes of scenic manipulation; painting and lighting. Daguerre’s ‘double effect’ dioramas fixed the spectators in a proscenium relationship to images that themselves masked some of the mechanics of their production.⁴³

The *phantasmagoria* entirely masked the production machines through back projection. Here, imagery plays on a screen that acts as a membrane between the audience and magic lantern. These were both interior architectures that provide optical pleasure through a high level of control of both the spectators point of view and the mechanics of the production of the images.⁴⁴

If *Halo’s* ‘heady alchemy’ is judged purely on the appearance of its apparatus it would seem to sit comfortably with the neoclassical order of Somerset House.

⁴¹ Crary, p. 113.

⁴² Derek Wood, ‘The Diorama in Great Britain in the 1820’s’, *History of Photography* 17, no. 3 (1993): 284–295, p. 285.

⁴³ Derek Wood, ‘Daguerre and His Diorama in the 1830s: Some Financial Announcements’, *Photoresearcher* 6 (1997): 34–40.

⁴⁴ This membrane, or voile, produces the *illusionistic spectacle* of the late Baroque period. Vermier reminds us that: ‘Bernini produced a famous sketch in 1637, “The Intermezzo of the Two Theatres.” When the curtain rose, the audience saw on the stage another audience, facing them as if to watch a play. Two actors played each for one of the ‘audiences’ and came to realise that their audience was an illusion for the other. The play in the play, mirror before mirror, appearance after appearance, created a *mise en abime* where every vantage point disappeared.’ Vermier argues that the Jesuit Theatre acted as a counter to the Baroque pleasures of illusionistic spectacle where ‘truth was illusionary.’

Although the *phenakistiscope*, diorama and phantasmagoria provide a means to understand the structuring of architectural space and spectatorship that *Halo* exploited, these optical machines were all processes through which an audience could engage in special scenic or image effects. The conjoining of the natural and the technological has parallels with two orders of Kircher's baroque instruments, his Sunflower and Magnetic Clocks (Fig. 11).⁴⁵

Vermeir's analysis of these two devices argues that Kircher's deployment of the '*Gesamtwerk* combining the arts, sciences and nature [was] to glorify God.'⁴⁶ In this way the two instances of clock (sunflower and magnetic) become paradigmatic of an allegory that seeks to connect the 'immanent with the transcendent.' In the case of the sunflower clock, which purports to be driven by the flowers endogenous attraction to the sun, the circular movement 'embodying' the 'tension between mechanical and religious world views', Kircher instrumentalises philosophical and mathematical principles to point to a hidden truth in order "to turn lost souls."⁴⁷ The instruments are instances of the Baroque in so far as they produce allegory through deception and optical illusion, "the magnetic came to stand for the divine ordering principle in the cosmos, connecting the worldly and the heavenly."⁴⁸ Illusion is propagated through hidden mechanisms. In answer to Plato's demand that the philosopher "uses persuasion or compulsion to unite all citizens and make them share the benefits [...]. And so,

⁴⁵ Kircher: *Artis et Nature Conjugium*; art and nature yoked together.

⁴⁶ Koen Vermier, 'Bent and Directed Towards Him: A Stylistic Analysis of Kircher's Sunflower Clock', ed. Gal Ofer and Raz Chen-Morris, *Springer: Science in the Age of Baroque*, 2013., p. 21; Vermeir applies a style concept method developed through Ludwig Wittgenstein's formulation: Language Games in Language Game. That is to understand an instance one has to understand a culture. This macro/micro analysis provides Vermeir the means to tackle the 'baroque problem' through instantiations of style as paradigmatic cases of the 'knowledge practices' of the Baroque period.

⁴⁷ Vermier., p. 22.

⁴⁸ Vermier., p. 22.

our state and yours will be really awake, and not merely dreaming.”⁴⁹ Kircher returns to the ‘cave’ with instructive devices.

Inviting audiences to look at one of London’s favourite public spaces through a new magical lens. This June, situated within Somerset House’s famous fountains, a large scale, futuristic sculpture will bring the sun down to earth in a heady alchemy of nature and technology.⁵⁰

What then do we see through this ‘magical lens’ which is really an image projected into a veil of mist? It was not an instrument that we saw through, it was a device within which an image appeared where nature and technology operated on each other to concretise as art. *Halo* replaces the Sunflower Clock’s unification of ‘art’ and ‘science’, with ‘nature’ and ‘technology.’

In *Light Touches* Alice Barnaby identifies the tendency of Crary’s arguments in *Techniques of the Observer* to suppress or silence “other forms of sensory knowledge.” For Barnaby there is a danger in only understanding optical devices through simply ‘equating light with sight.’⁵¹ The *phantasmagoric effects* of the nineteenth century were generated in respect to an image source and its optimum axis of projection, the direct vector of the image and its reception via a screen. The audience is positioned in the machine through a spatial relationship to it and retroactively, to the objective lens. The lens becomes the centre; a conduit through which the image comes to the senses and completes its axis through folding it into a circuit. The illusion manifested in the slight of optics that conflate image and space, dramatized by *Pepper’s Ghost* (Fig. 12), demonstrate that when the source of light is mediated power and control are implanted into the transmission. The mediation of the reflective plane of *Pepper’s Ghost*, the screen that we unknowingly see through and gaze upon, is an instance of a *plane*

⁴⁹ Plato, *The Republic.*, p. 248: 502a.

⁵⁰ sommersethouse.org.uk, ‘Kimchi and Chips’, 2018.

⁵¹ Alice Barnaby, *Light Touches: Cultural Practices of Illumination 1800-1900* (London: Routledge, 2017). Barnaby’s research is also concerned with ‘the new formations of sensory knowledge’ that emerged in the radical transformation of light and space in the nineteenth century.

of control. An individual's pleasure (wonder) in the ghostly appearance falls into the control of the group constituted by the audience. The appearance of the image, a sensual apparition, falls into its mechanical reproducibility. Crary describes that in a "demonstration of the technology [that] itself is attraction enough, [...]. The dematerialisation of architectural surfaces into projection screens signals the reversibility of what had been established figure/ground relations within an urban fabric [...] effectively displaces the built city to the oblivion of a cognitive periphery."⁵² Even when the audience is positioned outside of the machine, able to see both its technical apparatus and the spectral image of the ghost, it continues to operate. The apparent autonomy of the 'magical machine' is folded into its spatial context.

The concentration of reflective and transparent surfaces in brightly illuminated environment forced complicated trajectories of light into a seemingly endless cycle of repeating reflections. Individuals could move around, interact with, and observe each other and their accompanying reflections. [...]. There was no set script; instead it was a non-narrative, spontaneous, open-ended and self-generating a drama. Visitors would enter this promenading space where display and performance were coterminous with looking at others. Consequently, they initiated a fragmentation and multiplication of their represented selves. [...] creating a loop of visual production and consumption that folded endlessly back upon itself as the visitor was both subject and object of their own performance.⁵³

Barnaby, taking up the issue of fully embodied viewers willingly positioning themselves within an instructive device, provides a study of mirrored entertainment structures and the proliferation of reflective surfaces into the built fabric of Victorian London. In order to arrive in an East London Victorian Gin Palace there are some movements which need to be accounted for first: a Gentleman's study, a pleasure garden designed to attract the attention (and cash)

⁵² Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture* (London: The MIT Press, 2001), p. 366.

⁵³ Barnaby, *Light Touches: Cultural Practices of Illumination 1800-1900.*, p. 78.

of the leisured classes of the early industrial period, and then a city coated with the techniques of fragmentation and reflection. In this movement a unitary image is broken, mixed with others and reconstituted.

Now a pervasive optical toy, the *kaleidoscope* was invented by popular science communicator Sir David Brewster in 1815. This champion of Victorian scientific rationalism, biographer of Isaac Newton and pioneer of experimental optics used this viewing tube as an instructive instrument to demonstrate the unitary principles behind the chaos of nature. Through a beautiful form watcher, *kalos eidos scopos*, fragmentation is held at a distance and is shown originate in a principle that can be controlled and regulated (see; Artwork 7). At the moment the spectator's eye is captivated by the image the optical principles of reflection can be playfully inspected and modified with the twist of the hand, or the turning of a crank.

1822, seven years later at Vauxhall Pleasure Gardens, the *Heptasplasiesoptron* provided the paying guest with an opportunity to enter an expansive spatialised kaleidoscope, one in which performing bodies entered the space of Crary's eye. In stage set designer Mr Bradwell's fully realised interior architecture, the play on reflection and movement, 'being-in' the space of image production, was an optical dispersal and proliferation of the spectator's body. The spectator could literally see their fragmented body meshing with other bodies in space. A 'pleasure garden experience' folded the space of the eye into the body. In fracturing the subject into a multiplication of represented selves, a radical bodily decomposition coalesced spectating subjects into an *image morphology* where control over its affects slipped (see; Artwork 9).⁵⁴

However delightful and engaging the *Heptasplasiesoptron* might have been to the participants moving spellbound in a play of light and image, it also marked a new kind of optical consumption and less manageable vectors of desire, where 'slivers

⁵⁴ Barnaby., p. 77.

of self would have separated, multiplied and reformed in unnatural configurations.⁵⁵ In these vortices, the control of the 'Natural Philosopher's' kaleidoscope, an optical technique for rational speculation, is popularised and commodified, the reflected images it produced loosened its ties to the moral imperatives of an instructive device.⁵⁶ Brewster, although probably not thinking of any pleasure garden, saw clearly that scientific rationalism was as subject to commodification as anything else in the Victorian economy. "In the true spirit of a *nation boutiquiere*, it is said that every commodity, and science amongst the rest, will always, if left to itself, fetch its true value; and that, if required by the public, the demand will necessarily occasion the requisite supply."⁵⁷ Brewster was arguing that as science became increasingly subjected to the demands of industrial production it was losing the vital relationship of its theoretical development to its practice.⁵⁸ His invocation of a boutique shows us a place in which all enterprises became subject to the law of demand, where the exacting standards of moral rationalism were forced to sit beside and within other unitary subjects. The *Heptasplasiesoptron* made it impossible to establish a vertical composition or a stable hierarchy. Neither did it produce a horizontal serial order, a sequence of events. Instead, its morphology not only wrapped the subject in multiple images but created glimpses of other subject positions. As Barnaby notes, "they became a witness to their own and other's pleasure."⁵⁹

The urban subject could be filled willingly with architecture that induced delirious mind-altering states where image, body and physical space coalesced. In *Addictive Architecture: The Crystal Palace, Gin Palaces and Women's Desire* Julia

⁵⁵ Barnaby., p. 80.

⁵⁶ For a detailed account of the 'epistemic' moral imperative of mid eighteenth-century natural sciences see: Richard Yeo, 'Natural Theology and the Philosophy of Science in Mid Nineteenth Century Britain', *Annals of Science* 36 (1979): 493–516.

⁵⁷ David Brewster, 'Observations on the Decline of Science in England', ed. David Brewster, *Edinburgh Journal of Science* 5 (1831), p. 11.

⁵⁸ John Adams and Urbain Le Verrier in 1846 calculated the position of the planet Neptune through theorising that an unknown body can perturb the known; proving the cause of an effect.

⁵⁹ Barnaby, *Light Touches: Cultural Practices of Illumination 1800-1900.*, p. 81.

Skelly establishes how limits were placed on this *new image morphology*. Gin Palaces and Public Drinking Houses now resplendent with artificial lighting and reflective surface decoration, an interior architecture after the *Heptasplasiopton*, created a context in which the “temptations and dangers of sensory escape”⁶⁰ would seduce the spectator/drinker through aesthetic strategies such as the use of glass and decorative elements.⁶¹ With more access to a heady combination of relatively affordable alcohol within spaces of kaleidoscopic image transformation, the social status quo was challenged by the increased spending power and leisure time of a more mobile working class. An arena once controlled by the ruling classes and the bourgeois, became available to the masses. Filled with lure and beguilement, this new private architecture meant that non-functional light became implicated in the process of moral degeneration through the distortion of reality. Within this play of façade, body, light and image a new subject appeared.

The Gin Palaces accelerated a general anxiety that ‘the women’s desire in this image is not specifically for alcohol, but rather for the right to be present, to move, to look, to see, and to consume the things on display.’⁶² This Mid-Victorian morality is one of a selective resistance, a gate keeper to the absorption into commodity fetishism; a “... [desiring consumption] would subsume people in a constantly self-perpetuating cycle of repetition and elusive pleasure.”⁶³ It observed and feared that in this proliferation of images an emancipated subject had appeared, bodies collided with each other and the relationships between them become unstable and unpredictable. Through controlling the proliferation of these images, bodies could again be contained in the objectification of a proper

⁶⁰ Barnaby., p. 90.

⁶¹ Julia Skelly, ‘Addictive Architecture: The Crystal Palace, Gin Palaces and Women’s Desire’, *The Social History of Alcohol and Drugs* 25, no. 1–2 (2011): 49–65., p. 55.

⁶² Skelly., p. 51.

⁶³ Skelly., p 51.

moral rational optic, the desiring subject realigned through an axis of monocularity.

Self-generating micro-dramas unfolded at the pleasure garden in momentary chaste dances; where seeing became 'the end in itself.'⁶⁴ A more disruptive economy of the gaze emerged within the Gin Palaces, a self-policing bourgeois entertainment was replaced by a radically new spectator, one whose gaze could look at the one, the many, or the none at all. Indeed, one that looked only for their own reflected self. The movement from the rational eye to an 'addictive architecture' took less than a decade.

This transformation economy was driven by artificial light, reflection and the production of delirious architectures that utilized new manufacturing processes. As Joseph Pine and Kim Korn ask a century and a half later in their aptly titled popular business handbook *Infinite Possibility*: 'What do your customers aspire to become? What core human needs are met by your offerings that could enable a transformation?'⁶⁵ Pine and James Gilmore have made one important addition to the economic matrix developed in *The Experience Economy*: transformation.⁶⁶ Transformation is the outcome of the experience of the event; "...[they] are only the earthly possibilities for the perfection God can one day instil."⁶⁷ In Pine & Gilmore's terms, the 'sensorial' has been replaced by the 'sensible'. The fundamental shift they identify is that from the 'detectable' object of exchange, to the 'sensible' atmosphere of transformation, where the basis of purchase 'price' has mutated to an induction of "aspirations, hopes, [and] dreams."⁶⁸ The delivery

⁶⁴ Barnaby, *Light Touches: Cultural Practices of Illumination 1800-1900.*, p. 74.

⁶⁵ Joseph Pine and Kim Korn, *Infinite Possibility: Creating Customer Value on the Digital Frontier* (New York: Berrett-Koehler Publishers, 2011)., p. 171. I return to Pine and Korn in the section Retinal Architecture.

⁶⁶ Joseph Pine and James Gilmore, 'Welcome to the Experience Economy', in *Harvard Business Review* (Harvard: Harvard Business Review Press, 1998).

⁶⁷ Joseph Pine and James Gilmore, 'The Experience Economy: Past, Present and Future', in *Handbook on the Experience Economy*, ed. Jon Sundbo and Flemming Sørensen (Harvard: Harvard Business School, 2013)., p. 24.

⁶⁸ Pine and Gilmore., p. 24.

method of the *experience economy* is participation; the subject willingly enters the staged environments and co-produces their effects.⁶⁹ The *transformation economy* eschews participation, instead the exchange is induced and is subject to a charge. "In the full-fledged *Transformation Economy*, we believe buyers will purchase transformations according to the set of eternal principles the seller seeks to embrace - what together will last."⁷⁰ Fundamental to the exploitation of transformation is the shift from events designed to absorb the subject in experience towards integrated immersive architectures within which the subject dwells.⁷¹ The logic of this economy of the eternal is its replacement of a discrete object with an enveloping totality.

SCREEN

Piccadilly Lights is a massive advertising panel that has recently replaced an array of smaller screens, it lights up much more than itself and the circus (Fig. 13).⁷² This digital hoarding has to curve around a corner to conform to the building upon which it is hung. What it has is brightness which, as Böhme asserted, is the fundamental phenomenological fact of light.⁷³ This surface has to be observable in the sunlight. It has to compete with what the natural world gives freely. These arrays constitute the current technical limit of architectural hoardings that through successive technological stages have been applied to architecture. Not integrated into the façade but applied crudely, it covers it up. It is the intensity of the radiant energy that at night pulses across space onto surfaces and bodies. The screen is real estate with each of the 11,858,400 pixels 'a space for rent.' Time on

⁶⁹ Schivelbush: the cinefication of the theatre the audience has to willingly participate in the proscenium construction of the image.

⁷⁰ Joseph Pine and James Gilmore, *The Experience Economy* (Harvard: Harvard Business Review Press, 2011), p. 299.

⁷¹ Pine and Gilmore, 'Welcome to the Experience Economy', p. 101.

⁷² Landsec, the owner of Piccadilly Lights, has replaced the original patchwork of screens with a single state-of-the-art 4K LED digital screen and live technology hub, the screens to react to certain external factors, such as the weather or temperature. This enables brands to display creative and innovative content, such as weather-appropriate clothing. (piccadillylights.co.uk)

⁷³ Gernot Böhme, *Atmospheric Architectures* (London: Bloomsbury, 2017), p. 200.

screen is pure income stream, the highest bidder rents to occupy the largest territory for the longest time. Hidden sensors log the date, time and climatic conditions, a look up chart is referred to, an algorithm of product applicability through a function of rent/time chooses the scene and makes the cut from one to another. This technique is not yet ready to image the spectator within its production, not yet able to capture the pedestrian and clothe them it what it has to offer. 'Piccadilly Lights' is not a digital *Heptasplasiesoptron* enslaved to an advertising that integrates the urban subject (consumer) with the spectacular object (product) in a proliferation of images, in which each spectator is delivered a fully individuated image moment; an image for you and only you.

Beyond the set piece arrangements of the public demonstration, pageant, ritual, the sensuous city is fragmented. Benjamin observed this when stepping onto a pavement in Paris. He was captivated by a glimpsed reflection in water. In a short notation, "These Spaces For Rent", he writes of a 'fiery pool' supporting an image of the domination of the commodity fetish over the senses and the city.⁷⁴ A red neon sign is doubled and abstracted through what I can only imagine is a puddle in the road. This radiant image is written in the contingent relationship between the sign and its context. It appears in the interface of the fabric of the built environment and a careening sign.⁷⁵ But the appearing is fleeting, occurring only in the moment when a body and eye are brought into a relationship with an object, are aligned with a sign and a place. In this coincidence, Walter Benjamin observes the radiant aura of Marx's commodity fetish skittering across a turbid surface. A mirror becomes a window, the illuminated commodity is revealed through a double substitution - commodity to sign, sign to its abstracted

⁷⁴ Walter Benjamin, *One Way Street* (London: Harcourt Brace Jovanovich, 1979), p. 89.

⁷⁵ Careen has two meanings; to tilt and to move swiftly in an uncontrolled way; both in a dizzying fashion. As a boat tilts, gravity's unrelenting pull on the body forces a readjustment, a rebalancing. Forces beyond the body, human or ship, shift the horizon and destabilise vision.

reflection - 'the money fetish is therefore the riddle of the commodity fetish, now become visible and dazzling to our eyes.'⁷⁶

Through Benjamin we can see the commodity appear 'dazzling to our eyes' in an evanescent moment on a street in need of repair. The sign is emptied of its content only to reveal its secret theme; 'the enthronement of merchandise' where any 'intrinsic value is eclipsed' and the urban subject submits 'to being manipulated while enjoying their alienation from themselves and others.'⁷⁷ This is a play of appearance and reality; the commodity as appearance. Reality is revealed through a distorted reflection. Advertising is aimed at the urban subject, the city becoming an unbound projection machine.

In *Nights in the Big City* Joachim Schlör pursues the trajectory of public artificial lighting in Europe from 1840 to 1930. In this history of nocturnal urbanism, Schlör identifies 'three fundamental areas in which conflicts are played out: security, morality, and, lying across the other areas, and penetrating both, accessibility.'⁷⁸ He relates the effects of lighting technologies to the production of new formations of the city and urban subjectivity. These are cities where artificial light produced new temporal zones of social and economic activity. In extending the use of the city at night, societal 'norms', the rules of civil behaviour and the law were empowered to occupy spaces that had formally enjoyed the cloaking shadows of darkness. From the medieval period, Europe's towns and cities had progressively formalised the policing of the night: the gaze of the state embodied in the *night watch* to its technological replacement.⁷⁹ The close vision of the *watchman* replaced with the artificial illumination of the streets is not simply that of lights taking the place of a body of men, but one that includes distributed embodied vision in surveillance equipment as a spectral presence. Schlör's

⁷⁶ Marx, *Capital Volume One*, p. 187.

⁷⁷ Walter Benjamin, 'Paris, Capital of the Nineteenth Century', in *Reflections: Essays, Aphorisms, Autobiographical Writings* (London: Harcourt Brace Jovanovich, 1978), p. 152.

⁷⁸ Schlör, *Nights in the Big City*, p. 22.

⁷⁹ Schlör., p. 73.

history shows us the process through which an authority once vested in the literal body is displaced into the distributed networks of artificial illumination.

Accessibility is connected to industrial capitalism and the intensification of both material production and bourgeois consumption.⁸⁰ Electric light produced the context for the temporal extension and spatial occupation of the city at night. This colonisation of the dark and its domestication, is brought to life in Jack London's description of the West End of London on the Coronation of Edward VII in 1902.⁸¹ London evokes a nightscape of mountains and valleys where savages hunted in the shadows of the poorly lit slums bounding Commercial Road. In the passage of Victorian England into the 20th Century, a shift from gas to electric lamp, the city apparently continued to slip between spaces of productive light and a subversive, fear laden, darkness.⁸²

Anyone who came out of one of the gas-lit side streets and entered [Stephansplatz and the Graben in Vienna] felt as though he were stepping unexpectedly out of a half-dark passage into a room filled with daylight.⁸³

In *24/7* Crary notes that "an attention economy dissolves the separation between the personal and professional, between entertainment and information, all overridden by a compulsory functionality of communication."⁸⁴ This affect space

⁸⁰ Schlör., p. 58.

⁸¹ Jack London, *Jack London: The People of the Abyss* (London: Tangerine, 2014), pp 119-211.

⁸² See: Wolfgang Schivelbush, *Disenchanted Night: The Industrialisation of Light in the Nineteenth Century* (London: California, 1995). His version of the transformation of the European urban nightscape in the same period argues that 'police light' provides the 'framework [...] within which commercial lighting can unfold.' Security, the basis for 'moral' activity, created an opportunity for the uniformity of street lighting to be 'coloured' by commercial lighting. New urban atmospheres emerged in this co-production of lit space. Both Schlör and Schivelbusch demonstrate the process through which the economics of entertainment and consumerism were propagated within the luminal net of street lighting. The heterogeneous illumination of shopfronts, the bright colours of private enterprise, radiated outwards framing the new desirable products of industrial production and global colonisation. Large float glass windows celebrated 'products' forming the filaments of capitalism's incandescence.

⁸³ Schivelbush., p. 118.

⁸⁴ Jonathan Crary, *24/7: Late Capitalism and the End of Sleep* (London: Verso, 2014), p. 76.

is not only visual, the subjective body is also dragged through the systems apertures.

There are two distinct modalities through which panorama's produce a "persuasive experience of imaginary production."⁸⁵ The normative model of the panorama fixes spectators around a single image. Through an arrangement of viewing optics, or the construction of viewing hall, an assembly of spectators can all observe the same image as it rotates in front of them, "giving them the illusion of moving through the world at an accelerated rate," an image passes as an analogue of the world behind them preparing them for the street outside and reordering the street that they have just left.⁸⁶ The participants are all viewing the same image at different points in time or space, what one sees the others have seen or are about to see. When the machine is fully populated the whole panoramic image is being observed as a totality. Although difficult to glean from the outward appearance of the apparatus, the *Kaiserpanorama* is very different, this machine provides each spectator with a sequence of stereoscopic still images (Fig. 13). The apparatus delivers each still to each viewing position, when this machine is fully populated all the spectators are seeing different images at the same time.⁸⁷ For Crary these machines locate the "'industrialisation' of visual consumption [...], in order to prevent attention from veering into a trance or daydream."⁸⁸ The mechanical, rhythmic structuring of image delivery is one that overtakes the subject. In surrendering to the entertainment, chained to optical apertures, the 'coherent relations between image and observer are destabilised.'⁸⁹ These panoramas functioned as closed systems of image observation. The closed system of the street-with-sign includes street, it is not sign in street, rather the

⁸⁵ Crary, p. 76.

⁸⁶ Susan Buck-Morss, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project* (London: The MIT Press, 1991), pp. 80-82.

⁸⁷ Benjamin, *One Way Street*, pp. 55-56. 'Imperial Panorama' (Kaiserpanorama) Benjamin observes that 'all close relationships are lit up by an almost intolerable cruelty',

⁸⁸ Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture*, p. 295.

⁸⁹ Crary, p. 295.

system is a totality. Following Susan Buck-Morss, the panorama is only a guide to understanding the street, not a model of it.⁹⁰ The physical interface of the viewing machine has to disappear because it provides the security that the observers are positioned around a knowable and therefore manageable apparatus.

Tired workers are stimulated, re-energised in order to participate in new delirious economies. By stepping into the forced technological daylight, the distinctions of circadian time are disrupted, the night and the day rubbed into one another and dissolved. Schlör warns of the limitation of any teleology of progressive illumination, its dispelling of an ‘alien region of fear that is conquered and finally subjugated.’⁹¹

This locus of inspectability is extended by Chris Otter in the *The Victorian Eye* explores the ‘more dispersed operation of power in urban spaces’ which underpinned nuanced liberal subjectivity.⁹² He argues against the dominant ‘panoptic’ model of supervisory control as too reductive to account for the emergent complexity of new urban subjectivities. Otter’s formulation of the hygienic dimensions of industrial urbanism - ‘Hygeia’ - develops through a complex combination of infrastructural and bureaucratic layers: hygiene inspection, street planning, modes of lighting and illumination technologies. Its central thrust is towards an emergent history of urban subjectivity where “visual networks themselves materially reinforced, reproduced, or reified the perceptual imaginary dividing society.”⁹³

The illumination of the urban nightscape is gradual, experimental and progressive; it creeps and grows, it colonises. It is the cumulative weight, a gradual proliferation, that provides the perceptual shifts which mark a new

⁹⁰ Buck-Morss, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project.*, p. 83, pp. 89-95, pp. 292-312.

⁹¹ Schlör, *Nights in the Big City.*, p. 68.

⁹² Chris Otter, *The Victorian Eye: A Political History of Light and Vision in Britain, 1800-1910* (London: University of Chicago Press, 2008), p. 53.

⁹³ Otter., p. 260.

paradigm of urban visibility. Each technological intervention produces a 'condition of possibility' through which new subjectivities can congeal.⁹⁴ If artificial light is used to inspect a hospital for cleanliness in its first instance, then artificial light becomes the tool for maintaining hygiene as it is installed in the street. The priori condition 'grime' in the hospital is then mobilised as 'crime' in the street. A streetlight constitutes the drive towards urban inspectability. Street illumination is never one thing, it resides within a complex of meshed issues.

TWO ARIAS

The house lights dim. The corpus of the audience, a metonym for the external social world, congeal to form a retinal architecture. This produces an audience whose gazes are equalised; the hierarchies of the day nullified into the collective viewing of the second space of the stage. This spatialised platform moves towards a spatial image whose veracity is maintained by the dark space of the auditorium. A theatre crowd was distinguished by André Bazin through establishing two modes of 'mass mentality'; the cinematic and theatrical.⁹⁵ This basic formulation of the 'seeming' and 'being' of the cinematic and theatrical locates the problem of a palpable and an empathic body. For Bazin, on stage a real body acts as bar to the desiring male gaze. The cinematic body conversely provides a geometry of gaze that allows an imaginative replacement, a space of empathy, the physical bar of the actor's body (an impediment to my fulfilment) is removed and thus I am calmed. The theatrical an 'active individual consciousness' and the cinematic a 'passive adhesion', or, a shift between the effects of a theatrical excitation and a cinematic calming. The audience that was once socially and optically positioned around and subjugated by the singular gaze of the King, was afforded a more equal relationship to the deep space of performance (Fig. 15).⁹⁶ Stage becomes a

⁹⁴ Otter., p. 262. There is a close correlation with Sloterdijk's 'vectors of contagion' and the locus of inspectability outlined 'Hygeia'. Identity, the sense of a body congealing through a definition of a limit through which none should pass.

⁹⁵ André Bazin, *What Is Cinema? Volume 1* (Los Angeles: California, 1967), p. 99.

⁹⁶ In Schivelbush's account of the historical transformation of European theatre he argues that footlights in early and baroque theatre were orientated away from, and thus arranged around, the Emperors or King's gaze. Representing an axis of power, creating a centre for a particular

plane with new depths afforded by artificial light. The stage light whose first purpose was to make the face of the actor more visible to the crowd, most potently the King, is now liberated to become the constructor of illusion and prosaic alternate realities. The difference between illusion and objectivity is propped up by the architectural relations of stage, auditorium and the preferred ocular subject “because, without any physical instrument other than architecture and geometry, [...] it gives power of mind over mind.”⁹⁷

Over the three hours that *Don Giovanni* unfolded around a slowly rotating stage at the Royal Opera House, all the contemporary modes of stage lighting were mobilised.⁹⁸ In particular, the soft white follow spot allowed even the most distant audience members to glean something of the faces on stage, its light touched and at the same time privileged the singer’s corporeal presence. As the beam followed the singer, it also revealed the operator high in the auditorium, each movement that was only just in time and just in place. An eruption of digital video projection banished the analogue light. In a dizzying display of line and colour Luke Hall transformed the physical stage into a play of image and matter, screen and stage. It produced a clear model of the contemporary image space of a media architecture. Keeping time with a kinetic architecture, the dynamism of the projected and spatially mapped animations framed, reconstituted and morphed the physical structure of the space (Fig. 16).

Don Giovanni’s layering of video animation and stage lighting required no voile or precisely installed plane of glass to conflate body and projected image.⁹⁹ Not one

attention, the stage flattened to a line ordered by the sources, the actors positioned by the lights at the stage front. The face of address was always towards a singular location in architecture; the seat of the King.

⁹⁷ Foucault, *Discipline and Punish: The Birth of the Prison.*, p. 206.

⁹⁸ Seen by the author, live at the Royal Opera House and again on a large projection screen. Amphitheatre H-59, 25th June 2015. Music: Wolfgang Amadeus Mozart; Libretto: Lorenzo da Ponte; Director: Kasper Holten; Set designer: Es Devlin; Video designer: Luke Halls; Costume designer: Anja Vang Kragh; Lighting designer: Bruno Poet; Choreographer: Signe Fabricius.

⁹⁹ A very fine gauze or net deployed in layers between or behind the action on stage allowing light to either reveal or obscure what is behind it.

element had to disappear for the *mise-en-scène* to work. Whether the machines are stage left, right or high in the fly tower, or stacked in with the audience, they are included in so far as they are peripheral. Outside the frame of the image the audience's attention is the masking device; it is both spatial and spatialised. In order for the image mappings to work for its aggregated audience they have to function spatially, in other words to appear to be undistorted and appear to emanate from the surface of the set.¹⁰⁰ Woven into the printed images on the costumes, analogue traces of the projections were made in advance of them, more fixed, tactile and sensual. For the rotating stage within a stage to function both as architecture and screen, new morphologies of projection had to be deployed. To project a stable image onto a surface that is moving, the image has to twist and bend with it. Somewhere in this visual barrage, through an act of profound bodily excess, Dorothea Röschmann reasserted her voice, its resonance cut through both the light and dark, rending space and penetrating us (Fig. 17)(see; Artwork 7 & Artwork 9).

A luminous economy is expressed and deployed through the multiple modalities of light, performance and projection exploited in this production of *Don Giovanni* had a formal coherence and a performative clarity when understood in the context of contemporary media distribution and consumption. It connected live performance with screen based (broadcast) platforms for a variety of audiences. It wove lens-based technologies throughout its creative conception, dramatic production and its continuing digital distribution. This economy of the stage has to be understood as an optical architecture predicated on lens morphologies. These optics are the producers of the effects, active agents in the performance, and the means of their own capture and redistribution. If there is an equivalence to be found in this optical spatialization it must be that of the audience, seated in the half light of the auditorium, cinema or couch. Their eyes all completing the circuits of motive luminal power in order to see *Don Giovanni* emerging in the

¹⁰⁰ All seats, in the Opera House itself or the cinemas around the globe.

same vortex of light and voice. The lenses' mutability and mobility produce spaces that aggregated audiences into a retinal architecture.

More than 1,200 sweating spectators had squeezed into the humid, marble-walled caucus room of the Senate Office Building. Before them klieg lights glared; six movie cameras were trained on one vacant chair. Michigan's Senator Homer Ferguson, a man with a reputation as a prosecutor, stood behind a little forest of microphones and an underbrush of wires, and kept his eyes trained on the main door. [...]. Sensing the crowd's restiveness, Homer Ferguson announced reassuringly: "Mr. Hughes will be here."¹⁰¹

An empty chair is only empty in so far as it frames the architecture of the inquisitorial machine, the apparatus of broadcast and distribution, it is in the Senate Office and also already outside. The visibility and inclusion of the technical means of distribution points to the 'crystalline' *Gesamtkunstwerk*.¹⁰² The inquisition in light through camera in this televisual image are metonymical of the judicial state apparatus. Lights and cameras are at least as prosecutorial as Senator Ferguson with a 'forest of microphones' amplifying and distributing justice, guaranteeing through media a full transmission of evidence. Reality, or at least a story of justice is then an effect of this crystalline image, which in turn is propelled into the repeatability of a generic *mise-en-scène*; a style of justice or the style of a state. There is always one more camera included in this *mise-en-scène*, that is the camera that frames all the cameras, the point of view that purports to see it all, the aggregator of a 'reality effect.'

A Klieg Light produces and signs a powerful observation. It is a light made for a camera. It might well be the case that in contemporary cinematic production nothing rendered as an image needs to have anything to do with the palpable. Digital compositing can both replace the physical space of action and even, in some *Avatarian* spectacle, the removal of any necessity for a camera at all.¹⁰³ With

¹⁰¹ 'The Congress: Dual Under the Klieg Lights', *Time Magazine*, 8 1947.

¹⁰² A 'total work' that exposes its means of technical production.

¹⁰³ See virtual camera movements; James Cameron, *Avatar* (Twentieth Century Fox, 2009).

modern production infrastructures the technical assets and actors can morph in perfect focus across the time and space of the image. The point of view is now another mutable element that can seemingly fly, liberated from the problematics of gravity and the awkward breathing mass of the focus puller's body. Focus, depth of field and frame rate are all equally mutable and defined more by the limits of the space of projection than the limits of the set, whether it be constructed in a studio or found in the landscape. At a time when this was not possible the Klieg carbon-arc lamp with its Fresnel lensing offered to cinematographers an intense controllable beam of light that could extend the possibilities of depth of field. However, two figures are not yet present under these Klieg lights: Howard Hughes and not Howard Hughes, *Citizen Kane*.¹⁰⁴

Greg Tolland, cinematographer of *Citizen Kane*, wrote that its "keynote is realism [...], the picture should be brought onto the screen in such a way that the audience would feel it was looking at reality rather than merely at a movie."¹⁰⁵ Kane's 'reality effect' is also a point of view that purports to see it all.¹⁰⁶ According to Bazin, Welles 'restored to reality its visible continuity.'¹⁰⁷ It is in Tolland's obsessive pursuit of solving the technical problem of perfect universal focus that visible continuity is fused with Welles' and Tolland's radical negation of visual perception. If a 'normal' visual reality is formed through the mental aggregation of peripheral vision and optical fragments, *Citizen Kane* asserts a perspectival architecture of vision that allows the 'hectic eye' a space within which to roam.¹⁰⁸ Juhani Pallasmaa's conception of the 'hectic eye' correlates to the lens of a mobile camera. In 1940 the eye that moves was still embodied in the audience. In

¹⁰⁴ Welles, *Citizen Kane*.

¹⁰⁵ Greg Tolland, 'Realism for Citizen Kane', *American Cinematographer*, 1941, 54–80.

¹⁰⁶ For an extended analysis of the techniques see: Patrick Ogle, 'Technological and Aesthetic Influences on the Development of Deep-Focus Cinematography in the United States', in *Movies and Methods Volume 2*, ed. Bill Nichols (London: University of California Press, 1985), 58–82., pp. 71–72.

¹⁰⁷ André Bazin, *Orson Welles* (Los Angeles: California, 1972), p. 28.

¹⁰⁸ Juhani Pallasmaa, 'Space, Place and Atmosphere: Peripheral Perception', in *Architectural Atmospheres: On the Experience and Politics of Architecture*, ed. Christian Borch (Basel: Birkhauser, 2014), p. 29.

rendering the proscenium image, albeit from highly manipulative points of view with a maximally resolved depth of field, the audience is invited to flit through a space where the expression on the actor's face, distant in the space of the frame, is granted the authority of legibility (Fig. 18).

Extended depth of field for Jean-Louis Comolli is cinema's "mutual reinforcement of an ideological demand."¹⁰⁹ Through the practical realisation of cinematographic verisimilitude the 'reality effect' becomes a source of profit, an *optical economy* driven through distribution and the enrapturing of an audience. In *American Cinematographer* Tolland writes of a cinematographic 'reality' as an analogue to the world outside.¹¹⁰ The movie provides rendered images that are predicated on Welles's conception of a space which Kane would conquer, then another into which he would inevitably retreat: Xanadu, a media architecture formed through a collection of signs of power. Tolland was able to deploy this unique cinematographic technique enabling him to place light source into the depth of the sound stage. This created enough light for an exposure that, whilst burning the actors, rendered faces at extreme distances in focus. This 'universalising geometry' creates one shot instead of a sequence of shots; 'all shots stacked up in the depth of field view', the sequence of reading aggregated into an optical architecture.¹¹¹

In reality, the audience is not free to roam. Stage 19 is the definition of an optically determined architecture where complex points of view and deep focus could be constructed to enable *Citizen Kane's* new form of cinematic representation. Exploiting fast film stock and experimental lens coatings the whole set could be rendered in the plane of focus. The ceiling and the floor became as malleable as the walls. "The first step was in designing sets which would in themselves strike

¹⁰⁹ Jean-Louis Comolli, 'Technique and Ideology: Camera, Perspective, Depth of Field', in *Movies and Methods Volume 2*, ed. Bill Nichols (London: University of California Press, 1985), 40-57., pp.54-55.

¹¹⁰ Tolland, 'Realism for Citizen Kane', p. 54.

¹¹¹ Jean Mitry, *Semiotics and the Analysis of Film*, trans. Christopher King (London: Athlone, 2000). For an extended analysis of the geometry effects of depth of field see 'The Shot', pp. 59-90.

the desired note of reality.’¹¹² The infrastructure remained invisible. Welles’ and Tolland’s notion of realism had nothing to do with a lived reality or even any kind of cinematic naturalism. This automation of perception is the automation of a total body. Crary’s assertion that the automation of perception “in which an individual and collective subjectivity take shape in a multiplicity of images, sounds, crowds, vectors, pathways and information, [...] ‘to be “spellbound” in front of the cinematograph is both of these, immersed in a collectivity and simultaneously separated in absorptive solitude. [...] [in a] a patchwork of fluctuating effects in which individuals and groups continually reconstitute themselves - either creatively or reactively.”¹¹³

MESHING

The *luminous economy* manages: visibility, inspectability, attention and conditions the fundamental endogenous biological responses to it. Cellular, hormonal, affects are coterminous with urban subjectivities absorption into the capitalist image space. The stability implied by street lighting provides a plane upon which it is safe to join a dreaming collective in the ‘image that pervades all appearing.’¹¹⁴ Practical urban lighting renders a space of image consumption. It speaks of a regulatory system, a ground, that can support a figure or an image. The *Heptasplasiesoptron* confounds that logic, there is no stable figure or ground, no definite body to touch, simply a willing participation in becoming meshed. Renting time in cascading image spaces, and ‘because power is always spectacle’ is most potent when rendered invisible.¹¹⁵ Included in the images thrown back from architectural skeins, ‘attention’ and the ‘harsh law of profit’ are the tain of the reflective moment, the economy, the base inside the operations of image spaces for rent.

¹¹² Tolland, ‘Realism for Citizen Kane’, p. 54.

¹¹³ Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture.*, pp. 365-370.

¹¹⁴ Beller, *The Cinematic Mode of Production.*, p. 1.

¹¹⁵ Debord, *Comments on the Society of the Spectacle.*, p. 143.

For Lefebvre capitalism first forces a cut, “the caesura [...] [where] everything stopped, and something else appeared: in the place of the unreal, the imaginary, the appropriated illusion, was the harsh reality of domination: in the place of contemplation and the dream, the harsh law of profit.”¹¹⁶ A return to an imaginary architecture would a de-sublimation of the city, an attempt to capture its precipitate from the air. It is not an uncovering, not a reveal, not a moment for the disappearing protagonist; the urban subject; to learn a magic seeing which only the shaman sees. Instead, it is a rather more neighbourly calling to attention of a thing that might just be problematic. If it was hiding at all it was hiding in plain sight, and this is at the route of ‘I function as if it weren’t there,’ or to ‘actively un-see.’

What is unique in Coney Island - and this syndrome of the Irresistible Synthetic prefigures later events in Manhattan - is that this false daytime is not regarded as second-rate.¹¹⁷

Negating sensual affect, the luminous economy repackages experience by deploying sensory effects in the form of serial entertainments. Normative forces of urbanism then modify the absorptive models developed in the entertainments in order to create regulated spaces of engagement. Rem Koolhaas tracks the absorption of Coney Island into Manhattan in *Delirious New York*.¹¹⁸ The ‘harsh law of profit’ extended its reach into the night. But far from being ‘second-rate,’ this illumination as Tim Edensor asserts “always materialises power.”¹¹⁹ As with *Vauxhall Pleasure Gardens*, Coney Island’s *Luna Park* illuminations created an environment of sparkle and delight, in which the urban masses could wonder in spaces made as delirious fantasies, places of reinvention, imagination and optical consumption. Under this light popular culture asserted its power over an

¹¹⁶ Lefebvre, *Towards an Architecture of Enjoyment.*, p. 153.

¹¹⁷ Rem Koolhaas, *Delirious New York* (New York: The Monacelli Press, 1994), p. 35.

¹¹⁸ Koolhaas., pp. 29-79.

¹¹⁹ Edensor, Tim. *From Light to Dark: Daylight, Illumination and Gloom* (London: University of Minnesota Press, 2017). p. 81.

'elitist taste', the sheer weight of participation threatened a stable, moral and ordered urbanism.¹²⁰ For Koolhaas, "now that the masses have solved the problem of Pleasure, they present the elite elsewhere on the island with the problem of the Masses."¹²¹ The attractive pull away from Manhattan where working people chose to exchange cash for optical pleasure, meant that profit was moving in the wrong direction, away from the centre. At stake was both the regulation of the masses and their commercial exploitation.

This is a *mise-en-scène*, a reduction to the frame. By 1938 over half of Coney Island had been turned into civic parks. In 1850, Vauxhall calls itself "The Only Public Aristocratic Suburban Retreat in England!", now all that remains at the site of *Vauxhall Pleasure Gardens* is a flat park and a petting zoo.¹²²

¹²⁰ Edensor., p. 211; extends the notion of a participative darkness that nurtures "unbidden thoughts and fantasies."

¹²¹ Koolhaas, *Delirious New York*, p. 62.

¹²² David Coke, 'Vauxhall Gardens 1661-1859', accessed 1 April 2017, http://www.vauxhallgardens.com/vauxhall_gardens_fullchronology_page.html.

FIGURES

Fig. 8 *Halo*

Mimi Son and Elliot Woods, *Halo*, 2018, 99 robotic mirrors, mist, sun, wind, 18.5m x 4.8m x 8.1m, 2018.

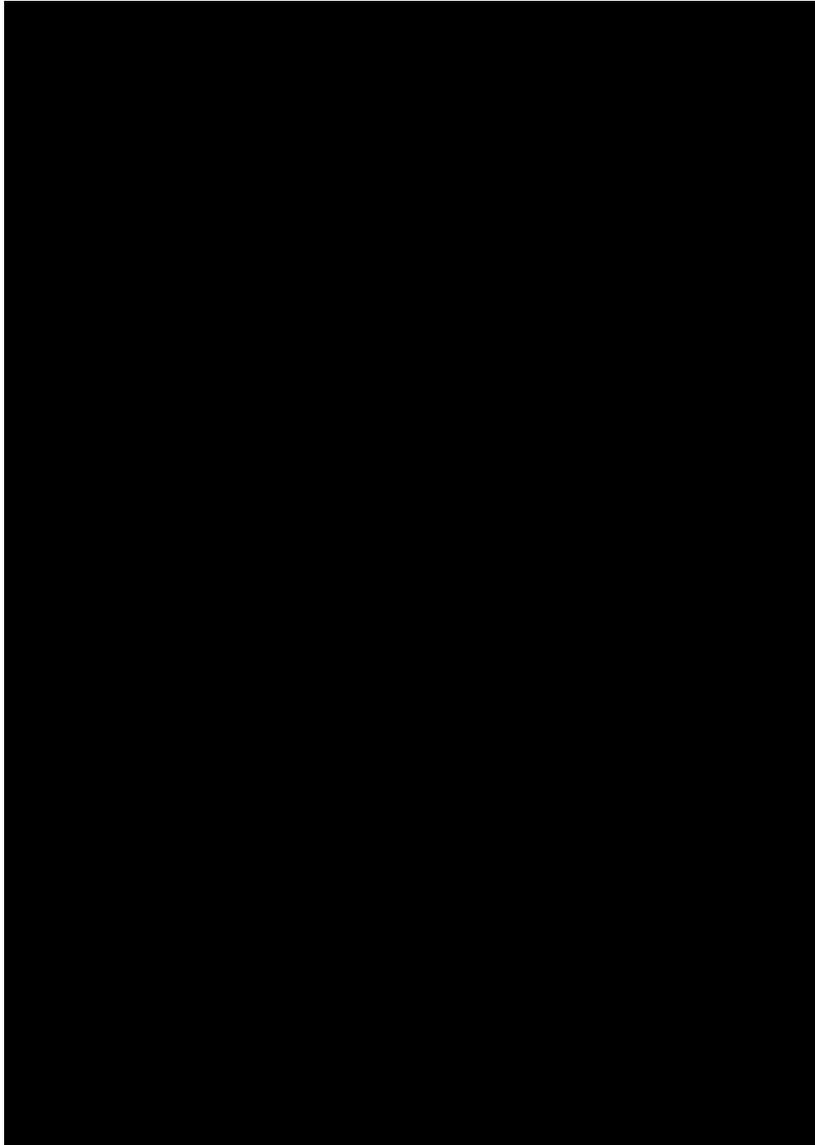


Fig. 9 *Ars Magna Lucis et Umbrae*

Athanasius Kircher, from personal digital archive. (for examination purposes only)

IMAGES REMOVED: showing freely available reproductions of Kircher's etchings ; sun clock and the frontispiece..

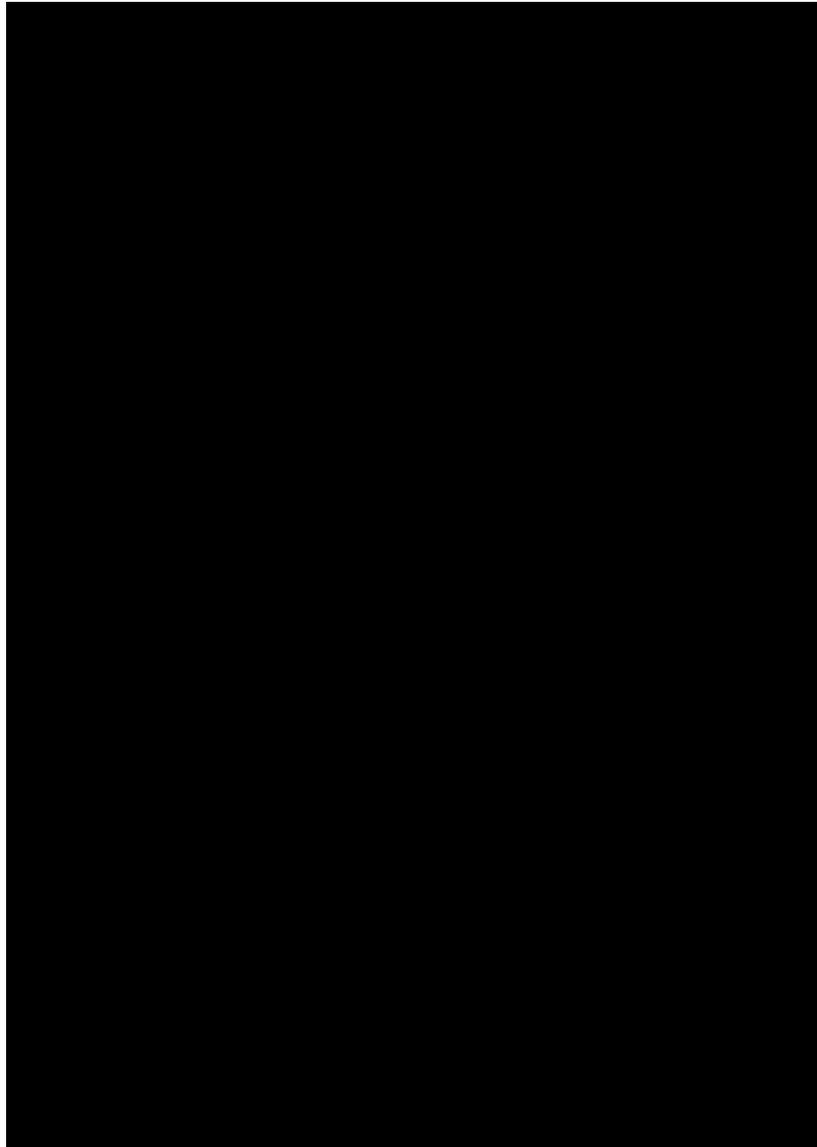


Fig. 10 *Phenakistiscope*

From personal digital archive. (for examination purposes only)

IMAGE REMOVED: showing generic drawing of Phenakistiscope, sourced from the internet.

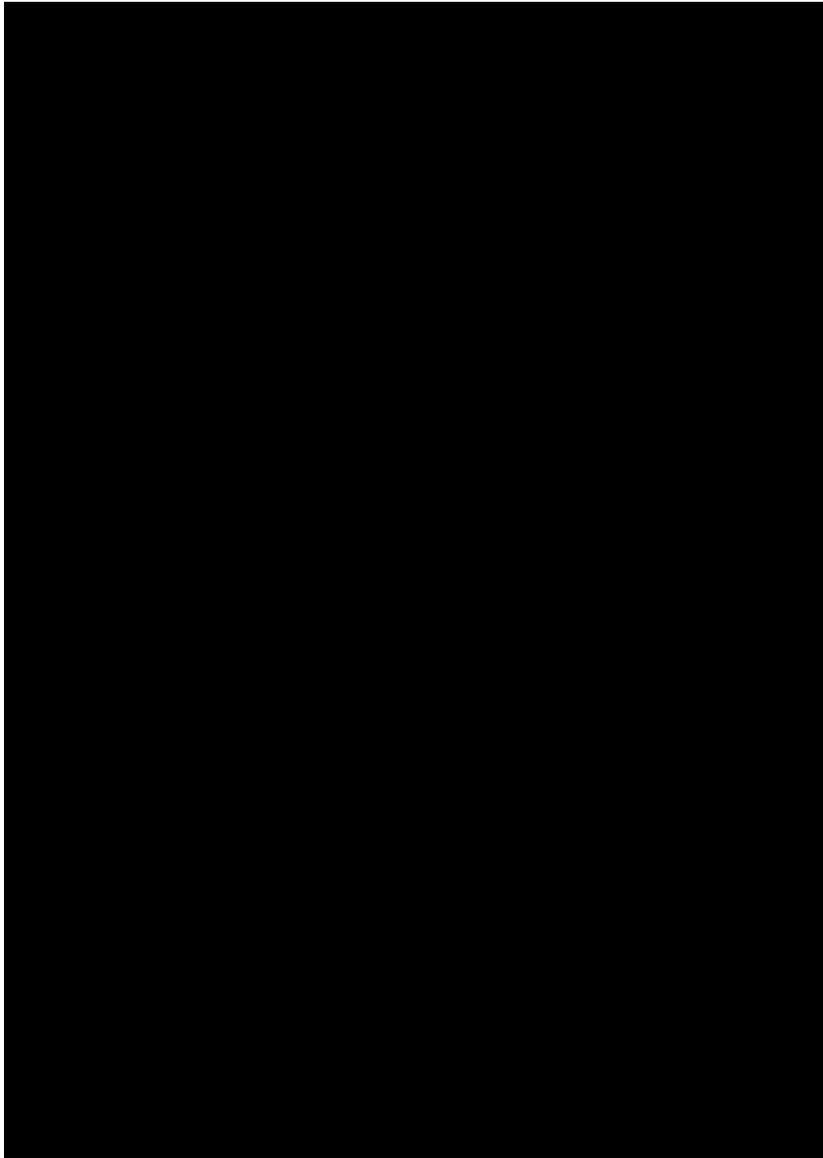


Fig. 11 *Sunflower Clock*

Athanasius Kircher, from personal digital archive. (for examination purposes only)

IMAGE REMOVED: etching of Kircher's sunflower clock.

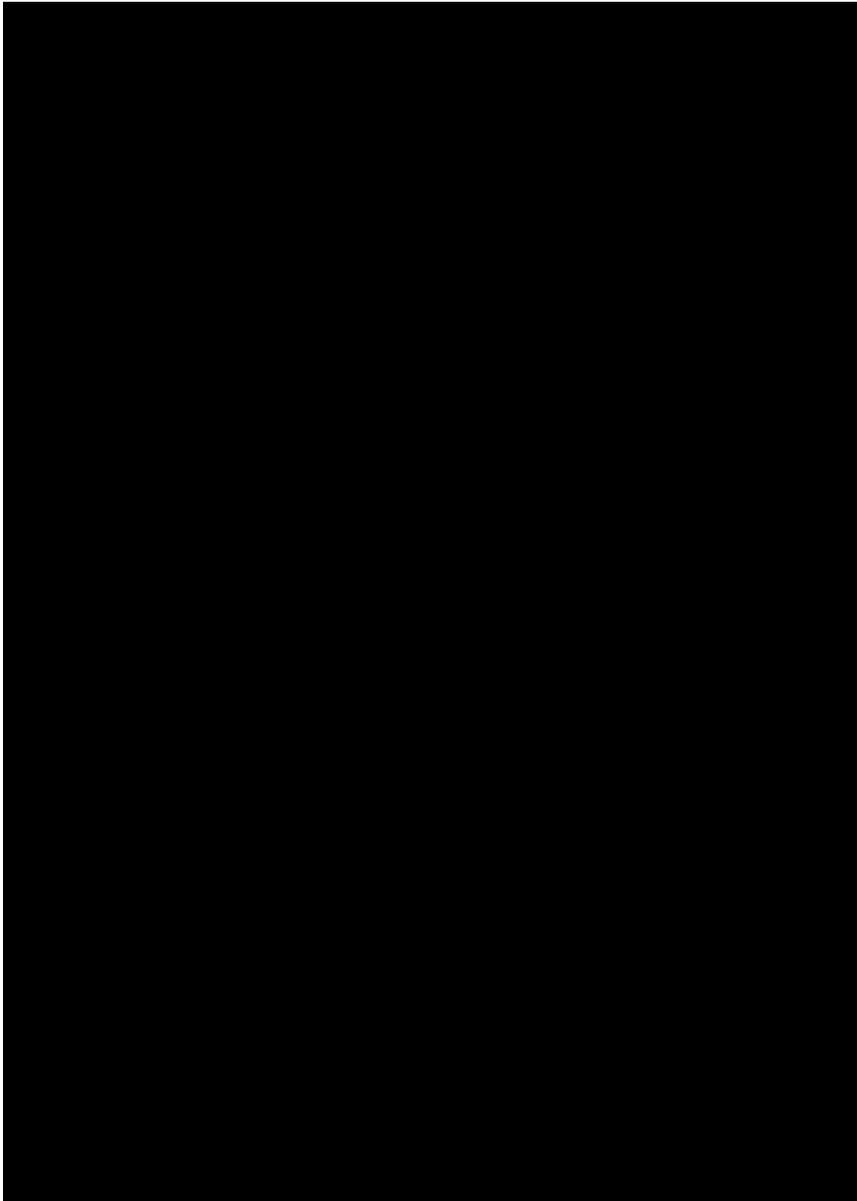


Fig. 12 *Peppers Ghost*

Source: "Spectre Drama at the Polytechnic Institution," *Illustrated London News* 42 (May 2, 1863), 486.

(for examination purposes only)

IMAGE REMOVED: showing generic schematic of Pepper's Ghost

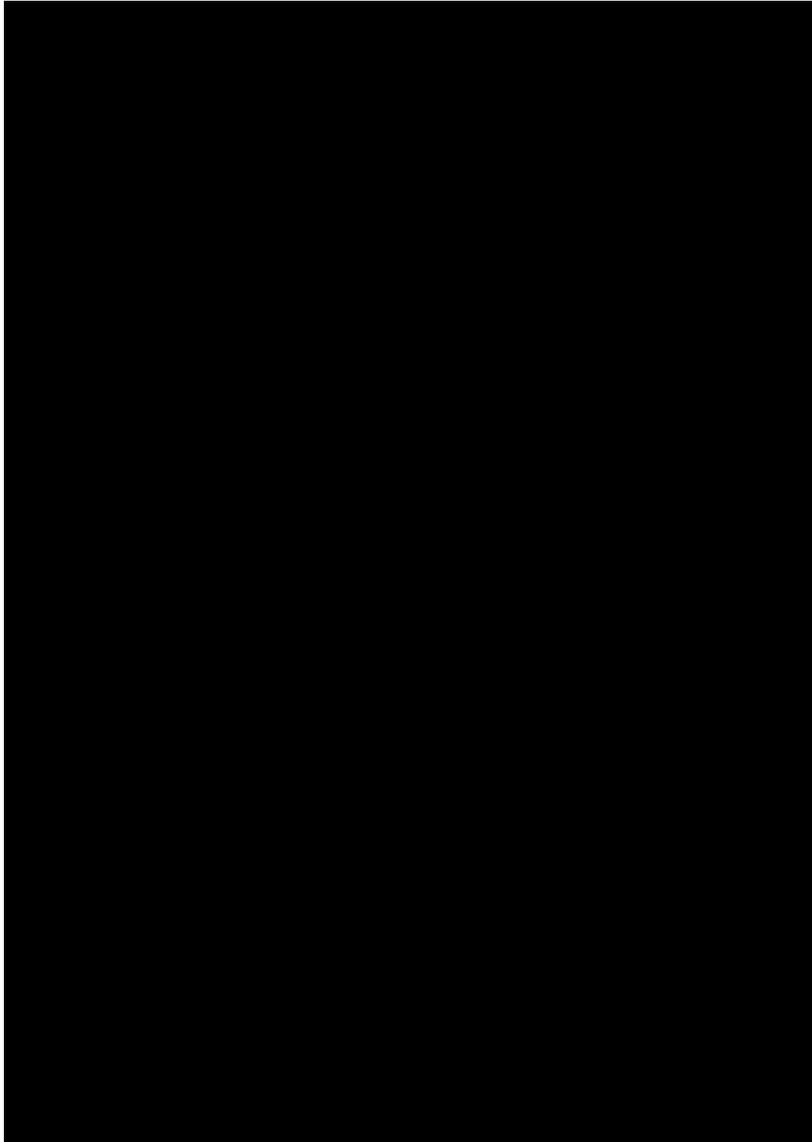


Fig. 13 *Piccadilly Lights*

Top; thepeoplesmoon.com. Bottom; Smirnoff "We're Open" Campaign. (for examination purposes only)

IMAGES REMOVED: source Picadilly Lights website.



Fig. 14 *Kaiserpanorama*

From personal digital archive. (for examination purposes only)

IMAGE REMOVED: showing etching of Kaiserpanorama in use, see "Techniques of the Observer".

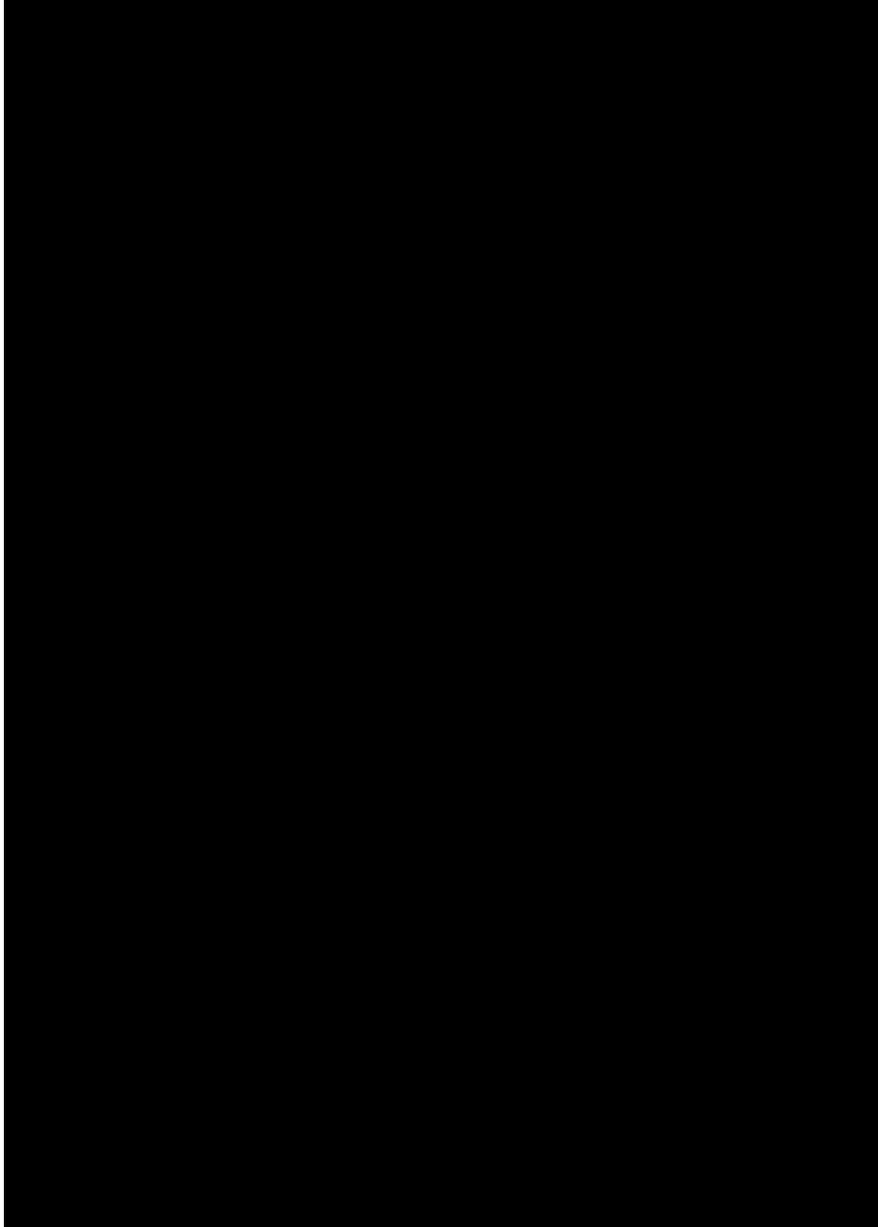


Fig. 15 Floor plan for Teatro SS. Giovanni e Paolo

Carlo Fontana, 1654, Trustees of Sir John Soane's Museum (for examination purposes only)

IMAGE REMOVED: personal photograph

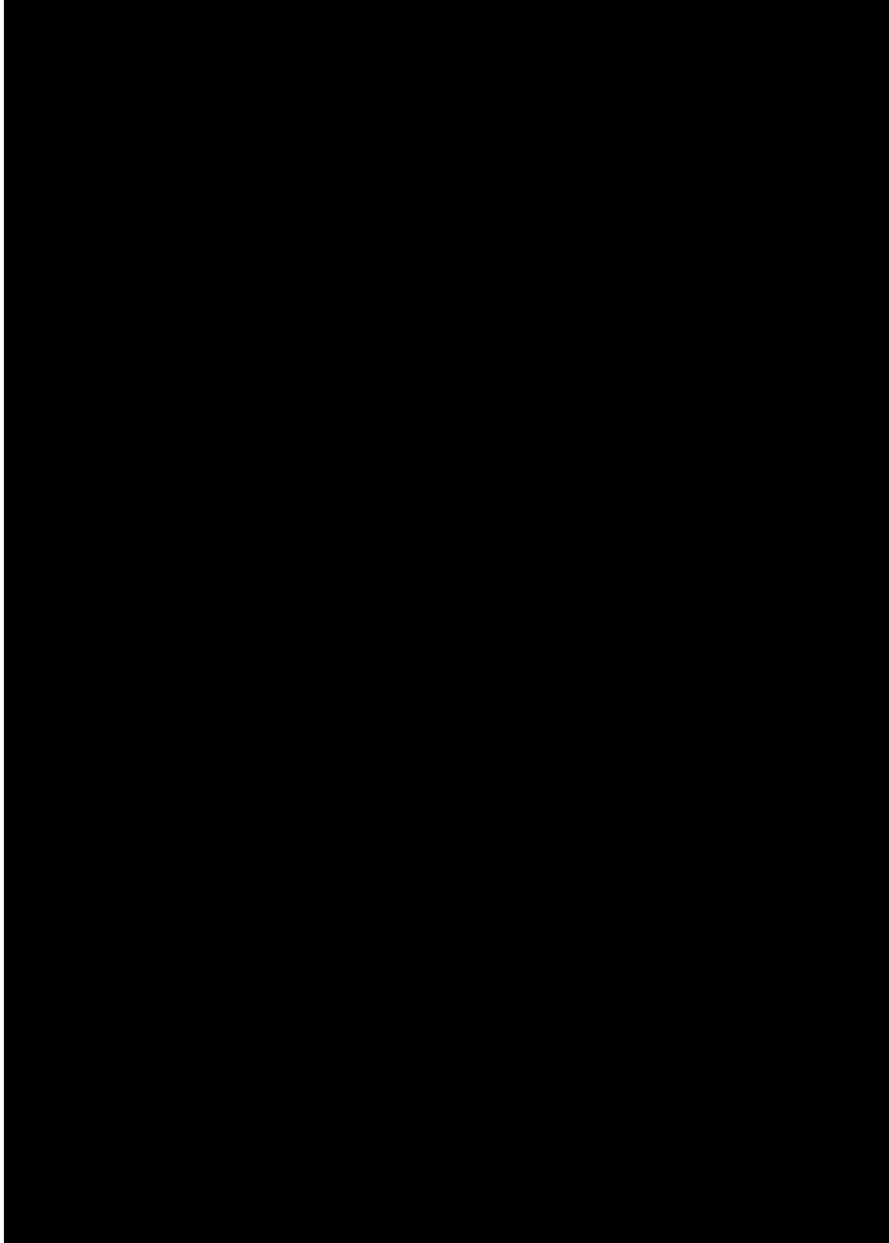


Fig. 16 *Don Giovanni*

Publicity material, 2015, Royal Opera House. (for examination purposes only)

IMAGE REMOVED: *Don Giovanni* production image, Royal Opera Website.

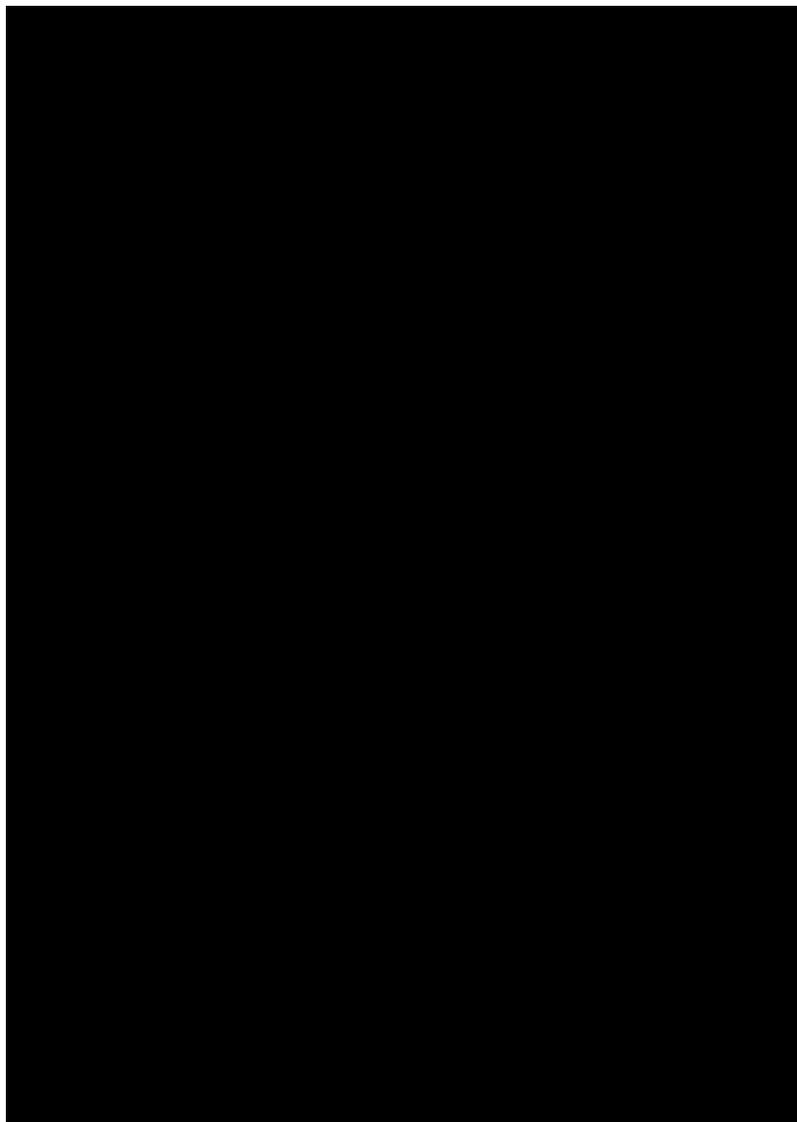


Fig. 17 *Don Giovanni*

Publicity material, 2015, Royal Opera House. (for examination purposes only)

IMAGE REMOVED: Don Giovanni production image, Royal Opera Website.

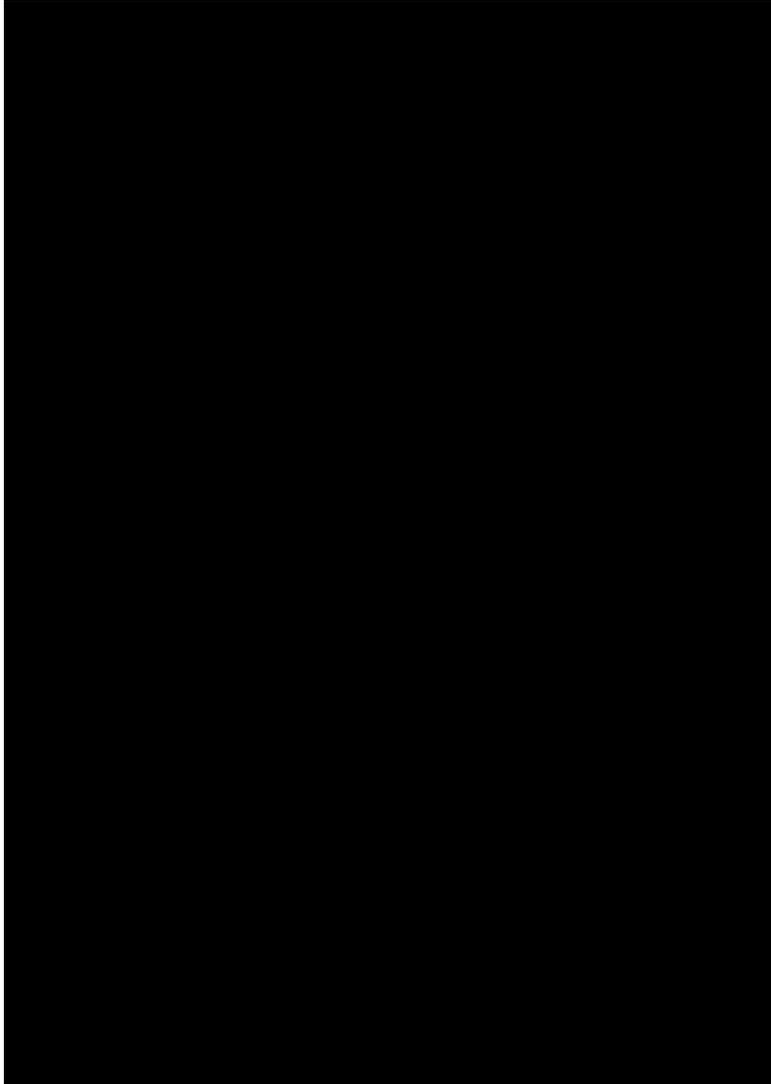


Fig. 18 *Citizen Kane*

Top, personal film still. Bottom, *American Cinematographer*, 1941. (for examination purposes only)

IMAGE REMOVED: Production Stills from Tolland (*American Cinematographer*)

ATMOSPHERE

Can atmospheres indeed be produced? The term making (machen) refers to dealing with material conditions, things, instruments, sound and light. Atmosphere itself is not a thing, however, but rather a hovering in-between, that is, between things and perceiving subjects. Thus, the making of atmospheres is restricted to the arrangement of the conditions under which an atmosphere can appear.¹

¹ Böhme, *Atmospheric Architectures*, p. 161.

Atmospheres are somewhat indistinct, suggesting vapours, to be of breath and air. Consummately relational they tend to disappear at the very moment of their representation. In respect to the machine of post-cinematic urbanism Gernot Böhme and Steven Shaviro point to two modes of its disappearance in atmospheres. Shaviro's is the capitalist absorption of alterity into interchangeability.² Böhme's is a phenomenology of machine fascination, caught in the material of light (the 'to do' and 'to make' of *machen*) the material conditions of its perceptibility retreat.³ Urban lighting is situated, as Mikkel Bille, Peter Bjerregaard and Tim Flohr Sørensen describe it in *Staging Atmospheres* as "the very sensuous interface of people, places and things; as a vague yet anything but weak phenomenon that is staged, culturally informed, and manipulated to achieve social, political and economic goals by tapping into people's emotions and affects."⁴ Lighting and light art are implicated in the production of this 'sensuous interface', they are the sine qua none of the modern city at night.⁵ Tim Edensor identifies the co-productive dimensions of atmospheric immersion where a notion of 'passive entanglement' is countered through cultural appropriation and customisation at the level of the local; domestic or collective.⁶ These transitory customisations for Edensor, locate atmospheric production as "simultaneously symbolic, affective, and sensory."⁷

² Shaviro, *Post Cinematic Affect.*, pp. 131-135.

³ Böhme, *The Aesthetics of Atmospheres.*, pp. 209-210. Böhme completes his analysis of the phenomenology of light by observing that with light "the more we can forget the piece of reality they [light effects] become manifest on, the more fascinating they become."³ He does this in order to assert that "light is manifest as such. For light to appear as a material condition in this phenomenology the effect on the body is relegated as an "indirect becoming-manifest."

⁴ Mikkel Bille, Peter Bjerregaard, and Tim Flohr Sørensen, 'Staging Atmospheres: Materiality, Culture, and the Texture of the in-Between', *Emotion, Space and Society*, Elsevier, 15 (2015): 31-38., p. 37.

⁵ Whilst not wanting to take too legal tone, I understand my use 'sin qua none' through the law of Torts: the direct liability for a wrongful act or infringement, that is not always a crime. This helps to retroactively establish the origin, the cause of the effect. Sound and light can forcefully infringe on a sovereign body.

⁶ Edensor, *From Light to Dark: Daylight, Illumination and Gloom.*, pp. 159-161.

⁷ Edensor., p. 161.

If atmospheres hover 'in-between' subjects, they have to hover in or above something. They need constituting somewhere, at a time, within a territory, in a place. 'Liberty Wall' takes a fragment of Whitehall's public realm in order to examine how geo-politics become manifest as an urban interface producing a particular kind of atmosphere, and the extent to which this process of materialisation renders the underlying forces invisible.⁸ 'Retinal Architecture' uses a singular artwork by James Turrell as a means to develop a model for the process of atmospheric induction. The *House of Light* is both an optical device and a socio-cultural event space.⁹ Both of these empirical studies examine how the material conditions a perceptual retreat. Neither are strictly phenomenological, instead they function as a means to examine the underlying operations of the post-cinematic machine. In this way the phenomenal is unpacked as superstructure, an 'artificial world' squeezed out of a machine.

Atmospheres can also be understood as a post-cinematic effect where the 'hovering' between states is a condition of power. For Maria Reimer the cinematic dimensions of a bio-politics play out in an urban milieu where the self is consolidated "through immersive identification."¹⁰ Governance's executive power is expressed through urban forms that facilitate activity at the level of an image space, and upon this project a calculated propositional future through the infrastructures (political and technical) that produce them. Whilst seeking to regulate 'subjective agency' and 'mass movement' it generates a "spatially creative power that not only represents but produces life as a function of its own capacity to intervene."¹¹ In this way the 'hovering' is not predicated on Edensor's

⁸ This wall was presented as an exemplar case study for the successful integration of terrorist defence systems in the context of heritage architecture; Design Charrette, *Constitutional London - enhancing the heart of Westminster*. New London Architecture in partnership with the Cabinet Office. 22nd & 29th June 2017.

⁹ Turrell, *House of Light*.

¹⁰ Maria Reimer, 'Urban Anagram: A Bio-Political Reflection on Cinema and City Life', in *Urban Cinematics: Understanding Urban Phenomena Through the Moving Image*, ed. Francois Penz and Andong Lu (Bristol: Intellect, 2011), pp. 226-227.

¹¹ Reimer, p. 227.

local atmospheric arrangements. Instead its instability is located at the level of the future urban subject who has yet to appear in space. This projection machine induces a 'future' subject into being through facilitating an embodied subject in an atmospheric present.

LAWSCAPE

In considering the 'staging of atmospheres' Bille, Bjerregaard and Sørensen set out to problematize "the paradox between pre-reflexive experience and staging [which] raises the question whether the orchestrated atmosphere is actually shared by the users, and to what degree the actions and moods encountered actually confer to the anticipations on which the place was staged."¹² Böhme's construction of the phenomenological aspects of the stage set, putatively a model a city's atmospheric production, differentiates between image and atmosphere: "the image of a city is the consciously projected self-portrait, the sum of its advantages that an outsider might enjoy. [...] by 'the atmosphere of a city' we understand something characteristic, that is something peculiar to the city,¹³ what makes it individual and therefore cannot be communicated in general concepts."¹⁴ He mobilizes a conception of the image as an amalgamated set of signs that point towards positive commercial values which exploit the particularities of the place as semiotic lures, "the multicultural world of our cities at large does indeed contain more and more universally understood pictograms."¹⁵ This universalizing movement propagates an 'image city' that is ripe for consumption and redistribution. Böhme is emphatic in his construction of atmosphere; they are subjective, contingent on the subject's emotional state, occurring as a totality, a manifestation of production and reception, generate

¹² Bille, Bjerregaard, and Sørensen, 'Staging Atmospheres: Materiality, Culture, and the Texture of the in-Between', p. 34.

¹³ Ian Banks, *Transition* (London: Little Brown, 2009)., Banks beautifully mobilised a notion of the specificity of atmospheric identity that locates a multi-universal traveller in a specific place/time. *Fragre* is the indefinable amalgamation of signs that make a place identifiable.

¹⁴ Böhme, *Atmospheric Architectures.*, p. 126.

¹⁵ Böhme, *The Aesthetics of Atmospheres.*, p. 128.

something 'inexpressible', but "without the sentient subject, they are nothing."¹⁶ Böhme does concede that atmospheres are made, 'generated', but not through the agency of objects or machines. Rather, atmospheres are made through 'setting conditions.'¹⁷

For Böhme image is something that we are outside of and atmospheres are a totality that we are in. He invokes the 'vague but anything but weak' emergent affect space, a gestalt of; phenomena, emotion, memory and history.¹⁸ This reinforces the notion that atmospheres are affect bundles produced through subjective experiences and that "we ourselves have to enter into them fully."¹⁹ Paradoxically this expression of an aesthetic economy is rendered through the occlusion of materiality, the stage set receding into a phantasmagoric production.

Andreas Philipopoulos-Mihalopoulos provides a structure to critique urban subjectivity through the operation of three processes: *Landscape*, *Atmosphere* and *Spatial Justice*.²⁰ He argues that together bodies, spaces and events produce atmospheres. Think of a light, it is simply another body amongst all other bodies. It is also an event and a space because the process of illumination is also a spatial intervention and the motive power of urban nightly production. There is a kind of facticity to illumination; it-is-lit-by-that, this-is-lit-by-them, we-are-lit, they-are-lit, you-are-lit, you are illuminated. It is an instrument. Or, one Böhme's *generators*, that seek to endlessly defer Philipopoulos-Mihalopoulos' *Spatial Justice*.²¹

Spatial Justice is the product of a rupture that introduces the possibility of a withdrawal or a turning away from the compelling manipulations and securities

¹⁶ Böhme, *Atmospheric Architectures*, p. 29.

¹⁷ Böhme, p. 31.

¹⁸ Bille, Bjerregaard, and Sørensen, 'Staging Atmospheres: Materiality, Culture, and the Texture of the in-Between', p. 37.

¹⁹ Böhme, *The Aesthetics of Atmospheres*, p. 132.

²⁰ Philipopoulos-Mihalopoulos, *Spatial Justice: Body, Landscape, Atmosphere*.

²¹ Böhme, *Atmospheric Architectures*, p. 31 & p. 161.

of atmospherics. The reveal (apocalypse) is also the moment of judgement (justice), that is the choice to accept the atmosphere, to participate in it or to renegotiate its terms, expand its limits in order to reform the atmosphere producing a new configuration, a new stability. This is the operation of complexity, the production of momentary stabilities within an unfolding dynamic totality. The invisible is rendered visible only in so far as *spatial justice* is another acknowledgement of the potency of the economic base, atmospherics a superstructural projection of an invisible (or always in the process of disappearing) force of law.²² Nevertheless, 'leaking bodies' flatten the relationships between human agents and plastic spaces, and in this way atmospheres are produced by bodies and in bodies. Atmospheric stability is a coagulation of potentialities into a fixed assembly, the lawscape's atmospheres remain intractable, normalised in the sensible until some form of withdrawal from it takes place. Becoming aware of atmosphere is not as 'Neo' would have us believe, the path to freedom and sovereignty.²³ Instead, the seeing of atmosphere's affective enclosure (the crystallisation of the lawscape we inhabit) produces only a possibility of *spatial justice*. In this choice we see the production of a renewed *lawscape*. The *lawscape* is the 'being of' not the 'becoming of' space. Atmosphere is the spatial expression of the lawscape, its fulfilment. It is the ground we walk upon, a flat yet 'tilted' plane that the lawscape has prepared for walking.

²² Walter Montag, *Althusser and His Contemporaries* (London: Duke University Press, 2013), p. 145; Warren Montag's reading of Louis Althusser summarises that oppressive state apparatus dominate us through aligning our free will to the choice to be dominated. Ideology always already includes our beliefs, in a sense consent is inscribed into the 'state apparatus' of capitalist domination. The consequence of this is that our absorption into a system of domination can be one of persuasion, a voluntary action, rather than as a product of state force or 'as a last resort' the performance of violent persuasion on the body by the state.

²³ Lana Wachowski and Lilly Wachowski, *The Matrix*, Science Fiction (Warner Bros., 1999); The Wachowski Brother's is often used to illustrate a moment of seeing 'a world that has been drawn over our eyes', take the red pill and you will see through the plane of appearances, 'see how far this rabbit hole goes.' After following the logic of the three episodes of the franchise we see explicitly that there is no outside, simply a messianic confrontation of Neo with sovereign power. The sacrifice, preceded with Neo's blinding, is that the subject cannot see through appearance, phenomenon masks realities, conceals the *lawscape* of Hobbes's *Leviathan*: Neo could have taken either pill.

Describing atmosphere (representation) does not do much more than let us know more about the thing we are within, Philipopoulos-Mihalopoulos characterises this as a ‘totality without externality.’²⁴ *Spatial Justice* is in the moment of rupture, falling into the stage set (however well we have come to know it through Böhme’s phenomenology, the ‘art of the stage set’) which exposes the lawscape within (not behind) atmosphere. This moment of judgment reorders the *lawscape*. *Lawscape* disappears in atmosphere, atmosphere is ruptured, judgement is made and passed to lawscape. This is the function of an algorithm, a flow that is temporarily coagulates as an atmosphere.

Philipopoulos-Mihalopoulos situates rupture as a necessary force to break the enclosure of the law. The term *Lawscape* (a tautology between space and law) proposes a totality without externality within which everything is contained, a space without limit, “there is no outside.”²⁵ In a multidirectional flow of sensory, emotional and informational events, these bodies circulate and construct atmospheres. This formulation is useful because it points towards the thing that directs away: the lawscape seeks to become atmosphere, to be naturalised, eternal, fixed. Identity, qua law, begins with self-enclosure in the production of edges.

The moment of ‘turning away’ from atmosphere is fragile. A turning away is also a turning towards something. These ‘turnings’ are the moment of atmospheric rupture, where the enclosure of law is forced to transition. Here we can consider that eyes remain intact to a body in the empathic space of Peter Sloterdijk’s imagined boy who exhales life into the sphere of a soap bubble.²⁶ As the bubble’s tenuous surface fails his breath, escapes and is absorbed into the air. There is a moment in this transition where his body is doubled, as the bubble drifts away it

²⁴ Andreas Philippopoulos-Mihalopoulos, ‘The World Is Rooted in Air’ (May 2015), <https://youtu.be/IN4WymWFBQQ>.

²⁵ Philippopoulos-Mihalopoulos.

²⁶ Peter Sloterdijk, *Spheres Volume 1: Bubbles Microspherology*, trans. Wieland Hoban (London: Semiotext(E), 2011), p. 19.

takes a part of him that will, all too soon, be lost in space. For Sloterdijk, "... [in the] enthusiastic solidarity with his iridescent globes, the experimenting player plunges into the open space and transforms the zone between the eye and the object into an animated sphere." In this conflation of eye and breath, a body begins to occupy a space beyond its dermal enclosure. Extending this solo player towards a commune, we can just see the possibility of breaths captured in bubbles that sometimes, somehow, coalesce into new bubbles. Then, if only for a moment, two or more bodies become an empathic body, not simply joining the lattice of a foam. It is in this image of conjoining breath we can start to explore the ontology of *spatial justice* and its temporality.²⁷ This suggests that it is only when the subject re-emerges within transitory collectives that the yoke of unitary subjectivity can be ruptured, and the ontology of the *lawscape* challenged.

The 'we' at stake must somehow collectively pass judgment in order to reset the triad that subsequently re-coagulates as atmosphere. The moment, as Philipopoulos-Mihalopoulos puts it "of forgiveness" inscribed in spatial justice, it is entirely ontological, there can be no sensible expression of it as this would simply be another atmospheric production.²⁸ Or, "I cannot know or infer what is inside from the form of atmosphere." Nothing is concealed, *lawscape* is naturalized, remaining presently unobserved.

In *Leviathan* Thomas Hobbes predicates his conception of freedom in the 'common-wealth' in spatial terms; power to move "is determined by the opposition of some external body."²⁹ 'Corporeal Liberty', the freedom of a body to move, is always already chained to Sovereign Power subject to its 'unlimited power'. For Hobbes, this produces an 'Artificial Man' where the "Liberty of a

²⁷ Email: 15/02/2019

Dear Andreas,

I have been mulling over your thoughts 'to forgive' and how that action is vested or divested. In this Hobbesian fragment the chain of 'sovereign power' is vested through breath; a pneumatic transference in Sloterdijk's terms. (Hobbes, *Leviathan* pp. 392-393)

Bests, Nayan.

²⁸ From recorded conversation.

²⁹ Thomas Hobbes, *Leviathan* (London: Oxford University Press, 1965), p. 161.

Subject, lyeth therefore only in those things, which in regulating their actions, the Sovereign hath permitted.”³⁰ Physical movements in space are only free in so far as they are already inscribed with the law of inclosure within which the ‘artificial man’ is permitted to move, think, remember, and feel. ‘Law’ is therefore a spatial practice. Spatiality and its phenomenal materialisation are predicated on the ontological determinism of the Law. Topology in Hobbesian terms is artificial in so far as it is a projection of Law. This conceptualisation of Law manifesting space or *lawscape*, provides a cartography of the occluded base of urban spatial practice. The phenomenological expression in atmospheres is consistent with Hobbes’ Sovereign Power producing a space of ‘liberty’ where the ‘artificial man’ can only move unimpeded in an artificial world.

LIBERTY WALL

In 2010 works were completed in Whitehall to create a ‘cleaner, safer and brighter environment for all users’ resulting in widened pedestrian spaces in the environs of the Cabinet Office.³¹ The proportions of road to pavement and the relationship of building front to street changed. This more generous approach created a larger pedestrian platform and an improved interface with the building’s neo-classical façade making the spaces more open and accessible (Fig. 19). In between the road edge and the façade sits a long low wall and a series of bollards. This wall is not so low that it can be comfortably sat upon, but certainly low enough to see across and detailed in order to be able to be seen through. This slightly too tall wall is installed immediately above one of the main fibre-optic channels that make up Whitehall’s data infrastructure. There is no surface detailing that would point the casual observer towards this conduit.³²

On Combating Terrorism: each member state shall take the necessary measures to ensure that intentional acts referred to below from (a) to (i), as

³⁰ Hobbes., p. 163.

³¹ Westminster.gov.uk (2010).

³² However, if you walk regularly in and around Whitehall eventually a service maintenance engineer will turn up and expose their concealment.

defined as offences under national law, which, given their nature or context, may seriously damage a country or an international organisation where committed with the aim of: seriously intimidating a population, or unduly compelling a Government or international organisation to perform or abstain from performing any act, or seriously destabilising or destroying the fundamental political, economic or social structures of a country or an international organisation, shall be deemed to be terrorist offences: [...] (d) causing extensive destruction to government or public facility, a transport system, an infrastructure facility, including an information system, [...].³³

The wall addresses the law of the Framework Decision and the street through a partial dissimulation, seeming to be landscape architecture even as it covers its other defensive qualities.³⁴ It is a soft and hard defence. Soft in respect to its spatial separation of the building edge to the main thrust of the street, it is permeable to the pedestrian. Hard as a countermeasure to the truck repurposed to deliver an explosive package.³⁵ This is a wall at least twice. The manner and style in which it stitches the pavement and ordering the long linear spaces, speaks of conviviality, walkability, of street furniture and urban landscape design in the context of a contemporary street: placemaking.

In Whitehall one would seem to be, if only potentially, a subject that appears without a trace; Thomas Mathieson's *lone wolf*.³⁶ In the eighty-two seconds on 22nd March 2017 when Khalid Masood indiscriminately targeted pedestrians on Westminster Bridge we witnessed two things simultaneously. The horror of

³³ The Council of the European Union, 'Council Framework Decision of 13 June 2002 on Combating Terrorism' (Official Journal of the European Communities, June 2002), pp. 164/3-164/4.

³⁴ This seems to map in an approximate way to the successive "radical negation of the sign as value" in Jean Baudrillard's (1998) successive phases of the image, the movement between 'evil appearance: of the order of malefice. In the third, it plays at being an appearance: it is the order of sorcery'.

³⁵ The devices I am concerned with are not aimed at pedestrians. Rather, this mode of attack is aimed at buildings and their occupants, communication cables, the spatial and technical supports of the political infrastructure.

³⁶ The 'lone wolf' points to the terrorist who arrives from outside of the networks of surveillance. Only retroactively is it possible to speculate on the causes of the event.

murder and more evidence that integrated global control systems, coupled with distributed networks of surveillance and extra-state intelligence, cannot compensate for the problem that predictive algorithms are not yet time machines, or crystal balls.³⁷ It is of no consolation to the victims on the bridge that this attack failed to penetrate the physical heart of the Palace of Westminster. Anecdotally, it is possible to glean that through the defence measure of the 'polyoptical profile', most subjects appear with a trace; they appear through and in their digital archival materials.³⁸ This means the traces gleaned in advance of an effect cocoon the surveillant society with the promise that most do not get through, the extra-state stacks the odds in our favour. It remains to be seen what this 'our' might become as the global - horizontal - integration of systems, Mathieson's *Lex Vigilatoria*, 'loses its grip on knowledge of the practical and the concrete, it loses touch with the happenings of the real world.'³⁹

If we are now free to allow the atmosphere of Whitehall to bombard us knowing that most corporeal threats do not get through, is it then possible to reintegrate our eyes into our bodies? And 'is not prevention better than punishment?'; minded that it is an 'I' who might be punished and it is 'I' who might just be 'plausibly' guilty.⁴⁰ The 'we' that constitutes a public, formed in advance by their traces remains stable as long as it performs predictably. The reveal (apocalypse) is the moment of judgement (justice), the choice to accept the atmosphere and participate in it or to renegotiate one's terms of engagement with it. The moment

³⁷ Mathieson, *Towards A Surveillant Society: The Rise of Surveillance Systems.*, p.99: Mathieson: 'New norms are being established inside the systems - norms that emphasise a future-orientation involving control patterns over whole categories of people and which develop risk profiles for entire groups.' Or as Hitto Steryl pointed out, crystal balls are only good as a weapon for blunt force trauma.

³⁸ James Pfiffner, 'The Efficacy of Coercive Interrogation: Notes from the Field', in *American Political Science Association* (New Orleans, 2012); IX Kubark, 'The Coercive Counter Intelligence Interrogation Of Resistant Sources' (redacted, redacted).

³⁹ Mathieson, *Towards A Surveillant Society: The Rise of Surveillance Systems.*, p. 201.

⁴⁰ Mathieson situates this 'probably guilty' directly within inbuilt error or uncertainty in the systems of surveillance and interpretation. In this sense the surveilled subject can produce the evidence of their own guilt, as Grégore Chamayou argues in *Drone Theory*, the target is erased in the moment of their own extra-judicial destruction, both subject and evidence erased in the 'probable', Grégore Chamayou, *Drone Theory* (London: Penguin, 2011).

of withdrawal is a resistance to the atmospheric synthesis of the *lawscape*. For us, it is a means to see under the surface of Michel Foucault's *lawscape* rendered in the image of the panopticon, to see through this wall.

Seeing through the wall is the moment of *spatial justice* that reveals the *lawscape*. The wall's Portland Stone heritage skin conceals its engineering logic which constitutes a moment in the invisibilisation of the tactics of defence and the normalisation of globally distributed terror. The defensive measure that is at first temporary, seen throughout London in the form of mobile barriers placed after attacks, becomes stable within the image of Whitehall as a polite space of civility. As the wall civilizes, its constituting logic renders 'being' into 'seeming'. This is 'being' predicated on immanent death arriving in the form of a van at speed. The wall is an infinitesimally small materialisation of a new bio-politics, described by Achille Mbembe as the 'death-worlds' of a *necropolitics*.⁴¹ In Whitehall it arrives as a folly in stone: a *necroimage*. Here the technological construction and structuring of social relations in the public realm is not that of a digital morphology dissolving built surfaces into a play of images. Rather, it is a play of form and surface as defence constructed as a permanent physical element of the street, the 'lone wolf' eternalised in stone; a memorial made in advance of its endlessly deferred event.

RETINAL ARCHITECTURE

The cleared space is a space in which I am present, and I experience my presence in space in a particular way through brightness. It is, however, also possible to see a space created by light from the outside, as it were, like an object.⁴²

⁴¹ Achille Mbembe, 'Necropolitics', *Public Cultures* 15, no. 1 (2003): 11–40. The wall tacitly inscribes that: "the notion of necropolitics and necro-power to account for the various ways in which, in our contemporary world, weapons are deployed in the interest of maximum destruction of persons and the creation of death-worlds, new and unique forms of social existence in which vast populations are subjected to conditions of life conferring upon them the status of living dead."

⁴² Böhme, *Atmospheric Architectures*, p. 150. When referring to James Turrell.

In order to fully appreciate James Turrell's *House of Light* the visitor should first enter a darkened room naked and then adjust to the artificial light (Fig. 20).⁴³ This preparatory phase of light is transmitted by a chemical line of fibre optics that delineate the door and the edge of a bathing pool. To have got this far the visitor has already signed an agreement with the management which outlines the codes of conduct in the guesthouse.⁴⁴ Mindful of the instructions, they should then sit on a small wooden stool to shower, taking care not to let soapy water splash into the pool behind. After a few minutes of vigorous scrubbing, having carefully removed the last traces of soap, they might be deemed to be ready to enter the pool, clean, suitable for immersion. Now all that is required of the bather is to enter the limpid water using three gentle steps.

Horizontal light bounding the rectangle of water illuminates only the submerged parts of the bather's body, the head remains in darkness. Whilst acclimatising to the water there is a little time to reflect upon the Shinto tradition of *Misogi Harae*: the wiping away of dirt (*tsumi*) in order to restore the body to state of brightness (*akashi*) and purity. In performing *misogi* the body and mind, the interior world, is thus prepared for an encounter with a superior, potent, spirit of humanity (*kami*). Through this preparation the path to a life-giving vital force is cleared (*musubi*).⁴⁵

When adjusted to the temperature of the pool, remembering *kami*, the bather should consider fully immersing their body in this radiant amniotic volume. Suspended in warm water, the distinction between skin and its bounding space is softened. The bather can float in a volume of total internal reflection, thereby

⁴³ Tokamachi, Niigata, Japan

⁴⁴ Since opening to the public *The House of Light* has received approximately 35000 overnight visitors.

⁴⁵ Hideo Kishimoto, 'Some Japanese Cultural Traits and Religions', in *Philosophy and Culture East and West*, ed. Charles Moore (Honolulu: University of Hawaii Press, 1962).; *Misogi* is also associated with training (martial arts, aikido in particular). In this mode, the practice is related to the development of a cerebral centring of energy 'qi', the washing away of impurities in order to prepare the path to perfection.

producing the first optical moment in the *House of Light*.⁴⁶ On ascending from the pool this trick of reflected light creates a perceptual rebirth into an architecture that envelops the body with a cloaking darkness. Once towel dried and clothed, the visitor is ready to explore the other optical architectures of the *House of Light*.

I would strip away the useless decoration. I do not ask that this be done everywhere, but perhaps we may be allowed at least one mansion where we can turn off the electric lights and see what is like without them.⁴⁷

Readers of Junichirō Tanizaki's *In Praise of Shadows* might be reminded of his eloquence when critiquing the historical transformation of Japanese architecture.⁴⁸ Tanizaki connects ancestral memory to the beauty of shadows and the delicate tracery of a 'feeble light' falling on the interior walls of a traditional Japanese house, it is as a direct counter to the technological irradiation of the (imported) tungsten filament lamp. For Tanizaki, this caustic illumination cleanses spaces of memory, waking the dweller from a "dreamlike luminescence ... [where] dark and light are indistinguishable [...] their secrets, [...] the genius of our ancestors." This subfusc space propagated an apparent suspension of time in which one could re-join a tradition of dwelling and experience "a rare tranquillity not found in ordinary light."⁴⁹ It is the operation of the materials of the 'traditional' Japanese building on 'ordinary light' that transform it into a spectral and evocative force. The design of the guesthouse's roof and its eaves, the balcony, the division of the external walls into voids that can be overlaid with sliding screens of paper and mesh, and the borrowed light reflected off the floors, all obscure direct light. Instead, natural light enters the building gently, the

⁴⁶ Total internal reflection is the phenomenon that involves the reflection of all the incident light off the boundary. It only takes place when both of the following two conditions are met: the light is in the denser medium and approaching the less dense medium; the angle of incidence is greater than the so-called critical angle. Total internal reflection will not take place unless the incident light is traveling within the more optically dense medium towards the less optically dense medium.

⁴⁷ Junichirō Tanizaki, *In Praise of Shadows*, trans. Thomas Harper and Edward Seidensticker (London: Vintage Books, 2001), p. 63

⁴⁸ Tanizaki, p. 9.

⁴⁹ Tanizaki, pp. 34-35.

production of illumination arrives to the senses already diffused by matter, their impact is softened and slowed down to a more domestic rhythm and intensity. This is the second optical moment of the *House of Light*, where light and vision are inextricably folded into matter.

Immediately to the right of the entrance vestibule is the 'sky viewing' room (Fig. 21). On two sides sliding screens of delicate handmade paper (*shoji*) filter any natural light that manages to pass the building's heavy eaves. The floors are entirely covered with *tatami*, whose effect is to subtly infuse the entire building with a faint scent of rush. The recumbent viewer will need to adopt a horizontal position in order to fully encounter the promised luminal event. Approximately thirty minutes before the diurnally determined moment of the event the tint of light changes in the room. It is heliotropic, the movement of the horizon relative to the sun establishes the daily timing. As it is staged at dawn and dusk the impact of this change is markedly different. The preliminary stage operates as optical *misogi*. Through acclimatising the eye to a stable wavelength of light, perceptual shifts are reduced, and the optical palette cleared. The viewer is calmed creating a state of retinal *akashi* and prepares the optical path in *kami* towards the promise of *musubi*. Cleansing the viewer's retinas in a markedly warm tint, one that echoes the radiant colour shift of sunset, means that the pupils are given a period of time in which to stabilise. This constitutes the third optical moment of the *House of Light*.

Now that the audience has been slowed down, the main cycle can begin. The viewer should be minded that the preliminary sequence has conditioned the retinal surface with one colour. New colours are then introduced in equally narrow bands. Turrell's lighting technologies use specific light wavelengths that, whilst appearing to produce a multiplicity of colour, in fact only induces the effect of a multiplicity. However much the eye seeks to see yellow when red is mixed with green, the red and green remain. Additive colour mixing forces visual

perception to observe yellow despite the lack of a yellow light being present.⁵⁰ At the core of the sequence is this play on appearance, specific physical inputs producing apparent sensual responses. Furthermore, as the cycle of coloured light plays out, ocular delayed luminescence begins to affect the visual experience of the work producing negative afterimages and according to a *new explanatory framework* “the brain can interpret an afterimage as if they originate from the outside visual world.”⁵¹ As the colours dance across the ceiling multiple frames of light form a pulsing aura which is simultaneously produced intrinsically (on the ceiling) and extrinsically (in the eye). If this is a ‘dreamlike luminescence’ then it is from the dreams of the diode whose expression is limited to that of the raw wavelength. This image is afterimage. It is presented to vision as a complimentary colour to that which induced it. In the imperceptible time delay of photonic ocular reproduction this recycling produces the image as its negative, both in luminosity and chromaticity.⁵² Eyes are thus implicated in the production of the effects of the work, they do the work, they recycle photonic energy into an image that is displaced from its origin outwards towards the framed sky. The origin of this ‘afterimage’, generated through the negative excitation of the parts of the retina not already conditioned by the primary wavelength of light projected onto it from the ceiling and reflected into the eye is internal and cerebrally re-projected by the brains perceptual apparatus forcing a spatialization and externalisation of an

⁵⁰ Vahid Salari et al., ‘Phosphenes, Retinal Discrete Dark Noise, Negative Afterimages and Retinogeniculate Projections: A New Explanatory Framework Based on Endogenous Ocular Luminescence’, *Progress in Retinal and Eye Research*, Elsevier, 60 (2017): 101–119.

⁵¹ Salari et al., p. 111. In his *Theory of Colours* Goethe referred to these as derived images, where he distinguished between an assurance of the reality of a primary image, ‘impressed on the eye by the thing before it’, and the circumstantial emergence of the derived physiological effect. Goethe asserted a different status for the image bound to a directly observable relationship to an external object and the ‘second hand’ reflected image. The new explanatory framework allows us to dispense with this distinction between ‘realities’ as they are both induced photonic effects; one induced by the operation of light on an object and the other by light transmitted within the eye; Johann Goethe, *Theory of Colours*, trans. Charles Lock Eastlake, Illustrated Edition (Fairford: Echo Library, 2016).

⁵² Chromaticity is the combination of the parameters of hue and its saturation (colourfulness). It is independent of luminance. Luminance is the relative force of light radiated off a surface.

internal luminal physiological event. This constitutes the fourth optical moment of the *House of Light*.⁵³

The *House of Light's* architecture is constructed around the management of harmonic positive cues: tatami, shoji, diffuse light, natural materials. The assemblage of memorabilia includes the building itself. This is an atmosphere predicted on the projection of authenticity (Fig. 22). As a self-conscious reference to an idea of the 'traditional Japanese' it goes as far as to provide the residual presence of an alcove so beloved of Tanizaki, which is detailed in the 'sky viewing' room. However, the force of Turrell's experiential practice is founded in his contention that the experience of seeing in particular provides the viewer with knowledge of seeing in general. Turrell's *total works* fluctuate between acknowledging their architectures and then negating their presence in the images that they provide.

As it marks a form of self-actualisation within the optical sensorium, the visual experience of the *House of Light* is unstable in respect of *the experience economy*. It condenses the 'sensual' in order for it to operate as a practical, appreciable, and functional object. This perceived image object, subject to the viewer properly performing with the work, is the emergent paradoxical centre of the atmosphere that it produces. The room is reconfigured around a centre that is an absence and also the locus of the eye actualising an image of its own making. Viewers are forced to labour, at an economic and biological level, in order to produce this transformative image. This constitutes the fifth optical moment of the *House of Light*.

The dialectical architecture of the *House of Light* is the tension between the experience of the bathing space (immersive, bodily, sensual), an unfolding

⁵³ The optical/spatial illusion of the sky flitting, appearing momentarily to be inside the room is effective but trivial. Above the alcove, in an attempt to create a boundless visual field that is paradoxically tied to an emphatic edge, the ceiling lacks any clear definition in the visual cone projected back into the room from the aperture. It is without a spatial register. The wavelengths of natural light in the sky plane, scattered and re-scattered as an atmospheric phenomenon (diffuse luminosity, radiance), are quite predictable.

temporality dissolving the body in matter and light, and the other rooms retinal fixities (semiotic, optical, mental). The retinal invokes a temporality through signing it, re-performing it twice daily. Time spent under the framed sky, gazing past its unstable edge, is the production of a phototropic atmosphere formed by manipulating the radical contingency of the heliotropic sky through framing it with a system of luminal control. The suspension of the body and of time in becoming present in the space of the performance of the work, moves the eyes into space leaving the body recumbent, inhaling the last vestiges of the scent of rush. The embodied eye is temporarily exchanged for a disembodied eye that, in the end, can only see itself seeing. The mechanics of the works are only apparently revealed; whilst the light sources, and the physiological responses to them remain obscured.

Unfolding in this induced atmosphere is a contract: 'transformation' is proven through the vector of 'consummation'.⁵⁴ The syntactical element 'con' brings together the exchange in 'sum', from summa a total, or 'highest sum.' Piercing the body through the eye is the proof that binds the contract. Transformational economic wisdom is a tear, a cutting into the body, contaminated with wisdom this vector of contagion guarantees this impossible bond. The action of the 'sensible' object of wisdom, an enclosing transformative atmosphere, is charged through time spent and its end. Time spent in the event is aggregated with the notional effect of that time spent. This limit is the end of life as the "change resulting from that time" can only end in the negation of the subject in a fixed state of wisdom, an end of sensual knowledge and subjectivity: "transformations are only temporal states for the eternalisations they glorify."⁵⁵

⁵⁴ consummate (v.) mid-15c., "to bring to completion, finish by completing what was intended," from Latin consummatus, past participle of consummare "to sum up, make up, complete, finish," from assimilated form of com "together, with" + summa "sum, total," from summus "highest". (<https://www.etymonline.com/word/consummate>).

⁵⁵ Pine and Gilmore, *The Experience Economy*, p. 298; There is simply not enough profit to be extracted from experience predicated on the senses.

The *House of Light* wraps the eye in dialectics of architecture through induction. As the operations of the eye become present in the play between the morphologies of sky and frame, perception is shown to be radically contingent. This very contingency is then crystallised into value through the transformation of its effects; experience is emptied of knowledge in preference to wisdom. *Musubi* is fixed in the contract as a one-time only event, the life-giving vital force is diabolically inverted and then ossified through this industrial magic (see; Artwork 10). Transformation is not commodified, *musubi* is.

NIGHT LIGHTS

The gap between day and night measures the distance between cruel ideology and real knowledge that is multiple, progressive and controlled, historical and contingent. Shimmering with billions of glorious and timid coloured suns, night resembles Verne's cavern with its dazzling gems and innumerable truths linked together by a thousand related networks. This is where thought sparkles, as softly as glowing pearls. More visible and beautiful than the day and peaceful in any case, the night knows while the day pronounces. Stars shiver as they look while the sun's formidable lucidity blinds us.⁵⁶

It is problematic that Michel Serres' 'shimmering' knowledge production can be reduced to the output variables of a machine, as if epistemic validation can only emerge from a sequence of production elements. Each gem pinned down to the formal relation to a pervading light. Even when not present the atmospheres of the night are regulated by the idea of a safe clearing emptied out and disinfected with brightness.⁵⁷ Serres' invocation of a cavern is much more than a capitulation to Plato's enchanted slave. In his interior we are already fully embodied, the atmosphere not colonised by an absolute, although invisible, source of emanation. Multiple light sources warn us that we have to be cautious when thinking of the darkness included in schemas of light.

⁵⁶ Michel Serres, *Eyes* (London: Bloomsbury, 2015), p. 22.

⁵⁷ Böhme, *Atmospheric Architectures*, p. 206.

Lawscape is rendered visible as a lure that captures the subject's attention, an image that glistens centre stage is the spectacle that is always separate from the spectator.⁵⁸ The introduction of light is a pushing away and a compression of darkness. Serres provides a powerful articulation of light as an evanescent form of knowledge that is absolutely contingent, not an enclosure into which the subject enters captured by the radiant force of a centre. In Serres' cavern darkness is both present and active, offering a complex epistemology of multiple radiances, tides of attention and affect, confluences of history and memory. Within these lights, appearing as light sources a luminous common appears.

A stage set populated with atmospheric generators is not a phenomenology that plays out in a black box city, the urban night is not a neutral void into which light can be poured. In staging civic space, the combinatorics of lighting systems, streetscape, architecture and pedestrians conflate to produce the atmospheres of the nocturnal city. Even so, the fixed mutability of digital signage, the daily turning on of the street and architectural feature lighting simply announce that which can be observed elsewhere; it is getting dark.

Enclosures are moulds, distinct castings, but controls are a modulation, like a self-deforming cast that will continuously change from one moment to the other, or like a sieve whose mesh will transmute from point to point.⁵⁹

As we have seen, stage and screen are folded into meshed screens that regulate experience. In this *mise-en-scène* screens are all pervasive, no surface free to be dumb matter. After Deleuze, we have to struggle to observe this and become attuned to a 'self-deforming' urbanism that dissimulates its power in a pragmatics of commercial inevitability. Pragmatism is linked to security, access granted through legibility, its appearance rendered through the coincidence of

⁵⁸ Although Guy Debord argues that the subject is integrated into the spectacle, the lure (object of fascination) and spectator are in a relationship, the *lawscape* is the integrated spectacle, its phenomenal atmospheric expression the *phantasmagoria*. Strictly speaking the *lawscape* is an ontology, the phenomenal 'lure' simply another procedure through which late capitalism is propagated as an eternity.

⁵⁹ Giles Deleuze, 'Postscript on the Societies of Control', *October* 59 (1992): 3–7., p. 4.

subject and space. Unlike Serres' temporal percolations which grant a subject imaginative access to the radical subjectivity of a *grand narrative*, these screens, more precisely image skeins, are intrinsic to modern urban phenomena.

Post-cinematic image space construction is a world rendered in our eyes. Siegfried Kracauer argues that it is the disturbance of the 'total situation' through the cinematic framing of 'isolated phenomena' that "leads towards the unfamiliar in the familiar."⁶⁰ Redemption from cinematic images is not a turning away from their seductions and manipulations, eschewing their spectacular control. It is a turning towards them, engaging in their disturbances, seeing that in exposing the construction of our urban environment, other environments can/will/have emerge. This does not suggest that the cinematic is an equivalent to material space. However, it does propose that Kracauer's cinematic de-familiarisation "... [] keeps us from shutting our eyes to the 'blind drive of things'" agitating the subject into a conscious observer.⁶¹ If we accept Jacques Rancière's city as the site and source of a potential phantasmagorical projections, then the subject/actor's, inscriptive Rambler's, active co-production of atmospheres is fundamental to a *mise-en-scène*.⁶²

Enfolded in Kracauer's 'Mass Ornament' the urban subject is inextricably bound to a capitalist production whose 'aesthetic reflex' is to mask the boundaries between the subject and nature.⁶³ The principle process is to enclose the subject. In setting this frame it forecloses time's miscibility, delimiting the subject's access to a city's the imaginative movement between different epochs. This is where Serre's 'shimmering knowledge' production points at the negating force of the 'total situations' edge. Kracauer's and Walter Benjamin's articulations of the

⁶⁰ Siegfried Kracauer, *Theory of Film: The Redemption of Physical Reality* (London: Oxford University Press, 1960), p. 55.

⁶¹ Kracauer, p. 58.

⁶² Rancière, *The Politics of Aesthetics: The Distribution of the Sensible*, pp. 12-19. Jacques Rancière, *The Emancipated Spectator*, trans. Gregory Elliot (London: Verso, 2009), pp. 62-64.

⁶³ Kracauer, 'The Mass Ornament', pp. 75-86.

domination of the edge, pursued modes of 'mythological thinking' that "always respects the boundaries that nature has drawn [and] [...] it is refracted in the formed quality of what exists'.⁶⁴ Benjamin's report on taking Hashish in Marseilles, "[recalls a] state [that] makes me wish to believe that hashish is capable of persuading nature to set free in us, [...] that wondering of one's existence [...], then nature (not in hope, particularly, nor having any kind of expectation) will be thrusting us with both hands in the direction of existence."⁶⁵ The cinematographic framing of a detail in the film image for Kracauer provides one optical mode of resistance. The heightened awareness of time/place for Benjamin is fully embodied mode of resistance where a *mise-en-scène* can ease the tight net of the 'Mass Ornament.'

To be dissolved in nocturnal atmospheres is a *post-cinematic condition* where time only passes for the sake of its own passing, ossifying memory, body and space. Its supporting image infrastructures are real systems, made from matter managed by humans, which are subject to the same entropic forces of all other bodies in space.

... [a] sensorial moment of belonging, a sensory depletion [becoming] reduced to our senses, directed into corridors of compulsion, our desire is a body from which we cannot escape.⁶⁶

Through the experience of the *House of Light* 'Retinal Architecture' can be understood as a process of the post-cinematic machine. Commencing with bodily preparation, material arrangements envelop the subject in an atmosphere that assures safety and promises satisfaction. Now cocooned, vision and matter appear to be in balance, time is experienced as the time of the architecture, body rhythms adjust opening the subject to immersion. From a state of harmonic difference, material, light and vision fold around the body enveloping everything

⁶⁴ Kracauer., p. 79.

⁶⁵ Benjamin, *One Way Street.*, pp. 215-222.

⁶⁶ Philippopoulos-Mihalopoulos, 'The World Is Rooted in Air'.

other than vision. Now calm the machine moves into states of retinal *akashi* preparing the optical path in *kami* towards the promise of *musubi*. In the event time of the work, at the crescendo of the machine's performance projected and reflected light is internal and cerebrally re-projected by the brain's perceptual apparatus, forcing a spatialization and externalisation of an internal luminal physiological event. In sustaining this final phase, the participant enters an architecture of fully integrated sensory domination, in which the body disappears in phenomenon that eternalise consumption, the sensual is negated at the speed of light, and the power to move "determined by the opposition of some external body."⁶⁷

Body Preparation

Body Immersion

Retinal Preparation

Induced Retinal Production

Fully Integrated Sensory Domination.

⁶⁷ Hobbes, *Leviathan*, p. 161.

FIGURES



Fig. 19 *Liberty Wall*

Digital Photograph, Whitehall, 2017.

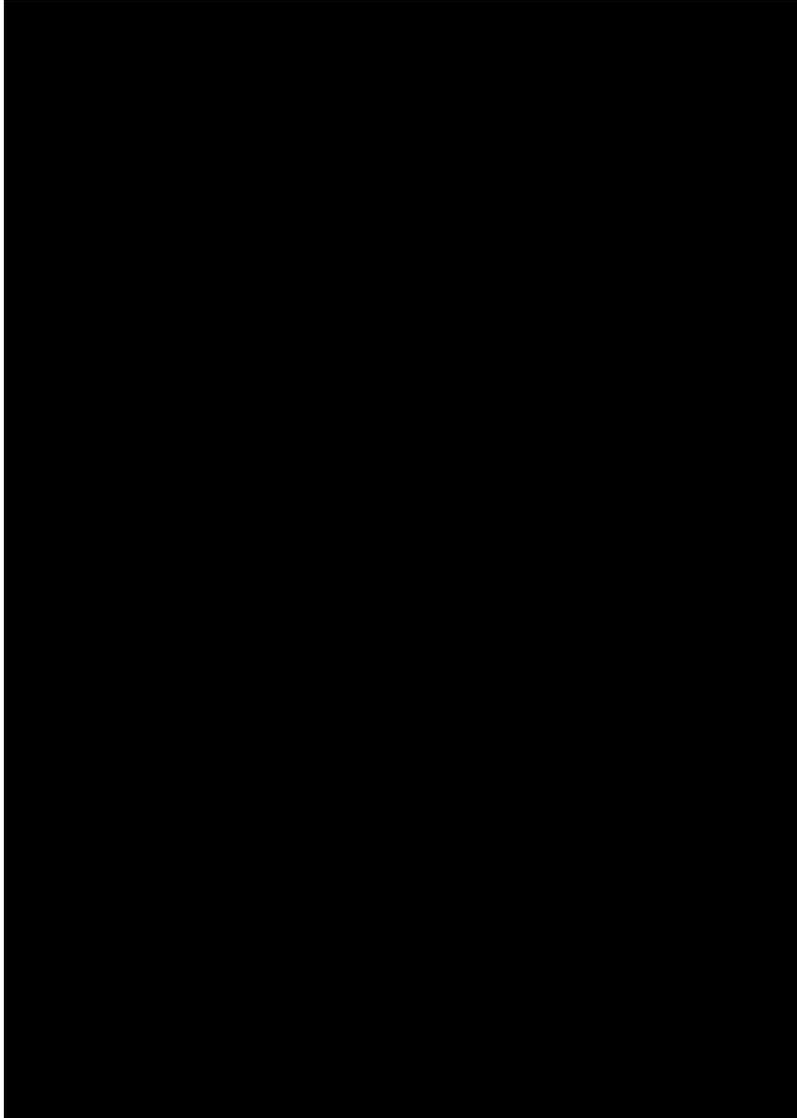


Fig. 20 *House of Light*, Bathing room

(for examination purposes only)

IMAGE REMOVED: Bathing Pool (permission not granted)



Fig. 21 *House of Light*, Viewing Room

Digital Photograph, 2018.



Fig. 22 *House of Light*, Detail

Digital Photograph, 2018.

PHOTOTROPIA

The Stage - The Auditorium: We abolish the stage and the auditorium and replace them with a single site, without partition or barrier of any kind, which will become the theatre of the action. A direct communication will be re-established between the spectator and the spectacle, between the actor and the spectator, from the fact that the spectator, placed in the middle of the action, is engulfed and physically affected by it.¹

¹ Artaud, *The Theatre and Its Double*.

ENTRAINMENT

Swiss chronobiologist Augustin Pyramus de Candolle (1778-1841) observed that under certain conditions plant leaf structures followed cyclical morphologies that did not synchronize with the diurnal movement of the sun. His hypothesis linked the idea of an endogenous biological clock to the possibility of its experimental disruption. *Mimosa Pudica* a perennial flowering plant of the pea family, the object of his study, was subjected to constant light. It was suspended in a uniform space separated from the natural environment within which it evolved. The mimosa's circadian rhythm, a natural cycle usually connected to the sun or tide, could not synchronize. Despite this, the plant found its own rhythm, its leaves opening and closing in cycles below twenty-three hours. By immersing the *Mimosa* in a steady radiance, the leaves' regular furling and subsequent unfurling sped up.² The phototropic is a generalization of the heliotropic phenomena, it has the same effect but with an attraction to any light source.

Folded into new urban subjectivities is a more pervasive system of bodily control. Not only do the supporting infrastructures remain hidden, streetlights also disappear within their own illumination. As with other elements of a city's technical infrastructure they occupy a highly present form of invisibility. Unless staged, the domestic versions of the lamp hide behind shades, in recesses or simply hang transparently above head height. Manufacturing has ceded the artisanal of the wicked oil lamp and the candle to advanced fabrication procedures. The electrification of the lamp is tied to the intensification of industrial capital creating the era of mass-produced light. From the fragile incandescent filament held in a vacuum, illumination technologies have proliferated into a polyphony of forms, screens and possible locations.³ As sources of light multiply so do the wavelengths and frequencies of transmitted

² This moment in biological enlightenment provides a basis from which to speculate that contemporary cities are assemblages of endogenous clocks and the event of their luminal hyper-saturation has caused them to distort time and place.

³ New research at MIT funded by the Army Research Office (US) is deploying nanophotonic crystals in order to process a 'recycling' of infrared radiation from a filament lamp. (Marin Soljačić. <http://news.mit.edu/2016/nanophotonic-incandescent-light-bulbs-0111>).

energy that the urban dweller's body and eye is forced to absorb.⁴ Seeing with light includes soaking up and responding to this manufactured radiance. Chronobiology indicates that at a fundamental biological level it does not matter what artificial light reveals or affords.⁵

Endogenous ocular luminescence provides a foundational idea of immersion; the dissolving of human subjectivity in light.⁶ The foetus floats in an amniotic unfocussed space of light diffused by the mother's body (blood, mucus, albumen etc), with muffled sound; a profoundly undifferentiated body. At the interface of the developing retinal structure, cells auto produce ultra-weak photons which are subsequently reabsorbed into the nervous system; a kind of visual sensory priming. With this in mind, this speculative foetus inhabits a double image space: the external luminal sphere received through light that is inextricably folded in the matter of the mother's body and the spontaneous ultra-weak image space that the eye itself generates in order to become an effective eye. In this sense we are born into a harsh light that forces us to congeal around a dialectics of inside/outside.

What is amplified sound and projected light if it is not the basic physical structure of an everyday cinematic viewing experience? Unlike the *Panopticon* that holds Jeremy Bentham's prisoner, the cinema means that we have the choice to stand up and leave the auditorium.⁷ But can we ever leave? This is what is at stake in urban lighting and new media architectures, control over the body through its eyes. Outside of the auditorium is a *mise-en-scène* of surveillance cameras,

⁴ George Brainard et al., 'Sensitivity of the Human Circadian System to Short-Wavelength (420-Nm) Light', *Journal of Biological Rhythms* 23, no. 5 (2008): 379–386.

⁵ Serge Daan, 'Colin Pittendrigh, Jürgen Aschoff, and the Natural Entrainment of Circadian Systems' (Sixth Meeting of the Society for Research on Biological Rhythms, Amelia Island: Society for Research on Biological Rhythms, 1998), p.198.

⁶ Salari et al., 'Phosphenes, Retinal Discrete Dark Noise, Negative Afterimages and Retinogeniculate Projections: A New Explanatory Framework Based on Endogenous Ocular Luminescence'.

⁷ Jeremy Bentham, 'Panopticon, or, The Inspection House', in *The Works of Jeremy Bentham Volume IV* (London: Simpkin, Marshall, & Co., 1791).

screens, streets and lights that mirror the interior spaces of entertainment and distraction. All movements through urban spaces appear to be triangulated through geometries of experience and action, representation and its projection. Pedestrians become enmeshed in this optical web, subject to and subjects of representational power in this shared space.

In *Epileptic Seizure Comparison*, we share the seizure in two ways, on the one hand we see and hear patients' cries, on the other we hear and see a sound transcription of the alpha brainwaves of these same patients, along with a chromatic conversion of this same seizure, from the interior.⁸

The ghastly light in Paul Sharits' *Epileptic Seizure Comparison* records the effects of pulsing light on human subjects as they induce biological responses (Fig. 23). Through a twist of screen doubling the audience is subject to the very same light effects. In the artwork the audience is forced into a superposition of witness and subject, they are caught in the fold between an empathic response to the images of the experimental subjects' recorded seizures and the palpable light cast outwards from the screen towards them. The sound is uncomfortable, the images repelling and fascinating.

Epileptic Seizure Comparison triangulated the representation and production of powerful media effects with two kinds of viewing subjects. On both sides of the screen, subjects and audiences entered into a cycle of sensory bombardment, secure in the knowledge that at any moment they could leave the gallery or indicate to the technician that they wanted it to stop.

A Jenny Holzer wall work bears the inscription: *'After dark it's a relief to see a girl waking toward or behind you. Then you're much less likely to be assaulted'* (Fig. 24). Cast in bronze and bolted to the gallery wall this is fragment from Holzer's ongoing collection of texts and situates us at a crux of the 'seeming' and 'being' of the urban *mise-en-scène*. Technological illumination is a planned intervention in and upon the dark, it is a deliberate act, rather than a response to what is given

⁸ Beauvis, 'Paul Sharits'.

to us by the sun. One of the effects of this illumination is to heighten darkness, accentuating what remains unlit. As artificial light illuminates certain spaces it also transforms them into images rendered with a force that imposes an alternative order to space.

On its surface, the 'Internet of Things' announces a new kind of urbanism, one which characterises networked digitally mediated cities as 'penultimate value-extraction machines.'⁹ This leitmotif of global capitalism plays out in the, as yet incomplete, projects that deliver fully integrated systems of distribution and control embedded in the material practice of the city and within/upon human bodies. In speculating on the 'smart city' Agnieszka Leszczynski identifies two scales of urban praxis; "the body, and that of the city itself." These mediated bodies emerge in "highly uneven" arrangements where the 'risks of urban encounter[s]' are structured technologically.¹⁰ A new mode of civility emerges at the interface between systems of informational control and the urban subject's willing participation in their flows. These urban encounters always already a risk to be negotiated, propagating the lone urban subject's alienation from a neighbour and their neighbourhood; a *lawscape*.

There is a version of a smart city, a 'New Babylon,' which "is heterogeneous and complex, a transversal superstructure, made possible by a new technological infrastructure."¹¹ It proposes a digital city that can be hacked, repurposed in order to circumvent central planning through which alternative values can be extracted from the technological infrastructure. Clemens Apprich proselytises the potential for the production of an 'experimental' egalitarian urban subject, one who collaboratively wrests control of the 'smart city' in order to form a new

⁹ Armin Beverungen and Florian Sprenger, 'Computing the City: Editorial', *The Fibreculture Journal*, no. 29 (2017), p. 1.

¹⁰ Agnieszka Leszczynski, 'Speculative Futures: Cities, Data, and Governance beyond Smart Urbanism', *Environment and Planning* 48, no. 9 (2016): 1691–1708., p. 1692. The 'tilted plane' of the *lawscape*.

¹¹ Clemens Apprich, 'Babylonian Dreams: From Info-Cities to Smart Cities to Experimental Collectivism', *Fibre Culture Journal* 29 (2017), p. 25.

collective.¹² This is within and upon the neoliberal network model that Lighting Urban Community International's *Charter on Urban Lighting* promotes as one that should be "secure and comfortable."¹³ As the 'New Babylonians' use the infrastructures they cannot afford to disrupt them at a technical level, instead, they are re-deployed.

The *Charter on Urban Lighting* explicitly declares that 'lighting should contribute to reducing social and economic inequalities and support integration policies' and "urban lighting strategies must contribute to creating a secure and comfortable environment[s]."¹⁴ This quartet of imperatives, a should and must of mediation, underpins the charter's logic of a smart city which "prosper[s] by enabling interactions between their inhabitants and an exchange of knowledge and ideas which creates something that is more than simply the sum of the individual human parts."¹⁵ Particular to this version of a smart urban lighting is its pragmatism. In delivering lighting systems other kinds of meshed infrastructures can be coupled to it. This is a new mode of urban lighting that proposes an equality of access to and use of the city; it proposes tools to facilitate a luminal egalitarianism. At the same time the technical and financial constraints on the integration of communication networks, and local means of data gathering, are partially ameliorated through simultaneous procurement and delivery. Thus, the procurement and management of street lighting is aligned with other civic contracts for data distribution, surveillance systems and private networks. Streets can be lit, surveilled and brought into profit. 'Smart lighting' has less do with illumination and more to do with value extraction.¹⁶ However;

¹² And, if we are to believe the rhetoric of the 5G City, provide new means of its redistribution and commercialisation. Some years ago, major software companies (Adobe famously) shifted their business plan to that of subscription. This announces, for me at least, the first stage of the subscription city, the formalisation of relationship to infrastructure and its uses. Anecdotally, meshed infrastructures are being offered to cities as materially integrated data spaces for rent.

¹³ Lighting Urban Community International, 'Charter on Urban Lighting' (LUCI, 2016).

¹⁴ Lighting Urban Community International.

¹⁵ Ruth Slavid, 'Smart Lighting for Smart Cities', in *Cities and Lighting* (The LUCI Network, 2014), p. 13.

¹⁶ Keller Easterling, *Extrastatecraft: The Power of Infrastructure Space* (London: Routledge,

the threats of an embodied urban encounter are real. Improved facial recognition produced through careful lighting design and more effective equipment has been demonstrated to mitigate both the imagined and actual risks to the lone pedestrian traversing the city at night.¹⁷ This is another mode of value extraction, the value of the subject remaining unharmed, or at least given the opportunity to avoid harm.¹⁸ Light protects property.

OPTICAL STREET

So, I take an imagined walk. As my feet hit an imagined pavement Michel Foucault echoes in each step reminding me that even though the pavement's stable footing allows movement, the image of the street trembles as it unfolds in front of me.¹⁹ The night-time city provides me with a found sound stage or film set for the production of works to use the urban contemporary as material putting it to work again. Underlying this is Foucault's demand that I see my willing participation as a mechanism in the panoptic machine.²⁰ In order to radicalise my relationship to

2014).; Keller Easterling provides an extended analysis of what she characterises as 'zone'. For Easterling the logic of the city is one that 'uses the city as a medium of information and intelligence - the other half of an interplay that leverages more infrastructure and resources'

¹⁷ Leon Van Rijswijk and Antal Haans, 'Illuminating for Safety: Investigating the Role of Lighting Appraisals on the Perception of Safety in the Urban Environment', *Environment and Behaviour*, 2018, 889-912., p. 909.

¹⁸ This potential for 'meshing' is already starting to place the 'at risk body' in a hybrid data/urbanism. Not so much post-human but post-urban. You can already sense phantom technocrats imagining a city where the colour temperature of the lamp guides the 'vulnerable subject'. Cool watch out, warm feel free to move. This is a street syntax driven by live subjective data inputs from the traversing female on her way to work, rest or play. The research project: Girl Walk: Identity, Crowd-mapping and Safety in the City for Women and Girls (XYX Lab - Monash Space Gender Communication Lab, Monash University), deployed an online mapping tool in order to demonstrate what it really means to "Free to Be". It is only a short step from this mode data gathering, as tool, to live data mapping as an organic version of the XYX Gender Equality Map. "The Map will help uncover real experiences of gender inequality in public places, from local sports facilities to public transport, community services and infrastructure to simply walking down the street"

¹⁹ Foucault, *Discipline and Punish: The Birth of the Prison*. Foucault functions as a guidebook to the imagined street.

²⁰ Edensor, *From Light to Dark: Daylight, Illumination and Gloom.*, pp. 81-108; Edensor's analysis of urban lighting argues that they foster an illusion that the urban night is the "way things are and should be." Thus, regulatory control and surveillance become encoded as an eternal, the *lawscape* becoming atmosphere.

the images that I inhabit, I must look through the comforts of architectural typologies: the assurances of accepted practices; the multiplicity of statutory regulations; the banal assertions that public space is an amphitheatre or stage. Foucault then allows me to steer this *mise-en-scène* from a formal analysis towards something more divisive, setting its limits is also to set my own. Understanding my investment, I have to state with him (after him) that each element in this image is fully loaded. As I ponder the streetlight above me, the bench that I am sitting on is a device of power, which absolutely positions my body in space. Then following a slow panning gaze across the street, I find myself to be at an apex of a triangle; my head, the streetlight, a surveillance camera. In this three-shot sequence the pavement, the bench, the streetlight, the surveillance camera and my head are all that have been brought to the *mise-en-scène*. There is no place in mind and no particular image, these objects inhabit a kind of emptiness. In this image the qualities of the place remain hidden. It would appear to have no outside; the surveillance camera is producing the final shot, the light enabling its production, the bench situates this subject in relation to a light and a lens.

Morals reformed - health preserved - industry invigorated - instruction diffused - public burdens lightened - economy seated, as it were, upon a rock - the gordian knot of the Poor Laws not cut but untied - all by a simple idea in Architecture!²¹

“Is not prevention better than punishment?”²² ripples through history from Jeremy Bentham’s Panopticon to Thomas Mathieson’s *poliopticon* [my phrasing].²³ Bentham’s architecture is one that has an optical centre around which prisoners are arranged in “cells [that] are divided from one another [...] in the form of radii issuing from the circumference to the centre.”²⁴ An eye is at the

²¹ Bentham, ‘Panopticon, or, The Inspection House’.

²² Bentham., section 15.

²³ Mathieson, *Towards A Surveillant Society: The Rise of Surveillance Systems.*, p. 47.

²⁴ Bentham, ‘Panopticon, or, The Inspection House’, letter 2.

centre of a vortex described by Foucault as ‘visibility [is] trap’, the presence and non-presence of a constant observer guaranteeing ‘that the perfection of power should tend to render its actual exercise unnecessary.’²⁵ The panoptic architecture arranges the prisoners - actual bodies - around the occluded uncertainty of the warden at its fulcrum. A may or may not be present eye is surrounded by the must be present prisoners’ eyes; “I mean, the apparent omnipresence of the inspector [...] combined with the extreme facility of his real presence.”²⁶ These lines of sight are individuated in the direct vector between the centre and the cell, these lines between one and many are all lines between individuals. Thus, the Panopticon functions just as well with only one prisoner and no present warden, as it would if it held an infinite population and one present warden.²⁷ The force of these gazes is centripetal, each subject locked in place and in isolation from the others. There is no potential for a prison community to emerge, however morally reformed they might become.

Sitting here in the line of site of a camera one is at least notionally within a physical space, Bentham’s walls and cells, grills and partitions, dissolving into the fabric of the urban contemporary. The paradigmatic architectural shift has more than inverted or turned inside out: the spatial relations between the two subjects; prisoner now at centre, warden as multiplied satellite/s. The movement is one from the centripetal to the centrifugal, the prisoner subjected to a dance of observation and communication (see; Artwork 8). In this morphology what was once a cell is now a screen, camera, paving, devices of exchange; skein surfaces. This surveillance camera is connected, the optical centre atomised, dispersed into a ‘polyoptical profile’ that inverts Bentham’s logic by hiding the optic nerves

²⁵ Foucault, *Discipline and Punish: The Birth of the Prison.*, pp. 200-201.

²⁶ Bentham, ‘Panopticon, or, The Inspection House’, letter 6.

²⁷ Bentham does concede in letter 5 that the prisoner should be under actual inspection as much as is possible. “[...] but the greater chance there is, of a given person’s being at any given time actually under inspection, the more strong will be the persuasion - the more intense, if I may say so, the feeling, he has of his being so.”

of this distributed eye within its own digital apparatus.²⁸ It is the skein that sits just below the pavement in ducts or passes through the air (and our bodies) in electromagnetic waves. So, I who sit under the streetlight is aggregated by this one/many eye, archived in order to be commodified for the few, to the many. The ordering of space is now conceptualised and concretised around an image, a composite image where the signs that I carry (embody) are ordered, sorted, distributed and multiply aggregated in order to be put to other kinds of work.

The urban subject finds its body in this atmosphere (see; Artwork 5). I am atomised, aggregated elsewhere and then re-aggregated in the street. In one step I am here and everywhere. As Frederic Jameson observes, “spatial distance is now translated into a virtual temporal simultaneity, and in which, in other words, here too space abolishes time, ...[and] the passage of time has been virtually eliminated” in our post-modern temporality.²⁹ The explicit temporality of an architecture of power has coalesced with its infrastructure, the town square disabused of its time, its material and its finitude.

Returning to the imagined bench that positions me in the cross hairs of a distributed optic, I look back again at the streetlight, it is night.³⁰ Together the streetlights combine to create an undulating lit surface of concrete, stone and tarmac. In a line; they open up the nocturnal urban contemporary and entice me to walk into it. They create a space of activity in an image of light. In this production of an image that slips almost seamlessly into the production of space, we can glean something of what Theodor Adorno observed in Richard Wagner’s operatic productions: ‘[that] inside the illusion dwells disillusionment.’³¹ Adorno’s critique of Wagner’s conception of a cosmos is that in the production of its enclosing totality – the total work of art – is also a ‘radical alienation’ from the

²⁸ Mathieson, *Towards A Surveillant Society: The Rise of Surveillance Systems.*, p. 47.

²⁹ Frederic Jameson, ‘The Aesthetics of Singularity: Time and Event in Post Modernity’ (Frederick Jameson, 2012).

³⁰ See: *Veill*, in the accompanying material.

³¹ Theodor Adorno, *Searching for Wagner* (London: Verso, 2005), p. 80.

natural.³² The Wagnerian *Gesamtkunstwerk* sought to unify production fragments into a 'second nature'. In spatial terms this helps us to see a movement from an origin, the place of transmission, towards an enclosure, or the directional to the omnidirectional. This proliferation of production fragments needs a "radical process of integration, which assiduously draws attention to itself, [it] is already no more than a cover for the underlying fragmentation." This is a "cosmos [that] has no reality."³³ It is an enclosing atmosphere that demands our trust. In order to produce this unified *mise-en-scène* the production mechanisms have to remain hidden. Seeking to negate analysis it can suffer no evidence of its making.

Matthew Wilson Smith argues a concept of the estrangement device, that is 'not ultimately reincorporated back into the totality of the work.'³⁴ It is as if a fragment from Adorno has the potential to resist its total synthesis. A device that both propagates the cosmos and acts as a mode of resistance to it incorporated into its own infrastructure. After all, it is infrastructure that binds and connects. However, Smith's analysis of the 'total work of art' problematises the efficacy of any potent critical reflection within the 'organic spectacle', that is the process of the re-absorption of the medium into the 'organic' totality of the work itself. In the end Adorno's integration is only tempered by Smith's re-integration, a 'being' transforming into a 'seeming'. Any moment that a fragment resists, or is revealed, is simply the moment when it becomes recombined in the 'total work'. This suggests that the possibility of critical reflection can only be found fleetingly in the transition of the estrangement device into the totality.³⁵

³² Adorno., p. 86.

³³ Adorno., p. 93.

³⁴ Smith, *The Total Work of Art: From Bayreuth to Cyberspace.*, p. 93.

³⁵ Marx, *Grundrisse.*; At the root of this formulation we find a trace of Marx's *Grundrisse*, where he marks a 'pure loss' in the temporal moment in the circulation of capital; the time that passes 'before the commodity makes its transition into money; or the time during which it remains a commodity, only a potential but not a real value.' As long as the value remains suspended in commodity it cannot be realised.

CATHEDRAL

Can we imagine imagination without darkness, without the enveloping shadows within which narrative finds its first soil? For Michel Serres there is no *grand narrative* without the folding of time into place, the memory of the hearth and land coalescing in the present, in the incandescent ‘fulgurant’ rhythms of light and time; at night thought is freed from ‘lucidity.’ Serres objects to a Newtonian conception of times “measurement, [its] spending and nullification.”³⁶ This measurement dissects polyvalent rhythms into a universal metric. Contingency is foreclosed by regularity, coincidence forced to coincide, to synchronize with the meter of technology, to step to the beat of a centre (see; Artwork 11). In order to regulate the ecclesiastical calendar, the Venerable Bede’s “little book about the fleeting and wave tossed course of time”³⁷ pre-empts Isaac Newton’s ‘true time’ through computational analysis.³⁸ The calculation of time, correcting for the cyclical morphologies of earthly movements, seeks to come ‘to a fitting end in eternal stability and stable eternity.’³⁹ The ultimate goal of Bede’s time was the synchronization of the spatially distributed congregation around the veneration of the Christ figure transcending finitude at Easter. This congregation was reformed around a centre that coincided with the Vatican; it was spatially reconfigured around a distant point in space, this new metric accelerated Rome’s *political aura*.⁴⁰ In this calendar’s regulation, local contingency is dissolved into a universal calculation, control wrestled from local movement and placed in the

³⁶ Michel Serres, *Incandescent* (London: Bloomsbury, 2018), p. 230.

³⁷ Bede, *The Reckoning of Time*, vol. 29, Translated Texts for Historians (Liverpool: Liverpool University Press, 2012), pp. 673-735)

³⁸ Carlo Rovelli, *The Order of Times* (New York: Allen Lane, 2018), p. 58.

³⁹ Bede, *The Reckoning of Time*, p. 249.

⁴⁰ Nicholas Howe, ‘Rome as Capitol of Anglo-Saxon England’, in *Writing the Map of Anglo-Saxon England* (London: Yale University Press, 2008). Howes, “Rome as Capitol of Anglo-Saxon England” is an account of the reorientation of Anglo-Saxon England, he notes Bede’s influence on the process through which a notion of a centre is reconfigured. The metric of Papal power, Sovereign Power, is reach over distance. Howe connects this to Benjamin’s Paris as the capital of an epoch, Rome an origin for a *political aura*.

great look up chart of ecclesiastical calibration. Time measured and dispensed is time subjugated in order for it to be transcended.

A calendar and a map together reconfigured a world. The congregation synchronised in clock time, dispersed through space, re-founded through temporal alignment. That optical architecture was arranged around the papal figure who refracted divine emanation creating a world interior of light. But this trajectory of nocturnal urbanism does not only point at that origin, or to the dark voids of half remembered fears that lurked under our childhood beds. For the city there is another half-dream, a half-awakened state that positions consumerism in a *mise-en-scène* of total light. A place in which a crowd staged itself in darkness within a spectral dome supported by infinitely tall columns of light. Albert Speer's *Lichtdom* at the Zeppelinfeld at the half-completed, never to be completed, Nuremberg (Fig. 26).

The actual effect far surpassed anything I had imagined. The hundred and thirty sharply defined beams, placed around the field at intervals of forty feet, were visible to a height of twenty to twenty-five thousand feet, after which they merged into a general glow. The feeling was of a vast room, with the beams serving as mighty pillars of infinitely high outer walls. [...]. I imagine that this "cathedral of light" was the first luminescent architecture of this type, and for me it remains not only my most beautiful architectural concept but, after its fashion, the only one which has survived the passage of time.⁴¹

Paul Virilio's thoughts on the cinematic function of Speer's projected architecture, a space made palpable within a millennial image of light, establishes the principle cinematic frame to be that which precisely determines 'in a building what is permanent and what is impermanent' or the question, what does light do

⁴¹ Albert Speer, *Inside the Third Reich: Memoirs by Albert Speer* (London: The MacMillan Company, 1970), p. 59. Martin Kitchen, *Speer: Hitler's Architect* (London: Yale University Press, 2017), p. 24 & 375; In Martin Kitchen's history of Albert Speer there is the rather probable speculation that it was the team led by Leni Riefenstahl that proposed this approach. Nevertheless, this was an architecture predicated on the cinematic and the distribution of an image.

that makes *Lichtdom* persist?⁴² As the sun rose, the power of up to one hundred and thirty searchlights abated. The triumphal interior of Virilio's 'hypostyle theatre' faded. It left an indelible problem of light, as Sean Cubitt succinctly puts it; '[as] an exquisite medium for the expression of an instinct to order in process of becoming totalitarian.'⁴³ Architectural megalomania played out, finding its most potent form in scenic effects that were predicated on the delusional notion that the 'backdrop' is somehow neutral in the production of an 'authentic' effect. Speer's apology wrapped in a memoir invokes the French Revolution as if it were an equivalent, only with a less profligate production budget; "I was deluding myself deliberately."⁴⁴ Cubitt asserts that this was an "aesthetics of total command" where coherent beams of light attain a "purity of light without image, light as sheer spatial organisation, brought to heel in the service of the instinct for order."⁴⁵ Speer's architecture was etched onto photographic plates and burnt into celluloid; its afterimage was projected onto us through Leni Riefenstahl.⁴⁶ Archived and endlessly copied, it continues to be distributed. Archival spectrality renders Virilio's architectural vanishing permanent (see; Artwork 14). It cannot be undone or erased by a brighter light, nor can it be dissolved into a bigger architecture.

Susan Buck-Morss characterises this as 'Fascism's afterimage' of consumer capitalism, she puts it, "a receptacle for its own political phantasmagoria." Her 'dreaming collective' drawn away from mass culture towards "the staged extravaganzas of mass meetings."⁴⁷ Co-opted by the National Socialists, Berlin's bright public lighting provided a 'free space' that could be repurposed as an arena for 'pacification and distraction.' Those who sought solitude, or a congregational

⁴² Paul Virilio, *War and The Cinema: The Logistics of Perception*, trans. Patrick Camiller (London: Verso, 1989), p. 70.

⁴³ Cubitt, *The Practice of Light*, p. 223.

⁴⁴ Speer, *Inside the Third Reich: Memoirs by Albert Speer*, p. 62.

⁴⁵ Cubitt, *The Practice of Light*, p. 221.

⁴⁶ Riefenstahl, *The Triumph of the Will*.

⁴⁷ Buck-Morss, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project*, p. 312.

refuge in which to resist integration into the National Socialist machine, found it behind the closed doors of bars and clubs.⁴⁸ The street a metonymical rehearsal space for *Lichtdom*, in turn was reconfigured by it. *Lichtdom's* persuasive and pervasive architecture was emphatic, it coordinated bodies and gazes along an axis where the figures of power stood at the centre of a stage of light.

DELHI DURBAR

A collection of family photographs recording the second “Delhi Durbar” sit in glass cabinets in the collection at Kedleston Hall, Derbyshire.⁴⁹ A racial memory of subjugation through spectacular theatre has transposed across time and space and ended up there, ready to prick our eyes and remind us of the price of the pleasures on offer in Robert Adam’s preserved temple (Fig. 26). Lord Curzon’s 1903 two-week orchestration transformed an open field in Delhi into a fully operating urban space, within which a mass could celebrate the succession of Edward VII to Emperor of India. This temporary structure was held in the grip of a military parade where colonial subjects slowly spun their own enclosing web.⁵⁰ Even with the staccato of sixteen frames per second on BFI National Archive footage, a roughly edited newsreel, offers glimpses of a Sovereign Power acting out even as its real power was starting to fade.⁵¹ Its decisive act was to perform upon a *tabula rasa* stage, re-coronating the Emperor nee Empress.⁵²

A *mise-en-scène*, Lady Curzon’s ‘regal peacock gown,’ iridescent colours, fine couture, fabric shimmering in light, architecture, furniture, and a chorus (Fig. 27).

⁴⁸ Schlör, *Nights in the Big City*, p. 284.

⁴⁹ Visited May 2016 and April 2018.

⁵⁰ Edward VII did not attend, his brother Prince Arthur sat in his place. Nick Robbins, *The Corporation That Changed the World: How the East India Company Shaped the Modern Multinational*, 2nd ed. (New York: Pluto Press, 2012), pp. 11-16. Robbins identifies the ambivalence of the colonial subject in “The Hidden Wound” where corruption and community division produce the space for a ‘creeping acquisition.’

⁵¹ *The Delhi Durbar 1902-03* (BFI National Archive, 1902).

⁵² Paul Virilio, *The Aesthetics of Disappearance*, trans. Philip Beitchman (Los Angeles: Semiotext(E), 2009), Virilio observes that ‘the *tabula rasa* is only a trick whose purpose is to deny particular absences any active value.’

Bodies performing in a theatre of action; the “Delhi Durbar” a cruel theatre, a lesson in morphology and evidence of the growing tendrils of an emerging corporate urban form.⁵³ The potency of British imperialism was as much a product of its ability to put on a show as its tendency to articulate sovereignty through military power.

Without recourse to Riefenstahl’s cinematographic framing or Speer’s hypostyle architecture of darkness, the sheer weight of numbers ordered the space along an optical axis at whose centre, shaded from the harsh light of the noon sun, sat the eternal body of the British State. The colonial subject, qua spectator, through spectacular embodied consumption and latterly cinematic distribution and re-consumption could be as Artaud put it ‘enchained by the magic of the play’⁵⁴ precisely because there was no real possibility of an accidental gaze, all modes of spectatorship were already included in the spectacle.⁵⁵ This *mise-en-scène* explicitly laid out the relations of power, a real space – an image space – a gown upon which an empire reformed its spectacular surface. Stage craft combined more latterly with the newsreel and the experimental colour movie become the ‘trade craft’ of the commodification of space and the polyoptical modes of its control.⁵⁶

BUBBLE

To be shaken out of the ruts of ordinary perception, to be shown for a few timeless hours the outer and the inner world, not as they appear to an animal

⁵³ Robbins, *The Corporation That Changed the World: How the East India Company Shaped the Modern Multinational*, pp. 199-216; Robbins identifies this morphology as the product of a triumvirate: speculative temptation, global monopoly and a lack of regulation or enforcement. Some of the walks in *Night Moves* hinted at a palimpsest of Empire, Robbins identifies these traces as he too uses the contemporary walk as a means to articulate a necrotic grand narrative.

⁵⁴ Artaud, *The Theatre and Its Double*, p. 140.

⁵⁵ Here I am thinking both of the Times reader in mainland UK inspecting the illustrative photograph and headline, alongside the cheerily represented onlooker of the military parade in Delhi.

⁵⁶ “Trade Craft” refers to the techniques, methods and technologies used in contemporary espionage and state funded intelligence infrastructures and their deployment: the *mise-en-scène* of a *lawscape*.

obsessed with survival or to a human being obsessed with words and notions, but as they are apprehended, directly and unconditionally [...].⁵⁷

The three 'D's of psychedelia, depersonalization, dynamization and desynchronization, find their most fertile territory in the night. Psychedelia's alternative space, its altered state reported by Aldous Huxley after his controlled consumption of mescaline, is not only formed from a 'glowing living light,' it also abolishes spatial categories; 'space was still there but it had lost its predominance.' In his altered state Huxley maintained his ability to move through material space. Gravity and atomic resistance remained unchanged by the effects of the drug, there was to be no walking through walls. Notwithstanding the insights provided to Huxley in this induced sensorial mutational space, new perceptual knowledge appeared to have little effective potency on the space he had left and to which he would inevitably return: 'it gives access to contemplation - but to a contemplation that is incompatible with action and even with the will to action, the very thought of action.'⁵⁸

In this space of sensory revelation, an immersive and predominantly retinal sphere conjured by the single dose of mescaline, Huxley became an observer occupying an automatic body. As his body continued to breath, sweat and become hungry; mind-body dualism was ruptured facilitating for Huxley new knowledge. However potent this shamanistic seeing might have been it underpins *psychedelic capitalism's* incompatibility with action and its atomization of the urban subject's body in the architecture of a retinal sphere. The three 'D's are the modus operandi of the capitalist production of the city, the logic of its machine.⁵⁹

Cities are cinematic machines that depersonalise, dynamize and desynchronise subjectivity. These processes counter the optimism of a *temporally contingent*

⁵⁷ Aldous Huxley, *The Doors of Perception* (London: Vintage Classics, 2004), p. 27.

⁵⁸ Huxley., pp. 5-12.

⁵⁹ Peter Sloterdijk, *In the World Interior of Capital*, trans. Wieland Hoban (Cambridge: Polity, 2014), pp. 169-176. For an articulation of the psychedelic in late neo-capitalist urban space see: *Psychedelic Capitalism* in "The Crystal Palace".

dynamics of atmospheres.⁶⁰ It is precisely the cinematic machine's subjugation of contingency that absorbs polyvalent atmospheres into the great time eater of the contemporary city. Jonathan Crary provides the cinematic machine with an important quality; the intensification of the speed and rhythm in its production. Acceleration adds energy to a system in order to increase its velocity, for Crary it is the vector of "...[an] assault on everyday life [which] assumed the new ferocity. Time itself became monetised, and the individual redefined as a full-time economic agent."⁶¹

The tube is a great mirrored space, [...]. To see fashionably costumed people reflected repetitively in the mirrors, like colourful objects in a kaleidoscope, is dazzling in effect. A special sense of excitement evocative of the fashion world is produced, and the ride on the escalator becomes a rich experience. Attracted by the mirrored reflections of people passing through the intersection, one peers into the tube. [...]. [and] thus begins a shopping experience true in character to Omotesando.⁶²

Conflating machine movement and disorientating reflective planes, architect Hiroshi Nakamura's entrance vestibule for Tokyu Plaza not so much bedazzles as *vajazzles* the consuming (Fig. 28).⁶³ To enter this Plaza is to take an escalator ride into a vortex of fragmentation. A myriad of crystal reflections conflates architecture and spectators in a moving image, a *Heptasplasiesoptron*. Tightly regulated by the slow movement of the escalator, the interface between the street and the interior arcades anticipates, functions as a rehearsal to, the transformations on offer in the boutiques inside; sensory experience at the speed of a machine functions as a primer for a transformation predicated on the offers

⁶⁰ Bille, Bjerregaard, and Sørensen, 'Staging Atmospheres: Materiality, Culture, and the Texture of the in-Between'.

⁶¹ Crary, *24/7: Late Capitalism and the End of Sleep*, p. 71. This builds on his previous work where he argued that one 'path was towards the increasing standardization and regulation of the observer that issued from knowledge of visionary body, toward forms of power that depended on the abstraction and formalization of vision' (1992, p. 150).

⁶² Hiroshi Nakamura, 'Hiroshi Nakamura & NAP', accessed 16 July 2018, <http://www.nakam.info/en/>.

⁶³ Omotesando Harajuku, 4-30-3 Jingumae, Shibuyaku, Tokyo, Japan.

inside. This machine folds the street, spectators and interior in a safe manner, it cannot offer the radical subjectivisation of the Gin Palace. It can only offer a space of optical distraction to the spectator, as Theodor Adorno and Max Horkheimer put it, “so entirely reified, even to themselves, that the idea of anything peculiar to them survives only in extreme abstraction: personality means hardly more than dazzling white teeth and freedom from body odour and emotions.”⁶⁴

The entrance is also the exit. It is only in the daylight that sky secures any basis from which to establish that one has left the building. At night as we have already seen, the distinction between street and interior are confounded through reflection and light, boundaries become indistinct.

[..] the individual is most generally found at the intersection of two roads: he can either return inwards, toward a cocoon, the original space (the womb, home), or cut the umbilical cord and set out for open space with all its attendant risks.⁶⁵

Other than the pain of birth and separation, architecture retains nothing of the soft, warm, wet flesh of the first abode: a dwelling within a body (see; Artwork 15). If architecture is enclosure then it is now formed from obsidian, ‘the harsh law of profit’ is manifested in the lustre of its dark mirror.⁶⁶ Nevertheless building technologies, through adopting styles of technical morphology, invoke notions of fluidity and flexibility with the human at the centre.

Body and image, as Hito Steyerl observes in *Free Fall*, occupy ‘a new visual normality’ where “technologies have enabled the detached observant gaze to become ever more inclusive [...] as intense as extensive, both micro- and macroscopic.”⁶⁷ Steyerl inverts Mbembe’s *necropolitics* and Foucauldian panoptic

⁶⁴ Theodor Adorno and Max Horkheimer, *Dialectic of Enlightenment*, trans. John Cumming (London: Verso, 1997), p.136.

⁶⁵ Lefebvre, *Towards an Architecture of Enjoyment*, p. 107.

⁶⁶ Lefebvre, p. 153.

⁶⁷ Hito Steyerl, ‘In Free Fall: A Thought Experiment on Vertical Perspective’, in *The Wretched of the Screen* (Berlin: e-flux journal, 2012), p. 25,

power by investing 'a new representational freedom' in the de-unified gazes offered by the fragmented immersive visualities of multi-screen projection spaces. Without a stable ground, the cinematic city can be decoupled from its spectacular role as the machine that depersonalises, dynamizes and desynchronizes subjectivity, the *Heptasplasiesoptron* reincarnated in the data-space hybrid of an urban milieu that "promises no community, but a shifting formation" (see; Artwork 13).⁶⁸ Instability is both the mode of spectacular control, Debord's abstraction of capital, and the emergent momentary potential of its rupture.

Arguably Donna Haraway's disruption of the optical paradigm in *The Promises of Monsters* articulates this instability more convincingly. Haraway breaks down the notion of a transgressive *virtual consensual community* by conflating the virtual as a counterfeit to the real, seeming not being, with concept of 'virtue' mobilised as a power to produce effects. Paradoxically a 'defended self' begins to occupy a "virtual reality of paranoia [...] the condition of the impossibility of remaining articulate."⁶⁹ The axis of monocularity, Haraway's 'patriarchal optical law' operates to void content delimiting representational freedoms as they emerge, as she puts it this "provokes the necessity of active rewriting as reading."⁷⁰ Not so much an epistemic but an ontological challenge, the subject needs constant articulation and re-articulation, not representation.

Artaud passes harsh judgement on the mental and bodily fatigue that this mode of urban subjectivity produces. In order to 'resuscitate an idea of total spectacle' from abstraction and the machinations of the cinematic machine he demands that the separation of the theatre from the plastic world be demolished with

⁶⁸ Steyerl., p. 28.

⁶⁹ Donna Haraway, 'The Promises of Monsters: A Regenerative Politics for Inappropriate/d Others', in *Cultural Studies*, ed. Lawrence Grossberg, Cary Nelson, and Paula Trichler (London: Routledge, 1992), 295–337., p. 325. Haraway develops this further by placing female chastity to be 'always doubtful in patriarchal optical law.' In this way *virtu* is given capacities to effect and to be effective but remains delimited.

⁷⁰ Haraway., p. 327.

‘intense and sudden shocks.’⁷¹ For Artaud withdrawal is predicated on an active mise-en-scène; a propositional urbanism that might speak, sing, shout and scream; articulate. It is not enough to pull back the Brechtian curtain, the curtain itself has to be the mode of speech.

Patrick Keiller notes in *The View from The Train* that “most film space is off-screen - either remembered from preceding images, or heard, or merely the imaginary extension of the space on screen. Because it is reconstructed in this way, film space is always a fiction, even when the film is documentary.”⁷² Keiller makes a connection between the film image, the image received, and an imagined corollary supplement, a space off-screen. He extends this idea of fiction to the level of an 'ecstatic architecture' by aligning the cinematic record of particular architectural moment with a subjective 'transitory experience' that can be revisited. In this 'ecstatic' moment, the surroundings, the context, recede from perception producing an architecture that is outside of itself, an unplanted irrational architecture without an end.

⁷¹ Artaud, *The Theatre and Its Double*; Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (London: First Harvard University Press, 2002), p. 463: N3/1; the 'lightning strike', an abrupt moment of awakening from the power of the collective dream space of capitalism

⁷² Patrick Keiller, *The View from the Train: Cities & Other Landscapes* (London: Verso, 2013), p. 76.

FIGURES

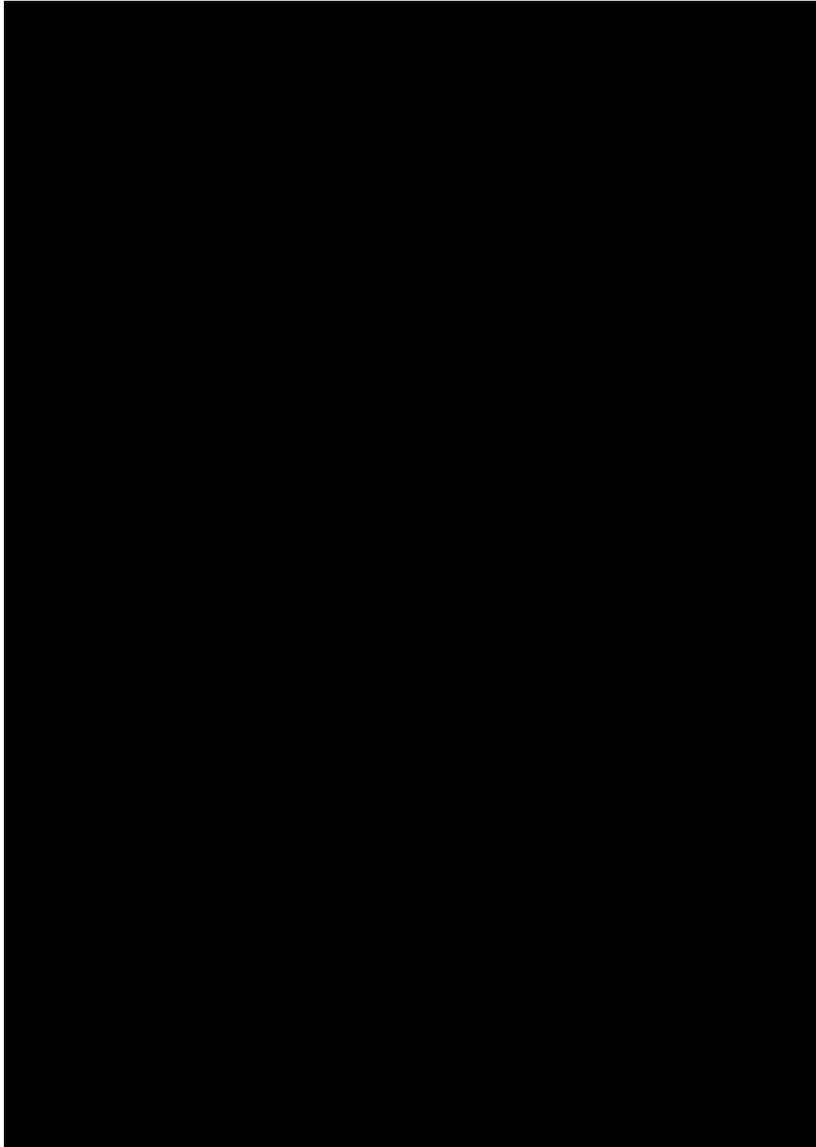


Fig. 23 *Epileptic Seizure Comparison*

Paul Sharits. 1976. Installation at DCA as part of the Kill Your Timid Notion festival. Prints © Anthology Film Archives (for examination purposes only)

IMAGE REMOVED: see DCA Website.



Fig. 24 *Truism*

Jenny Holzer. 1976. Detail from Artist Room, Tate Modern, June 2018.

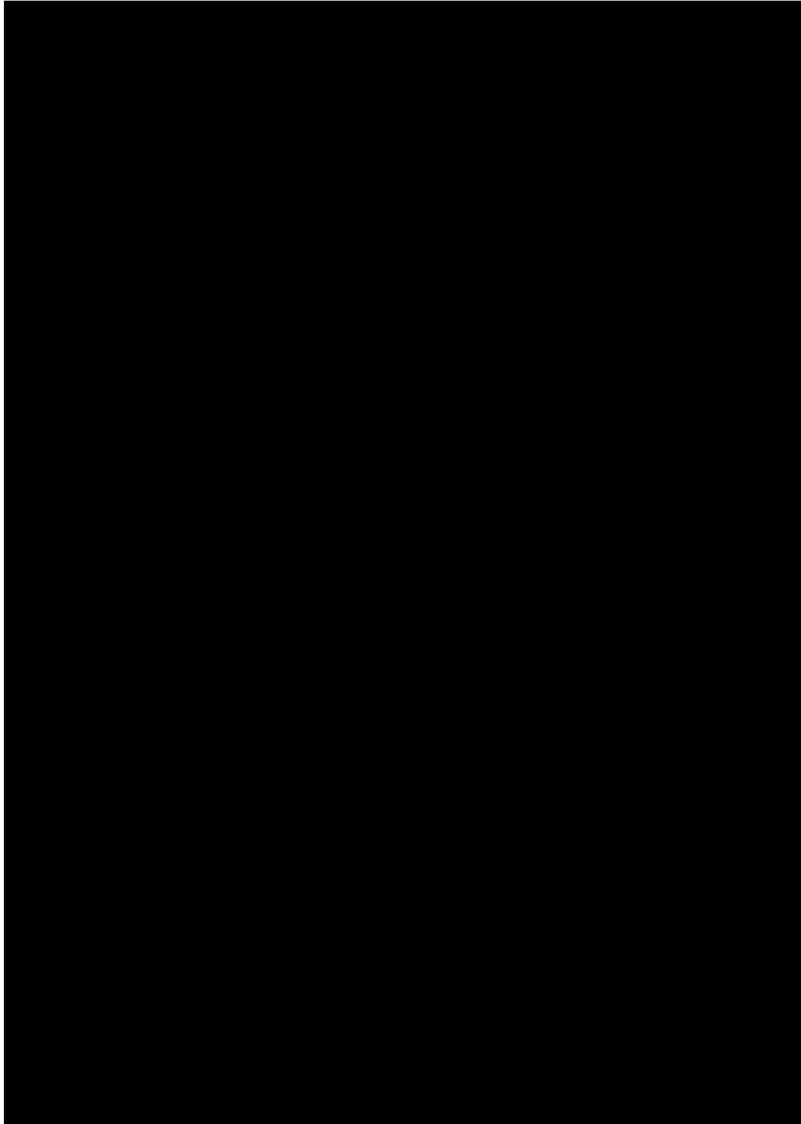


Fig. 25 *Lichtdom*

Source, <https://rarehistoricalphotos.com/nazi-rally-cathedral-light-c-1937/>
(for examination purposes only)

IMAGE REMOVED:



Fig. 26 Lord Curzon's Cabinet

Kedleston Hall, April 2018.

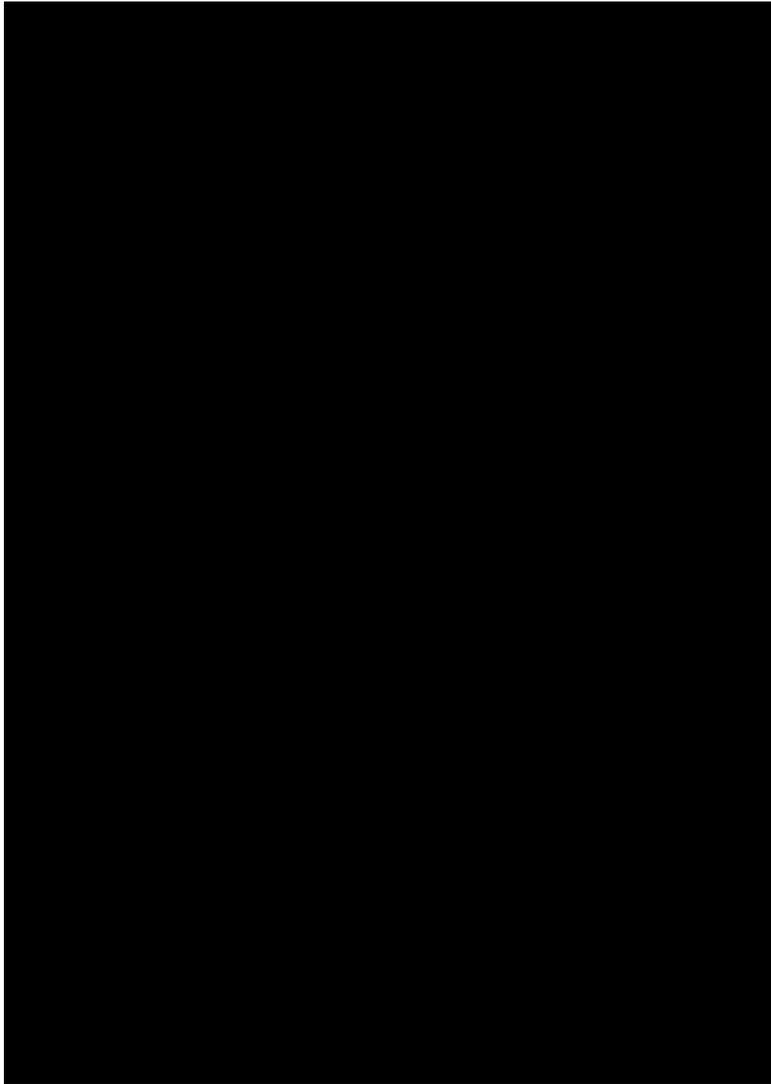


Fig. 27 Lady Curzon's Peacock Dress

Fragments from personal digital archive. (for examination purposes only)

IMAGE REMOVED: multiple sources from private collections



Fig. 28 Tokyu Plaza Vestibule

June 2018, Tokyo. (stills from video)

CONCLUSION

What is essential now, it seems to me, is to determine what this physical language consists of, this solidified, materialised language by means of which theatre is able to differentiate itself from speech. [...] This language created for the senses must from the outset be concerned with satisfying them. This does not prevent it from developing later its full intellectual effect on all possible levels and in every direction. But it permits the substitution, for the poetry of language, of a poetry in space which will be resolved in precisely the domain which does not belong strictly to words.¹

¹ Artaud, *The Theatre and Its Double*, p. 38.

SUMMARY

'Luminous Economy' explored processes through which light and space staged and positioned urban subjects. This economy manages visibility, inspectability, attention and conditions the fundamental endogenous biological responses to it. When situations emerge that offer participants the possibility of loosening the economy's control, it is wrestled back by including that freedom as an offer within an economics of experience. The economy absorbed the sensory effects, negated the sensual affects and repackaged them in the form of serial entertainments.

The production of the urban *mise-en-scène* developed through digital advertising, street lighting and the model of the *Kaiserpanorama* established a closed system of instrumentalization; that of the 'commodity form' and the 'biopolitics' of security and hygiene. As a knowable and therefore manageable apparatus, like the physical interfaces of viewing machines, urban illumination disappears in the engagement.

Don Giovanni and *Citizen Kane* offered a way of thinking through the optical determinism developed in advanced cinematographic techniques and new digital projection morphologies. In these optical arrangements Crary's theorisation of the automation of perception could be advanced by including the automation of Lefebvre's 'total body.' Throughout 'Luminous Economy' vision and perception were cut from the body, rendered from a totality, in order to be managed and then returned to the subject for the purpose of extracting profit. To put it figuratively, profit was rendered.

'Atmosphere' extended the 'Luminous Economy' by considering the implications of its disappearance in space. Andreas Philipopoulos-Mihalopoulos' theorisation of *lawscape* underpinned, and to an extent undermined, the certainties of Gernot Böhme's phenomenology of light. The 'sensual interface' acted as the means through which experience is nurtured, contact made with people and place, and the process through which the 'Luminous Economy' manages those spaces of

contact. The urban subject may well be able to fully enter an atmosphere, but it remained uncertain as to what the implications of that absorption might be.

The readings of 'Liberty Wall' and 'Retinal Architecture' provided a structure to consider the implications of the absorption into atmospheres. 'Liberty Wall' encountered a banal element of a significant London streetscape. When interrogated, its logic of retreat, a polite invisibilisation, exposed the extent to which an economy of fear and defence, a *lawscape*, becomes normalised in the production of an urban mise-en-scène. The 'sensual interface' covered up its structural relationship to the political and technical infrastructure embedded in the spatial context, camouflage in the form stone and heritage detailing rendered solid surfaces into an image. The logic of projection mapping used by Hall in *Don Giovanni*, found a different slower incarnation in the quotidian.

The extended account of Turrell's *House of Light* in 'Retinal Architecture' established a meshed process of atmospheric and physical induction and showed its relationships to an economics of transformation. In this architecture the movement from body to eye was argued to be the preparatory stage for a fully integrated sensory domination. Spectacular retinal light effects forced a rend between the body and eye creating a period of body loss in which the viewer, caught in bright light willingly negated their presence in the work. This is precisely what the *v-effect* was intended to counter, even though the *House of Light* is performed for a communal audience, each viewer is forced to occupy a monocular relationship to a frame. With a hole paradoxically floating at its fulcrum, techniques of light were conflated with atmospheric cues that sought to construct a world with no outside. Sky became image and the spectator's body reduced to a means of positioning sight.

'Night Lights' argued that a post-cinematic urbanism subsumes the subject through progressive stages of immersion towards an integrated sensory domination. The dialectic of the *House of Light* was observed to colonise the senses prohibiting a tenuous, but powerful connection to subjective memory. Junichirō Tanizaki's lament on the eradication of 'ancestral memory' within

technological illumination was echoed by Michel Serres' invocation of a 'shimmering knowledge' production characterised by Jules Verne's cavern. In these texts, freedom to remember and imagine is predicated on a type complexity that shimmers in a space. This light inhabits space without dominating it.

The disturbance of sensory domination when understood through Siegfried Kracauer's de-familiarisation of the 'Mass Ornament,' considered the isolation of a fragment through cinematic means. This *mise-en-scène* correlates the cinematic frame to the function of a theatrical spotlight in so far as it might de-familiarise the built environment. A change in the emphasis of light in space reorders it, the brightest object stands out. Walter Benjamin's report on taking hashish initiated a very different process of de-familiarisation. For Benjamin the intoxicant released him from the clutch of the 'Mass Ornament' enabling him to observe in a "bliss of discovery" how "objects withstand one's gaze!"² Seeing cinematically, through Kracauer and Benjamin, is seeing in a shallow depth of field, the figure is pin sharp in a soft halo of light, they see as Saskia Sassen might put it, 'theoretically.'³ A post-cinematic mode of seeing counters a "bliss of discovery" through the progressive stages of immersion into fully integrated sensory domination. Seeing post-cinematically is akin to a pin sharp infinite depth of field seen through an eye tracking camera. In seeing it all nothing can be seen.⁴

The process of integrated sensory domination flowed through 'Phototropia.' 'Entrainment' positioned chronobiology and film induced physiological effects in relation to an 'at risk' urban subject. Paul Shartis' *Epileptic Seizure Comparison* triangulated the representation and production of powerful media effects with two kinds of viewing subjects. On both sides of the screen, subjects and audiences entered into a cycle of sensory bombardment, secure in the knowledge that at any moment they could leave the gallery or indicate to the technician that they

² Benjamin, *One Way Street*, p. 222.

³ Saskia Sassen, 'Systemic Edges as Spaces of Conceptual Invisibility' (February 2015).

⁴ Sassen, "to see everything would drive one mad."

wanted it to stop. This moved to a version of a post-cinematic urbanism where 'New Babylonians' contested spaces of digitally determined *luminal egalitarianism*, where experimental civic subjects seek to occupy and undermine the 'value producing body' generated by the emerging neoliberal network paradigm.

'Optical Street' returned to the quotidian in the mode of an imagined walk. The pavement morphed into a surveillance space where cameras and streetlights co-produced an 'organic total work.' I sat on a fictional bench, secure that I was secure, complicit in the data space, enjoying my aggregation into a virtual common.

'Cathedral' and 'Delhi Durbar' engaged with the mobilisation of staged spectacle in respect to an image of eternal power. 'Cathedral' speculated that the Anglo-Saxon synchronisation of calendar time reconfigured a world interior of light. By aligning the Papal refraction of divine power along an optical axis, a distributed common began to share a moment in the aura of a political light. Albert Speer's *Lichtdom* dramatized this communing, its staging of light eternalised an instinct for order through a form of pure spectral power. This was mise-en-scène appropriated from *Bayreuth* and amplified through a military optic. A theatre light, a search light, lights in space, a figure emerging, a phantasmagoria, a world interior of light.

'Delhi Durbar' showed that the power of the integrated spectacle could work just as effectively without the constructed darkness at Nuremberg. In the hard light of a Delhi noon in this mise-en-scène of the costume adorning Lady Curzon's sovereign body, it was what was put on a show that counted, emergent corporate power, speculative temptations and global monopolies dancing on stage as couture. This pantomime was no less powerful, thirty years before *Lichtdom* post-cinematic power pre-empted spectral architecture with distributed media power.

'Bubble' took up the issues of entrainment and a fully integrated sensory domination through the three D's of psychedelia. This introduced a version of a post-cinematic urbanism that has gone beyond optical architectures towards a retinal model of sensory control. Bypassing material spatialization it offers the potential of an architecture that has no necessary material interface. In Tokyo we encountered a new variant of the *Heptasplasioptron* one that whilst performing its optical tricks offered nothing of the radical subjectivisation of a Gin Palace in Victorian London.

Hitto Steyerl and Donna Haraway invited us to consider two ways of decoupling spectacular power from the post-cinematic machine. The potential of Steyerl's new representational freedoms lies in their shifting formations, the 'New Babylonians' of media immersion emerge within the digital *Heptasplasioptron* of fragmented immersive visual systems. This *luminous common* bathes in the light of its own shifting representations. The 'New Babylonians' seek to write what they want with the tools that they hack, re-appropriating space.

Haraway's earlier theorisation remains more potent. Through Artaud's formulation of a *mise-en-scène* for light as an act of speech, it suggests an urbanism that could write and re-write space. Each articulation a modest 'ecstatic moment' that breaks off a piece of the machine and from this material writes anew (Fig.29).

ATMOSPHERIC ENGINEERING: A REFLECTION ON GOLDEN HOUR

How then can I assert that a transversal *mise-en-scène* offers a new critique practices of light? Could such a critique glean insights from the movements between the demands of realisation, maintainability and legibility? Technical, budgetary and legal aspects of procurement seem at the surface to foreclose any possibility of mobility, subtlety or even subjective agency. In the fixity of a nocturnal temporality, rendered in engineered light, the locus of inspectability provides the semiotician with a clear *preferred reading*: the street, square and

park are written in light and read as space. Time ossified, urban space is cleared for use and expunged of unexpected events and sudden shocks. But for what use?

My particular *phototropic* mise-en-scène commenced with imagining a light work at the scale of a city. This first stage of project development was inevitably drawn from the primary material of the actual found place; in the case of *Golden Hour*, a city offered to me together with an invitation to think about light in that place. The terms of the engagement were predicated on the production of an outcome: a vision for realisable ideas. In the context of urban renewal, such a project cannot begin without first making visible and plausible the work yet to be done.⁵ Thus, thoughts on Hull's nightscape formed one element of the public realm⁶ vision documents I developed in a collaboration with Andrew Knight and Mark Topping.⁷ The coincidence of commencing this research project at the Royal College of Art and beginning my analysis of Hull's city centre presented an opportunity to fold them together in order to test whether ideas contingent in the field of my work could offer insight into the broader corpus of theory and practice.

The Hull commission was not constituted or conceived of as an artwork, but it contained the possibility of making artworks within it. The commission was to create a "vision for light" which is not to lay claim to a specific discipline; lighting design, experience design, public artwork, etc., but to imagine artificial lighting as a producer of distinct states of experience or conceive of a mode of

⁵ On reading the high-level briefing documents for "Hull City Centre's Public Realm Improvements" I was struck by the term improvement, rather than the usual invocation of regeneration. Although it was obvious that great tracks of the city centres public realm would inevitably get torn up, the soft term *improve*, suggested a set of more circumspect 'light touch' possibilities. Change through cleaning, renovation and respect pointed towards an atmospheric rather than material change. Thus, the identity of the City of Hull would need to remain intact in its change, as if an authentic yet new Hull could appear from beneath the grime of thirty years of entropy. This is not without precedent in the UK, Glasgow's successful hosting of the European City of Culture in 1990 levered a great cleaning of buildings and surfaces that meant, notwithstanding the material changes to the streets, Glasgow smiled better, its teeth bleached back to youth, cavities respectfully filled (no black gaps).

⁶ Public realm is generally understood to be as any publicly owned streets, pathways, parks, publicly accessible open spaces and any public and civic buildings or facilities.

⁷ Public Art Consultant and Lead Landscape Architect (URS Infrastructure) respectively.

atmospheric engineering that could both stage ‘artworks’ and rethink the staging of Kingston Upon Hull at night.⁸ *Golden Hour* was also an experiment in infrastructural appropriation, challenging how far a city’s lighting could become cinematographic. In this mode both the prosaic forms of ambient lighting and the expected animation of architectural feature lighting (figure and ground) operate in a production context that is a far from ‘hacking’ as one could imagine.⁹ It seemed possible, however, that within the *Golden Hour* moments of ‘ecstatic’ decoupling might be possible. And if it were, these moments could constitute an interruption in the form of an artwork. *Golden Hour* became a two-fold project, one that could provide a material practice contribution to my research and to the discourses on atmosphere, as well as create a new atmospheric production in the quotidian. This was not without tension.

With a broken physical infrastructure and a tired public realm, Hull in 2013 needed improvement. The streetscapes, squares and public buildings were suffering from layers of underinvestment and piecemeal approaches to change and renovation. Ferrens Art Gallery, The Maritime Museum and the City Hall circle the dramatic pediment upon which a sculpture of Queen Victoria stands.¹⁰ Further east into the ‘Historic Quarter’ a fine marble sculpture of Andrew Marvel addressed both Market Square and Holy Trinity Church (now Hull Minster).¹¹ The crucial fulcrum of Queen Victoria Square was stripped of the vital energy of public

⁸ My commissioned contract was specifically requested a *vision for light*, not a lighting design or artwork. The collaborative element of the project produced a series of interlocking discrete public art briefs that formed a significant element of the final vision documents issued to the city for approval. A vision is in advance of a strategy which underpins the resulting technical briefs. The renewal remains nascent until it is expressed in the form of ‘employer’s requirements’; the contract, a descriptive list if you like.

⁹ I see the distinction between ‘feature’ lighting and ‘cinematographic’ or ‘theatre’ lighting in the public realm to be *mise-en-scène* as production. The ‘feature’ is an element within a *mise-en-scène* not its object.

¹⁰ The joy of this pediment is that it continues to function as a fully serviced public convenience. “Old Queen Vic” whilst facing the rising sun offers her subjects bodily respite. It is a relief to find a city that continues to maintain the most crucial and democratic of services, free at the point of use, open to all that can manage the steep stairs down.

¹¹ William Day Keyworth Junior (Hull 1843 - Spring Banks, Sculcoats, East Yorkshire 1902), British sculptor.

occupation in an expanse of undulating brick paving sets making arbitrary shapes and all lit at a high level with a system of lights commonly seen in vast airport carparks. Before the improvements Market Square was fragmented, Marvel hidden from the principle visual axis and the West Elevation of the Minster mired by a low historical wall demarking the private and the public (church and state), that cut the square in half. Both city squares impeded use and occupation, denying easy pedestrian circulation. Moments of rest were provided by uncomfortable stone seating. Market Square was not so easy to use as a market. Historical local commercial activity, the Squares' historical primary productive 'use' was delimited by what the actual space had left to offer. There were no dwelling spaces: no places made available to be occupied simply for the sake of that occupation.¹²

The project demanded that these spaces were to be improved.

[...]. In recent years however Hull has begun to emerge from this decline and has seen the development and regeneration of large areas of the city [...]. This has led to an emerging confidence and a realisation that Hull has the opportunity to reclaim its former place as a great national and international city. Recent plans for the development of industry along the Humber Estuary, [...], promise a journey of renewed hope for this great city.¹³

Critique was thus instrumentalised as a diagnostic conduit through which solutions could be proposed and ultimately tested. The demand for 'improvement' tacitly acknowledged that Hull's decaying public realm was alienating to its communities and potential investors. A vigorous business case mobilised this 'renewed hope' in order to lever investment in its public realm as a means to reclaim the city's symbolic power. The physical and aesthetic modifications to the

¹² This *simply for the sake of occupation* attempts to describe the social value of spatial occupation. In nurturing a sensual relation to space (contact with nature as it were) social wealth appears as space, not as a process of a disappearance into the enclosures of private property. Both may well be occupied by the pedestrian, but it is only in the public realm where the ownership is vested in the city, where space (value) produced through the citizens labour is returned as tactile value. In this way the comfortable bench provided in a sheltered location is a political as well as bodily gesture towards the urban subject.

¹³ Topping, Mark. *Hull Public Realm Strategy* (2014). Hull City Council. p. 7.

built environment were tasked to do more than provide to its denizens an attractive, calming environment. In the early stages of developing the project it became clear that the material conditions of the public realm were being asked to also represent the experiential conditions of the public realm as a revitalised asset and that lighting was one of the means through which the additional value was to be expressed.

In terms of a critique of capitalism as it is manifested in the streets and squares of Hull, my initial starting point considered the alienation implicit in the briefing papers and broader library-based research on Hull's public realm. Putting to one side the general conditions of alienation within neo-capitalist urban spatial production, a walk through the city of Hull at night in 2013 reminded me that the material and spatial qualities of the city can be argued to be a local effect of the forces of international and national policy directives coupled with the power of finance capital.¹⁴ When localities are under stress the public realm expresses it through damage and decay which in turn is often overlaid with piecemeal rectification resulting in fragmented streets and desolate squares. In this condition we find both a nascent space for capitalist appropriation, after all the Public Realm Improvements implied the possibility of a tabula rasa, and the return of it to its communities as a space for use. The tension is between these two modes of intensification: the paradox of space cleared for use.

As a passive term alienation means to become isolated and estranged from some valued connectivity. It is experienced and internalised as a feeling of sorrow and grief at some undefinable loss that cannot be recuperated.¹⁵

David Harvey's recent work rearticulates Marx's concept of 'alienation' in two ways. In its *passive* form it clearly correlates to my formative analysis of Hull.

¹⁴ For example, over two decades Saskia Sassen has consistently demonstrated the distorting effects of the capitalisation of space on localities through the structural changes of privatisation, deregulation and speculative financial systems. See: Sassen, Saskia. 2002. "Locating Cities on Global Circuits". In *Global Networks Linked Cities*. (New York, Routledge).

¹⁵ David Harvey, *Seventeen Contradictions and the Real End of Capitalism* (London: Profile Books, 2017), p.267.

Connectivity to the fabric of the city, its histories and the facilitation of leisurely modes of informal occupation are severely curtailed by the demands of national anchor stores, street maintenance and motor vehicle access. After sunset staccato arrangements of lighting equipment, often with clumsy positioning, produced an interior aesthetics of over radiation and resultant neighbouring gloom. If it was an engineered atmosphere at all its simple intent was to envelop the urban subject in neglect. This passive assault on the senses denied connectivity to the public realm's bounding architectures and obscured the presence of the sky. A night walk was a serial sensory negation in the form of urban corridors, illumination defined paths and decoupled them from the city producing, I thought, an undefinable loss that could be recuperated.

Harvey's *active*, affective, formulation of alienation is characterised by the emotional responses generated by this isolation and estrangement (frustration, anger). Hull's nocturnal *affective* atmosphere doubled down on the tardy functionalism of the streetscapes and the ad hoc material attempts to support social activity. The ambient lighting systems deployed reinforced this mode of industrial functionalism where feature lighting, designed to emphasise and enrich the city's rather fine historical architecture, had been crudely bolted onto façades exposing the equipment more than enriching the visual potential of the architecture.¹⁶

In financial terms, an investment of £25 million was to provide a profit. Whilst the public realm would be improved through fiscal and design input, the anticipated surplus value would gather through the explicit exploitation of images, initially proposals imagery and then progressively through realised built works.¹⁷ The value of Hull's tangible assets, its streets and buildings, would be raised through the intangible production of atmospheric engineering. When completed the public realm works would be a fact of space and at that moment

¹⁶ Clearly this visible equipment was not intended to be a critical or self-reflexive gesture.

¹⁷ It should be noted that Hull's bid to become UK City of Culture 2017 mobilised the city's public realm strategy as signifier of its ability to deliver change and renewal at scale.

begin to disappear into the very grain of the quotidian.¹⁸ It seemed that the vital critical work would be to seek to arrest these disappearances, build into the works means through which they could be historicised. I proposed to use light in order to prepare the ground upon which I might redeem physical reality from the delights of a cinematic city. And, through this provide opportunities where I could turn light back onto itself and bring it onto the stage.

In other words, I hoped to integrate recuperation and historicization into the organic *total work* of the Hull's improvements. I had at my disposal the normal tools that a lighting designer or engineer has: the city centre's ambient lighting infrastructure and a modest budget for architectural feature lighting. Whilst the rest of the project team concentrated on imagining and building a future, I speculated on how this future might be less alienated from Hull's past.¹⁹ How could I exploit it and thus create a surplus value out of the existing built assets, and could this surplus become the 'ecstatic' gesture?

The strategy is underpinned by the simple premise that the way people relate to place can be transformed and enhanced by careful and sensitive lighting design. Hull has the opportunity to exploit the very different qualities of space [...]. It proposes a series of special moments that create natural orientation points; a sequence of glimpsed events that produce an anticipation of what is beyond. The approach to lighting will consider both the experience of being in a place and how its illumination can act as a beacon and form of signage.

The evening experiences of the public realm will enable people to see Hull differently by focussing the design on how people look at space, and the way light can support that. [...] [It] is about revealing place through light. [...] It will create an atmosphere that supports public use and enjoyment. [...] minimise visible light fittings so that surfaces, buildings and landscape

¹⁸ Reform Landscape Architects' streetscape designs are particularly invisible (as it were) along King Street and in the environs of Market Square. Only a few months after works were completed it was difficult to imagine that the streets had only recently been very different. The atmosphere had been changed with subtlety and understatement.

¹⁹ This process of recuperation also found a form in Andrew Knight's unsuccessful proposal to bring the Wilberforce Monument back into Queen Victoria Square.

features frame the experience of the city. Exploit the architecture [in order] to produce an image of the city that is of its place.²⁰

An idea that engenders confidence can be woven into the contracts that flow from the approval of three tiers of the administrative city; the political, technical and cultural. Each tier requires a different method to articulate the strategy for how the initial vision might be realised. The strategy outlined and showed the processes through which artificial light, at an aspirational and technical level, could achieve what it had to. These deliverables were supported by the 'spatial strategy' that was supported by the key findings extracted from decades of preceding interlocked research and its documentation. At a political level the improved connectivity of the physical infrastructure should support "the exposure and celebration of Hull's cultural heritage, external environment and architecture in a holistic way using art as a catalyst for change and regeneration whilst integrating the local vernacular."²¹ In this way art is seen to be instrumentalised, as Andy Hewitt puts it, as an 'economic driver' where cultural production and economic regeneration have been co-opted by neo-liberal policy initiatives that raise land values in a locality through processes of place making as branding.²² Hewitt provides a deterministic relationship between the symbolic potential of culture and its co-option into city and private developer relations, maximising land value and economic activity serving both the private developer and the city. Hewitt's city is a place of leisure and consumption where culture-led regeneration's role is to stage 'the spectacle of the consuming city' as a co-

²⁰ Topping, Mark. "Lighting" (Nayan Kulkarni). In *Hull Public Realm Strategy* (2014). Hull City Council. This excerpt demonstrates how the high-level questions of this research were initially articulated in the *Public Realm Strategy* which was commissioned by the city on approval of the initial 'vision documents.'

²¹ Topping. (2014). p. 40. The *Public Realm Strategy* included a series of public art briefs that sought to lever this complex relationship between the existing vernacular and new ways that artists could contribute to the public realm.

²² In the last five years this has become characterised by the term 'art washing' where artists are argued to be means to distract the public from what is really at stake in the public sphere; agency, representation and social justice.

production of public and private institutions. Culture is subcontracted to render spatial and plastic the cities branded renewal.²³

Thinking through Hewitt's formulation, my work in Hull could be characterised as a branding exercise where atmospheric design would be mobilised only to more adequately connect the city to transnational financial systems that ultimately denude the city of agency in their own local development. This critique, however, would fail to account for the specificity my work in Hull. It would not account for the clarity and strength of Hull's local governance and its officers whose sometimes wilful independence is predicated on the knowledge that this city once closed its Beverly Gate in King Charles I's face, catalysing a civil war (1642) and whose most famous son, William Wilberforce, led the British drive to abolish the transatlantic slave trade. This culturally mobilised pragmatism found its symbolic representation in Zsolt Balogh's large scale digital projection at the opening of the Hull UK City of Culture 2017; "We are Hull." Public realm improvements in Hull are better understood as a statement of resistance to the dominant narrative of regional obsolescence and decay, wherein this case, processes of local deliberative politics, at the level of the ward, were unified around a coherent, if controversial, leap towards an imagined future. The collective futures of real lives and livelihoods are dependent upon strategic visions which often find their first articulation in the invisible paver beneath your feet.

'Local vernacular' takes on much more than the syntactical contents of architectural history. It points towards the centralisation, even valorisation, of the local. To clean and tidy one's home, repair its damage, improve its plumbing, further open it up to its residents is a crucial democratic aim. This is what Harvey demands of us in his sixth idea for political praxis: "daily life is slowed down – locomotion shall be leisurely and slow – to maximise time for free activities

²³ Hewitt, Andy. "Privatizing the Public: Three Rhetoric's of Art's Public Good in 'Third Way' Cultural Policy." In *Art in the Public Sphere 1*, no. 1. (Intellect, 2011).

conducted in a stable and well-maintained environment protected from dramatic episodes of creative destruction.”²⁴

Golden Hour could be argued to be a delicate set dressing that does no more than give lit form to the overarching aims of the city’s strategy. Is it mise-en-scène instrumentalised in order to support the civic goal of its public realm: public occupation and its unprescribed use? Or is it, Public Art in service of an image, aesthetic lighting producing an image of public good, a transformational tool manufacturing an atmosphere that promises, rather than delivers, occupation?

At a technical administrative level, *Golden Hour* had to intercede directly in the practical arena of engineering and infrastructural management. The proposition required that the ambient and feature lighting would produce the new staging of the streets and buildings together. Interactive street lighting control systems tend to fall under the auspices of street maintenance. Although now ubiquitous, at the time of the proposal, Hull had only just started to consider what these automated systems could offer the city centre.²⁵ For the obvious reasons, street and road lighting is not normally considered to be a dynamic aesthetic asset but is relegated to the ‘essential to maintain’ category of infrastructural management. In this context ambient artificial light levels are seen to be measurable forming an important element of the processes that assure pedestrian safety.²⁶ Feature lighting functions on a building to building basis and when

Golden Hour required that these two distinct control paradigms to be brought into one regulatory system and be understood as a totality. This was crucial in order for the lighting system to both guarantee the required ambient light and be

²⁴ Harvey. *Seventeen Contradictions and the End of Capitalism*. p.295. It was not lost on me on my first reading of the ideas for political praxis that this one could also be read as a letting agent’s description of a new shopping centre, one of the many contradictions and paradoxes that Harvey seeks to explore.

²⁵ At the time invoking the concept of the ‘smart city’ was relatively novel.

²⁶ Once agreed at a technical level light provision becomes a fixed entity, not one that can normally be operationally be varied, this would be the task of decorative and feature lighting. Furthermore, some streets in a UK city centres are managed by the Highway’s Agency, their assets maintained and assured extrinsic to the host locality.

as flexible as the feature lighting. It was simple to describe it as a control schematic but much more difficult to achieve in reality. Control Management Systems (CMS) for city lighting infrastructures are generally developed around monitoring protocols that assist asset management and its maintenance and usually allow for a modest level of lighting control. Conversely, theatre lighting control systems need to be dynamic. CMS, on the other hand, reports on efficacy and power usages. Theatrical lighting control provides the ability to, on demand, radically change the arrangement and effect of lighting. Both of these control paradigms share a networked relationship of node to control system, each light fitting's relationship to the aesthetic or technical architecture is established at the local level. In street lighting systems, light level control is usually considered at the scale of the street. Theatrical control is often at the scale of the individual elements within a single fixture. The schematic addressed this granular difference by establishing street lighting zones and relating them to the theatrical requirements of the work. In this way specific conflict areas, locations where pedestrians and vehicular traffic are very close, could be extracted from the dynamic requirements of the work. My protocol was accepted by the city expanding the scope for a more fluid relationship between public realm and its illumination.²⁷

And so, ensued a struggle to realise what, on paper at least, was a simple integration between two control paradigms. The closed protocol of the CMS, a tendered element integrated into the Employer's Requirements, transpired to be a service provision included in the winning bidder's proposal.²⁸ Although entirely delivering on the normal requirements for street lighting control, the preparatory system provided in the bidder's proposal could not provide the level of flexibility

²⁷ The delivery of the public realm improvements was strictly delimited by contracted zones of work; 'the red lines.' The *Golden Hour* transcended the contract areas as many of the objects of its attention fell outside of the contract lines. The project had to negotiate with diverse public and private stakeholders in order to realise a holistic approach to architectural illumination.

²⁸ Eurovia UK (Vinci Group).

that was implied by the brief.²⁹ Before a single light fixture was installed the ownership of the control had been already been contractually vested to an external service provider. Whether or not this provided 'best value' to the City, it created a situation where the light switch was owned by a private company and its operation subject to a rental agreement, we could not directly intercede in the detail of its operation. Very simple arrangements of dimming and zone control became embroiled in procedural rather than aesthetic discussions. The Arup team and I had to imagine in advance of the installation how we might want to arrange it.³⁰ At a programming and infrastructural maintenance level we were being provided with a locked opaque system. It could only do what had been explicitly requested, all variations subject to complex contractual implications and limitations. If this was going to be a cinematic machine, it was one that would be handed over to us as a network of grey boxes that gave no clues as to their function. Because I underestimated the level of descriptive detail required in the Employer's Requirements *Golden Hour* became hostage to an over complex process of technical retrieval from which it has yet to emerge.³¹

Putting the technical to one side, in parallel the third tear of Hull's governance, the Planning Department, had to approve the aesthetic changes proposed for the city. Hull's 'vernacular' is already highly defended. All of the buildings and monuments in the proposal are listed and no cable could be tied, or bracket fitted without the prior consent of the Planning Committee. The power of veto over the

²⁹ The provision of networked connections and their relationships to a central control system was shown in my schematic to require two zones (secure and dynamic). In this way the 'secure by design' protocol and street safety was sandboxed from the aesthetic demands of the *Golden Hour*. This meant that there should be no way that the installation could plunge the entire city centre into darkness.

³⁰ I am used to developing the luminal effects of a work empirically, scoring the work in the real, rather than in some imagined virtual image space. It should have been of no concern to the contractor what the City would choose to play on its new light instrument. In musical terms this was akin to scoring for the basses and timpani without any notion of the possible themes, melodies or rhythms.

³¹ In February 2020 it was indicated to me that Hull's 'Events Team' had unilaterally decided to install their own control network. When commissioned the *Golden Hour* will, after five years of work, be ready for its first test. It will be my task to establish a new protocol between 'event' lighting and its relationship to the CMS. And then I will be able, if granted permission, to begin the work. It functions now, but not automatically.

'political' and the 'strategic' will expressed in the City's consolidated proposal resides with this committee.³² They are tasked to test the impacts of the material outcomes of the optimistic narratives woven through the Public Realm Strategy. What is it that is proposed to happen, how will it look, what is it made of, is it appropriate? This dramatizes the narrative and forced me to simplify the message into a single motif: *revealing place through light*. I magnified a notion of respect for the extant assets in the city, using this as an opportunity to remind the panel of their value in the public realm improvements. In this way the high-level aspirations of the 'vision documents' are shown to have an expression in the realised design outcomes. By invoking an ethics of respect, I instrumentalised the 'local' as a mode of project delivery. My hope was that this could force a bind between the vision's aspirations helping to secure its hard-won curatorial dimension.³³

The staging of the civic at night now includes (at least at a technical level) the possibility of a morphology of urban light that addresses experience as an embodied process and image delivery method. But at the price of subtly and the devaluation of what I had hoped it might to do. At a political level, the approach to lighting that I developed delivered a contemporary sensitive solution to urban lighting with opportunities to 'show off' the city. After having handmade each beam of light and spent weeks of night working at height shaping each shadow and establishing tint and nuance, it is disappointing to realise that in the end it is only when the installation is conspicuous that it is valued.³⁴ Strong saturated

³² The Chair of the planning committee has a great deal of informal power. Although the mode of address to the department is a strictly procedural and public activity, the protection of civic space (public realm) is vested in a committee. 'Local character' and what is considered to be appropriate change is nested in a complex and collegiate process that seeks to balance the subjective with planning policy and law.

³³ Andrew Knight's public art strategy explicitly lays out the relationship between the City of Hull as site and immanent content for new works. This found its fruition in his and Hazel Colquoun's program 'Look Up' which formed a centrepiece for the Hull UK City of Culture 2017. See: *The Impacts of Hull UK City of Culture: Preliminary Outcomes and Evaluation*. (2018). University of Hull.

³⁴ The installation coordinates over six hundred ambient light fixtures and one hundred bespoke profile lights (focusable theatrical light instruments).

colour, often with a contingent relationship to a national event, makes the light work apparent, at times becoming a dramatic sign that Hull can use its lighting to show its solidarity with a cause.³⁵ The city Events Team can change how the architectural backdrop appears. When in this mode, it resembles the ubiquitous mode of atmospheric engineering, where lighting effects frame staged ‘events.’

The transversal method produced two other distinct modes of atmospheric control. This can be substantiated using examples from the final scheme that involve existing sculptures and the manipulation of very low levels of ambient light. Well known in the lighting design sector is the difference between absolute and perceivable light levels. The former is measurable providing the engineer with a context specific target. This metric does not need to account for the experiential consequences of lighting, instead it provides the evidentiary basis to demonstrate that standards have been met. For the Public Realm lighting provision this quality assurance method is a default position and thus became mine. It is not controversial to add light, it is more complex to reduce or remove it. Thus, *Golden Hour’s* ‘Mode One’ is the base level of light against which transitory additions of the ‘event’ as previously described are featured.³⁶

‘Mode Two’ in the case of Market Square, needs to be traced back to the formative spatial design strategy developed in the early stages of the project. We established a new alignment of the white marble sculpture memorialising Andrew Marvel to Holy Trinity Church’s principle west elevation.³⁷ The rebuilt public square, now animated by a series of water mirrors, is more open and better presents the Minster’s façade to the square.³⁸ Here, as in Queen Victoria

³⁵ Blue for the NHS, Red for World Aids Day, Rainbow to coincide with Pride, etc.

³⁶ Conspicuous and ubiquitous dynamism. Each mode contains scenes produced through dynamic changes at different speeds.

³⁷ This included the sculpture being expertly renovated and is now standing upon a new simple stone pediment.

³⁸ Reform Landscape Architects, Arup and Fountains Workshop. Through moving Andrew Marvel by a few meters to align with pedestrian sightlines a new composition of architecture, square and monument were established, one in which the presence of the church and the white figure are now both presented to the space.

Square, precise control over ambient lighting levels allowed us to achieve very low level of ambient lighting.³⁹ This was only possible because of the perceived light levels added to the space through the feature lighting.⁴⁰ In this way the façade and the sculpture become present in experience without the colonisation of vision typical in ‘Mode One’. In ‘Mode Two’ the bounding buildings (where possible) are lit without appearing to be lit, present in space without the pyrotechnics of spectacular illumination.⁴¹

Although I had communicated this intent to all the principle stakeholders in 2015, I had not anticipated how attached they were to the explicit presence of the buildings at all times. Once expressed through light, the status of civic buildings was interpreted as diminished when ‘Mode Two’ was activated. As this was going to be the normal operation of the *Golden Hour* it has created some tension and disappointment. Without it, however, neither could the installation default to ‘Mode One’ or produce the potential rend space of ‘Mode Three’.

It is only in ‘Mode Three’, the *ecstatic*, that the second function of the subtle atmospheric design achieved in ‘Mode Two’ is mobilised. The network of micro-controllers I developed enables me to create rapid and dramatic shifts in lighting arrangements across the city centre. Each night the installation can shift the emphasis of what is most brightly lit, seeking a momentary defamiliarization through isolating a fragment.⁴² When one of the four existing sculptures is lit

³⁹ An order of magnitude below the default. This was done on a fitting to fitting basis producing a matrix of CMS diming arrangements. This is only achievable because of the default arrangement that secures that normative lighting standards can be met if the aesthetic control program develops a fault.

⁴⁰ Technically this was the most demanding element of the work, the colour tint, reduction of glare and the precise control of shadow and light spill all had to coincide. The barely perceivable change is often the most difficult to achieve.

⁴¹ Nevertheless, the façade is lit so it is present in the reflections in the water mirrors. Composed to balance the reflected image in the illuminated space.

⁴² Edensor, Tim & Sumartojo, Shanti. (2017). ‘Reconfiguring Familiar Worlds with Light Projection: The Gertrude Street Projection Festival.’ In *GeoHumanities* no. 4 (2018): 112-131. Edensor and Sumartojo argue that processes of defamiliarization and immersion in spaces reconfigured through light and projection create communal spaces of subjectivity engendering imaginative spatial encounters. Their crowd is not used as evidence of to support a Debordian urban subject forced into a passive consumption of the commodification of space and vision in spectacle. Rather, the modes of suspension and experience provided by artificial light provide a

(Andrew Marvel, Maritime Prowess, Queen Victoria and William Wilberforce) and the ambient and architectural lighting quietened, they rear up. Through resituating the gaze, dragging the eye up from street level to the sky with the looming presence of an isolated detail, that which is normally unobserved forms the centre of a vortex where the city begins to disappear. This isolated fragment fills the perceptual frame and is also; heritage object, architectural adornment, sign of power, and a material residue of colonial identity.

Then, as abruptly as it had appeared, it is removed from the scene and new image of the city emerges. The normative lighting effects of 'Mode Two' are all that is left to experience and contemplate; the quotidian is dramatized and has the opportunity to be understood as an image too.⁴³

The installation is most effective when it recedes enough to allow for occupation, and then it unpredictably shifts redefining that sense of that occupation. Not seeking to 'hack' the city or colonise vision, it is a work that simply proposes that light can render in the rend. I have observed that it is only at the moment when I change an arrangement of lighting that its atmospheric construction becomes apparent. It is when the people I meet in the streets of Hull notice the objects and technical processes within which they are enveloped that I see the potential of this form of a *theatre of cruelty*. The limit to this work is the formal conflict between 'Mode One' and 'Mode Three'. Although they appear in the city in quite different ways, they rely upon a similar vocabulary. However intense the *ecstatic* fragment might be, the distinction between it and the dramatic 'event' are too easily subsumed into the latter. The assumption of 'staging the city for consumption' overrides the embodied experience of the pedestrian's eye being dragged from the quotidian towards an encounter with my cinematic imaginary.

means through which place can be seen as if anew. In my terms, they enter a *theatre of cruelty*.

⁴³ In this way normative 'ambient' illumination is quietly shown to be as constructed as any other mode of lighting in the city.

Despite the unresolvable interpretive conflict between Modes 'One' and 'Three' the significant proposition for a change to atmospheric engineering that *Golden Hour* makes is routed in removal and reduction. It substantiates the case that the planning department needs to evaluate approaches to lighting in development applications in a holistic manner, rather than through impact mitigation, lighting standards and isolated aesthetic value. It suggests that the city needs to extend its understanding and control over advertising to include architectural lighting and take a curatorial approach the luminal image presented to the urban subject. This radicalises the way private architecture can be understood in respect to the city as a *total work*. If not, Hull and cities like it will continue serve as locations for the explicit attention seeking pyrotechnics of digital lighting that, as it gets cheaper, becomes the grist to the generic mise-en-scène of a post-digital urbanism.

Golden Hour points towards the possibility of co-production at the level of lighting control architectures. The excesses of the singular installation being tempered by a fuller, more sensitive, grasp of the city as a lit image space which can be inhabited without the alienating process of zonal lighting and the conspicuous colonisation of vision. An off switch can become a dimmer switch, which in turn could be shared. It is in this space that the experiential transformational tool, the light instrument constituted by *Golden Hour*, can be deployed to play the city's image differently. This is where a morphology of light can produce the defamiliarization necessary for a critical encounter with its *theatre of cruelty*.

WHICH PUBLICS? A REFLECTION ON PILGRIM

Pilgrim, a large scale architectural digital light and sound installation made for Selby Abbey, was the most ambitious element of Selby District Council's yearlong celebration of the 950th anniversary of the Abbey's foundation.⁴⁴ I was invited to make a highly visible projection that would engage Selby's diverse audiences. Also,

⁴⁴ Curated by Hazel Colquhoun. It is important to note that this was a commission at the level of the District, not the town: the Abbey serves parishes that extend throughout the District.

as the District Council's first major public commission in the context of a sparse cultural infrastructure, *Pilgrim* was a pathfinder project supporting cultural infrastructure development and give some District Council officers experience in delivering large-scale public facing projects. Through the agency of the democratically elected District Authority and the hard work of their officers the public seeks to give back to itself its public realm. Although the event would provide the locality with an opportunity to highlight its assets and investment opportunities, it would be over simplistic to extend the economic argument here; enhancement of reputation, celebratory models of optical consumption, etc.⁴⁵ There was no 'special' business case extant for a large-scale public art work in Selby, so it followed a more pragmatic input/output modality that argued that inward cultural investment would nurture new production partnerships, additionally new formations of local audiences would help change local perceptions of the town. The fact of an artwork was not levered through the fiduciary fulcrum of a compact between the District Authority, Private Business and the Arts Council of England. Rather, the artwork became the goal that supported the emergence of new relationships between nascent production partners and the locality. In doing so it created a means through which a framework for non-commercial activity in the public realm could congeal around 'a contents yet to be known' event. This could be criticised as a sentimental *build it and they will come* mentality, where the art event is emplaced and functions as a lure. It would seem more fruitful, however, to ask: what was shown and what might have been revealed?

The artwork used the well-established mode of the *Son et Lumière*, deploying two state-of-the-art digital projectors and a stereo sound system.⁴⁶ The Abbey's bounding wall acted as a natural separation between the audience and the building, creating a safe perimeter that protected their eyes from the extremely powerful beams of laser

⁴⁵ This critique is well established see: Iles, Anthony. Slater Berry. 2010. *No Room to Move: Radical Art and the Regenerate City*. (Mute Books, London) & the introduction: O'Neill, Paul, and Claire Doherty. 2011. *Locating the Producers Durational Approaches to Public Art*. (Valiz, London).

⁴⁶ Although this mode of night-time external entertainment is most often credited to Paul Robert-Houdin (curator of the Château de Chambord) in 1952, the use of the town square proximal to the parishes place of worship can be argued to be thousands of years old. The important distinction between religious ritual and the autonomous role of theatre is its eschewal of the requirement that the spectator be initiated. For Beller and his contemporaries, however, the argument is that they are always already initiated into the cult of the commodity fetish.

light.⁴⁷ The west elevation thus became a screen and the town square an auditorium. The audience on one side of a wall and the image on the other producing an architecture of separation. Furthermore, as with Hall in *Don Giovanni*, I deployed projection morphologies to distort the images in order to make them plausible on the façade. I articulated the monumental spatial qualities and the layers of architectural history are articulated in two ways. First of all, working backwards from the position of the audience I developed an ideal geometry that corrected both for the anamorphic distortion of the projection positions (pragmatics) and the apparent projection plane as seen from the town square. The projected image was generated retroactively from the position of an idealised notional audience member; virtual eyes creating positions in the actual space where real bodies would eventually receive the image. Second, this ‘mapping’ allowed for the image to be carved up creating a virtual illusionistic space that precisely corresponded to the contingencies of the built architecture.

Through combining these techniques, the illusory power of the projection could unfold only when seen from the audience’s points of view in the town square. Although the installation appears to position the building at the centre, the work is a result of a play on appearances, the image and the eye are placed in a spatial circuit that connects bodies to architecture. For the duration of the installation, the work is the effect of this play upon the normative atmosphere of this place in the everyday. The work anticipates and includes these multiple gazes and in doing so engineers a new atmospheric configuration.

In addition to the optical gymnastics of the projection, viewing pleasure could be assured through the removal of distractions (atmospheric engineering): the road closed to vehicular traffic and the streetlights turned off. An hour in advance of the illumination, teams quietly began to transform the town through these subtractions, as light levels reduced and the traffic noise diminished a new sound scape emerged.⁴⁸

⁴⁷ These laser projectors can permanently damage both the retina and the aqueous humour.

⁴⁸ On the second and third nights of the installation a large audience had gathered early, as we turned off the streetlights it was clear that they had become included in the performance of the work. The normal theatrical anticipation had been invoked, but as this was sometime before the projection start time, the now darkened streets became an enactment of the *v-effect*. The sounds

Daily life slowed down, the speaking human voice become present in the space again, conversation was made easier. If one turned one's attention away from the projected image, another appeared: that of an audience in a space. This was an assembly of real people, not a crowd caught in endless cycles of alienated consciousness where even their dream lives were colonised by my industrialisation of vision, nor a gathering of Debordian puppets blindly consuming the delights and distractions on offer. It was not a crowd of thousands that had assembled to fulfil some unknown private lack. To see this audience through the lens of the 'spectacular' critique of event production too easily relegates the formation of the specific audiences into an ideological paradigm and would be to miss the point. It misses the play between subjectivities performed in an arena engineered precisely to nurture the unknowable possibilities of particular human encounters at that time and place.⁴⁹

In that place, on that weekend in November, something more neighbourly seemed to be occurring. Those who came to see arrived in all the combinations of residents that one could imagine; the lone viewer, the couple, the family, the group, the regional camera club, the neighbours, the funders, the friends, the congregation, and the accidental just happened to be in town and "heard something was up." If *Pilgrim* was a spectacle that entranced the audience through serenading them with colour, movement and sound, then it also developed a new arena for the enjoyment of community in the company of an artwork. For three nights it transformed what social relationships in that town centre at night could be. The artwork reconfigured the presence of the Abbey. It provided a context for it to be re-seen creating a movement from the sensory of vision and sound towards the sensual of the intersubjective encounters between the diverse and mostly unknowable 'publics' that found their way to Selby town centre on those nights. Although not a 'socially engaged project' it

of conversations changed at this moment, the town square with nothing yet to see, became an informal (if cold) re-appropriation of public space.

⁴⁹ Andrew Smith's (University of Westminster) research and recent evaluation of 'Leeds Light Night Festival' shows that the predominate motivation for audience attendance is the time spent in the company of friends and relatives. Leeds's illuminations, although engaging, form an atmospheric context for intersubjective encounters that are distinct from the normative 'night out'. (source: Virtual Symposium: Light Installations, Magic and Heritage. Canterbury Christ Church University, 14th July 2020). For an extended discussion on this issue see Tim Edensor. 2017. "Staging Atmosphere: Public Extravaganzas and Domestic Design", in *From Light to Dark*. pp. 139-156.

did engage with the social space, or at least the possibility of new formations of the social in that place.⁵⁰ In order to produce a sustainable cultural infrastructure, one in which the audience has the potential to participate and co-produce, it has to be acknowledged that an audience is always already producing.⁵¹ It is not only the effects of the artwork that are a stake here, it is the ability of the public realm to sustain new encounters and in turn the ability of those encounters to sustain and transform the public realm. *Spatial justice* is not expressed through phenomena.

For Selby Town it had to start somewhere. A monumental projection dominates space, it changes it. I developed this artwork in order to help nurture the atmospheric potentials and invested the symbolic contents of the work with a means, not only for the Abbey to be re-seen, but also to bring some of the weight of the ecological politics immanent in the local and regional landscapes. *Pilgrim* was an experiment in geomorphological video iconography. Over a twenty-minute cycle of sound and image projection a narrative of landscape and water flooded hyper saturated colour and monochrome layers onto the Abbey through a twenty-minute cycle of sound and image projection.⁵² Beginning with a drone shot, the Abbey's façade dissolved into a negative image of the nave, the spectral presence of the interior developing into a

⁵⁰ Here I would take Grant Kester's formulation of *dialogical practice*. In particular his development of the notion of "dialogical indeterminacy" which is dependent upon a succession of engagements with transforming formations of the social. He positions sustained repeated engagements with places as the counter to what he asserts are fictive communities constituted for the realisation of non-dialogical practices. This durational, often serialised, embedded method performed by the artist/s or cultural organisation creates a stable dialogical platform from which the multiplicity of project effects can materialise. So, for Kester, the extended temporal framework seems to replace the plastic instance of a singular deterministic encounter with contingency.

⁵¹ In the time frame, budgetary constraints and not least the paucity of cultural infrastructure, this element of Selby 950 would have been jeopardised if it had taken a tokenistic 'fictive community' approach to its realisation. There were other project strands that began the process of developing community networks that could, in the future, support a *dialogical approach*. This radicalised my subjective response to the context and time/place of the Abbey and its situatedness in the historical landscape. The narrative I developed was twofold, the production of a singular deterministic encounter with contingency could create a space for serialised engagement with the critical issues of landscape and its use in the locality.

⁵² These were colours that had only just become technically possible and were able to cast images of darkness below that of the ambient light in the darkened town. This was the first external display in the UK to use a double red phosphor laser projection system. I shot and produced the artwork knowing both the extended colour gamut and contrast ratios of the projectors. The technical means of production, a specialist set knowledges, allowed me to develop an approach that extended the sensual language of the artwork to the limit of the technology.

macro shot of the source of the river Ure. Everything in the work was filmed along the path of water from the peat bogs high in the Yorkshire Dales, past the Abbey and out to the North Sea at Spurn Point. This was not a didactic sequence of movements. It was a contingent and subjective evocation of the seductive power of land, water and energy production. Figures of cooling tower interiors comingled with water sluice management systems, air in the form of condensing mist rendered as caustic smog, dark coal layers invoked by the now clear Yorkshire evening sky in monochrome negative, the sheer force of the falls at Asgarth falling upwards and then cascading as blood morphing into wind turbines, oil seed rape flitted with carbon-based electricity generation whilst all was echoed in my score with a call and response motif taken from Tom Jones's *Delilah*.⁵³ There was nothing in the work that was not material present in the quotidian, it could only have been made in that place and at that time. Details cut from the land, magnified, amplified, made retinal, rendered unavoidable. Using theatrical action this work did not privilege cognition over the sensual and, as I hoped with Artaud, provided a means through which some of the conditions of repression might be incited into 'a kind of virtual revolt.'⁵⁴

Cut to black, the town reappears, feeling somewhat monochrome.

FINAL WORDS

[This] also heralds the emergence of challenging works that defamiliarize places, bringing into question normative ways in which they are sensed and understood.⁵⁵

The publication of cultural geographer Tim Edensor's *From Light to Dark* introduced a new term into the lexicon of urban lighting: 'landscapes'. In doing so Edensor argued for the disruptive power of temporary festivals, light based artworks and spectacular projection events upon normative atmospheres.⁵⁶ Building from an empirical, theoretical and historical perspective he concludes

⁵³ As the last shift left Selby Cole Mine in October 2004 the workers sang and whistled Tom Jones's *Delilah* (1968. Les Reed and Barry Mason).

⁵⁴ Artaud, *The Theatre and its Double*. p. 30.

⁵⁵ Edensor, *From Light to Dark*, p.216.

⁵⁶ Edensor, p.79.

by proposing three areas for continued research and debate; 'Light and Dark as Signifiers of Inequality', 'Moving Away from Standardised Lighting' and 'Revaluing Darkness'.⁵⁷ This written thesis and practice component has contributed to each of these areas from the perspective of a light practitioner. When Edensor's publication is considered in the context of the research of; Susan Buck-Morss, Jonathan Crary, Sean Cubitt, Chris Otter, Joachim Schlör, Wolfgang Schivelbush and Arthur Zajonc, amongst others, it becomes clear that concepts of artificial light, ones that situate nocturnal embodied urban experience, open up debates that are; complex, transhistorical and cross-disciplinary. I have tested whether the deployment of a transversal *mise-en-scène* is a useful way of accounting for the effects of both normative and event lighting in the urban contemporary at the interfaces of urban studies, theories of atmospheres and my art practice.

My formulation of *Luminous Economy* enriches the discourse on the value of darkness and the structuring of inequality by connecting contemporary interpretations of Marx's *political economy* to alternative feminist histories of architecturally determined subjectivities characterised by Alice Barnaby and Julia Skelly's vanishing, fragmenting and multiplying female subjects. In doing so I hope to position a new articulation of the subjective body in the discourses of artificial lighting, one that might be better able to navigate and enjoy urbanism's new spatial legibility and the vibrant chaos discovered at the interfaces of creative defamiliarization and its appropriation. In this way Lefebvre's *total body* re-emerges as a subject for practice and a means to recover urban subjectivity from the 'blandscapes' of neo-capitalist urbanism.

This post-digital conception of urbanism allows us to speculate upon the transformation of Victorian viewing devices into fully integrated urban and architectural systems. Florence Lam calls for inclusive environments that "foster

⁵⁷ Edensor, pp.213-218.

positive behaviour.”⁵⁸ In the replacement of celestial time with ‘shades of night’ modes of labour fold into images of civility that can only grant each subject the authority of an optical legibility. The counterforce to ‘darkness as value’ is optical legibility which bifurcates into a pragmatics of urban surveillance as sign of security and the physical means to secure subjects within urban space. The ‘signification of inequality’ functions from the level of the individual light fitting: a transversal *mise-en-scène* assists in considering from where and towards whom does it point?

Can art lead the process through which perception and experience of a place is transformed? Can physical and psychic barriers become the subject matter of art? Can physical and geographical challenges become assets, particularly image assets?⁵⁹

My research for *Luminous Economy*, *Atmosphere* and *Phototropia* suggested to me that *mise-en-scène* could be used as an evaluative and propositional tool. I tested this in the production of a public art strategy for Ellesmere Port: *Our Land*. In 2014 I was commissioned to produce this strategy for the town as an element of Cheshire West and Chester Council’s emerging county wide *Cultural Strategy*. The approach I took was to consider the town and its broader landscape as the context for “an extended investigation into, and celebration of, the possible relationships between Ellesmere Port as a place and a collection of images.”⁶⁰ ‘Vibrant Chaos’ formed one of the three strands of work, it provided the commissioning context to initiate new forms of “narrative and representation in Ellesmere Port through direct creative engagement, participation and collaboration.”⁶¹ The other two strands; ‘Total Gulf’ and ‘The Facility’, concentrated on the Stanlow Oil Refinery and its connected industrial territories as the research context for the production of new creative partnerships that

⁵⁸ Florence Lam, *Cities Alive: Rethinking Shades of Night* (London: Arup, 2015), p. 48.

⁵⁹ Leading questions from; Kulkarni, Nayan. *Our Land*, 2015. Public Art Strategy, Cheshire West and Chester Council.

⁶⁰ Kulkarni, p.1.

⁶¹ Kulkarni. p.4.

would focus on the ecological and geopolitical dimensions of the locality. Together these three strands placed; urban, post-industrial, rural, historical and natural landscapes into a *mise-en-scène*. Ellesmere Port, it seemed to me, could distil and intensify broader issues of land, labour and use within its iconography.

In Hull the formative work was a *mise-en-scène* of alienation, in Ellesmere Port the approach was semiotic and cinematic. Taking cues from the image transformations possible in location filming, the strategy provoked debate at an operational level within the County Council as well as providing a basis from which it could consider and mobilise a holistic mode of cultural commissioning. Whether or not specific projects directly emerge from the proposition, the spirit of 'Vibrant Chaos' is now imbricated into policy directives and continues to provide the basis for their strategic bids. As an experiment in atmospheric analysis, the strategy *Our Land* triangulated dialogical practices at the level of the conversation in 'Vibrant Chaos', to strategic collaborative research in 'The Facility' and landscape scale video projection projects in 'Total Gulf'. This was a strategy informed by three cinematographic shots; the long, the mid and the extreme close up.

A semiotic approach to *mise-en-scène* found a writerly form when I applied it to a series of night walks in London. Published in *Walking Cities: London*, 'Night Moves' is an account of a night walk from Waterloo Bridge to Mile End Park via through Canary Wharf.⁶² This route provided encounters with an event space at the heart of the West End, sequential movements through the corporate urban spaces of Canary Wharf towards the residential complexity of the streets as they led me into the darkness of a park in the East End. This mode of semiotics made notes on urban lighting underpinning a speculative account of what was on offer. The walk was a reading, as Mark Cousins asserted in his lecture series *The Ugly*

⁶² *Walking Cities: London*. Editors: Jaspar Joseph-Lester, Simon King, Amy Blies-Carruthers, Roberto Bottazzi. (Ed. 1, Camberwell Press 2016; Ed. 2, Routledge, 2020.)

“everything you need to know [about the city] you read.”⁶³ He asserted that ‘reading is totally different from seeing,’ I tested this assertion through using the walk as a process to understand the city as a complex interlocking series of signifying systems. This chapter sits within a broad corpus of approaches to researching urbanism through walking methods, it provides a subjective contribution to the discourse interrogating the structural inequalities of urban lighting.

The *mise-en-scènes* of *Atmosphere* and *Phototropia* address normative atmospheric production. My observations and research informed and structured my chapter contribution to the publication *Emerging Identities in the Futures of Place: Mediated Practices and Spatial Cultures* that, according to Springer, “presents cutting-edge research around spatial constructs and systems that are specifically designed to be adaptive to their surroundings and to their inhabitants.”⁶⁴ This placed my use of an analytical *mise-en-scène* within a cross-disciplinary discourse in an international, peer reviewed, academic publishing context. Although the sources had to be redacted, as an invited participant in the *Design Charrette, Constitutional London - enhancing the heart of Westminster* I was given rare access to the spatial and strategic decision-making processes at the heart of political London.⁶⁵ In order to make the speculative leap from *necropolitics* to its invisibilisation in heritage architectures I spent many hours simply sitting by the Ministry of Defence observing the Cabinet Office. This provided the basis for the argument to move from ‘Liberty Wall’ to ‘Bubble’. In the company of internationally recognised architectural and urban design practices, in the ‘charrette’ I was challenged to consider urban space as scenographic program, at the same time this research project provided the basis to include its

⁶³ Mark Cousins, ‘The Ugly: 6/9’, AA Lectures Online, February 2007, <https://www.aaschool.ac.uk//VIDEO/lecture.php?ID=3124>.

⁶⁴ *Emerging Identities in the Futures of Place: Mediated Practices and Spatial Cultures*. Ed. Dr R. P. Lakshmi & Dr N. D. Odeleye. (Springer Series, Digital Humanities. 2020)

⁶⁵ New London Architecture in partnership with the HM Cabinet Office. 22nd & 29th June 2017

processes in my understanding of atmospheric analysis and its subsequent contribution to new discourses in the digital humanities.

I deployed a *mise-en-scène* as the underlying production method of *Golden Hour*, it structured the work's contribution to a movement away from 'Standardised Lighting' towards the articulation of darkness (Fig. 29). This project demonstrates that it is far easier to call for the 'non-standardisation' of urban lighting than to realise it. I am suggesting that the either/or, neither/nor characterisation of the tension between the freeing up of space to subjectivity and capital's appropriation of it as 'a space for rent' should include the emergent atmospheric enclosures of the ambient. If the stable stage of normative urban light experience is shown to be as constructed, en-meshed and theatrical as the 'event' then I think we could name this a *v-effect*. At its core *Golden Hour* is dynamic. It provides a complex, sometimes unresolvable, meshing of; conceptual, spatial, experiential and technical issues that are embedded in the transformation of the public realm: a *phototropia*. I have theorised cinema light and theatre light as a city's light. But the subject who appears without a trace sets a diabolical limit to it. This is coupled with some standard technical objections; unpredictable, non-uniform, too dark, too complicated, unmaintainable, too subjective. *Golden Hour's* outcomes are indistinct, yet it does provide a new basis from which to start, one that is not predicated on the promises of technologies now available to rent or the colonisation of nocturnal vision. Instead it proposes that the immanent conditions of the quotidian can be a proper subject of practice.

My contribution as an advisory board member at The Institute of Historical Research: Centre for the History of People, Place and Community (CHPPC, University of London) is informed by the transhistorical dimensions of the *mise-en-scène* developed in this research. It also contributes to *Invisible Worlds*, a new AHRC funded research and production collaboration with Dr Catherine Clarke (CHPPC) and Dr Victoria Flood (University of Birmingham) which is exploring the experiential and historical atmospheres of the subterranean world of Alderley Edge, Cheshire. *Invisible Worlds* considers knowledge transfer in a very broad

way, we are engaging in collaborative academic research and testing new methods to engage with diverse public audiences and institutional partners alike. As with much of my work it is the situatedness of place, its weight, that sucks us in.

Finally, this research project has extended the scope and impact of my art practice. My installations such as *Blade* (Hull UK City of Culture, 2017), *a room for a pinoleptic* (Somerset House, 2020) and the new sonic and musical strands that were initiated during the production of *Pilgrim*, contribute to ways of thinking atmospherically in diverse public contexts whilst also holding onto the critical potential of withdrawal.⁶⁶

Crossing spaces of theory and practice, this transversal mise-en-scène is a material method, a technique of manipulating levers. Its analytical, critical and productive dimensions contribute a means to think and make across the complex contexts of contemporary arts production outside of gallery and museum walls. The atmospheric domination of each production context; street, field, building, town square, screen, ear bud, wall, and mine, produces as Sloterdijk asserts, “paradoxical interiors [that are] adjacent and inaccessible, both connected and removed.”⁶⁷ It is Michel Serres’ formulation of ‘shimmering’ knowledge production and Antonin Artaud’s ‘virtual revolt’ that reenergise me to continue to labour at night, modify atmospheres and seek to articulate shadow. In ‘re-valuing darkness’, practice, theory and its rhetoric coincide in a place where the ghosts of Nuremberg dance in the hard light of a half-remembered Delhi noon. Each echo of their triumphalism, conquest and domination countered through delight, sensuality, suspense and neighbourly glances away from the light show towards our companions who now share the darkness (Fig. 30).

⁶⁶ *Blade* was a major installation for Hull UK City of Culture 2017. For the nine weeks of its presentation it attracted an audience that exceeded 300,000. This project now features as a case study in Micheal Howcroft’s current PhD research, Department of Geography, University of Hull.

⁶⁷ Peter Sloterdijk, *Spheres Volume 3: Plural Spherology*, trans. Wieland Hoban (London: Semiotext(E), 2016), p. 54.

FIGURES

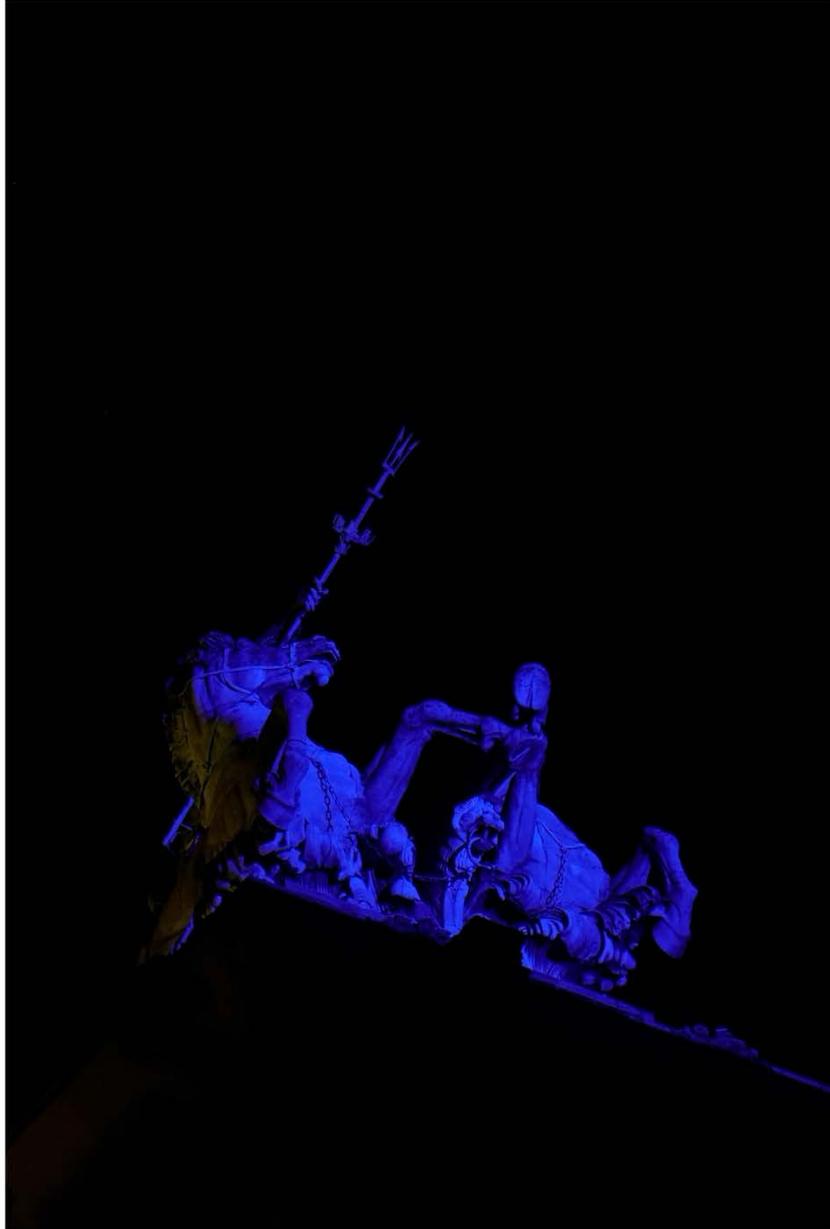


Fig. 29 *Golden Hour* (detail)



Fig. 30 *Vale of York*

Nayan Kulkarni, 2015, Digital C-Type, 600x400 mm

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APPENDIX

EXCERPTS FROM A RECORDED CONVERSATION

Follow up conversation to Atmospheres Seminar: Andreas Philipopoulos-Mihalopoulos University of Westminster 24/01/19.

APM: I was really interested in this thing about how you make absence visible, as it were, without colonizing it into full visibility. [...] And that's where you become complicit in the creation of specific atmospheres.

[...]

NK: So, so, I'm off the point, [...], pure alienation. Let's go back to what you said on ontology of the stage and pure alienation. [...] So, I walked out of the [Volksbühne] Theatre in Berlin. [...] the building is raised high, it is retinally separated... from its ground, if you like. So, I enter [...] I do my thing in the theatre and as I leave, I'm in a space of pure ontological alienation, according to your...

APM: Right. [...] Which, at the same time is centre stage. [...] Is an incredibly isolated thing. You cannot be co-blinded. I mean either you're blinded or not.

NK: [...] then you have a threshold which is magnificently bright, and this produces curious perceptual effects. [...]. The Volksbühne Berlin, just off Rosa Luxemburg Platz: [as you] walk out [you are confronted with] floodlights; [pointing] in your face. So, you come out of darkness in [a post-performance] reverie, then you are blasted with light. This means the city disappears, the thing you're walking into [disappears]. I am blinded by the architectural lighting which illuminates the theatre beautifully. [...] the embodied experience is really aggressive. I am blinded by the very thing that's featuring this theatre. But then, it all seems like a phenomenology, rather than an ontology ...

[...]

APM: Except this is the ontology of the state, I mean, you said that: it's on the set. But on the stage, you are blinded [...] and that's how it is. The stage is meant to be blinding. [...]. The idea is that you transcend yourself when you perform. [...] And in that sense, you don't need to have access to the outside. [...]. You construct the environment within. You construct the audience, [...]. You create the thing. I think it

was a bit like when I was giving the lecture at the RCA...Have they got very strong lights?

NK: They've got a very strong one.

APM: Yes.

[...]

NK: [Saskia Sassen] couldn't help but bring [it into her lecture].

APM: Right.

NK: Because you could not [do anything but bring it in].

APM: Yeah.

NK: That's global finance capital.

APM: Yes.

NK: [Laughs]. Because that is what it is like....

APM: Exactly. [...] because at the same time you're being put centre stage... But at the same time, you're isolated. So that's not phenomenology. [...] It's not about your perceptions. Of course [they] are very important when you are up there into all that stuff. [...] But the point is, if you change your perspective, and you don't see it as a human who walks in and who feels blinded (and, where is the city?). But you actually see it as: this is the way that the individual is meant to feel, centre stage and therefore, needs to reside in all these kinds of strategies of internalising the exterior, imagining how the exterior works [...]. And then [in this moment] there is pure alienation and therefore the city disappears.

NOTE ON METAPHORICAL ALIENATION

In a public lecture, Saskia Sassen noted that the figure of a powerful projected light helps us to understand the distorting effects of dominant paradigms.¹ This metaphorical figure dramatizes that which cannot be seen, or at least seen easily. For Sassen, light acts as a metaphor which she deploys to call attention to the unstable edges of the dominant paradigm of global finance; or as she stated, to look 'at its fuzzy edges'. In the lecture, Sassen introduced *theoria* as a 'partial' form of seeing, 'for to see everything would be to drive one mad.' Seeing theoretically is a partial seeing, and in her case, it was constructed through the force of the metaphor. In pointing to the spotlight in the lecture theatre, possibly unconsciously, Sassen inscribed an external force. To put it literally, the dominant paradigm is constituted by a force outside of itself, and in this case from above; this is what might be described as the capriciousness of light used as a metaphor. Light source (*lux*) is then spatially arranged to form a mental image and its external origin is also written into this image, and seemingly, for Sassen, this source is global financialization; where 'massive material conditions become invisible.'

Sassen's 'partial approach, [...] seeing theoretically' depends on an informal formulation of fuzziness (*penumbra*) as the potential to produce instabilities in dominant material conditions. Sassen speculated that this theorization offers the potential to destabilize paradigms. Furthermore, the *penumbra* is a partial shadow effect that manifests when the light source is larger than the illuminated object. It would seem then that this image, or at least metaphorical diagram, constitutes *lux* (*qua* capitalism) not as a point without dimension (a theoretical origin) but as a celestial body. It is only from a position within the *umbra* (perfect shadow) that we can be defended from its force. In this sense it is the dominant paradigm itself that protects us from the complete absorption. The final stretch in such a slight use of light as a rhetorical device. Another point to draw from Sassen's use of light as a metaphorical and rhetorical device is to note how clearly financialization (*global capitalism*) takes the place of the divine. We

¹ Sassen, 'Systemic Edges as Spaces of Conceptual Invisibility'.

humans, bound in the senses, cannot look directly at the source of light. The replacement of origins within the metaphor is one of the theoretical origins of the divine, a point of illumination whose objects are produce only an umbra (absolute darkness), to a celestial object (a massive body); that can produce both umbra and penumbra.

Hannah Arendt developed an alternative metaphor of light as a means to articulate the primacy of a public realm. In "The Common" the public realm is figured as the 'implacable, bright light of the constant presence of others' it is the 'harsher light' of the public sphere that illuminates, at its edges, in its 'twilight' zone, the private sphere.² Arendt's formulation could be argued to reverse Sassen's movement. Here illumination acts as the path along which the private resides, it is both in the penumbra and produced by it. This counters Athanasius Kircher's origin without form, and Sassen's massive external other. Although Arendt's light is harsh, it helps us to think outside of the Kircher's divine inscription and to Sassen's financialised incomprehensible other. For Arendt we see with 'public' light, by turning our backs we can follow our shadows in a private 'common.'

What would appear to be at play are the three formulations, not one replacing the other two, but a simultaneous and cyclical movement between and within them. In these three formulations there is an origin and an edge. It is only with Kircher and Sassen that we see an above, an externality. Through Arendt we can look into the source for we are identical to it, or, I can see with the light that we make, in a *luminous common*. Furthermore, Arendt uses this to describe a space of habitas, her metaphor is not a tool for understanding, it is a means of being in light, dwelling in a metaphor.

² Hannah Arendt, "The Common", in *The Human Condition* (Chicago: University of Chicago Press, 1958), pp. 50-52.

SEMINARS, CONFERENCES AND PUBLICATIONS

Keynote Speaker at the conference *Light and Infrastructure*, Chester, June 2014 (Cheshire West and Chester Council, Arts Council England and Chester University).

Author, *Golden Hour*, 2014, a vision for lighting in the context of Kingston-Upon-Hulls Public Realm Strategy, in collaboration with RKL Consultants (Hull City Council).

Author, *Vibrant Chaos*, 2015, a cultural and public art strategy for Ellesmere Port, The Wirral (Cheshire West and Chester Council).

Co-author with Arup Lighting, *Lighting Strategy*, 2015, a lighting strategy in the context of Kingston-Upon-Hulls Public Realm Improvements, (Hull City Council).

Co-convenor and presentation, *Atmospheres*, 2016, research seminar at Royal College of Art with guest speaker Andreas Philipopoulos-Mihalopoulos (Royal College of Art).

Author, *Lighting Strategy*, 2016, for the town of Wrexham, in collaboration with Arcus (Wrexham District Council).

Participant, 'Exhibition, Panel Discussion, Workshop,' *Structures of feelings: the structure of revenge*. London and Athens, Theatrum Mundi: Writing Cities & Onassis Cultural Centre (June 2016 & June 2017).

Participant, Design Charrette, *Constitutional London - enhancing the heart of Westminster*. New London Architecture in partnership with the Cabinet Office. 22nd & 29th June 2017.

Chapter, 'Night Moves' included in *Walking Cities: London*. Editors: Jaspar Joseph-Lester, Simon King, Amy Blies-Carruthers, Roberto Bottazzi. (Ed 1, Camberwell Press 2016; Ed 2, Routledge, 2020.)

Citation, Dr Catherine A. M. Clarke. *Medieval Cityscapes Today* (ARC Humanities Press, 2019).

Judge and participant in *The Perfect Light Project*, June 2018 (The Light Collective).

Panel member *Listen to the Artists! Law, Art, Justice*, The Westminster Law and Theory Lab, University of Westminster, 6th January 2019.

Panel member, international seminar 'Place-Making' at the Centre for the History of People, Place and Community, University of London. 24th September 2019.

Chapter, 'Mise-En-Scène' included in *Emerging Identities in the Futures of Place: Mediated Practices and Spatial Cultures*. Editors: Dr R. P. Lakshmi & Dr N. D. Odeleye. (Springer Series, Digital Humanities. 2020)

Advisory Board Member for Institute of Historical Research: Centre for the History of People, Place and Community, University of London. Commencing in January 2020.

Participant, *Invisible Worlds*, collaboration with Dr Victoria Flood (Medieval and Early Modern Literature, Department of English Literature, University of Birmingham) and Dr Catherine Clarke (Centre for the History of People, Place and Community, University of London). The project seeks to explore the rich, multi-layered story-telling tradition around Alderley Edge, Cheshire, from the Middle Ages to the present day, and also to explore the ways in which various creative and augmented-reality approaches might be able to make the meanings and histories of a hidden landscape more visible and intelligible, May 2020 to June 2021 (AHRC).

INSTALLATIONS AND EXHIBITIONS

Exhibition, *Are You OK?*, 2014, group show, Hanmi Gallery, London.

Installation, *Return*, 2014, light commission for the Cheriton Light Festival 2014.

Sound Installation, *So What?*, 2015, included in the RCA Research Biennale.

Installation, *Three Graces*, 2015, light commission for the Illuminate York 2015.

Installation, *Bridge Road*, 2016, group show curated by Cradeux Alexander, RCA Dyson Gallery.

Exhibition, *Phase Shift*, 2016, two-person show with Steven Scott, alternative venue, London.

Installation, *Blade*, 2017, major temporary installation as part of *Look Up*, Hull UK City of Culture, 2017.

Exhibition, *Suspended*, Karachi Biennale 2017.

Winner, 'Award for Arts', ACTA Arts Culture and Theatre Awards, Eastern Eye, 2017.

Installation, *Maroon*, 2017, performative temporary installation as part of Leicester's celebration of 70 years of Indian independence (Arts Council of England and ArtReach).

Major commission, *Golden Hour*, city scale intelligent architectural lighting installation for Hull City Centre, installation phase 2016-2019 (Hull City Council).

The Satellite Project, new collaborative curatorial video project commenced in 2018 with artists Francis Young, Steven Scott, Peter Wearing, Brigid McLeer and Paul Carter.

Major commission, *Pilgrim*, architectural video projection installation for Selby Abbey, Selby 950, November 2019 (Arts Council of England, Selby District Council).

Installation, *a room for a pinoleptic*, 2020, immersive interactive live sound and video installation included in *Uchronia* at Somerset House.

Installation, *A Garden for Jayde*, 2020, immersive interactive music and light installation included in the Cheriton Light Festival 2020.

FIGURE



Fig. 31 Volksbühne, 3rd April 2014